FINDING OF NO SIGNIFICANT IMPACT FOR THE PROPOSED TRINIDAD RANCHERIA ECONOMIC DEVELOPMENT CORPORATION HOTEL PROJECT

AGENCY Bureau of Indian Affairs

ACTIONS Finding of No Significant Impact

SUMMARY

The Trinidad Rancheria Economic Development Corporation (TREDC) requested, on behalf of the Cher-Ae Heights Indian Community of the Trinidad Rancheria (Tribe), for an Indian Loan Guarantee by DCI for capital to build a Hotel adjacent to the Tribe's Casino on the Rancheria; and the approval by the Bureau of Indian Affairs (BIA) Division of Real Estate Services of a business lease between the Tribe and TREDC to operate the Hotel. Combined, these two approvals represent the Proposed Action. The project site is located west of Highway 101, adjacent to the City of Trinidad (approximately 0.75 miles southeast of downtown Trinidad) in Humboldt County. The project site is located in Section 25 of the Trinidad, CA U.S. Geological Survey (USGS) quadrangle in Township 8 North and Range 1 West.

Based upon the entire administrative record including the analysis in the Environmental Assessment (EA), Final EA, and consideration of comments received during the public review period, the BIA makes a Finding of No Significant Impact (FONSI) for the federal action to build a Hotel adjacent to the Tribe's Casino on the Rancheria; and the approval by the BIA Division of Real Estate Services of a business lease between the Tribe and TREDC to operate the Hotel subsequent implementation of Alternative A (Proposed Project). This finding constitutes a determination that the Proposed Action is not a federal action significantly affecting the quality of the human environment. Therefore, an Environmental Impact Statement (EIS) is not required. Comment letters received on the EA are provided as **Exhibit A**. Responses to each comment letter received are provided as **Exhibit B**. A Mitigation Monitoring and Enforcement Program is provided as **Exhibit C**.

BACKGROUND

The Cher-Ae Heights Indian Community of the Trinidad Rancheria is a federally recognized Indian Tribe with ancestral ties to the Yurok, Wiyot, Tolowa, Chetco, Karuk, and Hupa peoples. The Tribe is located within the ancestral territories of the Yurok, with core land holdings located on a coastal bluff west of U.S. Highway 101 (HWY-101), just south of the town of Trinidad, CA. The Tribe's culture, including but not limited to traditional and customary fishing and gathering, is inextricably tied to the

land and marine resources found within the traditional homeland, which is defined as a 20-mile area of interest and concern surrounding the Tribe's lands. The Tribe has made a significant investment to revitalize the local economy and preserve the Tribe's cultural heritage and has developed a model that advances economic development and stewardship.

An EA for the Proposed Action (SCH #201894002) was submitted to the State Clearinghouse and released for public and agency review for a 30-day comment period, established consistent with Section 6.2 of the Bureau of Indian Affairs National Environmental Policy Act (NEPA) Guidebook (59 IAM 3-H) (BIA NEPA Guidebook), noticed to end on October 22, 2018. The BIA received a total of 60 comment letters.

Based on the results of the EA and assessment conducted by qualified biologists, the BIA has determined that pursuant to Section 7 of the Endangered Species Act of 1979, the Proposed Action would have No Effect on special status species as the project site is currently developed as back of house and circulation for the existing casino building. Accordingly, consultation with the U.S. Fish and Wildlife Service is not required.

On January 31, 2020 the BIA initiated consultation with the Tribal Historic Preservation Officer (THPO) pursuant to Section 106 of the National Historic Preservation Act of 1966. On February 4, 2020 the BIA received concurrence from the THPO that implementation of the proposed Project would result in "No Historic Properties Affected" pursuant to 36 CFR Part 800.4(d)(1) "Protection of Historic Properties" (Exhibit D).

On February 11, 2019 the BIA submitted a Coastal Consistency Determination in compliance with 15 CFR, Section 930.35 (a). Accordingly, it was the BIA's determination that the Proposed Federal Action would be consistent with Chapter 3, Article 2 through 6 of the California Coastal Act of 1976. The February letter detailed the specific provisions of Chapter 3, Articles 2 through 6 of the California Coastal Act of 1976 (CCA) and illustrated how the Proposed Action complies with the CCA, in order to make a Federal Consistency Determination.

The BIA and Tribe engaged in many discussions with the Coastal Commission, some of which led to additional analysis and changes to the project. The federal consistency determination was addressed at the August 9th, 2019 Coastal Commission Hearing in Eureka. After deliberation the Coastal Commission concurred with the BIA's consistency determination 8 to 3, with a condition that the Tribe secure a consistent water source that would not adversely impact surrounding water supply. As discussed in the Final EA, the Tribe has identified additional sources of water to meet potable water demands meeting the requirements for the Coastal Commission's conditional approval.

To determine if the Proposed Action is a federal action significantly affecting the quality of the human environment, the BIA assessed the results of the EA, Final EA (**Exhibit E**), as well as the comments received during the public review period for both documents consistent with the policies and goals of

NEPA and the BIA NEPA Guidebook. "Based on the TREDC EA dated April 2018, and Final EA dated January 2020 it has been determined that the proposed action will not have a significant impact on the quality of the human environment, therefore, an environmental impact statement is not required."

DESCRIPTION OF THE PROPOSED ACTION

The Proposed Project consists of developing a 100-room Hotel and accessory components such as a porte-cochere, meeting rooms/conference rooms, lobby, fitness center, and pool. The development footprint of the Hotel and components would be approximately 0.40 acres, all within existing developed/paved areas to the south and west of the existing Casino.

The Proposed Action consists of the guarantee of a loan by DCI to the Tribe's lender in accordance with 25 Code of Federal Regulations (CFR) Part 162 Residential, Business, and Wind and Solar Resource Leases on Indian Lands; and approval of a business lease agreement between the Tribe and TREDC by the BIA Division of Real Estate Services for the operation of the Hotel.

The existing Cher-Ae Heights Casino provides a consistent revenue stream that has improved the socioeconomic status of the Tribe, allowing for development of programs and services that have resulted in reduced poverty and unemployment. Implementation of the Proposed Action would assist the Tribe in meeting the following project objectives:

- Maintain the socioeconomic status of the Tribe by providing an augmented revenue source that could be used to strengthen the tribal government; fund a variety of social, governmental, administrative, education, health, and welfare services to improve the quality of life of tribal members; and to provide capital for other economic development and investment opportunities.
- Create new jobs for both tribal and non-tribal members.
- Reduce visitor trips on local roadways by providing additional overnight accommodations.
- Provide additional amenities to existing patrons and allow the target market to expand to nonresidential clients.
- Allow tribal members to enhance their economic self-sufficiency.

The Proposed Action and subsequent Proposed Project would ensure that the Tribe continues to maintain a long-term, viable, and sustainable revenue base and allow the Tribe to continue to compete with other gaming and tourist attraction venues in the region. Increased revenues from the Hotel would be used for at least, but are not limited to, the following purposes:

- Funding governmental programs and services, including housing, educational, environmental, health, and safety programs and services.
- Hiring additional staff, upgrading equipment and facilities, and generally improving governmental operations.

- Decreasing the Tribal members' dependence on federal and State grants and assistance programs.
- Donating to charitable organizations and governmental operations, including local educational institutions.
- Funding local governmental agencies, programs, and services.
- Providing capital for other economic development and investment opportunities, allowing the
 Tribe to diversify its holdings over time.

Operation of the Hotel as described in the Proposed Project would require the purchase of goods and services, increasing opportunities for local businesses and stimulating the local economy.

ALTERNATIVES CONSIDERED

The BIA considered two alternatives in the EA, as summarized below.

- 1) Alternative A Proposed Project. The Tribe proposes to develop a five-story, 100-room Hotel, and accessory components on the south and east side of the existing Casino (Figure 2-2). A mix of studios, double, queen, and king bedrooms are proposed, along with one penthouse suite. The Hotel would include 1,552 square feet of meeting space divided into two separate areas, both in the southwest corner of the existing Casino. The additional facilities include a business center, fitness room, café/bar, lounge, rooftop event space, and indoor pool. A porte-cochere along the eastern side of the existing Casino would provide a covered vehicle entrance for arriving guests. As part of the franchise agreement, Hyatt would provide the design standards for the Hotel to ensure development is commensurate with Hyatt standards and the Tribe's culture.
- 2) No Action Alternative. Under the No-Action Alternative, DCI and the Division of Real Estate Services would not approve the requested actions. Accordingly, without the guaranteed loan, it is highly unlikely that the Tribe could secure the loan necessary to develop the Hotel. Additionally, without the lease agreement, the costs associated with having to independently design and operate the Hotel would render implementation infeasible for the Tribe. Accordingly, the Hotel and accessory components would not be developed as identified for the benefit of the Tribe under Alternative A. For the purposes of the environmental analysis in this EA, it is assumed that, due to the economic considerations for operating the existing Casino by the Tribe, the property would continue to be utilized in its current state for back of house access to the existing Casino with no additional facilities constructed under this alternative.

ENVIRONMENTAL IMPACTS

Potential impacts to land resources, water resources, air quality, biological resources, cultural resources, socioeconomic conditions and environmental justice, transportation and circulation, land use,

agriculture, public services, noise, hazardous materials, and visual resources were evaluated in the EA for Alternative A with the following conclusions:

- A. Project design and mitigation measures would ensure impacts to **land resources** would be less than significant. Refer to EA Sections 3.1.5 and Appendix B.
- B. Project design and implementation of BMPs presented in Appendix C as mitigation measures would ensure impacts to **water resources** would be less than significant. The onsite wastewater system is currently in permit compliance and the additional peak daily flow would not cause the existing system to operate under upset conditions. Refer to EA Sections 3.2.4 and 3.2.5.
- C. Project design and implementation of BMPs would ensure impacts to **air quality** would be less than significant. Refer to EA Section 3.3.4.
- D. Project design and implementation of mitigation measures would ensure impacts to **biological resources** would be less than significant. Refer to EA Sections 3.4.4 and 3.4.5.
- E. Implementation of mitigation measures would ensure impacts to **cultural resources** would be less than significant. Refer to EA Sections 3.5.4 and 3.5.5.
- F. Impacts to **socioeconomic conditions and environmental justice** issues would be less than significant. Refer to EA Sections 3.6.3 and 3.6.4.
- G. Impacts to **transportation and circulation** would be less than significant. Refer to EA Section 3.7.2. Cumulative impacts would be reduced through mitigation.
- H. Impacts to **land use resources** would be less than significant. Refer to EA Sections 3.8.1.
- I. Impacts to **agriculture** would be less than significant. Refer to EA Sections 3.9.1.
- J. Impacts to **public services** would be less than significant with the BMPs included in AppendixC. Refer to EA Sections 3.10.7.
- K. Implementation of mitigation measures would ensure impacts associated with **noise** would be less than significant. Refer to EA Sections 3.12.3 and 3.12.4.
- L. Project design and implementation of BMPs would ensure that **hazardous materials** impacts would be less than significant. Refer to EA Sections 3.12.2 and 3.12.3.
- M. Project design and implementation of BMPs would ensure impacts to **visual resources** would be less than significant. Refer to EA Sections 3.13.2 and 3.13.3.
- N. Project design and implementation of BMPs would ensure that **cumulative impacts**, including **transportation**, would be less than significant. Refer to EA section 4.1.7.

BEST MANAGEMENT PRACTICES

Protective measures and BMPs have been incorporated in the project design of the Proposed Project to eliminate or substantially reduce environmental impacts. These measures and BMPs are listed below:

PROTECTIVE MEASURES AND BMPS FOR ALTERNATIVES A

Water Resources

The project site development footprint is under one acre (approximately 0.40 acres) and coverage under the General Construction National Pollutant Discharge Elimination System (NPDES) permit is not required and therefore a Stormwater Pollution Prevention Plan (SWPPP) is not required. However, to further reduce construction impacts from construction, Best Management Practices (BMPs) shall be implemented as necessary. BMPs shall be inspected, maintained, and repaired to assure continued performance of their intended function. BMPs shall be chosen to best suit the site and the activities that occur. Construction BMPs may include, but are not limited to, the following:

- Stripped areas shall be stabilized through temporary seeding using dryland grasses.
- Exposed stockpiled soils shall be covered with plastic covering to prevent wind and rain erosion.
- The construction entrance shall be stabilized by the use of riprap, crushed gravel, or other such materials to prevent the track-out of dirt and mud.
- Construction roadways shall be stabilized using frequent watering, stabilizing chemical application, or physical covering of gravel or riprap.
- Filter fences shall be erected at all on-site stormwater exit points and along the edge of graded areas to stabilized non-graded areas and control siltation of on-site stormwater.
- Prior to land-disturbing activities, the clearing and grading limits shall be marked clearly, both
 in the field and on the plans. This can be done using construction fences or by creating buffer
 zones.
- Concentrated flows create high potential for erosion; therefore, any slopes shall be protected from concentration flow. This can be done by using gradient terraces, interceptor dikes, and swales, and by installing pipe slope drains or level spreaders. Inlets need to be protected to provide an initial filtering of stormwater runoff; however, any sediment buildup shall be removed so the inlet does not become blocked.
- If construction occurs during wet periods, sub-grade stabilization shall be required. Mulching or netting may be needed for wet-weather construction.
- Temporary erosion control measures (such as silt fence, gravel filter berms, straw wattles, sediment/grease traps, mulching of disturbed soil, construction stormwater chemical treatment, and construction stormwater filtration) shall be employed for disturbed areas.
- Exposed and unworked soils shall be stabilized by the application of effective BMPs. These
 include, but are not limited to, temporary or permanent seeding, mulching, nets and blankets,
 plastic covering, sodding, and gradient terraces.
- Temporary erosion control measures (such as silt fences, staked straw bales, and temporary revegetation) shall be employed for disturbed areas and stockpiled soil.
- Potentially hazardous materials shall be stored away from drainages and containment berms shall be constructed to prevent spilled materials from reaching water bodies.

- Vehicles and equipment used during construction shall be provided proper and timely maintenance to reduce potential for mechanical breakdowns leading to a spill of materials into water bodies.
- Maintenance and fueling shall be conducted in an area that meets the criteria set forth in the spill prevention plan.

The following BMPs would be implemented to reduce water usage at the Hotel:

• In order to reduce water consumption and support LEED and sustainability goals of the building, all plumbing would include low-flow and ultra-flow fixtures to reduce water consumption. All fittings are made of brass construction with a high-quality chrome finish, and polished, per the current Hyatt hotels plumbing and accessories list. All proposed fixtures would comply with applicable water use reduction requirements of American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 189.1 Section 6.

Air Quality

Generation of construction-related emissions is a short-term nuisance impact. The following BMPs, required through contractual obligations, would be implemented to reduce these temporary construction emissions.

- The contractor shall designate an on-site Air Quality Construction BMP Manager (AQCBM) whom would be responsible for directing compliance with the following BMPs for project construction relating to heavy-duty equipment use:
 - O All diesel-powered equipment shall be properly maintained and shall minimize idling time to 5 minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is required.
 - o Engines shall be kept in good mechanical condition to minimize exhaust emissions.
- The AQCBM would be responsible for directing compliance with the following BMPs for fugitive dust control practices during project construction:
 - o Spray exposed soil with water or other suppressant at least twice a day or as needed.
 - Minimize dust emissions during transport of fill material or soil by wetting down loads, ensuring adequate freeboard (space from the top of the material to the top of the truck bed) on trucks, and/or covering loads.
 - o Promptly clean up spills of transported material on public roads.
 - Locate construction equipment and truck staging areas away from sensitive receptors as practical and in consideration of potential effects on other resources.
 - o Cover dirt, gravel, and debris piles as needed to reduce dust and wind-blown debris.
- To reduce operational greenhouse gas emissions, the Tribe shall install Energy Star rated appliances such as washing machines, dishwashers, celling fans, and refrigerators.
 Additionally, the Tribe shall install Energy Star rated low-flow water fixtures such as showerheads and bathroom faucets.

Fire Protection

The following BMPs, required through contractual obligations, would be included as part of Alternative A to minimize the risk of fire during construction:

- Any construction equipment that normally includes a spark arrester would be equipped with an
 arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment,
 and chainsaws.
- Structural fire protection would be provided through compliance with Uniform Fire Code
 requirements for residences and commercial structures similar in size to the proposed
 clubhouse. The Tribe would cooperate with the fire district by allowing routine inspections.
 The Tribe would ensure that appropriate water supply and pressure is available for emergency
 fire flows.
- Typical fire flow allowances would be confirmed with the local Fire Marshall prior to construction of any water storage tank.
- Comply with California Fire Code and National Fire Alarm Code requirements for commercial structures similar in size to the proposed Hotel.

Hazardous Materials

The following BMPs would be required through contractual obligations and would be included as part of Alternative A to minimize the risk from use of hazardous materials during construction:

- Personnel shall follow BMPs for filling and servicing construction equipment and vehicles. To reduce the potential for accidental release, fuel, oil, and hydraulic fluids shall be transferred directly from a service truck to construction equipment and shall not be stored on site.
- Catch-pans shall be placed under equipment to catch potential spills during servicing.
- Refueling shall be conducted only with approved pumps, hoses, and nozzles.
- Vehicle engines shall be shut down during refueling and idling shall be kept to a minimum.
- No smoking, open flames, or welding shall be allowed in refueling or service areas.
- Refueling shall be performed away from bodies of water to prevent contamination of water in the event of a leak or spill.
- Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents.
- Should a spill contaminate soil, the soil shall be put into containers and disposed of in accordance with local, state, and federal regulations.
- All containers used to store hazardous materials shall be inspected at least once per week for signs of leaking or failure. All maintenance, refueling, and storage areas shall be inspected monthly.
- Hazardous materials must be stored in appropriate and approved containers in accordance with applicable regulatory agency protocols.
- Potentially hazardous materials, including fuels, shall be stored away from drainages and secondary containment shall be provided for all hazardous materials stored during construction and operation.

- In the event that contaminated soil and/or groundwater are encountered during construction-related earth-moving activities, all work shall be halted until a professional hazardous materials specialist or other qualified individual assesses the extent of contamination. If contamination is determined to be hazardous, representatives of the Tribe shall consult with the BIA and EPA to determine the appropriate course of action, including development of a Sampling and Remediation Plan, if necessary. Any contaminated soils that are determined to be hazardous shall be disposed of in accordance with federal regulations.
- Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents.
- Should a spill contaminate soil, the soil shall be put into containers and disposed of in accordance with local, state, and federal regulations.
- All containers used to store hazardous materials shall be inspected at least once per week for signs of leaking or failure. All maintenance, refueling, and storage areas shall be inspected monthly.
- Hazardous materials must be stored in appropriate and approved containers in accordance with applicable regulatory agency protocols.
- Potentially hazardous materials, including fuels, shall be stored away from drainages, and secondary containment shall be provided for all hazardous materials stored during construction and operation.
- In the event that contaminated soil and/or groundwater is encountered during construction related earth-moving activities, all work shall be halted until a professional hazardous materials specialist or other qualified individual assesses the extent of contamination. If contamination is determined to be hazardous, representatives of the Tribe shall consult with the BIA and EPA to determine the appropriate course of action, including development of a Sampling and Remediation Plan, if necessary. Any and all contaminated soils that are determined to be hazardous shall be disposed of in accordance with federal regulations.

SUMMARY OF EA MITIGATION MEASURES

The mitigation measures described below are included to: 1) reduce significant impacts to a less-than-significant level, 2) further reduce already less-than-significant impacts, or 3) accomplish both. All mitigation measures necessary to reduce significant impacts to less-than-significant levels will be enforceable and binding on the Tribe because they are intrinsic to the project, required by federal law, required by agreements between the Tribe and local agencies, and/or are required by tribal resolutions. The construction contract will include applicable mitigation measures, and inspectors shall be retained during construction.

LAND RESOURCES

No mitigation is required for the Proposed Project to reduce impacts related to seismicity and mineral resources.

Landslides

The following mitigation shall be implemented to minimize impacts related to the active landslide on the southern corner of the project site:

Prior to construction of the Hotel foundation, the contractors will implement one of the slope stabilization options recommended by the soil engineers in the Draft Geotechnical Feasibility and Preliminary Design Report (Appendix B of the EA). Options include soil nail walls, reconstructed embankment, soldier pile, and welded wire walls.

WATER RESOURCES

No adverse water quality effects would result from the Proposed Project with the incorporation of the BMP's listed in **Appendix C**.

AIR QUALITY

No adverse air quality effects would result from the Proposed Project with the incorporation of the BMP's listed in **Section 2.2**. No mitigation is required for the Proposed Action.

BIOLOGICAL RESOURCES

Implementation of the mitigation measures below would minimize potential impacts to biological resources. These measures are recommended for Alternative A.

Migratory Birds

The following mitigation measures shall be implemented to minimize impacts to Migratory Birds.

A qualified biologist shall conduct a preconstruction nesting bird survey within 100 feet of the project site during marbled murrelet, northern spotted owl, bird-of-prey, and migratory bird nesting seasons. If any active nests are located within the vicinity of the project site, a nodisturbance buffer zone shall be established to avoid disturbance or destruction of the nest(s). The distance around the no-disturbance buffer shall be determined by the biologist in coordination with USFWS and will depend on the level of noise or construction activity, the level of ambient noise in the vicinity of the nest, and the line-of-sight between the nest and disturbance. The biologist shall delineate the buffer zone with construction tape or pin flags. The no-disturbance buffer will remain in place until after the nesting season or until the biologist determines that the young birds have fledged. A report shall be prepared and submitted to the Tribe and the USFWS following the fledging of the nestlings to document the results.

CULTURAL RESOURCES

The following mitigation measure is required for Alternative A to avoid adverse effects to cultural resources and/or paleontological resources:

• Halt work within 50 feet of the find, retain a qualified archaeologist and/or paleontologist to assess significance. If the find is determined to be significant, determine the appropriate course of action, including recovery, analysis, curation, and reporting according to current professional standards.

SOCIOECONOMIC CONDITIONS/ENVIRONMENTAL JUSTICE

No adverse socioeconomic or environmental justice effects are anticipated as a result of the Proposed Project. No mitigation is required for the Proposed Action.

TRANSPORTATION AND CIRCULATION

All surrounding intersections are projected to continue operating at acceptable levels of service under the Proposed Action during near-term conditions. For the cumulative setting, the following mitigation measure is required for Alternative A to reduce impacts to transportation and circulation:

Construct the Cher-Ae Lane interchange off of HWY 101 to provide direct access to the Rancheria and Westhaven Drive.

LAND USE

The Tribe shall adopt a Tribal Ordinance that commits to coordinating any future, currently unanticipated, development proposal or change in public access with the California Coastal Commission.

PUBLIC SERVICES

No adverse impacts to public services would occur as a result of the Proposed Project. No mitigation is required for the Proposed Action.

NOISE

Construction Noise

The following mitigation measures shall be implemented to minimize impacts from noise during construction:

- Construction activities would only occur between the hours of 7:00 am to 6:00 pm Monday through Friday, and 9:00 am to 5:00 pm on Saturday. No construction activities would occur on any Sunday.
- Where feasible, the stationary construction equipment shall be located on the southern portion of the project site.

All construction equipment over 50 horsepower shall be equipped with noise reducing mufflers.

HAZARDOUS MATERIALS

No adverse effects from hazardous materials would result from the Proposed Project with the incorporation of the BMPs listed in Appendix C of the EA. No mitigation is required for the Proposed Action.

VISUAL RESOURCES

The following mitigation measures shall be implemented to minimize visual impacts of buildings and associated structures. These elements include:

- Design elements shall be incorporated into the Proposed Project to minimize visual impacts of buildings and associated structures, including landscaping that compliments buildings and parking areas, with setbacks and vegetation consistent with existing landscaping. Earth-toned paints and coatings shall be used, all exterior glass shall be non-reflective and low-glare, and signs and facades shall be designed with a non-reflective backing to decrease reflectivity.
- Windows shall be fit with black out curtains within rooms that face the ocean;
- Lighting shall be shielded and downcast; and
- Building maintenance staff shall be trained to call the Humboldt Wildlife Care Center wildlife rehabilitation facility should disoriented or injured seabirds be found on the property.

RESPONSE TO EA COMMENTS

A total of 60 comment letters were received regarding the EA. These comment letters are provided as Exhibit A. Responses to each comment letter are provided as Exhibit B. A Mitigation Monitoring and Enforcement Program is provided as Exhibit C.

PUBLIC AVAILABILITY

Public review of the FONSI initiates March 6, 2020 and expires on March 20, 2020. The FONSI with Exhibits is available at https://trinidad-rancheria.org/. The FONSI without Exhibits is available at https://bianepatracker2.doi.gov/. To locate the FONSI without Exhibits, please navigate to the NEPA Documents Tab and search for Project: TR-4314b-P5 J52 566T TREDC Hotel FONSI. Hardcopies of the FONSI are available for public review at the Tribal Office located at 1 Cher-Ae Lane, Trinidad, CA 95570, and at the Trinidad Branch of the Humboldt County Library located at 380 Janis Court, Trinidad, CA 95570. Publication of the NOA will occur in the Times-Standard with Offices located at 903 Sixth Street, Eureka California 95501.

DETERMINATION

While the Proposed Action assessed under the EA is a loan guarantee and lease approval in connection with the construction and operation of a Hotel adjacent to the Tribe's Casino on the Rancheria, the BIA also must consider the reasonably foreseeable consequences of such action. For the Proposed Action, the foreseeable consequences assessed in the EA were based on the design being considered by the Tribe. It has been determined that the proposed federal action to approve the Tribe's request for a loan guarantee and lease approval so that they may build a Hotel, does not constitute a major federal action that would significantly affect the quality of the human environment. Therefore an Environmental Impact Statement is not required. This determination is supported by the aforementioned findings described in this FONSI, the analysis contained in the entire administrative record, including the EA, public comments made on the EA, the responses to those comments, and the mitigation imposed.

Issued in Sacramento, California this ______ day of ______, 2020.

DRAFT – PENDING SIGNATURE

Regional Director Bureau of Indian Affairs U.S. Department of the Interior

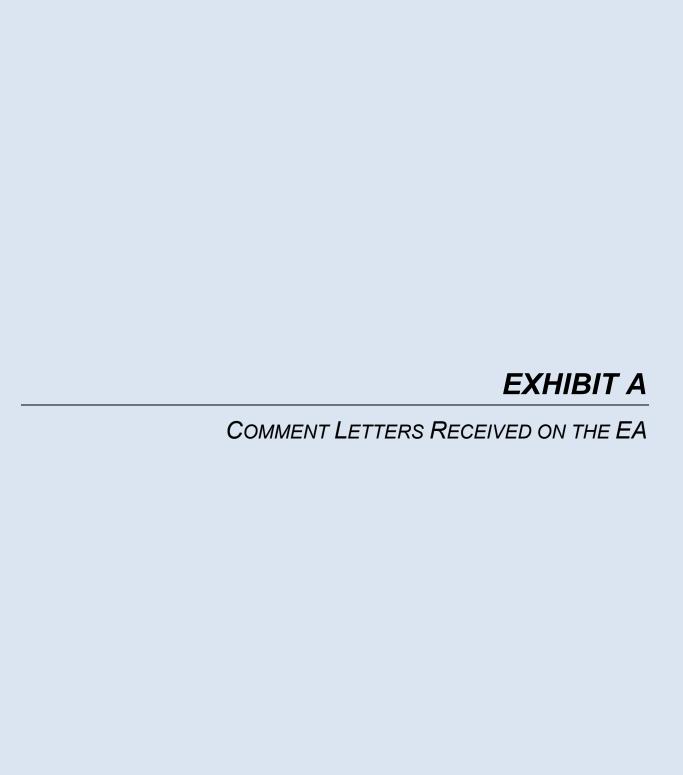


EXHIBIT A

COMMENTS ON EA

Comments received on the Environmental Assessment (EA) are listed in Table A-1. Copies of the comment letters are provided in their entirety on the following pages, and issues are individually bracketed and numbered in the margins of the representative comment letters. Responses to the numbered comments are provided in Exhibit B.

TABLE A-1 LIST OF COMMENTERS

Letter Number	Agency/Organization	Name	Date Received				
Federal Agencies (F)							
F1	United States Department of the Interior	(Acting Regional Director)	15-Oct-18				
F2	United States Bureau of Land Management	Molly Brown, Arcata Field Manager	26-Oct-18				
F3	United States Environmental Protection Agency	Kathleen Martyn Goforth	5-Nov-18				
Tribes (T)						
N/A							
State Age	State Agencies (S)						
S1	California Coastal Commission	Mark Delaplaine	19-Oct-18				
S2	Department of Transportation	Jesse Robertson	22-Oct-18				
Local Ag	Local Agencies (L)						
L1	Daniel Berman	City of Trinidad	10-Oct-18				
L2	Daniel Berman	City of Trinidad	22-Oct-18				
Private E	ntities/ Organizations (P)						
P1	Humboldt Alliance for Responsible Development	J. Bryce Kenny	1-Oct-18				
P2	Humboldt Alliance for Responsible Development	J. Bryce Kenny	3-Oct-18				
P3	Private Citizen	Carol Mone	9-Oct-18				
P4	Private Citizen	Patty Stearns	9-Oct-18				
P5	Private Citizen	Sara March	16-Oct-18				
P6	Coalition for Responsible Transportation	Collin Fiske	16-Oct-18				
P7	Private Citizen	Sandra Haux	16-Oct-18				
P8	Private Citizen	Richard Salzman	17-Oct-18				
P9	Private Citizen	Charley Custer	17-Oct-18				
P10	Private Citizen	Richard Clompus	18-Oct-18				
P11	Private Citizen	Alan Grau	18-Oct-18				

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Letter Number	Agency/Organization	Name	Date Received
P12	Private Citizen	Larry Goldberg	19-Oct-18
P13	Private Citizen	Gail Kenny	19-Oct-18
P14	Private Citizen	Geoff Proust	19-Oct-18
P15	Private Citizen	Dianne Rowland	19-Oct-18
P16	Private Citizen	Tami and Steen Trump	19-Oct-18
P17	Private Citizen	Jim and Sandra Cuthbertson	19-Oct-18
P18	Private Citizen	Julie Joynt	20-Oct-18
P19	Private Citizen	Joyce King	20-Oct-18
P20	Private Citizen	Erin Rowe	20-Oct-18
P21	Private Citizen	Kathleen Mill	21-Oct-18
P22	Private Citizen	Andrea Bustos	21-Oct-18
P23	Private Citizen	Karin Rosman	21-Oct-18
P24	Private Citizen	Gina M. Rimson	22-Oct-18
P25	Private Citizen	Don Allan	22-Oct-18
P26	Private Citizen	Emelia Berol	22-Oct-18
P27	Private Citizen	J. Bryce Kenny	22-Oct-18
P28	Private Citizen	Jolene Thrash	22-Oct-18
P29	Private Citizen	Charles Netzow	22-Oct-18
P30	Private Citizen	Josiah Raison Cain	22-Oct-18
P31	Northcoast Environmental Center	Larry Glass	22-Oct-18
P32	Private Citizen	Edward E. Pease	22-Oct-18
P33	Private Citizen	Ingrid Bailey	22-Oct-18
P34	Private Citizen	Ken Miller	22-Oct-18
P35	Private Citizen	Kimberly Tays	22-Oct-18
P36	Private Citizen	James Vandegriff	22-Oct-18
P37	Private Citizen	Katrin Homan	22-Oct-18
P38	Private Citizen	Richard Johnson	22-Oct-18
P39	Private Citizen	Sandra Schachter	22-Oct-18
P40	Private Citizen	Patricia Lee Lotus	22-Oct-18
P41	Private Citizen	Andrew Pruter	22-Oct-18
P42	Private Citizen	Annalisa Rush	22-Oct-18
P43	Private Citizen	Holly Vadurro	22-Oct-18
P44	Private Citizen	Clay Johnson	22-Oct-18
P45	Private Citizen	Patrick Harestad	22-Oct-18
P46	Private Citizen	Brenda Cooper	22-Oct-18
P47	Private Citizen	Jennifer Lance	22-Oct-18
P48	Private Citizen	Donna B Ulrich	22-Oct-18
P49	Private Citizen	Melanie and Ron Johnson	22-Oct-18
P50	Private Citizen	Mark Dondero	23-Oct-18
P51	Redwood Region Audubon Society	Chet Ogan	23-Oct-18

Letter Number	Agency/Organization	INAMA	Date Received
P52	Private Citizen	Sam King	23-Oct-18
P53	Private Citizen	David Hankin	23-Oct-18

FEDERAL AGENCIES (F) COMMENT LETTERS



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Pacific Regional Office
2800 Cottage Way
Sacramento, California 95825

OCT 1 5 2018

Mr. Dan Berman City Manager City of Trinidad 463 Trinity Street Trinidad, CA 95570

Dear Mr. Berman:

The Bureau of Indian Affairs (BIA), Pacific Regional Office is in receipt of your letter of October 10, 2018 in which you are requesting the City of Trinidad (City) be afforded an additional 30 days to review the Environmental Assessment prepared for the Trinidad Rancheria's proposed hotel project. The BIA appreciates the City's interest in this project, but will not grant an extension to the 30 day review period ending on October 22, 2018.

We look forward to receiving the City's comments concerning the National Environmental Policy Act (NEPA) process for this project. Please contact us should you have additional questions.

Sincerely,

Acting Regional Director

F1-01

United States Department of the Interior

Arcata Field Office 1695 Heindon Road Arcata, CA 95521 www.ca.blm.gov/arcata

October 22, 2018

In reply Refer To: 1711 (CA330)P

Amy Dutschke, Regional Director Bureau of Indian Affairs Pacific Region 2800 Cottage Way Sacramento, California 95825

Dear Director Dutschke:

The Bureau of Land Management (BLM), Arcata Field Office (AFO) has maintained a positive and productive working relationship with the Trinidad Rancheria for over 10 years as a Steward of the California Coastal National Monument Trinidad Gateway. In addition, the Trinidad Rancheria participated as a cooperating agency on the Trinidad Head Lighthouse Management Plan development and is also a key partner in the North Coast Seabird Protection Network.

The California Coastal National Monument (CCNM) Resource Management Plan guides objectives, policies and management actions for over 20,000 rocks and islands which are public lands owned by the U.S. Government, and administered by the Secretary of the Interior through the BLM. In January 2017, a Presidential Proclamation added 13 acres of Trinidad Head to the CCNM.

Trinidad is recognized as the second most important seabird nesting location along the California coastline. The Trinidad Rancheria is a partner in the North Coast Seabird Protection Network (NCSPN) which aims to address human disturbance to breeding seabird colonies and enhance the recovery of seabird populations damaged by oil or other contaminant spills along the North coast with a focus on the Trinidad area.

The proposed project, as described in the Environmental Assessment (EA), has potential impacts to nesting seabirds. Many studies around the world have been conducted on the connection between nocturnal artificial lighting and seabird mortality, especially with burrow-nesting seabirds that return to land under the protection of darkness. Seabirds don't often crash into the lights directly, but rather hit windows, buildings, wires, and other objects. They become "grounded," either by directly hitting an object and falling to the ground or becoming disoriented and landing to recover. While "grounded," recovery can be slow and birds may fall prey to cats, suffer strikes by vehicles, or succumb to starvation and/or dehydration.

Reg Dir Dep RD Trus Dep RD IS Route Required Due Date Memo Ltr_Fax_

F2-01

Comment Letter F2

Although Chapter 3 of the EA describes the external lighting as minimal, bi-level dimming motion sensored devices, these descriptions are not included in the proposed action (Chapter 2). Although minimal lighting is a primary component of protecting burrow-nesting seabirds several other measures could be employed to reduce the potential for injury and mortality to these birds:	4	¥	F2-01 (Cont.)
2018 DOT 2 PM 2: 50			
1. Avoid installation of external artificial lighting around the mid/top levels of the building,		-	F2-02
particularly that face the ocean;			
2. Fit windows with black-out curtains in rooms that face the ocean;			F2-03
3. Consider starting outdoor activities during the breeding season (May-September) before		-	F2-04
dusk to minimize artificial light exposure;			. 2 0 .
4. Consider shielding light and directing lighting downward to reduce light emissions visible to birds;			F2-05
5. Consider temporal adjustments (e.g. timers) in lighting as nocturnal seabirds are most active in the first few hours after dusk;		· ·	F2-08
6. Consider using warm-white or amber lighting for prominent external lighting, avoid blue-rich light; and			F2-07
7. Have an action plan for the systematic rehabilitation and care of disoriented and/or injured birds.		-	
		7	F2-08
We thank you for this opportunity to comment on the proposed project. If you have any questions please contact me at (707) 825-2300.			

Sincerely,

Molly Brown
Arcata Field Manager



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BUREAU OF REGION IX

REGION IX

2018 NOV -5 PM 2: 32

October 22, 2018

Amy Dutschke, Regional Director Bureau of Indian Affairs Pacific Regional Office 2800 Cottage Way Sacramento, CA 95825 Reg Dir
Dep RD Trust
Dep RD Trust
Route
Response Required
Due Date
Memo
Ltr
Fax

Subject: EPA comments on the Draft Environmental Assessment for the Trinidad Rancheria Economic Development Corporation Hotel Development Project, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Humboldt County, California

Dear Ms. Dutschke:

The U.S. Environmental Protection Agency (EPA) has reviewed the draft Environmental Assessment (DEA) for the subject project. The following comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

The proposed project includes the development of a six-story, 100-room hotel and accessory components on approximately 0.4 acres within existing developed/paved areas to the south and east of the existing casino. The project would require an expansion of the existing casino wastewater treatment system to accommodate the additional flows generated by the hotel. According to an appendix to the DEA, the treatment system would be designed with capacity to also serve homes with separate septic systems not connected to the casino's wastewater system to address any failures of these systems in the future, given the marginal soil conditions in the area. EPA recommends that BIA require, and include in the Final EA, confirmation of the availability of adequate additional dispersal capacity on the site before determining whether or not a Finding of No Significant Impact (FONSI) can be supported. Documentation of such capacity is not provided in the DEA.

According to the DEA, the design capacity of the existing leachfield is 10,000 gallons per day (gpd); however, the Preliminary Wastewater Feasibility Report, found in Appendix A to the DEA, discloses a history of plugging that is attributed to discharges before the treatment plant was completed, and states that the actual long-term capacity of the dispersal field is not known. It recommends that the existing dispersal field be cleaned and the capacity evaluated through field investigations and hydraulic stress testing to determine the actual operational capacity. Appendix A states, and EPA agrees, that it is critical the current leachfield's capacity, as well as additional dispersal capacity on the site, be verified, and a site survey be the first order of work to confirm that the facility has the capacity to support the proposed additional wastewater flows from the hotel. The availability of acceptable soils for the dispersal field is identified as the critical factor. A site survey to locate usable soils with "adequate structure to disperse 5 gallons per lineal foot of trench per day, free of seasonal groundwater, and not constrained by setbacks from creeks and streams, bluffs, unstable landforms, or cuts", is recommended (App A, p. 5). The DEA and Appendix A identify two potential areas for the expanded leachfields (Figure 1-3), but do not indicate whether the soils at these sites have been tested for the above

F3-01

F3-02

F3-03

Comment Letter F3

F3-03 parameters. Such information is needed to support a determination of whether or not a FONSI is (Cont.) warranted. The DEA presents conflicting information regarding the expansion of the wastewater treatment plant (WWTP), which discharges to the leachfield. The project description in the body of the DEA does not specify the size of the WWTP expansion, but the impact assessment section for Public Services -Wastewater states that the upgrade would allow for the system to handle a total of approximately 50,000 gpd (p. 3-22). The Preliminary Wastewater Feasibility Report assumes an upgrade to a design capacity of 30,000 gpd average daily flow (App A, p. 5). Table 1 of the Report lists the predicted wastewater flows for the project - including from the casino, the proposed 100-room hotel, 50 additional staff, and F3-04 community flows that may require connection in the future – and estimates a total of 30,060 gallons per day (gpd) (App A, p. 2). The Report states that the existing treatment plant has a capacity of 15,000 gpd average daily flow, but was designed to be expanded to 30,000 gpd average daily flow without requiring extensive retrofitting, adding, "For treatment capacity beyond 30,000 gpd average flow (60,000 gpd peak flow) extensive modifications would be required to potentially create a parallel treatment train to provide the needed capacity" (App A, p.3). EPA recommends that the Final EA clarify the proposed WWTP expansion size and whether it would be accommodated by the existing building, as stated in the DEA (p. 2-5), or would require "extensive modifications", as indicated in Appendix A. The DEA estimates that 60% of the current total wastewater flow is currently recycled back into the casino, after treatment, for toilet flushing, and that 20% of the flow from the new hotel addition would also be recycled for toilet flushing. EPA recommends that BIA explain, in the Final EA, why the estimate for recycling the hotel flows is so much lower than for the casino flows and, if feasible, increase the percentage of new flows that would be recycled for toilet flushing. F3-05 EPA appreciates the opportunity to review this Draft EA. When the Final EA is completed, please send us one copy electronically or to the address above (mail code: ENF-4-2). If you have any questions, please contact me at (415) 972-3521, or contact Karen Vitulano, lead reviewer for this project, at (415) 947-4178 or vitulano.karen@epa.gov.

Sincerely,

Kathleen Martyn Goforth, Manager Environmental Review Section

cc: Garth Sundberg, Chairman, Cher-Ae Heights Indian Community of the Trinidad Rancheria Jonas Savage, Env. Director, Cher-Ae Heights Indian Community of the Trinidad Rancheria

STATE AGENCIES (S)

COMMENT LETTERS

STATE OF CALIFORNIA—NATURAL RESOURCES AGENCY

CALIFORNIA COASTAL COMMISSION

45 FREMONT STREET, SUITE 2000 SAN FRANCISCO, CA 94105-2219 VOICE AND TDD (415) 904-5200 Raid BIA-PRO OCT 19 2018

October 18, 2018

Reg Dir
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Route
Response Required

Ltr.

Due Date

Memo.

Amy Dutschke Regional Director Bureau of Indian Affairs Pacific Regional Office Attn: Dan Hall 2800 Cottage Way Sacramento, CA 95825

Re: Coastal Commission Staff Comments, Bureau of Indian Affairs, Environmental Assessment for Trinidad Rancheria Economic Development Corp. Hotel Development Project, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Humboldt County

Dear Ms. Dutschke:

The California Coastal Commission (Commission) staff is commenting on the above-referenced Environmental Assessment (EA) prepared for the Bureau of Indian Affairs (BIA) for the construction of a 100-room hotel adjacent to the existing casino at the Cher-Ae Heights Indian Community of the Trinidad Rancheria (Rancheria). The EA appears to acknowledge the obligation for the BIA to submit a consistency determination to the Commission under the Coastal Zone Management Act (CZMA, Section 307¹) for the BIA's proposal to issue a loan guarantee for this project. However because the language in the EA was not fully clear on this point and contains a reference to a section of the federal consistency regulations that applies to activities that a federal agency determines will have no effect on any coastal use or resource, we wish to be clear about our position that the BIA's loan guarantee is for an activity that would affect coastal zone resources, thereby triggering the need for submittal by the BIA of a consistency determination to the Commission for its review. The second bullet point under the heading "1.7 Regulatory Requirements and Approvals" (on page 1-6 of the EA) is misleading or incorrect in two respects: the regulation cited, and the standard of review. That passage reads as follows:

 Consultation with the California Coastal Commissions concerning consistency of the Proposed Action with the Local Coastal Plan in accordance with 15 CFR Section 930.35(a) of the National Oceanic and Atmospheric Administration, Federal Consistency Regulations.

S1-01

S1-02

^{, 16} U.S.C. §1456, with implementing regulations at 15 CFR Part 930.

We recommend this language be modified as follows:

Consultation with the California Coastal Commissions concerning consistency of the Proposed Action with the <u>enforceable policies of the California Coastal Management Program (i.e., the Chapter 3 policies of the Coastal Act, Cal. Pub. Res. Code §§ 30200 et seq.) Local Coastal Plan in accordance with 15 CFR Section 930.365(a) of the National Oceanic and Atmospheric Administration, Federal Consistency Regulations.
</u>

These changes are warranted for two reasons:

(1) The Commission's federally approved Coastal Management Program specifies that its enforceable policies are those of Chapter 3 of the Coastal Act. Local Coastal Programs, which are programs that the Commission has certified as being consistent with Chapter 3, can be used as guidance or background, but they are not the formal standard of review for federal consistency reviews.²

S1-02 (Cont.)

(2) The regulation cited in the EA (15 CFR § 930.35(a)) is a reference to the section of the federal consistency regulations discussing federal agency negative determinations (i.e., determinations "that there will not be coastal effects"), which is separate from the subsequent section of the regulations (§ 930.36) discussing federal agency consistency determinations. We do not think the BIA intended to comply with the CZMA in this case by following the negative determination process, which, again, is for activities with no effects on coastal resources. We make this statement in part because, once we were able to view EA Appendix D (which was omitted from the copy of the EA we were initially provided, but which we subsequently obtained from the consultant who prepared the EA), that discussion appeared to us to reflect a commitment that BIA will be submitting a consistency determination to the Commission for this activity. If there is any question or ambiguity over this point, or about the previous point regarding the standard of review for any consistency determination, we would request a discussion with your staff at the earliest practicable opportunity.

We also wish to correct what we deem as another incorrect procedural interpretation on page 3-20 of the EA, which states:

While the project site is located within a Coastal Zone, the proposed Project is excluded from the Coastal Zone Management Plan (CZMA) as it would be developed on land held in trust by the federal government. Therefore, the Proposed Project is not required to be developed in accordance with the Local Coastal Plan or the CZMA. Furthermore, the development of the proposed Hotel is consistent with the adjacent land use of the existing Casino.

S1-03

² When the Commission submits LCPs to the Office for Coastal Management for incorporation into the CCMP, its transmittal letters regularly contain the statement that Chapter 3, and not the LCP, remains the legal standard of review for federal consistency purposes.

We are not expressing concerns over the type of land use proposed on the site, or with the statement that the project is not required to comply with the Local Coastal Plan. Nor are we concerned over the statement that the site itself is considered excluded from the coastal zone as land held in trust by the federal government. Nevertheless, none of these obviates the legal requirement under the CZMA for the BIA to submit a consistency determination for an activity that *affects* the coastal zone, as discussed above. Thus, it is the phrase "or the CZMA" that we believe should be changed in this passage, and we recommend the following changes to it below:

While the project site is located within athe <u>Cc</u>oastal <u>Zz</u>one, the <u>site proposed Project</u> is <u>considered</u> excluded from the Coastal Zone <u>Management Plan as that phrase is defined in the CZMA</u>, as it <u>is would be developed</u> on land held in trust by the federal government. Therefore, the Proposed Project is not required to be developed in accordance with the Local Coastal <u>Plan rogram</u>. However, for the BIA to issue a loan guarantee for this project, the project is required to be consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program (<u>CCMP</u>) under or the CZMA. Furthermore, <u>tThe type of land use for development of the proposed Hotel is consistent with the adjacent land use of the existing Casino</u>.

A consistency determination is a finding that a proposed activity is consistent to the maximum extent practicable with the California Coastal Management Program, combined with information necessary to support that conclusion, including an analysis of the activity's consistency with Chapter 3 of the Coastal Act. We provide these comments in part to assist the BIA in preparation of that document, and we are attaching to this letter additional comments outlining what we would expect to see in any consistency determination that analyzes the hotel project under these Chapter 3 policies.

The Trinidad area's scenic values are inextricably linked with the reason visitors are attracted to this area. Virtually all the development in the viewshed is limited to one or two stories, with only a very occasional three-story structure. The proposed six-story hotel would tower above and dominate the viewshed over an extremely large area. Thus, our greatest concern over the proposed hotel is its significant visual impact on a portion of the coast particularly prized for its spectacular scenic public views.

We do not believe the EA adequately explains how it arrived at either of the following conclusions (stated in the EA, page 3-27): (1) that the proposed Mitigation 3.13.3 would "allow the proposed Hotel to blend into the scenery ... so that the Proposed Project would not result in any adverse effects to scenic resources;" or (2) that "Incorporation of mitigation measures in Section 3.13.1 would reduce effects to visual resources to less than significant." Accordingly, we would request that the BIA re-examine these conclusions and either substantiate them, or, alternatively, consider preparation of an Environmental Impact Statement, rather than an EA, for the activity. In addition, it is our understanding from media reports of local hearings that the Rancheria is considering design alternatives for the proposed hotel. If this is accurate, we believe the EA should, at a minimum, examine less visually damaging alternatives to the

S1-03 (Cont.)

S1-04

S1-05

Comment Letter S1

S1-09

CCC Letter to BIA Director Dutschke Trinidad Rancheria Hotel October 18, 2018 Page 4

by the proposed hotel.

proposed design. We would hope that several alternatives are included that involve lower S1-05 (Cont.) heights and have a less prominent visual appearance. The EA limited its discussion to only two alternatives, the proposed alternative and the "No Project" alternative, rejecting outright all other "build" alternatives, based on the statement that: Other potential alternatives to the Proposed Action, such as a reduction in the size of the area for development or alternative locations, do not meet the definition of "reasonable" under the CEQ's Regulations for Implementing the NEPA and because the purpose and need would not be met. Due to the proposed location of the Hotel, the Tribe has reduced the size to the minimum size that would provide the economic gains that would make the Hotel profitable and thereby viable. Accordingly, a small area for the Proposed Project is not evaluated within this ... EA. S1-06 We understand the Rancheria's desire for the hotel to be located very near, if not adjacent to, the existing Casino. This goal appears reasonable on its face. However the EA does not adequately explain its statement that no land is available on the Rancheria's existing holdings that could be used, for example, to lessen the height of the hotel by expanding its footprint, or dividing the hotel into multiple, lower story structures, "without disrupting future plans essential to the Tribe's growth and facilities." The EA should, at a minimum, substantiate this claim. It would also be helpful if the EA would explain why building a hotel with any fewer than 100 rooms would not be feasible for the Rancheria. Aside from its sheer mass, we have several additional concerns with respect to the visual impacts of the project. Given the extensive degree of glass windows facing public areas, we do not understand how glare can be minimized during the daytime, and the issue is likely of even S1-07 greater concern during the nighttime, when lighting from hotel room windows could be highly visible over a large area. We understand the external lighting can be minimized by directional controls, but it is less clear how six stories of hotel room lighting on the seaward facing sides of the hotel can be minimized. Our final concern with respect to visual impacts stems from the relationship between the hotel itself and related mitigation measures proposed to address traffic impacts. The EA states that Mitigation Measure 3.7.3 will be to "Construct the Cher-Ae Lane interchange off of HWY 101 to provide direct access to the Rancheria and Westhaven Drive." We are concerned by the fact S1-08 that the environmental analyses that may be forthcoming in a separate, Caltrans, CEOA review will not be available in the timeframe appropriate for review of the proposed hotel. Without being able to understand those impacts it is difficult to fully understand the full visual effects from the proposed project.

The remainder of our comments will address other, non-visually-related issues potentially raised

Comment Letter S1

CCC Letter to BIA Director Dutschke Trinidad Rancheria Hotel October 18, 2018 Page 5

The EA states (p. 3-22), that adequate water supply to serve the hotel is available based on the capacity of the City's water system and commitments between the Rancheria and the City. We would request that the EA include written confirmation from the City documenting the adequacy of availability of such water supply.

S1-09 (Cont.)

S1-10

S1-11

EA Appendix A, which examines leachfield capacity for the proposed hotel, indicates that the existing leachfield will need to be expanded, and that while several areas may provide sufficient expansion capacity, they have not been tested to the degree assuring that capacity would be available. (Northstar Design Solutions memo, September 29, 2016, p. 3: Dispersal System Capacity). The EA should, at a minimum, spell out the process and timeline that will be used to assure adequate leachfield capacity is available, as well as identify any public agencies that will be involved in the review of any leachfield expansion.

The EA indicates an active landslide is located on the proposed hotel site, and that it trends southwest towards Scenic Drive. The EA further indicates that the landslide is shallow and that hazards can be remediated with standard geologic measures. Appendix B of the EA provides additional geologic analysis supporting the EA's conclusions in this regard. This appendix lists six alternative means for stabilizing the site, and recommends implementing one of them (castin-drilled hole (CIDH) pile support). The appendix also recommends several other measures and construction techniques, and further indicates some level of additional analysis will need to be performed, along with a final geotechnical design report, prior to construction. We request that the EA include a projection or timetable for when these additional analyses will become available, as well as assurances that they will be implemented.

In conclusion, we appreciate this opportunity to comment, and we look forward to working with the BIA and the Rancheria on this locally and regionally important project. If you have any questions about these comments, or about preparation of a consistency determination, please feel free to contact me at (415) 904-5289, or by email at mdelaplaine@coastal.ca.gov. Thank you for

Sincerely,

MARK DELAPLAINE

Manager, Energy, Ocean Resources, and Federal Consistency Division

Attachments:

your attention to this letter.

1. CCC Staff Guidance for preparation of a Consistency Determination

Comment Letter S1

CCC Letter to BIA Director Dutschke Trinidad Rancheria Hotel October 18, 2018 Page 6

cc: CCC Arcata Office

Jacque Hostler-Carmesin, Chief Executive Officer, Trinidad Rancheria Garth Sundberg, Tribal Chairman, Trinidad Rancheria David W. Tyson, Trinidad Rancheria Economic Development Corporation Caltrans District 1 (Kim Floyd) City of Trinidad (Dan Berman) County of Humboldt (Planning and Building Dept., and Board of Supervisors)

HCAOG (Humboldt County Association Council of Governments)(Marcella Clem)

Attachment 1

Commission Staff Consistency Determination Guidance

The Coastal Act places special emphasis on the protection of scenic coastal public views and on special visitor destinations prized for their unique characteristics, and the BIA's consistency determination should analyze the following Coastal Act policies in its analysis of consistency with the enforceable policies of the CCMP.

Section 30251

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Section 30253(e)

New development shall do all of the following:

....

(e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.

This analysis should include provide visual renderings showing the appearance of the proposed hotel from important public view vantage points. We would recommend, at a minimum, visual simulations from the following locations (which we will also depict, using the numbers from the list below, on an attached map (Exhibit 1)):

- 1. The public trail on the east side of Trinidad Head
- 2. The seaward end of Trinidad Pier
- 3. The parking lot at Trinidad Harbor
- 4. The intersection of Trinity St. and Edwards St. in Trinidad

- 5. Scenic Drive
- 6. The southern point on Baker Beach, located immediately north of Sotsin Pt.
- 7. Luffenholtz Beach County Park
- 8. The Vista Point west of Highway 101 at the McKinleyville airport.

Guidance from Humboldt County's certified Local Coastal Program, Trinidad Area Plan (TAP), can be used to support the visual analysis. The TAP calls out this area as "indisputably exceptional" (TAP Page 3-37, Section 2.40 – Visual Resource Protection), and specifies that any development along Scenic Drive under the County's permitting jurisdiction would need to be, as required above under the last requirement of Coastal Act Section 30251, "subordinate to the character of its setting." Re-emphasizing this policy, TAP Page 3-39, Section 3.40.B.3 (Coastal Scenic Areas), states "In Coastal Scenic Areas as designated on the Area Plan Maps, and applied to portions of parcels immediately adjacent to and visible from the designated area, it is the intent of these regulations that all development be subordinate to the character of the designated area, and to the scenic use and enjoyment of public recreational lands within these areas."

The TAP policies would also: (1) prohibit off-premise signs (billboards) that are at all visible from the public roadway; and (2) set building height limitations of a maximum of 30 ft. for any structures along Scenic Drive³.

While these TAP policies do not provide the legal standard of review for any consistency determination, they nevertheless underscore the spectacularly valuable visual resources in the area and support the Coastal Act requirement that the proposed hotel would need to not only minimize and protect scenic views, and be compatible with the character of the surrounding area, but also to be subordinate to the character of its setting.

We would request that the visual analysis also examine several additional concerns with respect to the visual impacts of the project. As we note in the main body of this letter, the consistency determination should explain glare from extensive glass windows will be minimized during the daytime, and minimized during the nighttime, when lighting from hotel room windows could be highly visible over a large area. In reviewing plans for a Casino near Crescent City for the Elk Valley Rancheria (also on Trust lands), we requested, and received, simulated nighttime views from public vantage points as part of our federal consistency review for that activity. We would be happy to provide you a copy of those simulations if you so request, and we would request

³ The actual language of the TAP (Page 3-40, Section 3.40.B.3.c.(2)) states this as follows: "The highest point of a structure shall not exceed 30 feet vertically measured from the highest point of the foundation, nor 40 feet from the lowest point of the foundation."

similar simulations for the proposed project to support the visual analysis in the consistency determination.

The visual analysis should also examine the visual impacts which would stem from the related mitigation measures proposed to address traffic impacts. The EA states that Mitigation Measure 3.7.3 will be to "Construct the Cher-Ae Lane interchange off of HWY 101 to provide direct access to the Rancheria and Westhaven Drive." The consistency determination should acknowledge that this portion of Highway 101 is designated as a highly scenic area, and it should examine the visual effect from the grading, paving, and tree removal that would likely be associated with this interchange. It should analyze related visual impacts from any advertising signs contemplated for the hotel that would be placed on Highway 101, along Scenic Drive, or other public streets in the area.

We would request that you use for guidance for your analysis the following County TAP policies concerning highway improvements in this scenic area (TAP Page 3-19, Section 3.23.B.3):

3. Public Roadway Projects

Public roadway improvement projects shall not, either individually or cumulatively, degrade environmentally sensitive habitats or coastal scenic areas. Improvements (beyond repair and maintenance) shall be consistent with Section 3.41 and 3.42 and shall be limited to the following:

- a. Reconstruction and restoration of existing roadways, including bridge restoration and replacement, highway planting, construction of protective works such as rock slope protection and slope corrections, reconstruction of roadways following damage by storms and other disasters, and improvement of roadside rests.
- b. Operational improvements, such as traffic signals, guard rails and curve corrections.
- c. Roadside enhancements, such as construction or improvement of roadside rests and vista points consistent with Section 3.40, and removal of roadside signs consistent with Section 3.40 B4.
- d. Minor improvement projects, such as modifying encroachments or ramps, construction turnouts, and channelized intersections.
- e. Except in coastal scenic areas, climbing and passing lanes.
- f. Expansion of substandard roadway shoulders.
- g. Construction of bikeways.

Interchange improvements may also raise other Coastal Act concerns, and should be analyzed to the degree possible. For example, in reviewing Caltrans' Project Study Report – Project Development Support (December 2017) for the Hwy. 101 interchange, it appears that all of the non-no-project alternatives for such an intersection would have "medium" to "extremely high" environmental impacts (pages 11-12, Table 5: Summary of Project Alternatives). These impacts include visual, sensitive habitat (including wetland impacts), and geologic stability concerns. Accordingly, we believe the consistency determination should analyze the effects of any likely-to-be-proposed interchange alternatives for consistency with the habitat (Section 30240), wetlands (Section 30233), geologic hazards (Section 30253), and public works (Sections 30250 and 30254) policies of the Coastal Act. The above County TAP policies should also be looked at for guidance in these analyses. Exhibit 2 to this attachment contains the applicable Coastal Act policies not otherwise quoted in this Attachment.

The consistency determination should also analyze the project for adequacy of water supply and leachfield capacity, under Section 30250(a) of the Coastal Act, which provides:

New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. ...

According to the EA (p. 3-22), adequate water supply to serve the hotel is available based on the capacity of the City's water system and commitments between the Rancheria and the City. If this is indeed the case, we would request that you submit written documentation from the City attesting to the adequacy of availability of such water supply.

EA Appendix A, which examines leachfield capacity for the proposed hotel, indicates that the existing leachfield will need to be expanded, and that while several areas may provide sufficient expansion capacity, they have not been tested to the degree assuring that capacity would be available. (Northstar Design Solutions memo, September 29, 2016, p. 3: Dispersal System Capacity). The consistency determination should spell out the process and timeline that will be used to assure adequate leachfield capacity is available, as well as identify any public agencies that will be involved in the review of any leachfield expansion.

The EA indicates an active landslide is located on the proposed hotel site, and which trends southwest towards Scenic Drive. The EA further indicates the landslide is shallow and that hazards can be remediated with standard geologic measures. Appendix B of the EA provides additional geologic analysis supporting the EA's conclusions. This appendix lists six alternative means for stabilizing the site, and recommends implementing one of them (cast-in-drilled hole (CIDH) pile support). The appendix also recommends several other measures and construction techniques, and further indicates some level of additional analysis will need to be performed, along with a final geotechnical design report, prior to construction. The BIA's consistency

determination should include an explanation of how the geologic constraints will be addressed and remediated, as part of its analysis of the project's for consistency with the geologic hazards policy of the Coastal Act (Section 30253 (a) and (b)), which provides:

Section 30253(a) and (b)

New development shall do all of the following:

- (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
- (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

Finally, we would like to make you aware of policy guidance the Commission has been involved in concerning the Coastal Act's low and moderate cost visitor-serving policy (Section 30213) and room rates for hotels. This effort has been focused more in southern California than in northern California, and we provide this link for this in-progress policy guidance.

https://documents.coastal.ca.gov/reports/2016/11/th6-11-2016.pdf

We believe at a minimum, discussion with the Rancheria and/or the BIA may be warranted, concerning how the proposed hotel fit on the spectrum of low- to high-cost visitor facilities. If this issue is addressed in the consistency determination, it should be based primarily on Section 30213 of the Coastal Act, which provides:

Section 30213

Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.

The commission shall not: (1) require that overnight room rentals be fixed at an amount certain for any privately owned and operated hotel, motel, or other similar visitor-serving facility located on either public or private lands; or (2) establish or approve any method for the identification of low or moderate income persons for the purpose of determining eligibility for overnight room rentals in any such facilities

(Additional Coastal Act policies may also be applicable; those are listed on page 6 of the document at the above link.)

(Additional Coastal Act policies may also be applicable; those are listed on page 6 of the document at the above link.)

Exhibits:

- 1. Recommended Coastal Viewpoints
- 2. Additional Coastal Act Policies

Exhibit 1: Recommended Coastal Viewpoints



CCC Letter to BIA Director Dutschke Trinidad Rancheria Hotel October 18, 2018 Page 13

Exhibit 2: Additional Coastal Act policies

Section 30233(a)

- (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:
- (l) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.
- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
- (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
- (4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
- (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
 - (6) Restoration purposes.
 - (7) Nature study, aquaculture, or similar resource dependent activities.

Section 30240

- (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Section 30254

New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road. Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries

CCC Letter to BIA Director Dutschke Trinidad Rancheria Hotel October 18, 2018 Page 14

vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.

Reg Dir MEDMUND G. BROWN Jr., Governor Dep RD Trust Dep RD IS Route Peachs Response Required Due Date Memo Ltr Making Conservation a California Way of Life. 1-HUM-101-100.72 Trinidad Rancheria Hotel Project SCH# 2018094002	
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S2-04

(Cont.)

S2-05

Mr. Dan Hall 10/22/18 Page 2

more alternate mitigation measures for cumulative traffic conditions in the event that the preferred mitigation proves to be unfeasible. Full build-out of the Master Plan is projected to create traffic impacts at three intersections, including the U.S. Route 101 (US 101) northbound ramps at Westhaven Drive and the intersection of Main Street (Trinidad) and Scenic Drive, which is less than one-hundred feet from the intersection of the US 101 southbound ramps at Main Street. The Study Report identified the need for signals, however, any signals proposed for State facilities would need to undergo an Intersection Control Evaluation before approval can be granted.

Please contact me with questions or for further assistance regarding the above comments by phone at (707) 441-4693 or by email at: <jesse.robertson@dot.ca.gov>.

Sincerely,

JESSE ROBERTSON Transportation Planning

District 1 Caltrans

c: State Clearinghouse

Sara Drake, California Department of Justice Jacque Hostler-Carmesin, Chief Executive Officer, Trinidad Rancheria

LOCAL AGENCIES (L) COMMENT LETTERS



October 10, 2018

Amy Dutschke, Regional Director Pacific Regional Office Bureau of Indian Affairs 2800 Cottage Way, Sacramento, CA 95825

RE: Environmental Assessment for the Trinidad Rancheria Economic Development Corporation Hotel Development Project

Dear Ms. Dutschke,

On behalf of the City of Trinidad, I am writing to request that the BIA extend the public comment period for this Environmental Assessment EA for an additional 30 days, to November 22nd 2018.

The proposed project is of great significance to the City of Trinidad and our residents. The EA is a substantial document that warrants a detailed review and analysis.

Thank you for your consideration of this request. Please let us know your decision so that we can be sure to submit our comments by the original deadline as necessary. I can be reached at citymanager@trinidad.ca.gov or 707-677-3876.

Dan Berman City Manager

ce: Trinidad City Council

Jacque Hostler - Trinidad Rancheria CEO Su Corbaley - California Coastal Conservancy Mark Delaplaine - California Coastal Commission L1-01



10/22/2018

Amy Dutschke Regional Director Bureau of Indian Affairs Pacific Regional Office Attn: Dan Hall 2800 Cottage Way Sacramento, CA 95825

RE: Comments on the Environmental Assessment for Trinidad Rancheria Economic Development Corp. Hotel Development Project, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Humboldt County

Dear Regional Director Dutschke,

The City of Trinidad appreciates this opportunity to provide comments to the Bureau of Indian Affairs on the Environmental Assessment for the Hotel Development Project, proposed by the Trinidad Rancheria Economic Development Corporation.

The City of Trinidad is an immediate neighbor to this proposed project, and some of the key impacts of the proposed project directly affect the City, including transportation, views, water supply and water quality. The City respects the Rancheria's longstanding efforts to advance economic development projects for the benefit of Rancheria members. The City and the Rancheria have a mutual respect for the protection and enhancement of our fragile coastal environment. The City offers these comments as part of the NEPA process to ensure that the impacts of the proposed project are fully described, a range of project alternatives and mitigation measures to address these impacts are considered, and that any final project avoids significant environmental impacts.

The City believes that an Environmental Impact Statement (EIS) is required for this project (1) because the EA identifies significant and potentially significant impacts that are not adequately mitigated, and (2) because the EA lacks the detail and technical data to support a finding of no

significant impact in many sections. Key issues that the City believes make this draft EA inadequate for a FONSI determination include but are not limited to:

- 1) the absence of any committed water supply for the project, making it impossible to evaluate the potential impacts of the project to water resources, as well as any mitigation that may be needed to address them;
- 2) significant impacts to transportation and circulation are identified, but are not adequately analyzed or addressed by the proposed mitigation;
- 3) significant impacts to visual resources in this state and nationally recognized coastal view area that are not fully analyzed and addressed by the proposed mitigation;
- 4) inadequate information about the wastewater disposal capacity for the project, which makes it impossible to evaluate potential impacts to and mitigation for bluff stability, ground and surface water quality, and ocean water quality.

More detailed comments on these and other issues are provided below, with a discussion of the project in the context of NEPA guidance and requirements.

Detailed Comments

1.3 - Location and Setting

The City of Trinidad, the Trinidad Rancheria, and the surrounding landscape and ocean are part of an incredibly beautiful, environmentally sensitive, and unique location. Consideration of environmental impacts needs to take this local context into account. The State has recognized the importance and need for protection of the abundant and productive kelp beds and nearshore rocky environment by designating the Trinidad Bay Area of Special Biological Significance (ASBS)¹ and State Water Quality Protection Area just offshore of the proposed project, and by designating this stretch of coastline as the Trinidad Head Critical Coastal Area (CCA)². The Federal government has also recognized this area as a formal Gateway to the California Coastal National Monument (CCNM)³. Trinidad Head, with a direct view of the project site, is one of the only onshore portions of the Federal CCNM and was selected in part due to the public accessibility and the scenic visual resources of this area. The State ASBS and CCA designations both identify nutrient and bacteriological pollution as threats to this important ocean environment, and the ASBS includes strict regulations to prohibit any degradation of natural water quality.

- 1. https://www.waterboards.ca.gov/water_issues/programs/ocean/asbs_map.shtml
- 2. https://www.coastal.ca.gov/nps/Web/cca_pp_ncoast.htm
- 3. https://www.blm.gov/programs/national-conservation-lands/california/california-coastal

L2-01 (Cont.)

This section of the EA (1.3) should briefly describe these state and national designations. The special setting for this project, perched on the bluff immediately overlooking this state and federally recognized coastal area, should be an important part of evaluating the environmental impacts of the proposed project. Figure 1.2 should be revised, or additional figures added, to identify the Trinidad Head ASBS, Trinidad Head CCA, and the federal CCNM.

12-02 (Cont.)

L2-03

Water Supply

Water Supply is discussed in numerous sections of the EA, including 2.2.1, 3.2.4, 3.10.7, and 4.1.7. The following comments are relevant to all of those sections.

Water/wastewater volume: The project description states that the Hotel will generate 8,000 gpd of wastewater, but the water supply section states that the Hotel will use almost 19,000 gpd of potable water. This difference cannot be explained by reuse of treated wastewater. The water coming in and the water going out need to be in balance, and corrected numbers are needed to properly assess both water supply impacts and wastewater impacts. Without consistent and accurate information about the volume of water needed, and wastewater produced, there is no sound basis for evaluating the environmental consequences of the proposed project with regard to water supply or wastewater disposal.

Water Source: The City's Water System is described as the preferred supply for the proposed project. The City has not received any application for new or expanded water service for the Hotel, and has made no commitment to provide potable water for the proposed Hotel. The EA does not propose any alternate water source for the project.

The percentages of 'available water supply' cited in the EA appear to be based on the maximum amount allowed to be withdrawn annually under our water rights to Luffenholtz Creek, but this maximum is not the limiting factor for the water system. The limiting factors are the operational capacity of the City's Treatment Plant, and the requirements to maintain minimum flows in the Creek during drought conditions. Current efforts by the City to generate updated information about system capacity and future needs, and to review water priorities and policy, are expected to continue for at least several months. The City's current priorities for any remaining water system capacity are first to ensure adequate supply for existing customers and second to retain capacity to service planned build-out within the City limits

Cumulative Effects to Water Resources

The City does not believe there is adequate basis to support the statement in Section 4.1.2 that there is adequate supply of surface water from Luffenholtz Creek to serve additional projects in the Region...' A prolonged effort to permit a major subdivision (the Moss Subdivision) in the Luffenholtz Creek watershed concluded that there was not adequate water to support new withdrawals during the dry season and required new development to avoid any new dry season

L2-04

use of Luffenholtz Creek. As described above, the City is going through its own evaluation of the capacity and priorities for our water system before making a decision on providing water service to the Hotel.

L2-05 (Cont.)

In conclusion, the EA's findings that the City's water system can support the Hotel Project needs without significant impacts are premature. There is no basis for that determination in the EA. It is unclear from the EA where the Hotel Project would obtain water if the City decides it cannot provide the water. Until a potable water source is secured, it is not possible to evaluate the potential impacts to that source, or mitigation measures that may be needed to address them. Therefore the BIA cannot make a 'finding of no significant impact' or FONSI regarding water supply based on this draft EA.

L2-06

3.7.2 Transportation and Circulation

The City agrees with the EA that the proposed project would have significant traffic impacts to the Main St./Scenic Dr. intersection, the largest and most complex intersection in the City of Trinidad. The proposed mitigation for these impacts is the construction of a Cher-Ae Lane Hwy 101 interchange. The City believes this could only be an acceptable mitigation measure if the the hotel project is began concurrent with or subsequent to this new interchange.

The City understands that the Rancheria is committed to pursuing the Cher-Ae Lane interchange project and continues to work towards that goal. However the interchange is still in the planning stages. Environmental permitting is just starting, no funding is secured for construction, and final approvals for the project have not been completed. This interchange project, unlike the Hotel project, involves both trust lands and non-trust land, and is therefore subject to CEQA and the California Coastal Act among other state and local laws. This substantially increases the timeline, regulatory requirements, and uncertainty about the outcome of this planned project.

Mitigation measures must be timely to the impacts they are intended to address, and they must be tangible measures that the project proponent commits to implementing. The interchange could only be considered acceptable mitigation if the Hotel project was developed concurrent with or after a new interchange is operational. As currently proposed in the EA, the largest intersection in Trinidad would be significantly impacted with no mitigation for many years, and no real guarantee of mitigation at all.

L2-07

The EA therefore describes significant unavoidable impacts to Transportation and Circulation without acceptable mitigation measures for them. Alternative mitigation measures that address the identified impacts and are timely to those impacts should be developed in consultation with CalTrans and the City of Trinidad, where those impacts will be realized, and where the likely mitigation measures will need to be implemented. Without this analysis included in the EA, the

BIA has no basis for determining the environmental consequences of the proposed project. Until adequate mitigation measures are identified, the BIA cannot make a 'finding of no significant impact' or FONSI regarding transportation and circulation resources.

L2-07 (Cont.)

Wastewater Treatment

There is inadequate information in the EA to determine whether there is leachfield capacity to serve the project on the Rancheria's property, and there is no information about what regulatory agency would review and approve a leachfield disposal system. Responsible independent agency review and approval of any final wastewater disposal system should be a basic mitigation measure. The federal trust status of the project site makes it unclear what agency would provide that review and approval; this should be clarified in the EA or EIS.

The Preliminary Wastewater Feasibility Report (Appendix A) describes significant uncertainty about the current state of the community dispersal field, and about the expansion of that dispersal system which the Hotel project would require, including the following statements:

"The community dispersal field was designed with a capacity of 10,000 gallons per day. However, with plugging believed to have been caused by the discharge of Casino wastewater to the field before the treatment plant was completed, the actual long-term capacity of the dispersal field at this time is not known. The existing dispersal field should be cleaned and then the capacity should be evaluated through field investigations and hydraulic stress testing to determine the actual operations capacity."

"...it is critical that this capacity is verified." (Referring to the existing system capacity)

"A site survey should be the first order of work to confirm the Cher-Ae facility has the capacity to support the proposed hotel."

The report also refers to soils on the Rancheria property as "marginal" for septic disposal, and that the existing system lacks the designation of a reserve area, which is a standard requirement for leachfields.

The report concludes with the following statement: "I cannot stress enough the need to determine if there is additional dispersal capacity on the site and where the resource is on the Rancheria. The size and location of these areas will have a significant impact on the design and associated cost with the dispersal component of the system."

Overall, Appendix A shows that (1) the capacity of the existing leachfield is unknown, (2) no onsite testing has been done to verify there is adequate room for expansion of the leach area (and

1 2-08

the amount of expansion area is unknown, since the existing capacity is unknown), and (3) there is no reserve area in a location with "marginal soils" where a dispersal field is expected to fail eventually. Further, the EA does not explain the discrepancy between the projected water use of almost 19,000 gpd, and the projected wastewater flows of 10,000 gpd.		L2-09 (Cont.) L2-10
Without additional information about the capacity of the site to accept the project wastewater, and clarity on the actual volume of wastewater to be disposed of, it is not possible to adequately evaluate the potential impacts of wastewater disposal to bluff stability, ground water, or surface and ocean waters, or the mitigation measures that may be needed to address those impacts. This is especially true considering the proximity of the project site to the Trinidad Bay ASBS, SWQPA, and CCA and the CA Coastal National Monument.		L2-11
Therefore the BIA cannot make a 'finding of no significant impact' or FONSI regarding wastewater disposal based on this draft EA.		
Visual Resources	7	
The City agrees with the EA that the proposed Hotel would impact the visual resources of this incredibly scenic area and would be clearly visible from Trinidad Head, nearshore waters and the California Coastal National Monument. The most obvious mitigation measures to address these impacts are to consider alternative locations on the Rancheria, alternative sizes and heights for the hotel, and to consider a less 'boxy' design. The failure of the EA to identify any alternative locations, configurations, or sizes for the proposed Hotel make it difficult to consider effective mitigation measures for visual resource impacts. These should be addressed in the alternatives section of an EIS.		L2-12
Furthermore, Section 3.13.3 describes mitigation measures that "shall be incorporated" in the design. Comments from members of the Rancheria development team at the October 15, 2018 City Council meeting indicate that alternative designs are available that incorporate said measures. No such design considerations are found in the environmental assessment.		L2-13
Community residents have expressed significant concerns about visual resource impacts, and about the lack of clarity in the EA regarding the final appearance. The City encourages the Rancheria to consider a significant reworking of the design, and to include the mitigation efforts outlined in Section 3.13.3		L2-13
In order to better consider the impacts, and mitigation options for those impacts, an EIS or revised EA should include simulated views of the proposed Hotel from key prominent locations, like the Trinidad Pier, Trinidad Head Trails, and Edwards St. Furthermore, the City believes that		L2-14

the United Indian Health Services Potawat Health Village is an excellent example of a local facility that clearly values a design that is both culturally significant and "fits" in with the surrounding environment.

The Rancheria improved the harbor when they took it over, putting in a state-of-the art pier and wastewater treatment facility, thus respecting the surrounding area of significant biological significance. The current EA does not reflect their demonstrated commitment to sound design principles. The EA has not delivered a satisfactory description of what the visual impacts will be nor the ways that mitigation measures might address those impacts.

Other Issues

Law Enforcement

The hotel will increase the law enforcement needs for the Rancheria. The number or hours of deputy service to be provided by the Rancheria through the described contract should be included in this section and analyzed for adequacy. In addition, a "will serve" letter or equivalent document needs to be included to document that the Sheriff's Department has been adequately consulted and the EA includes a factual basis for determining the environmental consequences of the proposed project with regard to law enforcement.

Fire Protection

The Trinidad Volunteer Fire Department (TVFD) has only one station, with approximately six volunteer fire fighters. The 'second station' referred to in this section is an independent entity—the Westhaven Volunteer Fire Department (WVFD).

The maps referenced in this section seem to indicate that neither Calfire or TVFD have been delegated responsibility for firefighting on the Rancheria. The Calfire Fire Marshal should be contacted to provide clarity about their responsibilities on the Rancheria. If a contract or agreement is already in place between the Rancheria and Calfire it should be described and analyzed in the NEPA document.

To assess potential impacts and possible mitigation measures, this analysis should be based on the results of a qualified professional assessment of firefighting response needs, including access, water availability, and equipment. This assessment should include consultation with both Calfire and Humboldt Bay Fire. The local Calfire Fire Marshal conducts assessments like this. In addition, a "will serve" letter or equivalent document needs to be included to document that adequate capacity, staff, and equipment exists to serve the Project. Without this analysis included in the EA, the BIA has no basis for determining the environmental consequences of the proposed project with respect to Fire Protection.

L2-14 (Cont.)

L2-15

Air Quality

Air quality and greenhouse gas emissions will result in impacts off of the Rancheria property. Therefore, those impacts should be evaluated in terms of State laws and standards. Humboldt County does not meet the state standard for PM10, and so that should be analyzed and dust control measures included. A construction project of the proposed duration is also likely to have public health affects that are not analyzed in the EA.

Noise

The noise section is unclear, with one standard being used in the criteria, and a different, higher standard used in the analysis. In addition, the size of the construction project, including the foundation that will be required, the range of construction equipment listed is not adequate. The number of truck trips, timing and sequence of different construction equipment is not adequately described.

Other Notes

Even impacts that are clearly not significant, that would be simple to document (e.g. flooding) are not adequately analyzed and sometimes based on inappropriate or questionable sources. The EA also contains incorrect and incomplete information. For example, since no natural gas lines serve Humboldt County, it does not seem likely that the Rancheria is served by natural gas as described in Section 2.2.1. Also, the Draft Geotechnical Feasible and Preliminary Design Report describes a new service access road along the slope southwest of the existing casino, which would cause significant cuts and grading, but that road and associated impacts are not described or considered as part of the project.

NEPA Guidance regarding impact significance:

In determining the significance of an impact, the Council on Environmental Quality's NEPA regulations §1508.27 requires consideration of both context and intensity. In considering context, it must be recognized that "significance varies with setting of the proposed action." What is not significant in one locale, may be significant in another locale. As described in more detail below, the project site is a particularly sensitive location, and the project is out of scale with the surrounding rural community setting and environment. The City's General Plan includes the following description of community preferences:

Property owners strongly preferred that new development be consistent with the present character of the community. Everyone agreed that the city has unique characteristics. When asked to describe Trinidad, they mentioned these terms: rural, uncrowded, quaint, rustic, peaceful, unsophisticated, small, casual, a feeling of openness, no tract houses, not commercialized. Sometimes they put it in terms of what they didn't want: no high-density

L2-17

L2-18

L2-19

housing, no mobilehomes and trailer parks, no buildings greater than two stories, no motel-hotel-condominium complexes, no commercial exploitation and garish signs.

Trinidad's Design Review Guidelines suggest a maximum square footage of 2,000 for residences and 4,000 for commercial structures. The maximum height limit throughout the City is 25 ft. While the Rancheria is not subject to the City's land use standards, this information is presented to give the BIA a realistic idea of the scale and context of the surrounding community. The City's current draft Vision Statement developed for a comprehensive General Plan update includes the following language:

(Cont.)

L2-20

Trinidad intends to maintain the existing small town atmosphere. Scenic and environmental protections are essential to Trinidad's quality of life and economy. ... Sustainability is a keystone for all development and a hallmark for daily life and City functions in Trinidad. New environmental technologies are embraced that further protect Trinidad's scenic, natural and cultural resources. Trinidad's water resources, including the Bay and streams are unpolluted.

In determining intensity, the Council on Environmental Quality's NEPA regulations §1508.27 also require lead agencies to consider a number of factors several of which apply to this project, including:

(2) The degree to which the action would affect public health and safety. For example, evaluation should include hazardous and solid wastes, air and water quality, and their relation to public health.

L2-21

According to the Office of Environmental Health Hazard Assessment, an eight to twelve month construction project is likely to have public health impacts related to airborne emissions, including dust. In addition, for sensitive receptors within 500 ft. of Highway 101, cumulative impacts to public health from vehicle and construction emissions need to be evaluated.

(3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

L2-22

The coastal waters around Trinidad have been designated as an Area of Special Biological Significance and a State Water Quality Protection Area by the State Water Resources Control Board and as a Critical Coastal Area by the California Coastal Commission. In addition, Trinidad has been designated by BLM as the Northern Gateway to the California Coastal National Monument. Several parks, recreational areas and other public access exist in and around the project area. See attached excerpts from the various designations and legal programs managing these unique resources for further information.

(4) The degree to which the effects on the quality of the human environment are likely to be highly controversial. Two public meetings, one sponsored by a local group known as Humboldt Alliance for Responsible Planning (HARP) and one by the City, attracted more than 100 attendees each. This L2-23 is a very large number considering the rural nature of the affected environment. The City of Trinidad has a population of only 365 residents and the greater Trinidad-Westhaven area has a population of 1,205 (2010 Census). Most of the meeting attendees expressed concerns about the project as presented, making this project highly controversial. (5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks. The EA, including the appendices, lacks adequate detail to accurately determine what the L2-24 impacts are going to be. As described above, a primary example is water service and wastewater disposal. The water source for this project is uncertain, and the capacity of the site to dispose of wastewater is uncertain. (6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration. The Rancheria has plans for several additional large projects that are mentioned in the EA and appendices, including a casino expansion and a highway 101 interchange, all of which have the potential to impact the surrounding community. (7) Whether the action is related to other actions with individually insignificant but cumulatively L2-25 significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts. The EA includes a Highway 101 interchange as mitigation for significant traffic impacts. In addition, Phase 2 of the Rancheria's Community plan includes a number of other projects, including an R.V. park, gas station, market, etc. However, the potential for cumulative impact is not adequately addressed in the EA. (10) Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment. L2-26 There are potential offsite air and water quality impacts that have the potential to violate state environmental laws that have not been analyzed in the EA. NEPA requires an EIS to be prepared when a Federal action may significantly affect the quality L2-27 of the human environment (42 USC 4332). The EA determined that traffic impacts resulting

from the project would be significant. The mitigation proposed is to construct a new interchange on Highway 101. That mitigation is not valid for several reasons.

Section 6.4.6 of the BIA NEPA Guidebook (59 IAM 3-H) specifies that "Any mitigation measure must be enforceable and it is important for BIA Regional and Agency Offices to establish monitoring programs to ensure that mitigation is carried out." BIA has no authority to enforce this mitigation measure or ensure it is carried out nor does the Rancheria. In addition, the EA does not adequately show that this mitigation would reduce impacts to less than significant. Construction of the interchange is speculative at this point; it is still in the design phase, it has not been funded, the environmental review has not been completed, and it has not been permitted. If it is constructed, it will not be for many years, as that process is takes time. Therefore, there will be significant traffic impacts from the project for an unknown length of time. Finally, the impacts of the interchange are not analyzed at all in the EA, contrary to Section 46.130 of the Department of Interior NEPA regulations, which states that "the effects of any mitigation measures... included in the applicant's proposal must be analyzed."

Section 6.4.5 of the BIA NEPA Guidebook (59 IAM 3-H) requires the effects analysis of an EA to demonstrate that the BIA took a "hard look" at the impacts of the action and that the analysis concentrate on those components of the affected environment that will truly be affected. Without this analysis included in the EA, the BIA has no basis for determining the environmental consequences of the proposed project, and an EIS should be prepared.

Courts review EAs and FONSIs under a deferential arbitrary and capricious standard. Courts will consider whether the analysis is superficial or manipulated, if the agency based its decision on presumptions or conclusions rather than facts, lack of documentation, internal inconsistencies, and failure to consider cumulative impacts and secondary impacts. The Hotel Development Project EA suffers from all of these deficiencies.

In the specific example of *Sierra Club v. Peterson* (717 F.2d 1409), the D.C. Circuit employed a four-part test to examine an agency's decision not to prepare an EIS. The four factors were (1) whether the agency took a "hard look" at the problem, (2) whether the agency identified the relevant areas of environmental concern, (3) whether the agency made a convincing case that the environmental impacts of the problems identified were insignificant, and (4) whether the agency established convincingly that any significant impacts were minimized.

Section 46.310 (g) of the Department of Interior NEPA regulations states: "An environmental assessment must contain objective analyses that support conclusions concerning environmental impacts." Many of the conclusions in the EA are not supported by appropriate and factual documentation. Water supply is a good examples of this. The EA presumes that the City of Trinidad will supply potable water for the project. As discussed above, the numbers presented in the EA are based on the City's entire permitted water right to flows on Luffenholtz Creek without consideration of actual treatment capacity of the City's water plant, low flow conditions

L2-27 (Cont.)

L2-28

on the Creek or impacts from climate change and drought. The City has not made a commitment to provide water, and is not clear at this time whether they have the capacity to do so. Based on the available information, the EA cannot make a determination that impacts to water supply are less-than-significant.

L2-29 (Cont.)

Conclusion:

The City believes the environmental impacts of this project must be addressed through an EIS. The EA identifies significant and potentially significant impacts that are not adequately mitigated. In addition, the EA lacks the detail and technical data to support a finding of no significant impact in many sections, including water supply, transportation, visual resources, and wastewater.

Preparation of an EIS will serve several purposes that the EA currently does not address. It will provide the opportunity for the in-depth analysis and consideration of impacts that are not adequately documented in the EA. It will provide for further consideration of alternatives that could reduce impacts from the project. And it would allow further involvement from the public and interested agencies.

Thank you for your consideration of these comments. Please don't hesitate to contact the City with any questions or for additional information.

Thank you

Daniel Berman

City Manager

Cc:

Trinidad City Council
Trinidad Planning Commission
Jacque Hostler, Trinidad Rancheria
Humboldt County Planning Department
California Coastal Commission, Federal Consistency Department
State Water Resources Control Board, Ocean Protection Division
Bureau of Land Management, CCNM Manager
Environmental Protection Agency – Region 9 Wastewater Division

PRIVATE CITIZENS AND COMMERCIAL ENTITIES (P) COMMENT LETTERS

PACIFIC REGIONAL OFFICE BUREAU OF INDIAN AFFAIRS

2018 OCT - 1 PM 2: 55

J. Bryce Kenny Attorney at Law P.O. Box 361 Trinidad, California 95570 Telephone: (707) 442-4431 Email: jbrycekenny@gmail.com

September 28, 2018

Chad Broussard Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825

Re: Environmental Assessment for Trinidad Rancheria Hotel Project

Dear Mr. Broussard:

Enclosed please find Petitions with 61 signatures requesting an extension of time for the submission of comments on the above-referenced EA.

Please note that HARP hereby amends its previously mailed request to extend the deadline for comments up to and including January 31, 2019.

Also, as additional justification for an extension of time, we note that there are two different versions of the EA being circulated. We do not know which one is the official version. Accordingly, our position is that the 30-day clock has not yet commenced. You may want to republish the notice in the local paper to clarify this issue.

Thank you in advance for your anticipated cooperation, and please do not hesitate to contact me with any questions or concerns.

Very Truly Yours,

Attorney for HARP

P1-01

Amalisa Rush	9/27/18	Acal	951 Westhamen Dr. So. Trimidal CA
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PATRICKHARE	STAD 8/27/	1/x / lety tother &	
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ERIN ROWE	9/27/18		Address 95570 TRINIDAD CA
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J. Bryce Kenny Attorney at Law P.O. Box 361 Trinidad, California 95570 Telephone: (707) 442-4431 Email: jbrycekenny@gmail.com

September 24, 2018

Chad Broussard Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825

Re: Environmental Assessment for Trinidad Rancheria Hotel Project

Dear Mr. Broussard:

This office represents the Humboldt Alliance for Responsible Development (HARP) a group of local residents who are very much interested in, and affected by, the above-named project.

We have just obtained a copy of the Environmental Assessment (EA), and note that the public comment period is only 30 days. We respectfully request an extension of time to submit comments for the following reasons:

- •The extra time is necessary for us to publicize the existence of the EA,
- to consult with our experts on its various components,
- to discuss the issues among the membership, and

P2-01

P2-01 (Cont.)

• to decide on and draft written comments.

General Concerns regarding significance and complexities in the EA

This EA describes not just a single Hotel Project, but refers, without elaboration, to a suite of interrelated development projects that the Rancheria has been planning since at least 2004 with no serious attempts to educate or involve the broader communities affected by these projects. Expecting an uninformed but concerned public to weigh in on projects that could and should have been publicized and discussed over the past fourteen years in just 30 days is unreasonable.

P2-02

The proposed Rancheria development is taking place in one of the most visually spectacular and environmentally sensitive places in California, or anywhere. Trinidad is California's smallest coastal city, a quaint fishing village in the midst of oceanic splendor enjoyed by thousands of tourists, fishermen, surfers, and local residents. Biologically sensitive receptors abound, and the visual aesthetics are unmatched, although these assets are downplayed in the EA.

P2-03

The "Preliminary Environmental Analysis Report" (PEAR) of the CalTrans Project Study Report (PSR) for US 101/Trinidad Area Access Improvements emphasizes the specialness of this entire area:²

¹ Winzler and Kelly Assessment attached to Appendix A of EA.

² Appendix H Visual/Aesthetics: 8.5 Visual/Aesthetics: "Coastal scenic views, scenic areas, and coastal access points occur along Scenic Drive. Aesthetics are generally a substantial concern with any development in the Coastal Zone." *** 30251 & pg 9, Attachment H, Preliminary Environmental Analysis Report (PEAR, pg 55)

"The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas (Trinidad Area Plan Section 3.40 Visual Resource Protection, 2007 [emphasis provided])."

P2-03 (Cont.)

This EA describes a project that itself dramatically affects multiple local communities, with an extraordinary regional impact, yet despite these consequences, none of the affected communities has had any opportunity to evaluate, comment, or influence the proposal(s). Furthermore, this Project anticipates substantial related projects, including major federal and local highway endeavors, but does not consider the cumulative impacts of these interrelated projects.

P2-04

P2-05

Among many concerns requiring more time for our competent attention, we include the following partial list:

A. Consistency with Rancheria State Compact and the California Environmental Quality Act (CEQA)³

The Tribal-State Compact Between the State of California and the Trinidad Rancheria that was ratified in 1999 provides for informing the public of any off-reservation impacts from casino/gaming-related project. The EA makes the relation between the Hotel project and gaming clear: "Furthermore, the

P2-06

³ http://www.cgcc.ca.gov/documents/compacts/original compacts/Cher-Ae-Heights Compact.pdf

Tribe's purpose for the development of a 100-room Hotel is to support the existing Casino." (pg 2-1,EA). Section 10.8 of the Compact requires that the Rancheria, among other actions, make "...a good faith effort to incorporate the policies and purposes of the National Environmental Policy Act and the California Environmental Quality Act..." (10.8.1)

However, reference to CEQA or its equivalent environmental process is not included in this EA.⁴

It should be noted that AES, the contractor who prepared the EA, has previously acknowledged that an EA must be consistent with a tribe's environmental ordinances developed as required by their gaming compact. (See attachment 1 hereto.)

B. Traffic:

Of major concern is the failure of this EA to evaluate the relationship of the Hotel, the proposed full Rancheria build-out, and the proposed new US Hwy 101 interchange and overpass to service the development.⁵ This EA acknowledges that the Hwy 101 interchange and overpass are essential to service the Project (3.7.2), yet the Rancheria and CalTrans are currently supposed to be considering twelve options plus no-build to address "the

P2-06 (Cont.)

P2-07

⁴ "Consistent with the requirements of NEPA, the BIA will review and analyze the environmental consequences associated with the Proposed Action and Project Alternatives and either determine that a Finding of No Significant Impact (FONSI) is appropriate, request additional analysis, or request that an Environmental Impact Statement (EIS) be prepared." (1-1, EA) "1.5 Overview Of The Environmental Review Process "This EA is intended to satisfy the environmental review process of 59 IAM 3-H, 40 CFR § 1501.3 and 40 CFR § 1508.9."

⁵ Alternatives 2 and 3a, PSR

transportation needs of the Trinidad Rancheria and the surrounding community."

This raises important questions about piece-mealing multiple interrelated projects to avoid revealing growth-inducing and cumulative impacts, as well as whether the Hwy 101 interchange and overpass have already been determined to be essential to the Hotel Project, as "assumed" in the EA (3.7.2), essentially designating Options 2 and 3a, the overpass and interchange, as fait accompli.⁷ (E-18, EA)

The traffic analysis employs Level of Service (LOS) to gauge traffic needs, rather than Vehicle Miles Travelled. LOS has been censured under California's EQA because it fails to adequately consider non-motorized options and exaggerates road expansion needs. Unfortunately, the EA released on 9/18 fails to include Appendix G, which allegedly elaborates on LOS.

P2-07 (Cont.)

⁶ (pg 1, 2017 US-101 / Trinidad Area Access Improvements, 1. INTRODUCTION The Trinidad Rancheria and Caltrans District 1 are working in partnership to identify alternatives to meet the transportation needs of the Trinidad Rancheria and the surrounding community. This PSRPDS identifies 12 alternatives to address the transportation deficiencies between the unincorporated community of Westhaven and the City of Trinidad.

⁷ "The BIA understands that the Tribe is currently undergoing consultation with Caltrans to complete this interchange. This new interchange may be located approximately 0.7 miles south of the Main Street interchange. "For the purposes of the analysis a tight diamond interchange is assumed at the new interchange, which is referred to as the Cher-Ae Lane interchange. A two-lane overcrossing is assumed with all-way stops at the two ramp locations. Easterly extension of Cher-Ae Lane past the interchange to intersect at a "T" intersection with Westhaven Drive is also assumed." (E-18. EA)

⁸ Governor's Office of Planning and Research, Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory http://www.opr.ca.gov/ceqa/updates/sb-743/

The Project simply ignores south Scenic Drive as does the CalTrans PSR, despite the fact that an improved South Scenic Drive offers the potential for another access to the Rancheria complex, thereby potentially obviating the need for, and expense of, additional Hwy 101 interchange.⁹

P2-07 (Cont.)

Complicating matters further, Humboldt County's LCP prohibits construction of "new roadways, highway overcrossings, or interchanges in the project area." 10

Community and expert review of these contingent aspects of the Hotel Project will obviously require considerably more time than the allotted 30 days.

P2-08

C. Water Supply:

Conflicting data from multiple historic surveys regarding the availability of potable water must be reconciled. An independent expert assessment of water supply capacities that accounts for needs during extreme drought and emergency conditions is necessary. Such a study has been funded by the Coastal

P2-09

⁹ (Appendix E-1: "Scenic Drive is a north-south two lane secondary collector street that extends south of Main Street and provides access to the Rancheria.

¹⁰ "Land Use and Community Impacts: The project is located entirely within the Coastal Zone. The project conflicts with the Humboldt County General Plan-Volume II:Trinidad Area Plan of the Humboldt County Local Coastal Program, which does not allow for construction of new roadways, highway overcrossings, or interchanges in the project area. If necessary, Local Coastal Program amendment would require certification by the California Coastal Commission, which also has appeal jurisdiction over County and City coastal development permits. Local Coastal Program amendment could add approximately 18-24 months to the coastal development permit processes. Public controversy regarding the project may be considerable. A community impact assessment is anticipated." (pg 15, "Further Environmental Effort" Attachment H Preliminary Environmental Analysis Report (PEAR)

Commission and is in progress by the City Planner. Its release date is unknown.

P2-09 (Cont.)

D. The Public:

HARP has scheduled the very first public meeting dedicated to this Project on September 27, 2018, leaving only 25 days for an uninformed public to understand the scope of these massive interrelated projects and express its concerns.

P2-10

Without more robust community engagement, projects of this scale, that are unprecedented in this area, threaten to disrupt our community equanimity.

E. GROWTH:

Data regarding anticipated growth are critical in determining needs and impacts of the various projects within this EA. However, the data are confusing, requiring more time to sort out. The EA relies on 1.3% annual growth rate for the Project area, based on The Rancheria's "Trinidad Area Freeway Master Plan Study Report, Revised 2/13/14" pg 7, despite CalTrans' referencing a 0.5-0.6% range. 11/12 The Humboldt

P2-11

¹¹ The cumulative impact analysis within this EA considered the construction of the projects described above and conservatively assumes an approximately 1.3 percent annual growth rate (Appendix G), along with the full implementation of the Tribe's Master Plan. (4-1, EA)

¹² Trinidad Area Freeway Master Plan Study Report 2/13/14, pg 7 "Year 2040 Traffic Volumes The following sources of data were reviewed to establish background annual growth rate that will be applied to the study area facilities to derive Year 2040 Base traffic volumes:

¹⁾ Humboldt County Travel Demand Model Roadway volumes for Year 2010 and Year 2040 were compared on US 101. In the vicinity of the study area, the model projects approximately 6,100 ADT for Year 2010 and 7,000 ADT for Year 2040. This yields an annual growth rate of approximately 0.5% per year.

²⁾ Historic ADT data available from Caltrans was reviewed for the Year 1992 and Year 2012. In

County General Plan estimates the current annual growth rate at "about 0.7 percent, declining to 0.36% by 2030. (HC GP, 4.2, Table 1-1)

P2-11 (Cont.)

Unfortunately, Appendix G is not included with the released EA.

F. Other:

The "RANCHERIA MASTER PLAN DEVELOPMENT" (pg 11, EA) refers to a plan to expand the casino from its current 50,000 sq ft to 150,000, the RV park from 22 spaces to 50, and office space from "minimal" to 100,000 sq ft, with retail and community space adding another 75,000 sq ft, not including a 6-pump gas station. The surrounding community is unaware of the extent and scale of these developments, some of which are reasonably foreseeable, connected to the Hotel, and casino-related, and therefore subject to CEQA.

P2-12

the vicinity of the study area, the 1992 ADT was found to be 8,000 and the peak ADT was found to be 11,300. In 2012, the ADT was found to be 8,900 and the peak ADT was found to be 12,300. This yields an annual growth rate of approximately 0.6% per year.

³⁾ California Department of Finance (DOF) projections for population in Humboldt County were reviewed for Year 2010 and Year 2040 conditions. The DOF estimate for population in Year 2010 was 134,663 and Year 2040 is 147,873. This yields an annual growth rate of approximately 0.6% per year.

Per direction from Caltrans District 1 Long Range Planning, a background growth rate of 1.3% per year has been utilized to derive Year 2040 Base traffic volumes.

Year 2020 Traffic Forecasts

Based on the planned development of the Rancheria and input from Caltrans, Year 2020 was established as the interim analysis year. A background growth rate of 1.3% per year has been utilized to derive Year 2020 Base traffic volumes" (pg 7)

Requested comment period to end January 2, 2019

All of this, and more will take more than 30 days. We propose a due date of January 2, 2019.

Please notify me at your earliest convenience as to whether our request for an extension has been granted.

Thank you in advance for your anticipated cooperation, and please do not hesitate to contact me with any questions or concerns.

Very Truly Yours,

J. Bryce Kenny

Attorney for Humboldt Alliance for Responsible Planning

P2-13

5 October, 2018

BUREAU OF INDIAN AFFAIR
2018 OCT -9 PM 2: 49

Bureau of Indian Affairs

2800 Cottage Way

Sacramento, CA 95825

Reg Dir NA	
Dep RD Trust	
Dep RD IS Route DCCRMS	-1/101
Response Required	_CV Caa
Due Date	
MemoLtrFax	***

Dear Mr. Broussard and Mr. Hall,

Thank you for the opportunity to comment on the TRINIDAD RANCHERIA ECONOMIC DEVELOPMENT CORPORATION'S September, 2018, ENVIRONMENTAL ASSESSMENT for hotel development at the Cher-Ae Heights Casino.

As a neighbor living on Langford Road, approximately half a mile from the casino, I am concerned about a number of aspects of the Environmental Assessment. With that in mind, I strongly support Alternative B until these concerns are mitigated.

We are all reliant on water to live, therefore this sentence strikes me as problematic: "Currently, the City's [Trinidad] water supply system serves approximately 315 connections, including connections to Tribal enterprises. The City has a permitted water use rate of 355,392 gallons per day (gpd), of which the City is using approximately 23 percent (Buckman, 2017)." That appears superficially sufficient, but no consideration is given for water availability. Permitted use requires availability. Luffenholtz Creek, where the City of Trinidad draws their water, is a surface stream completely dependent upon rainfall for sufficient water. In the 30-plus years I have lived on Langford road, there have been numerous times that the city has requested that we curtail water use due to drought conditions. How would this affect the hotel, especially if an RV park were also added to the mix? Would I be relegated to taking showers on alternate Thursdays in order for casino guests to take 15 minute showers in their hotel rooms? I have been to hotels where I am asked to re-use my towel to save on laundry, but never to a hotel where I am told to truncate my shower time.

But this is just the tip of the iceberg. It appears that Analytical Environmental Services did a shoddy job in some areas, but I can only comment on the ones I personally know about.

For example, I was shocked to read that four species of birds had been observed at the site. What time of year was this observation made? What were the qualifications of the person who observed these four species? In my yard, just over McConnahas Mill Creek from the casino complex, and equally nearby to the south, I have casually observed many of the following species of birds: Cooper's hawk, Redshouldered hawk, Redstailed hawk, Kestrel, Peregrine falcon, Wild turkey, Bandstailed pigeon, Mourning dove, owls, including Western screech owl and Great horned owl, Allen's and Anna's hummingbirds, Redsbreasted sapsucker, Downy and Hairy woodpeckers, Northern flicker, Pileated woodpecker [heard last year], Black phoebe, various seasonal vireos and flycatchers, Stellar's jay [abundant!], crows and

P3-01

P3-02

P3-03

ravens [mega-abundant], seasonal Martins and Swallows, Chestnut-backed chickadee, Red-breasted nuthatch, Brown creeper, Gold-crowned kinglet, Swainson's thrush [abundant seasonally], Hermit thrush, Varied thrush, Wrentit, Cedar waxwing, Orange-crowned warbler, Yellow-rumped warbler, Townsend's warbler, Wilson's warbler, Spotted towhee, Fox sparrow, Song sparrow, White-crowned sparrow, Golden-crowned sparrow, Dark-eyed junco, Black-headed grosbeak, American goldfinch, just to name a few birds seen within less than a mile of the proposed site. This does not include sea birds blown in during storms. And yes, I have also seen the four species listed: Turkey vulture (Cathartes aura), mourning dove (Zenaida macroura), California gull (Larus californicus), and American robin (Turdus migratorius). To say that "No wildlife occurs on or within the project site due to the high level of foot and vehicle traffic associated with the operation of the existing Casino back of the house." Shows little understanding of how wildlife has adapted to human presence. I have observed foxes, raccoons, and squirrels, all of whom apparently can adapt to high foot traffic. Were wildlife observations made in day	P3-03 (Cont.
or evening? By whom? And what were the qualifications of the observer?	P3-04
These discrepancies are red flags if other portions of the report are as lax as the wildlife portion. The report on the flora was equally lackluster. Granted there is just a big parking lot there now with a few trees from Miller Farms Nursery which are decorative, not native, but still provide wildlife habitat.	
"The active landslide that currently extends from the southwest corner of the proposed Hotel southwest towards Scenic Drive has the potential to affect the foundation of the proposed Hotel. However, the active landslide is relatively shallow in nature and may be readily stabilized utilizing measures such as retaining wall systems, slope reconstruction, and sub-drainage elements (Section 3.1.6)." If this is, indeed, true, why is Scenic Drive sliding continually and hopelessly into the sea? This is a large, heavy building, and I believe more analysis of the site stability would be a good idea.	P3-0
"While the No-Action Alternative would not result in any of the environmental effects identified for Alternative A, this alternative would not meet the Tribe's objectives of exercising tribal sovereign self-reliance and enhance the well-being of tribal resources; further, this alternative would not meet the Tribe's goal to fulfill self-reliance and promote the future of economic stability and development for the Tribe."	P3-06
To this I say, the Tribe is full of very smart people who are fully capable of considering alternatives	
rather than just "do or die." This project could easily be made viable by modification of various aspects. The height of the building would be the first to consider. There are no buildings of this size anywhere	
north of Eureka, and only a couple there. Water capture might be another area to explore. And providing a transportation aspect which is realistic would help out, too.	P3-07
Sincerely, Unvol & Mone	

Carol E Moné PO Box 223 Trinidad, CA 95570 10/9/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Regarding the massive Hotel project in a town of 400 people



Hall, Harold <harold.hall@bia.gov>

[EXTERNAL] Regarding the massive Hotel project in a town of 400 people

1 message

Patty Stearns <patty@pattystearns.com> To: chad.broussard@bia.gov, harold.hall@bia.gov Fri, Oct 5, 2018 at 10:39 AM

Dear Sirs,

I am writing to protest the planned huge hotel project by the Cher-Ae Rancheria in the tiny little and very pristine town of Trinidad, California. http://trinidad.ca.gov

Surely, you cannot look at this project with any kind of critical eye and go forward. They have planned (and the planning itself is hastily and poorly formulated)

a 100 room hotel , 6 stories high, overlooking Trinidad Bay. In the entire Humboldt County, pop. 100,000, there are NO other 6 story buildings. The Humboldt State University in Arcata has a five story building housing their Behavioral Sciences , and that is it. There are some four story buildings in various places, but really, in a town of 400?? Overlooking arguably the most Scenic area in the country? A protected Marine Reserve? The light pollution alone would be enough to disrupt wild life, let alone all the residents.

I am not protesting a hotel, small, shorter, without the Las Vegas glitz and Hyatt hype (the tribe has been sold a bill of goods). A small hotel, beautifully and carefully crafted

such as the UIHS Potatwat building in Arcata (see attached photos) would be much more in keeping with the spirit of the Native Americans and would be a huge draw.

I beg you to look at this as an opportunity, not a rubber stamp.

Patty Stearns Concerned Trinidad Resident

My return email may show pattystearns99@gmail.com. Either address will come to me directly.

4 attachments



potawat4.jpg 10K



potawat2.jpg

potawot.jpg 12K

P4-01

P4-02

10/9/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Regarding the massive Hotel project in a town of 400 people





potawat3.jpg 12K

P5-05

Regional Director Amy Dutschke Bureau of Indian Affairs Pacific Regional Office Pacific Regional Office Pacific Regional Office 2800 Cottage Way, Sacramento, 2019327 16 AM II: 11	Reg Dir Dep RD Trust Dep RD IS Route Response Required Due Date Memo Ltr Fax	
Re: Environmental Assessment (EA) for Trinidad Rancheria Hotel		
Dear Ms. Dutschke,		
I am writing to express my concerns about the environmental and comproposed Trinidad Rancheria Hotel. The area of where this project is proposed to our family. My family spends a considerable amount of time in Trinadjacent to the town. Our most frequent outing is to Trinidad State Be we take visitors when we have guest from out of town.	proposed is very near and dear aidad and on the beaches	
First and foremost, I think it is necessary for more environmental review more community input. As a nearby Humboldt County resident, I only proposed project about two weeks ago. Most people I have spoken to word about it until an article came out locally on the 4th of October of the comment period closes on the 22nd of this month, and the only we physical mail. Very few people who have concerns about this project wheir concerns heard.	became aware of this locally had never heard a f this year. I understand that by to submit comments if via	P5-01
My greatest concern is that this proposed large hotel would have seriod the local environment. There is already great concern about our local deffluent from septic systems and subsequent pollution from this. The proposed and a huge amount of wastewater on cliffs right above the ocean, would mean that even if this doesn't cause an immediate issue, it likel leach field fails, the bluff on which it rests could become destablized, in the area. Additionally, the EA incorrectly asserts that, "the tribe cur connections as well as its own WWTF" This is incorrect as the Trini Serious errors in information such as this contained in the EA certainly and highlight the need for further environmental review.	beaches receiving too much broposed six-story hotel would Constant erosion of the area by will in the future. If the adding to frequent landslides rently uses city sewer dad has no sewer connections.	P5-02
The town of Trinidad is also known for water shortages, and further to with such a high volume of visitors would certainly increase the impa infrastructure. In addition to current shortages, the state of California frequent and lengthly droughts due to climate change. Committing even water-stressed community seems highly imprudent.	ct on the local water is predicted to face evermore	P5-03
Being a tiny, quaint town, Trinidad doesn't have the infrustructure to la traffic due to the proposed hotel. The EA itself estimates that traffic we at the main intersection in Trinidad. The plan proposes a new freeway accommodate increased traffic, but there is no assurance if a new interchain when this would happen, if it actually comes to fruition.	ould be jammed unacceptably interchange be built to	P5-04
Further, there will be great visual impacts to the town of Trinidad and	surrounding areas. Currently	7 ps 05

the proposal of such a large building will drastically alter the skyline of the area.

Due to all of these concerns and many more, I urge you to require a full Environmental Impact Statement (EIS), and hope that the Trinidad Rancheria considers alternatives to such a large, highly impactful project.

P5-05 (Cont.)

Thank you,

Sara March 707-834-5114

PO Box 385 Bayside, CA

95524



October 16, 2018

Chad Broussard Harold Hall Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825

via email: chard.broussard@bia.gov; harold.hall@bia.gov

RE: Environmental Assessment for Trinidad Rancheria Economic Development Corporation Hotel Development Project

Mr. Broussard and Mr. Hall:

Thank you for the opportunity to comment on the Environmental Assessment (EA) for the Trinidad Rancheria Economic Development Corporation hotel development project ("project"). The mission of the Coalition for Responsible Transportation Priorities (CRTP) is to promote transportation solutions which protect and support a healthy environment, healthy people, healthy communities and a healthy economy on the North Coast of California. Therefore, we address our comments on the EA to the project's transportation-related impacts.

Relationship of the Project to the Proposed Highway 101 Interchange

The EA identifies a proposed new interchange on Highway 101 as a mitigation measure for the project's traffic impacts. In fact, building the proposed interchange has been an objective of the Cher-Ae Heights Indian Community of the Trinidad Rancheria (Tribe) for many years, in order to "support the future growth" of the area, in the words of the Trinidad Area Freeway Master Plan Study Report (Report). In other words, the Tribe views the interchange as a prerequisite for and necessary corollary to the hotel, not a mitigation measure. The two planned developments, hotel and interchange, are inextricably bound and must be considered as a single project under NEPA.

The importance of including the interchange in the definition of the project is highlighted by the fact that it appears likely on its face that the interchange will occupy a bigger footprint and have more impacts than the hotel in many areas of analysis, including land resources, air quality and greenhouse gas, biological resources, transportation and circulation, land use, noise, and growth induction. Identifying the interchange as mitigation for the project and then failing to analyze its impacts is both inaccurate and insufficient under NEPA.

Furthermore, the identification of a potentially significant traffic impact and of the proposed interchange as mitigation for that impact is based on a deeply flawed underlying analysis. The EA cites the Humboldt County General Plan as its source for the metric (vehicular level of service, or LOS) and the significance threshold (LOS C) for traffic impacts. However, the project is not subject to the Humboldt County General Plan and the use of LOS as a measure of transportation impacts is flawed and outdated. Use of LOS leads to mitigation measures which add automobile capacity to the road system; however, there is now a consensus in transportation planning that adding capacity induces new travel and does not effectively reduce congestion. We highly recommend that the literature on induced travel be carefully reviewed and considered. A recent policy brief for the National Center for Sustainable Transportation, appropriately titled "Increasing Highway Capacity Unlikely to Relieve Traffic Congestion," contains a concise summary. The California Governor's Office of Planning and Research also offers a significant set of resources explaining the state's abandonment of LOS in favor of vehicle miles traveled (VMT). In short, using LOS as the basis for measuring transportation impacts is not supported by the best available research, and the project's traffic impact should be measured in terms of VMT instead.

Even assuming *arguendo* that LOS is an appropriate tool for measuring the project's transportation impacts, the Report upon which the EA relies to identify those impacts and subsequent mitigation measures is also flawed and unreliable for that purpose. Although presenting itself as an analysis of transportation infrastructure options for supporting "future growth" in and around the Tribe's lands, the Report admits that the actual "objective of this study is to analyze transportation operations associated with the new interchange" (p.18). In other words, the Report does not identify the interchange as the best mitigation for the transportation impacts associated with the hotel and other planned development, but rather assumes from the outset that the interchange is needed and sets out to justify that conclusion.

This bias is clear throughout the Report. The only intersections projected to drop below LOS C in the Report are those immediately at and adjacent to the existing Trinidad interchange, yet no serious consideration is given to redesigning these interchanges—such as through the use of roundabouts—in ways which could address the perceived traffic problem with much lower costs and impacts than a new interchange. Furthermore, no consideration at all is given to the possibility of eliminating the perceived impact by lowering the number of vehicular trips through transportation demand management (TDM) strategies, through construction of bicycle and pedestrian amenities, or through provision of shuttles for hotel and casino patrons.

P6-02

P6-03

¹ Handy, Susan. October 2015. "Increasing Highway Capacity Unlikely to Relieve Traffic Congestion." National Center for Sustainable Transportation. Available online at

http://www.dot.ca.gov/newtech/researchreports/reports/2015/10-12-2015-NCST_Brief_InducedTravel_CS6_v3.pdf.

² See "Transportation Metrics: Disadvantages of LOS and Auto Delay" at http://www.opr.ca.gov/ceqa/updates/sb-743/.

Projection of Vehicular Traffic Impacts

There are many problematic methods and assumptions in the EA's projections of future vehicular traffic and its impacts. The EA claims at p.1-2 that the project will "reduce visitor trips on local roadways by providing additional overnight accommodations." There is no attempt to justify this assertion, which flies in the face of the logical conclusion that, in the absence of effective mitigation, a major new hotel is almost certain to increase trips. In fact, the EA itself goes on to predict at p.3-25 that the project will increase traffic on Highway 101 by over 600 cars per day (a greater than 6% increase).

P6-05

Effective mitigation of this traffic increase and related impacts would require better bicycle and pedestrian amenities—such as the proposed extension of the Hammond Trail over the Little River to the south of the project—and better transit, such as the provision of a cheap or free shuttle between the new hotel and local transportation centers and other destinations. (Such shuttles are already provided by other local hotels and casinos.) Instead, the EA states at p.3-19 that since there is no public transportation stop at the casino now, there will never be one in the future. This assumption is inaccurate and self-defeating.

P6-06

Finally, the EA's assessment of the air quality impacts of traffic generated by the project is based on the use of "default assumptions for trip generation rates...for residential land uses" in the CalEEMod software program. A hotel is not a residential land use, and traffic projections based on residential trip generation rates are unlikely to be accurate.

Cumulative Impacts

The EA claims that the project's contribution to transportation-related greenhouse gas (GHG) and other emissions is not significant because "technology advancements resulting in an increase in fuel efficiency will, on average, result in a decrease of mobile source emissions" (p.4-2). This is entirely speculative. Future technological advances cannot be accurately predicted. Indeed, at this moment, the U.S. Department of Transportation and Environmental Protection Agency are taking comments on a proposal to roll back previously approved increases in national fuel economy standards.³ Furthermore, the way that future technological changes will affect driving patterns is unknown, but there is a real chance that driving could increase. For all of these reasons, the most reasonable conclusion is that any project such as this one which will measurably increase driving in the short term may also have a significant cumulative effect on emissions in the long term.

P6-07

Additionally, the EA's assessment of growth-inducing impacts does not account for the impacts of the proposed Highway 101 interchange. As Cervero (2003) summed up the research, "real estate development gravitates to improved freeways." Therefore, any freeway development which increases speed or access must be analyzed for growth-inducing effects. And as noted above, the proposed interchange must be considered part of the project for purposes of the EA.

³ See https://www.nhtsa.gov/corporate-average-fuel-economy/safe.

⁴ Cervero, Robert. 2003. Road expansion, urban growth and induced travel: A path analysis. Journal of the American Planning Association 69(2): 145-163.

Finally, the cumulative impact analysis cites a 2012 Humboldt County document as justification for its planning horizon year of 2032. This is unsupportable. The EA cannot adopt a 14-year planning horizon on the basis of a 20-year planning horizon which is now six years old. The planning horizon for the cumulative impact analysis should extend to at least 2038.

In sum, the EA uses the wrong tool to measure transportation impacts, and the proposed interchange is not a necessary mitigation measure for the project. However, if the interchange is to be constructed, it must be considered part of the project and its many impacts analyzed. Additionally, methodological flaws related to the projection of future traffic and the cumulative impacts of the project must be addressed, and mitigation measures including TDM and encouragement of alternative modes of transportation should be adopted. In light of the substantial additional assessment required, we strongly encourage you to prepare an Environmental Impact Statement for the project.

Thank you for your consideration of our comments.

Sincerely,

Colin Fiske

Executive Director

Coalition for Responsible Transportation Priorities

colin@transportationpriorities.org

PACIFIC REGIONAL OFFICE BUREAU OF INDIAN AFFAIRS

2018 OCT 16 AM 11: 17

Sandra Haux P.O. Box 997 Trinidad, CA 95570 Reg Dir
Dep RD Trust
Dep RD IS
Route
Response Required
Due Date
Memo
Ltr
Fax

October 11, 2018

Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825

RE: Environmental Assessment
Trinidad Rancheria Economic Development Corporation
Hotel Development Project

Dear Sirs/Madams;

The town of Trinidad California is a small seaside community (population 311) within the California Coastal Zone. It serves as one of the gateways to the California Coastal National Monument and includes Trinidad Head, a rocky promontory that is designated as California Historical Landmark #146. Due to the outstanding beauty of the harbor and views from Trinidad Head, the mainstay of its economy is tourism.

The Trinidad Rancheria Economic Development Corporation, with a loan from the Division of Capital Investment, proposes to build a 100 room hotel adjacent to its casino on a bluff overlooking Trinidad harbor and within the viewshed of Trinidad Head. Hyatt Place, a non-Indian Corporation, is to be the operator of the hotel.

Thorough review of the Environmental Assessment dated September 2018, reveals many issues that make the Proposed Project untenable. Those issues shall be addressed herein.

Geologic Setting and Seismicity

The Environmental Assessment notes that the Proposed Project lies within a very seismically active area and is within only 500 feet from the McKinleyville Fault. It is also noted that there is a 10% probability for a seismic event within 50 years. Noted is the fact that the project site is not currently mapped for landslides and that landslides are common in the area. An active landslide currently exists below the southwest corner of the proposed Hotel. These factors alone indicate the need for a complete Environmental Impact Statement; the probability of the Hotel collapsing or sliding downslope into the ocean must be addressed.

Soils

Referenced is the fact that the highly erodible soils have already been disturbed due to the prior Casino construction and that liquifaction could occur during periods of sustained high groundwater levels.

Water Resources

City Water Supply – The proposed Hotel anticipates utilizing approximately 18,860 gallons of water per day to be supplied by the City of Trinidad. The personal communication from Buckman, 2017, is insufficient evidence that adequate water supply is available. As noted in

P7-01

P7-02

P7-03

P7-04

Page 2 of 3

the Staff Report: City of Trinidad dated July 6, 2017 by Trever Parker, the City's water supply is limited and the limitations have been made more apparent by recent droughts. Therefore, it is imperative to complete an in depth water supply and demand analysis prior to implementation of the Proposed Project. The analysis should be included in a complete Environmental Impact Statement.

P7-04 (Cont.)

Impacts to Transportation and Circulation

The Environmental Assessment Appendix G demonstrates that, with the additional trips generated by the Hotel and ancillary facilities, intersections on the Main Street corridor and the project entrance on Scenic Drive are forecast to operate at an unacceptable Level of Service (LOS). As indicated in Table 3A of, "Trinidad Area Freeway Master Plan Study Report Year 2040 Base Traffic Operations", all of the study intersections are found to be operating at acceptable LOS under Year 2040 Base Conditions, based on the intersection delay and the corresponding LOS. These findings indicate that the current freeway offramp system is acceptable for the Humboldt County traffic through year 2040 including accommodation of anticipated Hotel traffic, but that the existing intersections on the Main Street corridor and Scenic Drive are unacceptable. Therefore, new offramps must be built to accommodate the Hotel traffic, a costly proposition for California taxpayers that will not serve to benefit the taxpayers, but only the Trinidad Rancheria's financial interests. The Hotel project cannot be separated from the Trinidad Area Freeway Master Plan; the proposed interchanges would definitely require an Environmental Impact Statement.

P7-05

Land Use

Impacts to Land Use – Although land use would not be adversely affected by the Proposed Project, construction of freeway interchanges would adversely affect land use. Eminent domain would need to be exercised to take possession of privately held parcels in order to construct the interchanges. Again, and Environmental Impact Statement is necessary.

P7-06

Wastewater Service

The Rancheria is to be commended for its recycling of approximately 60% of its wastewater. However, it is unknown if the estimated 8,000 gallons of wastewater generated daily by the Hotel and sent to the proposed leach fields would produce saturated soils resulting in contaminated water flowing into the Pacific Ocean or destabilization of the land upon which the Hotel would be located. Also unknown is whether or not the proposed leach fields have suitable soils and are sufficient in size to accommodate the daily wastewater generation. Additionally, development in Humboldt County that necessitates use of leach fields requires alternative leach fields should the primary ones fail. There does not appear to be any proposed alternative leach fields, nor does the site appear to have adequate space for alternative leach fields. A complete Environmental Impact Statement is necessary in order to assess this issue.

P7-07

Electricity, Natural Gas, and Telecommunications

Natural Gas – It is noted that there are existing services for the provision of electricity and telecommunications. However, there is no existing service for natural gas. The natural gas lines end in McKinleyville, a town 7 miles away. New lines would need to be dug for natural gas to supply the hotel. Omission of this detail in the Environmental Assessment is negligent.

P7-08

10/17/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Please don't, RE: Rancheria Hotel C



Hall, Harold <harold.hall@bia.gov>

[EXTERNAL] Please don't, RE: Rancheria Hotel C

1 message

Richard Salzman < richard.w.salzman@gmail.com>

Wed, Oct 17, 2018 at 9:51 AM

To: Amy Dutschke <amy dutschke@bia.gov >, Chad Broussard <chad.broussard@bia.gov >, "\"and Harold "Dan" Hall .\"" <harold.hall@bia.gov>

Please don't do this to our beautiful bay.

Once built this damage can not be undone.

P8-01

Richard Salzman 1751 Charles Ave Arcata CA 95521

707.822.5500 voice 707.845.3700 text 707.825.6600 fax

richard.w.salzman@gmail.com

RichardSalzman.com

10/17/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Trinidad Rancheria Hotel Development Project



Hall, Harold <harold.hall@bia.gov>

[EXTERNAL] Trinidad Rancheria Hotel Development Project 1 message

Charley Custer <charley@asis.com> To: harold.hall@bia.gov

Wed, Oct 17, 2018 at 11:57 AM

PO Box 1003 Redway CA 05560

Dear Mr Hall:

I'm writing to express my concerns with regard to the proposed hotel for the Trinidad Rancheria. The sovereign nations of Humboldt County have been inspirational guiding lights in natural resource management, which I hope will always be true. I am an occasional patron of the Cher-Ae Heights Casino, and my interest in responsible and innovative waste processing has familiarized me with the unique challenges to septic management that local geology has long posed to the community of Trinidad. This beautiful area has not yet developed means to protect itself from waste pollution that is sealed from ground absorption by impermeable clays close to the surface. An Environmental Impact Study is essential for this site, with particular emphasis on the impermeable and tectonically pulverized geology that the Rancheria proposes to build on. The current road to the casino frequently washes out. Develpment will not improve the geology of this biologically protected sensitive zone.

P9-01

Waste management is especially difficult because water for the development would come from a creek already oversubscribed, whose levels drop to critically low levels in the fall when fire danger is greatest. This freshwater contribution to Trinidad Bay obviously figures in the health of many species including endangered salmon living in and dependent on the Bay that defines Trinidad Head, our adjoining National Coastal Monument.

P9-02

This said, I feel the casino itself is surprisingly well integrated into its surroundings, with its restaurant taking beautiful advantage of ocean and coastal views. Yet the casino does not blight views from our magnificent natural features close by, and this too should be a critical consideration in all development planning. Coastal California is uniquely well protected from reckless development across almost all of the state, which increases the value and vulnerability of the Rancheria property. It should continue to be managed with the far-sighted wisdom that generally characterizes tribal sovereignty in Humboldt County, I look forward to this proposal becoming another coastal jewel for us all to be proud of.

P9-03

Meanwhile, I support either a no-build decision, or a comprehensive Environmental Impact Study.

Thank you for your consideration.

Sincerely yours,

Charley Custer

10/18/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Trinidad Rancheria assistance



Hall, Harold <harold.hall@bia.gov>

[EXTERNAL] Trinidad Rancheria assistance 1 message	
Richard Clompus <rclompus@mac.com> To: amy.dutschke@bia.gov, chad.broussard@bia.gov, harold.hall@bia.gov</rclompus@mac.com>	Thu, Oct 18, 2018 at 11:36 AM
Amy, Chad & Harold,	
As a resident of Trinidad, I would like to see members of the Rancheria be hap their business endeavors. I am thankful for the wonderful restoration of the loc the area funded by the Rancheria. Respectfully, I need to share my concerns whotel/casino project presented by the Rancheria.	al fishing pier and improvements made to
 Trinidad Bay has been classified as an area of special biological signific Water Resources Control board. This special marine environment supported the hosts unique individual species. I've attached a few photographs of thousands of tourists each year to the area. 	orts an unusual variety of aquatic life and P10
 Water supply for Trinidad comes from Luffenholz Creek. During some measustainable for the residents of Trinidad and the Rancheria's current progallons of water per day to support the proposed 100 room hotel may not environmental assessment report prepared by consultants for the Rancher the septic system of the town of Trinidad. Unfortunately, Trinidad does not wastewater system and run off may create stability problems along the company. 	perties. The increased demand of 20,000 of be sustainable. The heria incorrectly states the hotel will use not have a septic system. An expanded P10
 Fire protection is very limited in Trinidad. In case of emergency, fire proposed 6 story hotel is over 30 miles away in Eureka, CA. It would tak in case of a fire emergency that could put lives at risk in the casino and 	ke 45 minutes to provide services needed
The Rancheria has shared that the hotel must be 100 rooms. I hope the mana coerced into building such a large capacity airport style hotel that may not be signed to that was sized more appropriately for the available resources and designed to line would help fill it year round with visitors.	sustainable with local resources. A hotel P10

Be well, Richard

Richard Clompus

m 904-501-5309 California

As a recent retiree, I'd like to help the Rancheria be successful with their project. I practiced for 20 years as an eye doctor and then worked with major global companies in professional affairs. The Rancheria could use some assistance in their communication strategy. Here are some views of the Trinidad coastline. It's an honor to be living in such a beautiful area. Thank you for your time and attention. Please let me know you received this email.

10/18/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Trinidad Rancheria assistance







Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825

Attention: Chad Broussard and Harold Hall

Comments regarding the Environmental Assessment (EA) Trinidad Rancheria Economic Development Corporation Hotel Development Project

Dear Mr. Broussard and Mr. Hall,

Thank you for reviewing my comments on this project.

I have resided in Trinidad for 35 years. I regularly run on Scenic Drive past the Trinidad Rancheria. I have concerns about this project. Here are my 4 main concerns.

1. Traffic

Appendix G in the EA report cites traffic studies and grades intersections. The intersection of Main Street and Scenic Drive is my main concern. At AM and PM peak time it currently receives a C and a B grade respectively. It is already a complex, challenging and sometimes confusing intersection. With a hotel added and no Cher-Ae Lane/101 interchange in place it plummets to F and F in 2020. Without the hotel it would be C and C in 2020. With the hotel and the Cher-Ae Lane interchange it would be C and B in 2020. If the intersection is changed with "improvements" it would be a C and C in 2020 with the hotel and without the Cher-Ae Lane interchange. However, this already challenging intersection would become considerably harder to navigate and potentially dangerous.

The study concludes:

Although improvements to Main Street corridor (as noted within the Main Street Interchange Improvements Without Cher-Ae Lane Interchange section) provide acceptable operations with the buildout of the area including the Rancheria Master Plan, we recommend the implementation of the Cher-Ae Lane interchange improvements for the following reasons:

- (1) Improving the Main Street Interchange will require significant right of way acquisition and change the character of the gateway to the coastal community of Trinidad
- (2) Geometry (Close spacing) of intersections on Main Street is undesirable
- (3) Cher-Ae Lane interchange improvements provide superior operations when compared to the Main Street Interchange Improvements
- (4) A new Cher-Ae Lane interchange will reduce travel times by providing a more efficient connection between the Trinidad Rancheria and the US101 corridor

P11-1

My biggest concern is that the hotel goes in, the Main Street/Scenic Drive intersection is "improved", and then the Cher-Ae Lane interchange is completed. Now Trinidad has an "improved" intersection that it no longer needs. The ease of entry into Trinidad and the coastal village feeling of Trinidad have changed for the worse, forever: needlessly and at great expense.

P11-01 (Cont.)

The Cher-Ae Lane interchange needs to be completed before a hotel is built. It is the only responsible thing to do.

It is also important to consider the fragile condition of Scenic Drive and the impact the greatly increased

P11-02

traffic a new hotel will have on its condition.

The Cher-Ae interchange will keep much of the increased traffic off of Scenic Drive.

2. Water

2017-2018 rainfall was a bit below average. However, flow in Luffenholtz Creek, the City of Trinidad's only source of water, is very low. A resident by the creek stated it is the lowest she has seen in over 20 years. One can only assume if 2017-2018 had been a drought year the flow would even be less. There is currently not enough water to provide the additional water for a 100 room hotel. A water line is planned to run north to CalFire from the city's water supply. Others have unused water rights to Luffenholtz Creek. There are a few undeveloped lots in Trinidad. There is no known reason why the water level is so low this year. Many rivers are experiencing lower flows in the summer and fall in recent years.

P11-03

There simply will not be enough water available all of the time to add a 100 room hotel. The Rancheria has stated it has no back up plan for water.

3. Wastewater

I am quoting two parts of the Northstar Preliminary Feasibility Report in Appendix A:

P11-04

"The Assessment accurately points out a concern regarding dispersal field reserve capacity. It states, "An important issue to consider in planning leachfields is potential reserve capacity. Typical leachfield plumbing includes siting 100% reserve capacity so that there is a new leachfield location designated if the initial leachfield fails. This planning is done because leachfields are expected to eventually fail, which means their ability to receive wastewater diminishes. The effluent from the Zenon plant is much cleaner than septic tank effluent, but all leachfields are expected to diminish in performance over time. Figure 5.1 does not account for any reserve

than septic tank effluent, but all leachfields are expected to diminish in performance over time. Figure 5.1 does not account for any reserve capacity. Someday the Rancheria may need replacement disposal capacity which may have to be provided by replacement leachfields or other disposal means."

<u>"I cannot stress enough the need to determine if there is additional</u> dispersal capacity on the site and where this resource is on the Rancheria."

It appears there may be no reserve field available. I asked the Rancheria if there was space for a reserve field at the Rancheria presentation on October 15. Their answer was yes. This needs to be investigated.

The Winzler and Kelly report from 2004 states numerous problems of the septic system. I witnessed one of these firsthand in 2002 on a few of my Scenic Drive runs. The stench was noticeable and concerning. Untreated, or only partially trated water appeared to be going straight into the Pacific Ocean. I notified the Public Health Department.

What will be the operational state of a new, larger wastewater system with the addition of a 100 room hotel, and potentially no reserve field?

4. View

The Rancheria has stated numerous times that the image of the hotel in the EA is inaccurate. However, they have not given *any* description of what it will actually look like. At 6 floors, plus an apparent viewing area on top, plus a possible ground floor, it would be one of the tallest structures in Humboldt County. And it would be in Trinidad, a community of 360! With no information from the Rancheria it is difficult to address the design or lack thereof. There needs to be design review with input from the communities of Trinidad and Westhaven, and especially the neighbors of the Rancheria. There is the possibility of designing something beautiful, unique, and even extraordinary. Since the hotel is going to be large and very visible, make it enhance the natural landscape and be something to be proud of. However, Hyatt would need to buy in on this. What are their standards?

"As part of the lease agreement, Hyatt would provide the design standards for the Hotel to ensure development is commensurate with Hyatt standards and the Tribe's culture"

I respect the right of the Trinidad Rancheria to self-determination. Respecting the land, water, neighbors and neighboring communities will preserve what we all want: a beautiful natural landscape that can be shared and enjoyed by all.

Sincerely,

Alan Grau PO Box 80 Trinidad, CA 95570 trinidadrunner@suddenlink.net P11-04 (Cont.)

P11-05

Larry Goldberg 1225 Stagecoach Rd. Trinidad, Ca. 95570 larry@northcoastca.org

October 18, 2018

Amy Dutschke Pacific Regional Director Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA

Re: Proposed Trinidad Rancheria Hotel Dear Ms. Dutschke:

My comments below address the conerns I have with the proposed Trinidad Rancheria Casino Hotel project as currently proposed:

	t as currently proposed:	
1.	As currently proposed in the Environmental Assessment (EA) for the Trinidad Rancheria Hotel Development Project, I support either a no-build decision or the ordering of an Environmental Impact Study. As submitted, the EA does not describe adequately mitigation measures for various impacts of the proposed hotel development, and thus fails to provide an adequate basis for a finding of non-significant impacts (FONSI) or of non-significant environmental impacts.	P12-01
2.	I have lived in Trinidad for 36 years now and am active in this rural community. I work in the renewable energy industry and have been an environmentalist for the entire time I've lived in Humboldt (40 years now). I am very concerned about what this proposed project is going to do to our community in visual, environmental and infrastructure impacts.	P12-02
3.	I fully support Rancheria self-sufficiency and local economic opportunity, and I could support a smaller scale hotel that is designed appropriately to fit in with the coastal environment. Surely there are more feasible options/alternatives than this concept and design. The EA includes no alternatives to the 6-story, 100-room structure without adequate rationale.	P12-03
4.	A 6-story, 100-room hotel that requires a new interchange from Highway 101 to meet traffic needs, plus tripling the size of the casino, doubling that of the RV park, adding a minimart and gas station in addition to office space and other structures, will convert a quaint and quiet rural coastal fishing village into something less desirable (and certainly something I left behind in the Bay Area).	P12-04
5.	My concerns include: unique and pristine scenic vistas, fragile coastal environment (Trinidad Harbor is a protected biologically sensitive zone), visual impacts from Trinidad, from Trinidad Head (a National Coastal Monument), and from the ocean; light and noise pollution; danger to dozens of species of birds; effect of 19,000 gallons/day in wastewater processing on a sandy bluff already in constant process of slumping; intrusive signage.	P12-05
6.	Water: The project proposes to draw nearly 19,000 gallons/day — the equivalent of 45 single-family homes — from Trinidad's water supply. The source of Trinidad's water is Luffenholtz	P12-06

	Creek. During summer and early fall, and especially during drought periods, water levels in Luffenholtz Creek already fall to danger levels. Concerns about adequate water for current residential users, projected future residential growth, and for fire suppression via CalFire.	P12-06 (Cont.)
7.	Wastewater: The Cher-ai Heights Casino, which is already the biggest single water user on the Trinidad system, claims to recycle up to 40 percent of the water it uses. This is admirable and a positive aspect of any further development atop the bluff. But even at that recycle rate, the hotel would still send some 11,400 gallons per day through leach fields and into aquifers. Excessive groundwater risks cliff erosion/slumping.	P12-07
8.	Traffic: Until an interchange is approved and constructed (completion no sooner than 2026, according to the EA), Scenic Drive will carry all traffic to the casino, the hotel and other new development, as well as to existing residences and popular beaches (Baker Beach, Luffenholtz Beach, Houda Point and Houda Beach). Scenic Drive, parts of which slide downhill every winter, is not designed for that kind of traffic, as the EA acknowledges.	P12-08
experi	apprehensive and careful Environmental Impact Study is needed to engage the public, flesh out copinions regarding water, wastewater, and septic systems, and to evaluate the relationship of the hange to the hotel project.	P12-09

Sincerely,

Larry Goldberg

Larry Goldberg Trinidad resident PACIFIC REGIONAL OFFICE BUREAU OF INDIAN AFFAIRS

2018 OCT 19 PM 4: 59

Gail Kenny
P. O. Box 361
Trinidad, CA 95570
gailqkenny@gmail.coom

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October 14, 2018

Amy Dutschke, Regional Director Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825

Re: Trinidad Rancheria Economic Development Corporation Hotel Development Project Public Comment

Dear Ms. Ditschke:

Based on what I read in the Environmental Assessment for the Trinidad Rancheria Economic Development Corporation Hotel Development Project the environmental impact on the area has not been sufficiently reviewed. The Bureau of Indian Affairs. should do a full environmental review of the Trinidad Rancheria's plan for a 6-story, 100-room hotel for the following reasons:

- The city of Trinidad's water system can't support the increased water needs of an additional 19,000 gallons of water a day for a 100-room hotel. The ability of the City of Trinidad to supply additional water for the hotel project needs to be studied in full detail. Luffenholtz Creek water rights, average water levels during dry periods, and the effect on the Luffenholtz creek smelt and trout fisheries and wildlife habitat needs to be fully studied before this project goes forward.
- It's questionable whether a septic sewage system on an ocean bluff that is susceptible to sliding would be effective for the increased amount of water and sewage for the 100-room hotel. With climate change the Trinidad area has seen years with increased rainfall with the result of increased slides in the ocean bluff areas. There's also potential for the septic system to fail and pollute the watershed.
- Increased traffic would have a great negative impact on the current roads and
 intersections to access the hotel. This could make an already problematic 6-road
 intersection of Highway 101, Westhaven Drive, Patrick's Point Drive, Frontage Road,
 Main Street, and Scenic Drive even more dangerous and confusing in terms of public
 safety and road maintenance. If a hotel this size is built, it should be built after the
 planned freeway interchange for the Trinidad Rancheria.

P13-01

P13-02

P13-03

 The visual impact of a 100-room 6-story hotel on the ocean bluff, which would be the largest building in Humboldt County, is incompatible with our rural community and would mar our scenic coastline. The size of the hotel should be scaled down significantly.

P13-04

• The large number of windows on a 6-story 100-room hotel will have a significant negative impact on migrating and resident birds. Window strikes are the second greatest human-cause of bird deaths. Many birds, including migratory birds, follow the coastline when they travel. Having this large of a building on the bluff could confuse birds who try to fly into the reflections they see in the windows. Nighttime lighted windows can confuse to birds resulting in collisions that harm them. If the hotel is built, it needs to be built with lighting safe for birds and windows birds can see so they don't fly into them.

P13-05

The report only addresses about 6 bird species. The Trinidad area typically sees
many more species than that. Ebird hotspots show between 79-143 bird species
reported between Luffenholtz Beach and Trinidad Head. The bluff area below the
hotel site could be suitable habitat for mountain beaver which little is known about
in the Trinidad area. The Point Arena mountain beaver in Mendocino is a federally
listed endangered species. I live in the City of Trinidad and had a mountain beaver
in my backyard in 1994.

P13-06

Again, this preliminary Environmental Assessment does not sufficiently prove that there won't be any negative environmental impact for this hotel project. A full Environmental Impact Assessment should be made before any decisions allowing the Trinidad Rancheria hotel project to go forward.

Singerely,

Gail Kenny

October 18ASIFIC REGIONAL OFFICE INDIAN AFFAIRS

Bureau of MANACAffars PM 1: 17 2800 Cottage Way Sacramento, CA 95825

Re: Environmental Assessment

Trinidad Rancheria Economic Development Corporation

Hotel Development Project

To Whom It May Concern:

The Hotel Development Project promises to have a substantial impact on community water supply, waste management, traffic control and safety, ecological integrity, as well as visual impacts inconsistent with a truly gorgeous and largely unspoiled coastline.

The Rancheria has presented a comprehensive development plan whose many aspects create a maximum footprint for a hotel site. In order to reach their 100 room goal, the project must push toward at least six stories high, and since other Rancheria needs utilize limited space on the site, the footprint cannot be expanded to reduce the height of the proposed project. Clever architectural forms and "natural" paint colors will not disguise the inappropriately huge presence of the proposed structure. The 100 room goal also presents an extremely high level of usage of very limited local water resources, as well as a sizeable impact on traffic control and safety, and waste disposal.

The issue, therefore, that creates a substantial environmental impact on this geographic area and community is the 100 room goal. It is this goal specifically which pushes the visual height of the project beyond an environmentally acceptable limit, and which will place considerable strain on community water, traffic and other resources.

The 100 room standard will sound impressive in a brochure or an online advertisement, but is it consistent with local environmental and economic reality? Trinidad is far from hi-use state traffic corridors such as Interstate 5; air traffic is limited and unreasonably expensive; Highway 101 is bottlenecked in southern Humboldt County; annual fires and mudslides regularly close access roads such as Highways 199 and 299; winding roads with logging trucks limit travel on access roads such as Highway 36; and unpleasant weather keeps tourists at a distance for much of the year. This suggests that for many months each year the Rancheria will not come close to filling its proposed 100 rooms, but for this lovely and unique setting the negative visual impact of this massive structure will remain. And during those limited periods when maximum occupancy is achieved, the stated impacts are likely to be at unacceptable levels.

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P14-01

P14-02

It is clear from public meetings that the Trinidad community supports the economic wellbeing of the Trinidad Rancheria and appreciates its contributions to the economy and infrastructure of Trinidad. Public resistance to the project is not to a hotel concept per se, but to the scope of the project. Please consider a finding which approves a project of a more limited scope – 50 rooms and three stories, for instance. This would reduce construction and maintenance costs, allow Rancheria economic growth, further their contributions to the Trinidad community, and eliminate public resistance. Such a limited scope would reduce potential environmental impacts including visibility, and especially the impact on water usage during drought years. With a more limited scope the Rancheria actually would gain greater benefits from this proposal.

Thank you for your time and consideration.

Sincerely,

Geoff Proust

712 Westhaven Dr. S. Trinidad, CA 95570

CC: City of Trinidad, City Counsel

P14-03

ACIFIC REGIONAL UREAU OF INDIAN A FAIRS Bureau of Indian affacts: 17 2800 Cottage Way Socramento, la: 95825 Re: Trinedad Rancheria

10-15-18 Dep RD Trust_ Response Required_

To Whom It May Concern,

I am a resident of Irinidad, Ca. and Though I respect the Rancheria's right to build a hotel + the need for income; I am extremely concerned about the impact on our meager water source that such a large 100 room hotel would have on Luffenholtz Creek which on low rain years been basely adequate for the community.

The 2nd concern is the impact of perhaps 100 more Cars entering & exiting the freeway. This area has 2 on ramps & 2 exite plus a 3-way intersection all in the same vicinity. Should Cal Irans approve a new exit off the freeway it would help however impact on the village would be still significant as lodgers from the hotel would surely drive ento this tiny town impacting troffic. Thank you for your consideration.

Respectfully, Dianne J. Rowland 324 mice Creek Ln. Trinidad, Cu. 95570

P15-01

P15-02

P16-01

P16-02

P16-03

We are also concerned about the water that would be needed to support water. We support either a no-build decision or the ordering of an Environmental Impact Study. As submitted, the Environmental Assessment does not describe adequately mitigation measures for various impact for a finding of nonsignificant impacts FONSI) or of non-significant environmental impacts A comprehensive and careful Environmental Impact Study is needed to engage the public, fleshout expert ppinions regarding water, waste water, and septic systems," and to evaluate the relationship of the interchange to the votel project. hanks you for your consideration, Steen and Tami Trump

P16-04

P16-05

Ms. Amy Dutschke

Bureau of Indian Affairs, Pacific Region

2800 Cottage Way

Sacramento, CA 95825

October 15, 2018

Route /// Response Required_

Due Date_____Ltr

ET provide à

Subject: Trinidad Rancheria Proposed Hotel Project

Dear Ms Dutschke.

My name is Jim Cuthbertson, former city councilman and water commissioner. My wife, Sandra, and I live at 840 Van Wycke Street, in Trinidad, California. We are writing to express our concerns around the proposed hotel on the Trinidad Rancheria.

The hotel design as currently proposed is too large in scale, dwarfing the small fishing village of 310 residents. We have no quarrel with the Rancheria building a smaller, more aesthetically pleasing structure that would blend in with the natural beauty of the area. There are many local architectural examples of structures built in harmony with their surroundings.

Trinidad's water supply comes from Luffenholtz Creek which typically slows during the dry season. Water levels in dry summers often fall to dangerously low levels, prompting water rationing for residents. Our limited water supply simply will not be able to sustain the additional 14,000 to 18,000 gallons per day required by the proposed hotel.

We live in a uniquely beautiful area and we must preserve our pristine and fragile coastline. Wastewater is a huge issue, threatening the fragile bluffs and cliff erosion.

We respectfully request that an extensive Environmental Impact Study be conducted to address the issues of fresh water consumption and wastewater treatment on the Rancheria property.

Sarcha Cethherlow

Sincerely.

Jim & Sandra Cuthbertson

P.O. Box 1201

Trinidad, CA 95570

Cc: Trinidad City Council

P17-01

P17-02

P17-03

Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825 Oct. 16th, 2018

To whom it may concern,

I am writing to provide public comment on the proposed Trinidad Rancheria Economic Development Corporation Hotel Development Project in Trinidad, California.

First and foremost, I support my neighbors at the Trinidad Rancheria in their endeavor, developing a hotel that I hope will greatly enhance their prosperity and lives for generations to come.

Like other local residents, I have concerns about the traffic load on Scenic Drive, the water supply and the waste-water capabilities of this location for a large development, but I hope these can be worked out with thoughtful design and consideration.

My main focus here regard the building design, both the physical structure and appearance of the hotel, and that the hotel is energy self-reliant and sustainable.

Trinidad is a place of rare beauty. Most people in the area love and appreciate the wildness and pristine nature – every day I give thanks for my good fortune to live here. Likewise, most of the visitors come because the Trinidad coastline and surrounds are of great natural interest, where you may see whales, elk, osprey and hummingbirds within the same day. The Redwood National and State Parks partnership (our four local parks) attract more than 1.5 million people annually.

I believe this hotel development project could be an opportunity to design an inspirational building that is a tribute to the indigenous tribes of the Rancheria, reflecting their ecological sensibilities, aesthetics, collective experience and outlook on life. An energy self-sufficient building with solar, wind and geo-thermal technologies, incorporated into a design that compliments and reflects this unique and beautiful environment.

A hotel in this location could be designed as something extraordinary, giving visitors an experience of awe and wonder - it would become a destination hotel, drawing people from all over the world. A gateway hotel to the Redwoods that also serves as a heritage site, honoring the rich cultural traditions of the Yurok, Wiyot, Tolowa, Chetco, Karuk and Hupa peoples of the Rancheria.

I am very concerned about the proposed 100-room hotel as put forward thus far, which appears to be intended to primarily service people interested in the Casino facilities. I encourage all involved to think bigger and to create the kind of hotel facility sorely lacking in our region, as suggested here. I believe that there may be much more (financial as well as community) support for such an enterprise if undertaken.

Tourism has not yet spoiled Trinidad, unlike many places in the world and even parts of Ireland, my home country. These are relatively early days for the tourism economy here, and the members of the Rancheria are ideally placed to influence and benefit from future regional tourism and economic development. I think the local community would eagerly participate in and support such a venture — all of us would have somewhere beautiful to encourage friends and family to stay.

P18-01

P18-02

My optimistic hope is that the finished hotel development be of a high quality and site-appropriate design, that members of the Rancheria and local residents alike are proud of, that is an asset to the region. A hotel that because of its structural beauty and integrity, becomes known as one of the Wonders of the World, fitting to the natural wonder of the Trinidad coastline itself, and inspiring all who come to visit.

Attached are photos of local buildings that reflect the architectural sensibilities of some of the Tribes in our area, as visual reference.

Also attached are photos of other interesting building designs, by architect Brian Hemingway whom I contacted recently. He would be quite willing to work as design consultant on a hotel project such as this and his contact information is below. Regardless, I hope the photos of his designs serve as a reminder of what is possible.

I believe that buildings can be extraordinary, so this is my sincere wish for the Trinidad Rancheria Hotel Development Project.

Thank you for your consideration,

Respectfully,

Julie Joynt

(business woman, designer and 20-year resident on Scenic Drive, Trinidad)

170 Scenic Drive,

Trinidad, CA 95570

Phone: 707-677-9007 jujoynt@gmail.com

Contact information for Brian Hemingway (Architect) for your reference:

Brian Hemingway Design Ltd. 395 Burnham Road Qualicum Beach, BC V9K 1G5 Phone: 604-250-1206 hemingwaybrian@shaw.ca www.brianhemingway.com P18-02 (Cont.) DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Trinidad Rancheria Hotel Development



Hall, Harold <harold.hall@bia.gov>

[EXTERNAL] Trinidad Rancheria Hotel Development

1 message

Joyce King <samonely@gmail.com>

Sat, Oct 20, 2018 at 1:52 PM

To: amy.dutschke@bia.gov, chad.broussard@bia.gov, harold.hall@bia.gov

As a 19-yr homeowner in McKinleyville and frequent visitor to Trinidad, I will be astonished if an Environmental Impact Statement is not required for the Trinidad Rancheria Hotel Development project. I am also surprised at the lack of public notice and the short public comment period currently being allowed.

P19-02

P19-01

As you are well aware, this project is being seen locally as a potential threat to the health of important watersheds, local ocean conditions, and wildlife habitat, and to the stability of the steep geology in the project area

On the spectacular coastline from McKinleyville north to the Redwood Parks, Trinidad is a prime destination because of its picturesque harbor, low-impact development, small-town charm, and relatively unspoiled natural environment.

But, its greatest importance, especially to you at the BIA should be its historical significance as the site of one of the first hum an settlements on California's north coast, the Yurok village of Tsurai, which was inhabited for well over 1000 years and one of the last original Native American communities on the Redwood Coast to be occupied. The village is a listed historic site and one of the largest and best-documented coastal Yurok villages.

In contrast, the Trinidad Rancheria, according to its website, was originally composed of homeless members of several different tribes, who were given the 60-ac Trinidad parcel in an early 1900s Federal resettlement program.

P19-03

While remaining Tsurai make visible efforts to maintain and protect what is left of their ancestral land and culture, the Trinidad Rancheria's business and gambling enterprises appear primarily to serve prevailing Euro-centric values and assimilation.

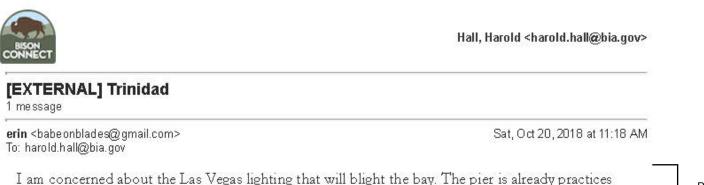
Because of BIA's checkered history, I have to hope that preservation and restoration of Native American culture is a high priority for you. If so, I ask that you seriously evaluate this project's impact on the Native American values and identity which honor their past, and future generations.

It would be a great contribution to our community and travelers from all over the world, to redesign this project to reflect traditional Yurok wisdom and aesthetic, harmonizing with the natural environment, and including a strong educational component to promote respect for the original and longest enduring residents of this land.

Joyce King 685 School Road McKinleyville, CA 95519

10/26/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Trinidad



I am concerned about the Las Vegas lighting that will blight the bay. The pier is already practices carnival style lighting from dusk to dawn.

Erin Rowe

Trinidad

P20-01

10/26/2018

DEPARTMENT OF THE INTERIOR Mail - Fwd: [EXTERNAL] Trinidad Rancheria Hotel...



Hall, Harold <harold.hall@bia.gov>

Fwd: [EXTERNAL] Trinidad Rancheria Hotel...

1 message

Broussard, Chad <chad.broussard@bia.gov>

Mon, Oct 22, 2018 at 9:40 AM

To: Dan Hall <dan.hall@bia.gov>

Chad A. Broussard Environmental Protection Specialist U.S. Department of Interior, Bureau of Indian Affairs, Pacific Region Division of Environmental and Cultural Resources Management, and Safety Office Phone: (916) 978-6165 Cell Phone: (916) 261-6160

----- Forwarded message ------From: Kat Mill < kat@katland.com> Date: Sat, Oct 20, 2018 at 8:46 AM

Subject: [EXTERNAL] Trinidad Rancheria Hotel...

To: <chad.broussard@bia.gov>

Dear Chad.

JUST SAY NO to the Trinidad Rancheria Hotel!

Every time I visit Humboldt, I head straight to the head, Trinidad Head, that is. Please don't ruin it for me, and everyone else who love beauty.

P21-01

Warmly, Kathleen 10/26/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Proposed Rancheria Hotel in Trinidad, CA



Hall, Harold <harold.hall@bia.gov>

[EXTERNAL] Proposed Rancheria Hotel in Trinidad, CA

1 message

Andrea Bustos <andreabustos28@yahoo.com> Sun, Oct 21, 2018 at 11:23 AM To: "amy.dutschke@bia.gov" <a my.dutschke@bia.gov>, "chad.broussard@bia.gov" <chad.broussard@bia.gov>, "harold.hall@bia.gov" <harold.hall@bia.gov>

To Whom it May Concern:

My name is Andrea Bustos and I have been a resident of Trinidad for almost 20 years. I have chosen to raise my daughter here because of the unique childhood she can experience living in a small town amidst natural beauty.

Our drive to school is about 6 minutes to the town of Trinidad. The influx of cars during morning drop off and afternoon pick up create a potential for problems in the small town that doesn't have a stop light. During the summertime, the traffic situation is already affected the number of cars from tourism. Our main intersection once exiting or entering the freeway poses many potential problems for those not used to who has the right of way. I am concerned about the proposed hotel project as it stands at this time. The entire area will change because of it, yes. But most importantly, any traffic improvements (including the new interchange from Hwy 101) should be required prior/simultaneous to the construction of any hotel. I fear for the lives of our local children should an influx of drivers overrun the small town infrastructure as it exists today. We recently had a walk/bike to school day at our school. I would be hesitant to ever let my daughter participate in such an event in the future should there be a rise in the number of motorists from a project such as this. Many tourists that seek a casino destination will be drinking and driving. To ignore or downplay this reality is to turn a blind eye.

In addition, I do not see the current Environmental Assessment addressing the needs of water and wastewater adequately. Do we seek to harm the pristine beauty of the area that is precisely the draw of much of our current and future tourism? There needs to be an assurance that our local resources and watershed will not be negatively affected.

I respect the Rancheria's sovereign rights. I would applaud an environmentally sound project that would celebrate and uphold the unique attributes and culture of this area that we all call home. Why not draw inspiration from projects like the UIHS Potawot Health Village in Arcata? This was a project that seemed holistic and responsible in its planning.

Thank you for listening to my comments.

Sincerely,

Andrea Bustos andreabustos28@yahoo.com P22-01

P22-02

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Proposed Hotel at Trinidad



Hall, Harold <harold.hall@bia.gov>

[EXTERNAL] Proposed Hotel at Trinidad

1 message

Karin Rosman <karinrosman@gmail.com>

Sun, Oct 21, 2018 at 7:42 PM

To: amy.dutschke@bia.gov, chad.broussard@bia.gov, harold.hall@bia.gov

Dear Ms. Dutschke, Mr. Broussard, and Mr. Hall,

I'm writing to express my deep concern over plans as currently proposed to build a multi-story hotel on the cliffs overlooking Trinidad.

I live, work, and raise my family in the SF Bay Area but my children and I spend significant time every year visiting friends and enjoying the beauty in Humboldt County, always including Trinidad. We would be dismayed to see the incomparable beauty of the area marred by an out-of-scale hotel, traffic, tour buses, and the like. The result would likely be that we would avoid Trinidad, instead of spending regular tourist dollars there. My children's grandparents rent a vacation home in Trinidad every year, I'm quite sure they too would take their business elsewhere.

Additionally, I'm concerned about traffic, water availability, delicate sewer system, and erosion of the cliff. The project as proposed seems a bad fit for the location in nearly every way.

I urge you to either abandon this ill-conceived plan or go back to the drawing board completely.

Thank you.

Respectfully,

Karin Rosman El Cerrito, CA

Karin Rosman

P23-01

P23-02

Gina M. Rimson 1850 Archer Rd McKinleyville, CA 95519

Email: ginarimson@gmail.com

Ms. Amy Dutschke Bureau of Indian Affairs - Pacific Region 2800 Cottage Way Sacramento, CA 95825

---via email on October 21, 2018 to amy.dutschke@bia.gov chad.broussard@bia.gov harold.hall@bia.gov

RE: Environmental Assessment Trinidad Rancheria Economic Development Corporation Hotel Development Project

Dear Ms. Dutschke,

I am writing to you to participate in the public comment on the EA for the proposed 100-room hotel on the Trinidad Rancheria in Trinidad, CA.

I have been a resident of McKinleyville since 1983 and have enjoyed living near Trinidad all that time. Before moving to Humboldt County, I studied biology and completed a master's in journalism at UC Berkeley. During my time in college, I worked for the California Coastal Commission in San Francisco and became very familiar with land use planning concepts and our state's environmental review process. Upon moving north, I worked as a reporter for the Eureka Times-Standard, covering environmental issues, including timber harvesting, commercial fishing, development, and planning. More recently I have served 10 years on my local McKinleyville Land Trust board of directors. Land use is very important to me.

The Rancheria has proposed building a 100-room, six-story hotel on a steep bluff above an eroding road that is just above a rocky beach. In turn, the BIA is considering financial support to the project. Both actions – funding the project/leasing the hotel – as well as building the project require further study.

P24-01

I feel the EA is inadequate on several issues, and should be replaced with a full Environmental Impact Statement as required under the National Environmental Protection Act (NEPA). One cannot make a Finding of No Significant Impact based upon this EA.

The EA does a poor job of reflecting the fact that this hotel's feasibility is completely reliant on routing traffic over a non-existent highway overpass/off-ramp. The increase in traffic from the hotel and its employees will cause irreparable harm to the existing inadequate road. The EA fails to adequately address traffic and ingress/egress from the hotel. What if the overpass is not built? How will the hotel's traffic impact the Rancheria residents if the overpass is not built? What will traffic impacts of the hotel be if the Trinidad Rancheria's Master Plan is considered in its entirety? The document fails to address cumulative traffic impacts or any alternatives, or what could happen if the overpass is not built.

The EA fails to grasp the severity of the water and wastewater issues that have yet to be studied or resolved, and fails to contemplate any alternative other than "no action." As an environmental document for a project this size, it is insufficient to evaluate the impacts of this proposed hotel.

The document falsely states that Luffenholtz Creek has adequate supply of water to meet the 19,000 gallons a day needed to supply the proposed hotel. The City of Trinidad has not determined there are adequate supplies to meet the needs of the hotel and the City's other residents. In fact, during times of drought, forbearance is recommended. In a 2004 study for the Trinidad Rancheria by Winzler & Kelly, their own study found..."Due to the known difficulty in locating land on site for a leach field and a shortage of potable water from the City of Trinidad, a water recycling treatment plant manufactured by Zenon was chosen" for the Rancheria at the time of the casino expansion. They knew there was inadequate water and they planned this very large hotel anyway.

The options for disposal of treated wastewater are examined in depth in Appendix A "Preliminary Wastewater Feasibility Report" prepared by North Star Design Solutions on September 29, 2016. This study finds several significant issues relating to the leach fields, but the EA fails to inadequately address those issues or to suggest alternatives.

As for the EA's addressing visual impacts:

4.1.13 VISUAL RESOURCES Cumulative development that takes place would be consistent with local land use regulations, including associated design guidelines and the Tribe's Master Plan. Cumulative effects would include a shift from undeveloped lots to views of developed areas, as well as an increase in the density of urban uses within the City and the Reservation. However, the development of the Proposed Project would be generally consistent with the visual goals of County and City land use regulations and implements the Tribe's Master Plan. Substantial development is located directly to the north of the project site, and the Proposed Project would be consistent with that development. Therefore, there are no cumulatively considerable visual resources impacts associated with the Proposed Project.

P24-02

P24-03

P24-04

The proposed six-story hotel is not in keeping with the county or city's land us regulations. The whole north end of our county has only two other buildings as large as the proposed hotel and they are miles away! The city of Trinidad's land use regulations do not support a project of this size using city water and a leach field (on a steep slope) to dispose of wastewater from a 100-room hotel.

P24-04 (Cont.)

Most neighbors and area residents support the Tribe's proposal to develop its trust land adjacent to its casino. However a 100-room hotel is too large for the proposed site and location. The Rancheria needs to consider an alternative that would be suitable for the project location. A 100-room hotel, bigger than any for miles, would have significant environmental impacts, including visual blight along a part of the California coast that cannot sustain such impacts from oversized development.

P24-05

The size of the hotel is most of the problem. It is not the BIA's fault that the Rancheria has found only one partner – Hyatt Hotels – to join in planning and building a hotel. The problem rests with the financial issues associated with the project. The Rancheria must overbuild on the site, it says, to make the project feasible. We contend the Rancheria is being told what to do by Hyatt. It is Hyatt's profits that are driving the size of the hotel because the Rancheria has failed to find another suitable partner willing to consider a sustainable design that is sized appropriately for the delicate rocky coastline it will overlook. A more suitable partner would take a long-term financial view, as well as take into account the unique and rural setting the Rancheria and surrounding areas enjoy.

P24-06

Lastly, the EA has not shown how the Rancheria's Master Plan would add to the cumulative impacts of the proposed hotel, mini-mart, gas station, and doubling in size of the casino in the future. These are real plans outlined in the Rancheria's Master Plan. That Master Plan relies on a Highway 101 onramp/overpass that is not anywhere close to being planned or approved by CalTrans. The Rancheria and the EA are overly optimistic that this project will be approved and funded by the State of California. Many residents will be impacted by such a highway project and it faces stiff opposition. The EA must address alternative traffic impacts if the highway project is not approved or financed.

As proposed, this hotel project demands a full Environmental Impact Statement. and not the prepared EA, which barely addresses the serious issues, and offers no viable alternatives.

Sincerely, Gina M. Rimson

Email: ginarimson@gmail.com

821 2nd Ave., Trinidad, CA, 95570

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Lir.

Oct. 19, 2018

PACIFIC REGIONAL OFFICE BUREAU OF INDIAN AFFAIRS

Ms. Amy Dutschke, Regional Director 2018 OCT 22 PH 1: 40 Bureau of Indian Affairs - Pacific Region 2800 Cottage Way Sacramento, CA 95825

RE: Trinidad Rancheria Casino-Hotel Proposal

Dear Ms. Dutschke:

I am writing to express my concern over the proposed hotel at the Trinidad Rancheria and the inadequacy of the Environmental Assessment (EA) prepared for the project. There are many shortcomings in the analysis and the proposed project has created controversy within the community and among experts in geology, wildlife, biology, traffic, water supply, and engineering. The assessment presented in the EA is cursory and inadequate. It glosses over major issues, fails to provide a range of alternatives (only 2 are offered, 6-story hotel or no project), and as presented by Rancheria representatives at 2 public meetings in September and October of 2018, the hotel described in the EA and depicted on the Cher'ae Heights Casino web site is only a placeholder and may not represent what is actually built. While it is comforting to know that the hideous and out-of-place design may be modified, it is troubling to think that the BIA is considering approval of the project with a thoroughly inadequate EA. It is clear that an Environmental Impact Statement (EIS) is needed to adequately assess potential impacts and to consider alternatives to the proposed hotel.

Among my concerns for the proposed hotel, possibly the biggest one is the siting of the hotel in geologically unstable terrain. The Trinidad area and the site of the hotel are characterized by the Franciscan formation, a geologic type that includes metamorphic and weakly consolidated sedimentary rock. Locally it is often called "blue goo", an apt description of the soil type frequently associated with the Franciscan formation. Geologists frequently describe this formation as akin to rice pudding - a bunch of raisins floating in a gelatinous mass. The raisins represent large rocks which may be mistaken for bedrock but which are large masses of harder metamorphic rock floating in the mélange (the pudding) of uplifted marine terraces composed of sand, clay, and weakly consolidated rock (sandstone). This formation is characterized by numerous landslides, soil creep, and unstable landforms. A drive or walk down Scenic Drive, over which the proposed hotel would sit, reveals many dips, humps, and slumps in the road, many of which extend all the way from Scenic Drive down to the ocean and in some cases cross Scenic Drive, affecting the bluffs and terraces above. The EA for the project reports that there is a shallow landslide on the southwest corner of the proposed hotel location. The report glosses this over by stating that piles will be drilled into "bedrock". However that bedrock is a floating chunk of metamorphic rock (i.e., a raisin in the pudding) that is mischaracterized as bedrock. In addition to the unstable geology and numerous incidence of landslides in the project area, the project fails to analyze the impact of sea level rise on slope stability and the potential for translation of that instability upslope. With minimum sea level rise predicted to be 18 inches by 2050 and up to 60 inches or more by 2100, we can expect an exacerbation of slope instability,

P25-01

P25-02

including the landslide that reaches the southwest corner of the proposed hotel, as waves erode higher up the slope and cause slope adjustments to the over-steepening caused by wave erosion. Placing a hotel at the proposed location is ill advised. The EA does not adequately assess slope stability and because of the differing opinions of experts, an EIS must be prepared to more thoroughly assess the proposed hotel location in regards to geologic stability.

P25-02 (Cont.)

The EA is also inadequate in assessing the ability of the City of Trinidad to provide the estimated 19,000 gallons per day of water the hotel will require. The City is currently conducting testing to determine the maximum volume of water that the plant can produce. The City has had many problems with its drinking water treatment facility and there are times during the rainy season when turbidity in the creek and in the City's raw water intake (intake pipes buried in a gravel journal within the bed of Luffenholtz Creek) exceeds the level of turbidity that the system can treat, meaning the City has to rely on the reserves in its water tanks until it can process water to refill the tanks. While a member of the Trinidad Volunteer Fire Department I witnessed an event where a City water line broke during a hard freeze, draining the water tanks and creating a water emergency. Such an event left the City extremely vulnerable for a fire emergency. Adding a 100-room hotel to the system would put many people in peril in such a situation. If it happened once, it can happen again. The project does not adequately address worst case scenarios yet common sense dictates that planning must consider the worst case, which the EA does not.

P25-03

The project should be planning for the driest possible water year, such as the drought of 1976-77. A drought of similar proportion today would require the City to use all of its allocation to supply existing customers. The City also has an obligation to provide water to un-built lots within the City and to customers within its service area. The assumption that the City can provide the 19,000 gallons per day at all times of year and in all types of water years is speculative and not supported by the data. In fact the data suggests that the City may not be able to provide the 19,000 gallons per day during summer low flow periods, and definitely not during extreme drought conditions. With global warming it is predicted that our weather will become warmer and dryer and more frequent and severe droughts should be anticipated. The EA does not address the worst case scenario and is inadequate in its assessment of the City's ability to provide the required water. A more thorough analysis, which the City is currently conducting, needs to be completed before approving the proposed hotel. A better analysis of alternatives, including rain water collection, water storage, and reducing demand needs to be conducted. The EA is woefully inadequate in this regard and indicates the need for an EIS.

P25-04

system, which does not exist. A 2004 wastewater investigation conducted by Winzler & Kelly, consulting engineers, notes that there have been problems with the existing leach fields serving the casino, including construction of decks, a driveway, and a large above ground swimming pool over septic tanks. Only 7 of 25 septic tanks have access ports, meaning they cannot be inspected nor pumped out as is required for regular maintenance of a septic system. Other

problems identified in the report include high ground water levels, inadequate setbacks from steep slopes and bluffs, inadequate stream setback, unstable landforms, and shallow depth to

The EA contains misleading and contradictory information about how waste water will be treated. At one pint the EA states that the proposed hotel will connect to the City's sewer

P25-05

bedrock. Adding another 19,000 gallons per day into leach fields will overwhelm the ability of the leach fields and result in polluted water being discharged into waters of the United States. Even if the hotel achieves 20% recycling as stated, the approximately 15,000 gallons per day released into leach lines will add a significant volume of water into the groundwater, potentially further destabilizing slopes, contaminating ground water, and potentially releasing contaminated water into Trinidad Bay. A more thorough analysis and consideration of alternatives needs to be conducted. Again, this points to the need for an EIS.

P25-05 (Cont.)

The visual impacts of the 6 story hotel are significant and cannot be mitigated. The Trinidad Coast is popular because of its scenic beauty. Trinidad Head and the offshore rocks in Trinidad Bay have been designated the California Coastal National Monument (CCNM) because of its scenic values, the wildlife supported within the CCNM, and the unique attributes of the coast line. There is no mitigation for the visual impacts of a 6-story hotel in the proposed location. Since no alternatives are provided other than the no project alternative, the no project alternative has to be selected, or an EIS needs to be conducted to consider other alternatives, such as siting the hotel on the east side of the Rancheria (near the freeway), reducing it from 6 stories to a maximum of 3, developing a more aesthetically pleasing design, and or planting a vegetative screen. The proposed hotel is totally out of character for the scenic and lightly developed setting in which it is proposed. A hotel design based on traditional Native American style construction, such as seen at Potawot Village in Arcata, could be developed to blend in with the landscape and not present an eyesore such as the proposed design does. Rancheria representatives have stated at public meetings that the depiction on the Casino's web site is just a place holder and not necessarily what the final design will be. Given the outstanding visual characteristics of the surroundings, this is not adequate for assessing visual impacts and the logical conclusion is to reject what is proposed, submit an architectural plan that represents what is proposed to be built, develop a suite of alternative designs to consider, and prepare an EIS that adequately addresses the visual and aesthetic impacts – or reject the project outright due to the unmitigatable impacts.

P25-06

Impacts to wildlife are not adequately assessed in the EA. There are numerous studies that indicate glass windows are a major hazard to birds because of the reflective nature of windows that hides the glass from the birds, making it appear that there is open sky rather than a glass window. Up to 100 million birds per year die due to collisions with windows. The proposed location of the hotel is in an area of many roosting and nesting trees and in a location where birds migrate on a daily basis to and from the ocean. The proposed hotel would have a significant negative effect on birds but the EA does not assess the effect. Again, an EIS is needed to address the impacts to birds and wildlife.

P25-07

The EA also states that no water of the US are located on the project site, yet there is a perennial stream less than 100 feet north of the proposed hotel location. The creek was routed into a pipe and filled over to build the parking lot, perhaps that is why it was not recognized as a creek. After the creek was filled in and the parking area was built over it, sinkholes developed in the parking lot because the Rancheria did not have to follow California Fish & Game code, and did not follow standard engineering criteria for clean fill and compaction, nor obtain a streambed alteration agreement (SAA). Had a SAA and preparation of a CEQA document (need to obtain a

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SAA) been required, the California Department of Fish & Wildlife, the State Water Quality Control Board, the Coastal Commission, and the Army Corps of Engineers, all entities normally consulted and commenting on projects, would not have approved the project. Although the creek does not provide habitat for salmon, it has the potential to provide habitat for the torrent salamander and other aquatic species and amphibians. The EA does not address impacts to aquatic habitat and this deficiency needs to be corrected in an EIS.

P25-07 (Cont.)

The EA does not adequately address the impacts on traffic. The addition of a 100 room hotel will add a significant volume of traffic to Scenic Drive from both clients and staff. The Rancheria has obtained a grant from the California Transportation Commission to prepare designs and analysis for a freeway interchange to service the casino and proposed hotel yet that project is not addressed in the EA, even though the two are inextricably linked. The interchange will have significant impacts yet it is supposed to mitigate traffic impacts of the proposed hotel. The Rancheria's plans include future additions of a gas station, RV park, convenience store, and other facilities that are not addressed in the EA. This is splitting the project into smaller components to avoid analysis of the cumulative effects of all the proposed actions and would not be permissible under State law. This points to the need for an EIS to consider all related projects so the cumulative impacts are identified, considered, and mitigated.

P25-08

To summarize, the EA insufficiently assesses water supply, waste water treatment, visual impacts, geologic issues, traffic, impacts to biological resources, and alternatives. An EIS is required to address these deficiencies or the no project alternative needs to be selected.

Thank you for considering my comments.

Sincerely,

Don Allan

DonAllan

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DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Comments re Cher-ae Heights Hotel and expansion project



Hall, Harold <harold.hall@bia.gov>

[EXTERNAL] Comments re Cher-ae Heights Hotel and expansion project

1 message

emelia berol <emeliabee@yahoo.com.sg> To: amy.dutschke@bia.gov Cc: chad.broussard@bia.gov, harold.hall@bia.gov Mon, Oct 22, 2018 at 3:58 PM

Ms. Amy Dutschke Bureau of Indian Affairs - Pacific Region, 2800 Cottage Way Sacramento, CA 95825 (916) 978-6041

October 22, 2018

Re: Trinidad Rancheria Casino Project I have a number of concerns regarding the proposed Cher-ai Heights Casino expansion and hotel project that have not been adequately addressed, in my view. I lived in Westhaven from 1981 through 1991, and my children attended Trinidad Elementary school. I walked, ran, and drove Scenic Road hundreds of times. I still live in the area (McKinleyville) and continue to hike the trails around Trinidad to this day. Irarely drive on Scenic Drive, however, as it is one of the worst roads I have ever encountered. I have traveled mountain P26-01 roads in Mexico, northern India and Bhutan, the famed Hana Road on the island of Maui, and countless backroads throughout the U.S. — but truly, nothing compares in fragility to Scenic Drive. Out of respect for the residents of Scenic Drive, I avoid adding any further impact. So my first objection to the hotel project is that there would be any further impact to Scenic Drive, any at all. The hotel should not be constructed until the proposed highway access is completed and functioning. Anything short of this is unfair to the residents of Scenic Drive , for whom Scenic Drive is the only access to their homes. Secondly, I am concerned about the increase of water use by the casino, and the increase of wastewater on those bluffs.

I understand that the casino recycles a significant amount of the water it uses, but it is currently the biggest water user in Trinidad's limited water system. I do not believe this is a wise use of a limited resource, as it is one which would potentially exclude current and potential future residents from a sufficient water supply. The oddly scarce water supply in the area has had the effect of limiting growth for decades, so I found it hard to believe that this project has the approval of all the regulating agencies.

Additionally, without increasing the current recycling rate the hotel would add thousands of gallons daily into the fragile leach fields and bluffs above a protected area. Trinidad Harbor is a protected biologically sensitive zone. The recycling rate would need to be doubled, or even better, increased to 100%. The creeks which flow into the bay and ocean along the Trinidad coastline are already impaired by pollution.

There needs to be an Environmental Impact Study. The EA failed to provide an adequate basis for a finding of nonsignificant environmental impacts. The described Mitigation measures are not sufficient. Not only should impacts to the extraordinary fishing off Trinidad be considered, but as a birder I am very concerned about what the impacts of wastewater from a hotel this size might do to shorebird populations. I believe the hotel project that is currently proposed could do serious damage to the hundreds of species of shorebirds that occur throughout the year.

My third objection to the proposed hotel is the design itself. I am not opposed to the idea of a hotel, that is accessed from the highway, but a super urban looking six story hotel that stands out like a vertical glass vault is totally unacceptable. It is completely out of touch with its environment, and with the 21st century. With all the glass it is perhaps a new modern take on the same old ugly, antiquated, visually offensive, environmentally and aesthetically insensitive construction model that has been ruining beautiful coastlines all over the world since the 1960's. Seriously, I expect more from my fellow local citizens.

My son, Josiah R. Cain, is a landscape architect, green designer, and hydrology engineer with the firm, Sherwood Engineering, in San Francisco. He has the skills, knowledge and vision to help with some better design ideas. He grew up

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P26-03

P26-04

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in Trinidad, and is interested in what is going on here. I highly recommend that the tribe contact Sherwood Engineering for a consultation.

In conclusion, I wish the tribe well with their project, but strongly urge an environmental impact study, a more innovative and integrated structure design, and no hotel until the highway access is completed.

Thank you for considering my comments,

Sincerely, Emelia Berol 4133 Central Ave. McKinleyville, CA 95519 (707) 499-4233 emeliabee@yahoo.com.sg

Amy Dutschke <amy.dutschke@bia.gov>; Chad Broussard < chad.broussard@bia.gov >; Harold "Dan" Hall < harold.hall@bia.gov >.

P26-05 (Cont.)

BUREAU OF INDIAN AFFAIRS
2018 OCT 22 PM 1:39

J. Bryce Kenny Attorney at Law P.O. Box 361 Trinidad, California 95570 Telephone: (707) 442-4431 Email: jbrycekenny@gmail.com

Reg Dir All Dep RD Trust Dep RD IS Route DECRMS Response Required Dite Date Ltr Pax

October 18, 2018

Amy Dutschke
Pacific Regional Director
Bureau of Indian Affairs
2800 Cottage Way
Sacramento, CA 95825

Re: Proposed Trinidad Rancheria Hotel

Dear Ms. Dutschke:

The Humboldt Alliance for Responsible Planning (HARP) is an unincorporated association of Humboldt County residents who are interested in sound governmental planning that preserves the rural, unhurried, uncrowded lifestyle available to Humboldt residents, which includes unspoiled scenic views, abundant wildlife, clean air and water, lack of traffic jams, and the responsible expenditure of taxpayer's money in ways that do not compromise those values. It has approximately 200 members.

HARP appreciates the opportunity to comment upon the Environmental Assessment (EA) for the proposed project.

These comments will focus on the ways in which the EA recently prepared for the Trinidad Rancheria Hotel Project is deficient, in HARP's opinion. A recommendation will be made that either the subject project should not be built, or a joint Environmental Impact Report (EIR) and Environmental Impact Statement (EIS) should be required.

The subject EA describes both the "proposed actions," loan guarantee and lease approval, and "proposed project," the construction of a six-story 100 room hotel to

be owned by the Trinidad Rancheria, and leased to the Hyatt Regency for operation.

P27-01 (Cont.)

In summary, these comments establish that:

- ➤ The Bureau of Indian Affairs (BIA) should be preparing an Environmental Impact Statement in compliance with CEQA, because the Rancheria agreed in its Gaming Compact to do that;
- ➤ The EA is not complete until it has been independently verified that the project is financially viable and thus eligible for a federal loan guarantee and lease approval;
- ➤ The EA is Defective Because it Fails to Consider the Cumulative Impacts of the Proposed Hotel Along With the Construction of a new Freeway Interchange and Foreseeable "Buildout;"
- ➤ The EA is Defective in That it Does not Consider Reasonable Alternatives;
- ➤ The EA is Defective in That it Does not Adequately Consider Waste Water Disposal Issues;
- > Visual and Scenic Impacts Cannot be Mitigated;
- ➤ The EA is Defective Because it Erroneously Assumes That the City of Trinidad has Enough Water to Supply the Proposed Hotel;
- ➤ The Hotel Should not be Built on Geologically Unstable Land;
- ➤ The EA is Defective in That it Does not Adequately Consider Biological Impacts.

BIA's NEPA Guidebook Procedures do not comply with the Code of Federal Regulations (CFR) by explaining the criteria for and identification of those typical classes of action which normally do require Environmental Impact Statements.

P27-03

P27-02

The CFR's that implement the National Environmental Protection Act (NEPA), require each federal agency to promulgate its own regulations about how to

conduct environmental review of proposed and qualifying federal actions or projects. The Bureau of Indian Affairs (BIA) has done that with its Indian Affairs National Environmental Policy Act Guidebook, but it does not live up to its name. (hereinafter Guidebook).

40 CFR Sec. 1507.3 states in pertinent part, and with emphasis added:

Agency procedures. (a) Not later than eight months after publication of these regulations as finally adopted in the Federal Register, or five months after the establishment of an agency, whichever shall come later, each agency shall as necessary adopt procedures to supplement these regulations.

(b) Agency procedures shall comply with these regulations except where compliance would be inconsistent with statutory requirements and shall include: (1) Those procedures required by Secs. 1501.2(d), 1502.9(c)(3), 1505.1, 1506.6(e), and 1508.4. (2) Specific criteria for and identification of those typical classes of action: (i) Which normally do require environmental impact statements. (ii) Which normally do not require either an environmental impact statement or an environmental assessment (categorical exclusions (Sec. 1508.4)). (iii) Which normally require environmental assessments but not necessarily environmental impact statements.

Despite a thorough search, we have not been able to locate anywhere in the BIA Guidebook where clearly stated are the "[s]pecific criteria for and identification of those typical classes of action: (i) Which normally do require environmental impact statements." But the Guidebook does provide general guidance on when an environmental impact should be considered "significant," and these comments use those criteria to argue that the proposed action here is in fact within the class of actions that normally do require an Environmental Impact Statement (EIS). We believe that any reasonable person would find that conclusion to be self-evident. The criteria are stated in the Guidebook at Sec. 7.5 as follows, in pertinent part and with emphasis added:

7.5 SIGNIFICANCE OF EFFECTS An action must be analyzed in an EA to determine if an action will have a significant effect. **The** evaluation of significance is critical because it determines if

P27-03 (Cont.) further NEPA analysis will be required in an EIS. Significance has specific meaning in NEPA analyses and requires the consideration of two key elements: context and intensity (40 CFR 1508.27), (1) Context. This means the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, for a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short-term and long-term effects are relevant. (2) Intensity. This refers to the severity of effect. The CEQ regulations (40 CFR 1508.27(b)) include the following ten considerations for evaluating intensity: Impacts that may be both beneficial and adverse. The consideration of intensity must include analysis of both beneficial and adverse effects, not just a description of the net effects. Only a significant adverse effect triggers the need to prepare an EIS. The degree to which the action would affect public health and safety. For example, evaluation should include hazardous and solid wastes, air and water quality; and their relation to public health and safety. Unique characteristics of the geographic area. These generally include historic or cultural resources, parklands, prime farm lands, wetlands, wild and scenic rivers and ecologically critical areas. Degree to which effects are likely to be highly controversial. Controversy in this context means disagreement about the nature of the effects, not expressions of opposition to the proposed action or preference among the alternatives. Substantial dispute within the scientific community about the effects of the proposed action would indicate that the effects are likely to be highly controversial. Degree to which effects are highly uncertain or involve unique or unknown risks. The Responsible Official must exercise some judgment in evaluating the degree to which the effects are likely to be highly uncertain and whether the risks are unique or unknown. Degree to which the action may establish a precedent for future actions with significant impacts. The decision may allow future actions to take place or implies approval of a future action. Whether the action is related to other actions with cumulatively significant impacts. Analyze the effect of past, present, and reasonably foreseeable future actions. Degree to which properties eligible or listed on the National Register of Historic Places are adversely affected. Significance may arise from the loss or destruction of

P27-03 (Cont.) significant scientific, cultural, or historical resources. For resources listed in or eligible for listing in the National Register of Historic Places, significance depends on the degree to which the action would adversely affect these resources. Degree to which threatened or endangered species and their critical habitat are adversely affected. Significance depends on the degree to which the action would adversely affect species listed under the Endangered Species Act or their designated critical habitat. A determination under the Endangered Species Act that an action would adversely affect a listed species or critical habitat does not necessarily equate to a significant effect in the NEPA context. However, any "jeopardy opinion" must be considered significant. Threaten violation of Federal, State, or local law or requirements imposed for the protection of the environment. This factor will often overlap with other factors: for example, violations of the Clean Water Act or Clean Air Act would usually involve effects that would adversely affect public health and safety

P27-03 (Cont.)

When these highlighted criteria are applied to the information in the EA, it is clear that the proposed construction of a massive hotel on the edge of pristine Trinidad Bay is within the class of projects that typically require the preparation of an EIS. These comments will argue that first, the hotel should not be built at all, and second, a joint EIR/EIS should be done that covers both the proposed freeway interchange and the proposed hotel.

A. The EA is Inadequate Because it Measures the Project Against the Wrong Standard

The BIA uses the National Environmental Protection Act (NEPA) as the standard against which to measure the proposed hotel. That is incorrect, because the Rancheria was required by its own Gaming Compact, signed by it on September 10, 1999, to either adopt its own environmental law that was at least the equivalent of NEPA *and* CEQA, or CEQA would become its law by default. Because the Rancheria did not adopt its own environmental law, CEQA, as interpreted by the California courts, is the standard against which this project must be measured.

P27-04

The Compact, pertinent portions of which are attached as Exhibit 1, states in Sec. 10.8.1, in relevant part:

On or before the effective date of this Compact, or not less than 90 days prior to the commencement of a Project, as defined herein, the Tribe shall adopt an ordinance providing for the preparation, circulation, and consideration by the Tribe of environmental impact reports concerning potential off-reservation environmental impacts of any and all Projects to be commenced on or after the effective date of this Compact. In fashioning the environmental protection ordinance, the Tribe shall make a good faith effort to incorporate the policies and purposes of the National Environmental Protection Act *and* the California Environmental Quality Act consistent with the Tribe's governmental interests.

The term "project" means any significant renovation or modification of an existing Gaming Facility or any significant excavation, construction, or development associated with the Tribe's Gaming Facility.... Sec. 10.8.1(c).

The term "Gaming Facility" includes "all rooms, buildings, and areas, including parking lots and walkways, a principal purpose of which is to serve the activities of the Gaming Operation...." Sec. 2.8.

Thus, there can be no doubt that the proposed hotel is a "project" for the purposes of the environmental law that the Rancheria was supposed to adopt.

Sec. 10.2.1 of the Compact provides as follows:

The Tribe shall adopt, and not later than 30 days after the effective date of this Compact, and shall make available upon request the standards described in subdivisions (a)-(c) and (e)-(k) of Section 10.2 to which the Gaming Operation is held. In the absence of a promulgated tribal standard in respect to the matter identified in those subdivisions, or the express adoption of an applicable federal statute or regulation in lieu of a tribal standard in respect to any such matter, the applicable state statute or regulation shall be deemed to have been adopted by the Tribe as the applicable standard.

Sec. 10.2 (f) requires the compliance with all tribal codes regarding "health and safety." Environmental regulations are an exercise of a government's police power to legislate for the general health, safety and welfare of the people. Its scope properly includes the ordinances that were supposed to have been adopted under Sec. 10.8 to protect the environment. Sec. 10.2.1 gave the Rancheria the option of

P27-04 (Cont.) adopting its own environmental ordinances, adopting federal regulations that cover the same subject, or accepting the applicable state statute or regulation. Because it did nothing to adopt an environmental protection ordinance to promote public health and safety, it is deemed to have adopted CEQA, the applicable state statute.

We know that tribal gaming expansion requires compliance with the requirements of Tribal/State Gaming Compacts. AES, the consultant that prepared the subject EA, has prepared many of EA's for tribal projects. For example, AES prepared the EA when the Pasqual Band of Mission Indians did their Valley View Casino Expansion Project in January 2018. In the Notice of Availability of the environmental document, obtained from AES's web site, it is specifically stated that "An Environmental Evaluation that assesses the potential for off-reservation environmental impacts from the expansion project has been prepared consistent with the Tribe's Environmental Impacts Ordinance and the Tribal-State Gaming Compact." (Exhibit 2)

Like the Pasqual Band, the Trinidad Rancheria is bound by the terms of its Compact to adopt an environmental impacts ordinance and measure gaming expansion projects, like the subject one, against it. If it does not pass its own ordinance, the applicable state statutes applies, in this case CEQA. The subject EA is defective in that it does not recognize that, by default, CEQA is the standard against which the proposed project is to be measured.

While NEPA and CEQA have many similarities, they are not the same. This is illustrated in the case of Nelson v County of Kern (2010) 190 Cal.App.4th 252, 283, where the federal Bureau of Land Management had conducted an EA for a proposed surface mining operation on federal land and then issued a Finding of No Significant Environmental Impact (FONSI). Despite that, the Court of Appeal ordered the preparation of an Environmental Impact Report (EIR) under CEQA, noting that for many projects, both NEPA and CEQA apply. If CEQA did not impose a higher standard than NEPA, it would make no sense to order an EIR after a FONSI had already been issued.

A respected treatise on planning has noted: "Unlike CEQA, NEPA does not require federal agencies to implement feasible mitigation measures or adopt environmentally superior alternatives identified in an EIS. Accordingly, NEPA has been interpreted by the federal judiciary as being an 'essentially procedural' statute." California Land Use, Environmental Review and Mitigation Sec. 13.61 (CEB 2015) citing Vermont Yankee Nuclear Power Corp. v Natural Resources Defense Council (1978) 435 U.S. 519.

P27-04 (Cont.)

The subject project is actually at a good juncture to conduct review under both NEPA and CEQA, because the construction of a hotel is only one component of the Rancheria's master buildout plan, which, as discussed in detail below, includes the construction of a freeway interchange that would allow interstate traffic to exit directly from the freeway to the casino and hotel, a result expected to boost patronage at the casino. (EA at 2.1)

P27-05 (Cont.)

CEQA has a provision for joint review under NEPA and CEQA. <u>Nelson v County of Kern</u>, <u>supra</u>, 190 Cal.App.4th at 282-283. The BIA should contact the California Department of Transportation (CalTrans) about coordinating their review of the hotel and the freeway interchange together as one project.

B. The Proposed Federal Action is Unwarranted Under the Circumstances Present Here

The first proposed federal action is the issuance of a loan guarantee to the bank that is loaning the Rancheria the money to build the hotel. The loan guarantee is essentially a bail out promise. The loan guarantee program is implemented by the BIA's Office of Indian Energy and Economic Development (IEED) through its Division of Capital Investment (DCI). A November of 2017, Report by the Office of the Inspector General found that the loan guarantee program was not under effective controls to ensure that the government's largess was not abused. (Pertinent excerpts at Exhibit 3.)

P27-06

It is hard to believe that the DCI has taken a serious look at the viability of the subject loan, because if it had, it would know that the region in which the subject hotel is proposed for is already saturated with Indian casinos with hotels. As shown in Exhibit 4, approximately 18 miles southeast of the Trinidad Rancheria is the Blue Lake Rancheria's casino and hotel. Approximately 22 miles south of the proposed hotel is the Bear River Rancheria casino and hotel. Approximately 40 miles east of the proposed hotel is the Hoopa Valley Tribe's casino.

P27-07

Approximately 8 miles north of the proposed hotel, the Big Lagoon Rancheria has been struggling mightily to build a casino and hotel. Further north and just across the Klamath River, is the Yurok Tribe's casino and hotel. Further north still is the Smith River Rancheria casino and hotel. How may casino hotel resorts can a region of less than 160,000 people support? Not as many as it already has, and that is evidenced by the fierce competition that is taking place between the rival tribes and rancherias.

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A thorough feasibility study of the proposed hotel would reveal that the collapse of the marijuana market taking place with legalization is hitting the gambling industry hard. Since the casinos first appeared in Humboldt County in the mid-nineties, their best customers were pot growers who had lots of cash and were ready to party P27-08 and spend it. Those days are gone now, and the gambling industry is feeling it. The Rancheria wants to "double down" using someone else's money to finance their dream project in a no-lose scheme secured by taxpayer dollars. The loan guarantee program is supposed to be governed by 25 CFR Sec. 103 et seq. Under Sec. 103.17(d), the lender is required to have copies of all environmental studies for construction required under NEPA and any tribal laws. P27-09 As mentioned previously, the Rancheria is supposed to have its own ordinance that is the equivalent of CEQA, which it does not have. Sec. 103.26 requires the BIA, among other things, to ensure that the borrower (Rancheria) has a business plan, including resumes of all principals, market P27-10 factors, the borrower's market strategy, a detailed list of the collateral for the loan, and the methods of valuation. Where are these documents? The 2017 Report by the Solicitor General was precipitated by a scandal involving a loan guaranteed for the Lower Brulte Sioux Tribe which borrowed at least \$20 million to purchase a Wall Street firm that eventually failed, becoming worthless. (Exhibit 5.) The loan was guaranteed by the BIA. Regional Director Dutschke must be absolutely certain that the concept of moral hazard has been rooted completely out of the DCI, as the Solicitor General doubtlessly intended, before she approves this questionable loan. The temptation to act recklessly is strong when it is known that there is a bailout at the end of the tunnel if things go bad. The preparation of an EIR and an EIS for the hotel project will ensure that there is P27-11 adequate time to take a careful ("hard") look at the financial feasibility of it before federal action occurs approving it. It should also be noted that providing a loan guarantee is inimical to the modern federal governmental philosophy of tribal "self-determination." In a free market world of self-determination, a project that cannot attract capital without the lender receiving a loan guarantee from the federal government shows that there is something wrong with the project. If the Rancheria were truly engaging in "self-

determination," it would not need the federal government to guarantee repayment of its loan. It would be able to rely on itself, and so would a lender. The EA states

that without the guarantee, "...it is highly unlikely that the Tribe could secure the loan necessary to develop the [h]otel." (EA 2.3)

P27-11 (Cont.)

The approval of a lease between the Rancheria and Hyatt is also a federal action that triggers NEPA review. This is another area where it must be asked whether the BIA has taken a close look at the potential financial risks. What is going to be the term of the lease? If it is only in the vicinity of five years, then it can be seen that Hyatt is setting itself up to be able back out of the project if it is not as successful as its optimistic proponents claim it will be. What will then become of this behemoth of a building? What else could it be used for?

P27-12

This is another issue that can be closely examined with an EIR/EIS.

C. The EA is Defective Because it Fails to Consider the Cumulative Impacts of the Proposed Hotel Along With the Construction of a new Freeway Interchange and Foreseeable "Buildout."

Section 7.5 of the Guidebook states in relevant part:

The CEQ regulations define cumulative effects as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions" (40 CFR 1508.7). The purpose of cumulative effects analysis is to ensure Federal Responsible Official considers the full range of consequences of the proposed action and alternatives, including the No Action alternative.

P27-13

Of major concern is the failure of this EA to evaluate the relationship of the Hotel, the proposed full Rancheria build-out, and the proposed new US Hwy 101 interchange and overpass to service the development. This EA acknowledges that the Hwy 101 interchange and overpass are essential to service the Project (EA 3.7.2), yet the Rancheria and CalTrans are currently supposed to be considering twelve options plus no-build to address "the transportation needs of the Trinidad Rancheria and the surrounding community."

¹ Alternatives 2 and 3a, PSR

² (pg 1, 2017 US-101 / Trinidad Area Access Improvements. The Trinidad Rancheria and Caltrans District 1 are working in partnership to identify alternatives to meet the transportation needs of the Trinidad Rancheria and the surrounding community. This PSRPDS identifies 12 alternatives to address

The proposed new freeway interchange is "reasonably foreseeable" within the meaning of the Guidebook and the CFR because it has already advanced to the P27-13 stage of a Project Study Report-Project Development Report (PSR-PDR) issued by (Cont.) CalTrans in December of 2017. In fact, an interchange as a component of this project is more than "foreseeable" it is inevitable, because, as the EA concludes at E-18, it is required if the traffic consequences of the hotel are to be legal. The hotel and interchange will be within ¼ mile of each other. Each will have the effect of drastically changing the look and feel of the area around the Rancheria. And together, their impact becomes greater than the sum of their parts. Currently, P27-14 when driving on Highway 101 between Westhaven and Trinidad, there is the pleasant illusion that one is driving through a temperate rainforest. The effect of this is soothing and a wonderful foil for all the other assaults upon the senses that can occur when one is in more urbanized districts. And the feature that is most prominent Scenic Drive, the north-south road that the hotel will be built right above, is the breathtaking scenery provided by the rocky coastline of "sea-stacks," part of the California Coastal National Monument, and P27-15 views of Trinidad Head, a popular destination which rises 350 feet with direct views of the proposed Project. A boxy high-rise building looming above such splendor will be incongruent and jarring to the senses. Taken together, the Project as currently configured telegraphs the message that this area too, despite its uniqueness compared to California in general, is subject to the ravages of human greed. There is no way that a rational decision maker could consider that such impacts can be mitigated to the level of insignificance. P27-16 This raises important questions about piece-mealing multiple interrelated projects to avoid revealing growth-inducing and cumulative impacts, as well as whether the Hwy 101 interchange and overpass have already been determined to be essential to the Hotel Project, as "assumed" in the EA (3.7.2), essentially designating Options 2 and 3a, the overpass and interchange, as fait accompli.³ (EA 3-18).

the transportation deficiencies between the unincorporated community of Westhaven and the City of Trinidad.

³ "The BIA understands that the Tribe is currently undergoing consultation with Caltrans to complete this interchange. This new interchange may be located approximately 0.7 miles south of the Main Street interchange. "For the purposes of the analysis a tight diamond interchange is assumed at the new interchange, which is referred to as the Cher-Ae Lane interchange. A two-lane overcrossing is assumed

A review of this EA by the Executive Director of a local transportation coalition observes: "[t]he importance of including the interchange in the definition of the project is highlighted by the fact that it appears likely on its face that the interchange will occupy a bigger footprint and have more impacts than the hotel in many areas of analysis, including land resources, air quality and greenhouse gas, biological resources, transportation and circulation, land use, noise, and growth induction. Identifying the interchange as mitigation for the project and then failing to analyze its impacts is both inaccurate and insufficient under NEPA."4 Although the EA predicts a 6% increase in Highway 101 traffic related to the Hotel Project, it claims, without justification, that the project will "reduce visitor trips on local roadways by providing additional overnight accommodations."⁵ Absent intentional management of vehicle circulation with shuttles and non-motorized options, hotels invariably increase traffic. P27-18 HARP incorporates by reference the comments by the Coalition for Responsible Transportation Priorities on the topic of Transportation and Circulation. A true copy is attached hereto as Exhibit 6. It is worth noting that several of the Alternatives in the PSR, including the preferred Alternative 3, require acquisition of private property for rights of way, with a cost range up to \$5.5 million.⁶ P27-19 The traffic analysis employs Level of Service (LOS) to gauge traffic needs, rather than Vehicle Miles Travelled (VMT). LOS has been censured under California's EQA because it fails to adequately consider non-motorized options and exaggerates road expansion needs.⁷

with all-way stops at the two ramp locations. Easterly extension of Cher-Ae Lane past the interchange to intersect at a "T" intersection with Westhaven Drive is also assumed." (E-18, EA)

Complicating matters further, Humboldt County's LCP prohibits construction of

⁴ Fiske, Colin, CRTP Review of the Trinidad Rancheria Hotel EA, 10/18

⁵ EA pg 1-2 and 3-25

⁶ Project Study Report, US 101 / Trinidad Area Access Improvements 01-HUM-101 PM 98.4/100.7 PSR-PDS, December, 2017, pp 19 & 24 for example. Right of Way costs on page 1.

⁷ Governor's Office of Planning and Research, Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory http://www.opr.ca.gov/ceqa/updates/sb-743/

"new roadways, highway overcrossings, or interchanges in the project area."8

Community and expert review of these contingent aspects of the Hotel Project will obviously require considerable expertise.

Failure to properly consider cumulative impacts is grounds for remanding a decision for further consideration. One recent IBIA case states: "Because the cumulative impacts of operating dual clinics and daycare centers apparently were never considered, we conclude that the FONSI is not supported by the record." County of San Diego and Viejas Band of Kumeyaay Indians v Pacific Regional Director Bureau of Indian Affairs, 58 IBIA 11, 34 (2013).

The "rule of reason" governs the agency's discretion in preparing environmental documents, such as an EA. <u>Dept. of Transportation v. Public Citizen</u>, 541 U.S. 752, 767 (2004) ("[I]nherent in NEPA and its implementing regulations is a 'rule of reason,' which ensures that agencies determine whether and to what extent to prepare an EIS").

The EA attempts "bootstrap logic" when it reasons that the construction of the freeway interchange will mitigate the traffic impacts caused by the construction of the hotel. (EA 3.7.2) The interchange purportedly is justified to "[r]elieve projected traffic congestion associated with planned future development." (No. 3, Purpose and Need, CalTrans PSR-PDS) This circular logic does not meet the "rule of reason" that must be utilized in an EA.

The area that the hotel will adversely affect with additional traffic is the intersection of Scenic Drive and Main Street in Trinidad. (EA 3.7.2) That area is not on the Rancheria property. Recall that the Rancheria is required by its Gaming Compact to have passed its own environmental ordinances at least as stringent as

considerable. A community impact assessment is anticipated." (pg 15, "Further Environmental Effort"

Attachment H Preliminary Environmental Analysis Report (PEAR)

P27-20 (Cont.)

P27-21

⁸ "Land Use and Community Impacts: The project is located entirely within the Coastal Zone. The project conflicts with the Humboldt County General Plan-Volume II:Trinidad Area Plan of the Humboldt County Local Coastal Program, which does not allow for construction of new roadways, highway overcrossings, or interchanges in the project area. If necessary, Local Coastal Program amendment would require certification by the California Coastal Commission, which also has appeal jurisdiction over County and City coastal development permits. Local Coastal Program amendment could add approximately 18-24 months to the coastal development permit processes. Public controversy regarding the project may be

CEQA to prevent "off-reservation" impacts. This points out the need for an EIR/EIS that considers both the hotel and the interchange together. An EIR is being prepared by CalTrans. It can and should be expanded to become an EIR/EIS.

P27-22 (Cont.)

The "Rancheria Master Plan Development" (EA 11) refers to the plans to expand the casino from its current 50,000 sq. ft to 150,000, the RV park from 22 spaces to 50, and office space from "minimal" to 100,000 sq. ft, with retail and community space adding another 75,000 sq. ft, not including a 6-pump gas station. A new interchange and overpass along Highway 101 are integral components of this announced "build-out." Thus, this "build out" is definitely foreseeable, connected to the hotel, is casino-related, and therefore subject to a cumulative impacts analysis with an appropriate planning horizon at least to 2038.

P27-23

D. The EA is Defective in That it Does not Consider Reasonable Alternatives

"BIA not only must analyze the reasonably foreseeable environmental consequences of the proposed action, but must also examine reasonable alternatives to the proposed action and their environmental consequences."

Neighbors for Rational Development, Inc. v. Albuquerque Area Director, 33 IBIA 36, 43 (1998).

In that case, the EA discussed five alternative projects which included different sites, reduced project size, larger development size, other site use alternatives, and no action. Id. at 38. The same should be done here.

P27-24

The subject EA only considers the hotel as proposed and the "no project alternative." It attempts to justify this unreasonable approach by declaring that "[o]ther potential alternatives to the Proposed Action, such as reduction in the size of the area for development or alternative locations, do not meet the definition of "reasonable" under the CEQ's Regulations for Implementing the NEPA because the purpose and need [of the proposed project] would not be met." With no substantial evidence to support it, the EA concludes that downsizing the project would render it unprofitable. (EA 2.1)

Common sense dictates, and thus the "rule of reason" requires, an examination of smaller hotels in place of the proposal. If the numbers in fact confirm that a smaller hotel is not feasible, then the alternative can be rejected. But to completely

leave out the step of examining such an alternative cannot be squared with the "rule of reason."

P27-24 (Cont.)

Therefore, a joint EIR/EIS is warranted.

E. The EA is Defective in That it Does not Adequately Consider Waste Water Disposal Issues

In <u>Voices for Rural Living v Acting Pacific Regional Director Bureau of Indian Affairs</u>, 49 IBIA 222 (2009) the issuance of an EA and mitigated FONSI on the action to take land into trust for the Shingle Springs Band of Miwok Indians was appealed to the Board. Once the land was in trust status, the Tribe had plans to build a new health clinic and six units of housing on the land.

Like the instant hotel project, the health clinic proposed to use onsite sewage disposal by way of septic tanks and leach fields. For some curious reason, the EA in Voices was much more comprehensive than the one here.

For example, the sewage disposal system proposed in the <u>Voices</u> EA would be designed and built to local county standards. <u>Id.</u> at 229. The administrative decision actually discussed the technical aspects of the disposal system, pointing out that "the maximum loading rate for the project site is 0.02 gallons per day (gpd)/square foot (ft), which is less than the lowest US EPA prescribed loading 2 rate." FONSI at 5. The Regional Director also explained that the combined use of septic tanks with the conservative loading rate assures that "a significant effect to water quality does not occur." Id. at 230.

By contrast, the subject EA is silent about where new leach fields to support the hotel would be located, and does not discuss the "maximum loading rate" at all. The EA relies upon a 2004 study attached to the EA as Appendix A, much of which is restated in a Preliminary Feasibility Report (PFR) by Northstar, of Chico, California, dated September 29, 2016. Of particular interest, is that the existing "community dispersal field," which currently serves the casino, the tribal offices, and some of the houses on the Rancheria, has a long-term capacity which is unknown. (PFR at 3.) Without explanation, the report simply assumes that "... the Rancheria completed the cleaning and evaluation of the existing dispersal field [and that it] still has the capacity to disperse 10,000gpd as designed. (PFR at 4.) Thus, this important finding is supported by no evidence at all, substantial or otherwise.

P27-25

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Adding to the pollution and over-wetting risks is the fact the 10,000 gpd discharge P27-26 falls short of the approximately 15,090gpd calculated discharge based on the (Cont.) 18,860gpd water intake for the Hotel, minus the estimated 20% recycle rate. (EA 2.2.1) The Report further states, confusingly, that the 2004 Assessment identified two potential areas that may be feasible for dispersal, the "... mounded ridge to the south of Ter Ker Coo Lane and the hillside south of the Tribal Office where the P27-27 existing dispersal field was installed." (PFR at 5) Doesn't the fact that the existing dispersal field was installed on one of the sites mean that there is actually only one potential site left? No areas are designated in the EA, but the report estimates "an additional 40,000 to 60,000 square feet of land would be required to install additional P27-28 dispersal fields. This does not include full replacement area for dispersal field replacement."9 Rainwater will be diverted into swales, but the combined effects of leach field and rainwater is inadequately addressed, a substantial omission in light of the correlation between groundwater and landslides: "[t]hese studies show that groundwater is a primary initiator of landslides in the area." ¹⁰ Independent geotechnical investigation of the active landslide extending from the southwest P27-29 corner of the proposed Hotel southwest towards Scenic Drive is therefore appropriate, because "[G]roundwater, a major contributor to the slope's instability, moves through the terrace deposits and emerges where the shale bedrock is exposed."11 The PFR at p. 7 recommends a long list of things to be done before it can be fully understood whether the plans for wastewater disposal are actually going to work, P27-30 and concludes at p. 8 with the statement "[i] cannot stress enough the need to determine if there is additional dispersal capacity on the site and where this

⁹ Preliminary Feasibility Report for Trinidad Rancheria Cher-Ae Heights Facility, Nick Weigel P.E. 9/16, Appendix A, EA, 9/18

¹⁰ 4.2 Scenic Drive Slope Stability Explorations, pg 3, Draft Geotechnical Feasibility And Preliminary Design Report, November 8, 2016, Appendix B

¹¹ EA 3.1.2, pg 3-3

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P27-34

resource is located on the Rancheria. The size and location of these areas will have a significant impact on the design and associated costs with the dispersal component in the system." The lack of fundamental knowledge about the current functioning of the (Cont.) "community dispersal field" and whether additional suitable areas even exist points to the existence of the need for a combined EIR/EIS before it can be known whether the hotel wastewater will have a substantial effect on the human environment, and whether and how such impacts can be mitigated. Somewhat shockingly, in the 2004 Assessment it is stated that an "ocean outfall" pipe may be the solution if leach field capacity proves to be inadequate. (EA, Appendix A, E-5) This would be giant step backward to the days when coastal industries, like the Eureka pulp mills, just piped their waste offshore where it was out of sight and out of mind. If an ocean outfall pipe is still being considered, implications to the federal Clean Water Act must be considered in a joint EIR/EIS. P27-31 When compared to the EA done in Voices it is clear that the subject EA is woefully inadequate in its treatment of the wastewater issue. For that reason, a joint EIR/EIS should be done and Humboldt County's Department of Environmental Health should be consulted and asked to certify the Rancheria's waste water disposal system, to create parity with the measures taken in the Voices case, supra. F. Impacts to Visual and Scenic Resources Cannot be Mitigated F.1. A six-story hotel is incompatible with the natural scenic values of the coastline P27-32 near Trinidad, CA, and there is no way to mitigate this project so as to produce less than significant effects on visual resources. The proposed Rancheria hotel development would take place in one of the most scenic coastal locations in California. Trinidad is California's smallest coastal city, a quaint fishing village in the midst of oceanic splendor enjoyed by thousands of P27-33 tourists, surfers, kayakers, and local residents. The visual aesthetics of Trinidad

Head, the Trinidad Bay environment and the Scenic Drive coastline along which the proposed hotel would be constructed are unmatched in California, although these assets are downplayed in the EA. The Trinidad Bay kelp beds is a California

Area of Special Biological Significance (ASBS), which carries with it strict

P27-34 (Cont.)

requirements to minimize runoff of toxic materials into the Bay. As noted in Section 3.13.1 of the EA, Trinidad Head is a California historic landmark. Not noted in the EA is that the federally-owned portion of Trinidad Head was recently added to the California Coastal National Monument (administered by the Bureau of Land Management), in recognition of its nationally significant scenic values. The Trinidad Head trail is used by many thousands of tourists each year. Many vistas of the coastline viewed from the Trinidad Head trail include the location of the existing casino and would, if built, include views of the proposed hotel.

It is difficult to imagine visual resources or possible adverse impacts on visual resources from proposed developments from written descriptions, so we instead provide a few illustrative photos. Figure 1 displays a kayaker's view of the Trinidad Bay setting, facing south east and looking toward the site of the proposed 6 story hotel. Figure 2 provides a view of Trinidad Harbor and the coastline along Scenic Drive looking south southeast from a location just above the beach boat launch site in Trinidad Bay. Figure 3 provides a view of Trinidad dock, Trinidad Bay with fishing boats, and of the coastline along Scenic Drive. Notice that there is a modest level of private home development around and to the north of the Rancheria property, but that the coastline is moderately pristine and undeveloped south of this location. When viewed from upper elevations on the Trinidad Head trail (Figure 4 panorama shot), the Rancheria casino facility, as it exists today, is a prominent disruption of the natural landscape.



Figure 1. View from kayak in Trinidad Bay, facing southeast toward the location of the proposed six story hotel. Photo credit Jeff Self.



Figure 2. Photo of Trinidad Bay, coastal rocks, and coastline along Scenic Drive. Existing casino complex is visible above Scenic Drive. Photo taken just above beach launch site on Trinidad Bay. Photo credit: Richard Clompus.

P27-35 (Cont.)



Figure 3. View of Trinidad dock, Trinidad Bay, during summer fishing season, and the coastline along Scenic Drive. Photo taken from the lower elevation of Trinidad Head, facing southeast. Existing casino complex is visible above Scenic Drive. Photo credit: Ted Pease.



Figure 4. Coastal panorama shot of landscape along Scenic Drive, looking east-southeast from higher elevation of Scenic Drive. Note that the existing Rancheria casino facility is highly visible from Trinidad Head. Photo Credit: David Hankin

Although federal buildings and those built on tribal trust lands do not fall under the direct jurisdiction of California state land use regulations, it is important to note that the California Coastal Act requires coastal development to "fit in" with the

P27-35 (Cont.)

P27-36 (Cont.)

natural landscape: "The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting." Generally, structures in excess of 30 feet in height are considered to be incompatible with highly scenic areas. 13

The EA proposes a six-story 100 room hotel in a highly scenic coastal location and the "illustrative" structure that is provided in the EA is reproduced as Figure 5, to serve as a dramatic visual contrast with the scenic natural landscapes displayed in Figures 1 through 4.



Figure 5. "Placeholder" illustration of a six-story Hyatt Place hotel from EA.

(https://archive.org/details/CaliforniaCoastlinePreservationAndRecreationPlan/page/n0)

¹² Sec. 30251 (chapter 3, Coastal Act),

¹³ ibid;, 3.40 B3c2

A structure like the one displayed in Figure 5 is clearly incompatible with the scenic natural coastal landscape. At the 27 September 2018 informational meeting held at the Trinidad Town Hall and hosted by HARP¹⁴, and also at the 15 October special meeting of the Trinidad City Council, at which Rancheria members provided further background on the proposed hotel project¹⁵, numerous heartfelt and mutually reinforcing public comments were made concerning the adverse impacts that a six-story hotel would have on visual resources. All such comments, without exception, were to the effect that a six-story structure was completely incompatible with the scenic landscape illustrated in Figures 1 through 4.

At Section 3.13.1, the EA recognizes that the proposed six-story hotel would be viewed from Trinidad Head, and would have significant adverse effects on visual resources, but in Section 3.13.2 the EA concludes that mitigation measures would reduce these effects to less than significant:

"The proposed Hotel would impact the overall coastal aesthetics of the project site. Mitigation measures would require features to soften the visual impact and allow the proposed Hotel to blend into the scenery and adjacent existing Casino so that the Proposed Project would not result in any adverse effects to scenic resources. Residences to the east, west, and south may have views of the Proposed Project, but the Proposed Project would be adjacent to the existing Casino. Incorporation of mitigation measures in Section 3.13.1 would reduce effects to visual resources to less than significant."

The proposed mitigation measures in Section 3.13.3 include:

"Design elements shall be incorporated into the Proposed Project to minimize visual impacts of buildings and associated structures, including landscaping that compliments buildings and parking areas, with setbacks and vegetation consistent with existing landscaping. Earth-toned paints and coatings shall be used, all exterior glass shall be non-reflective and low-glare, and signs and facades shall be designed with a non-reflective backing to decrease reflectivity."

(Cont.)

P27-38

¹⁴ Casino hotel project concerns neighbors. NorthCoast Journal. 04 October 2018. https://www.northcoastjournal.com/humboldt/casino-hotel-project-concerns-neighbors/Content?oid=11296234

¹⁵ Hotel project sparks debate. Times Standard. 16 October 2018. https://www.times-standard.com/2018/10/15/ets-l-rancheria-1016/

HARP believes that the proposed mitigation measures could not possibly mitigate the visual impacts of a six-story structure on the visual landscape to a "less than significant" level, and it was clear from public comments that HARP's opinion is shared by many other members of the local community (see footnotes 3 and 4 above). One rhetorical expression comes to mind (with a Wikipedia explanation):

P27-38 (Cont.)

To put "lipstick on a pig" is a rhetorical expression, used to convey the message that making superficial or cosmetic changes is a futile attempt to disguise the true nature of a product or person.

A six-story structure is simply incompatible with the natural landscape, no matter how it is painted, whether or not its glass windows are reflective, no matter what the color of lipstick that is applied.

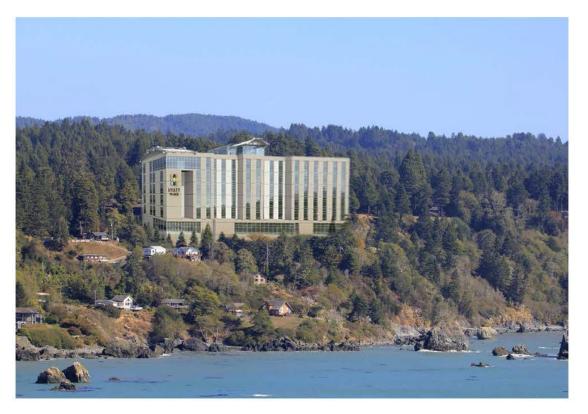
Perhaps the most obvious method to illustrate the incompatibility of a six-story structure with the natural coastal landscape is to superimpose such a structure on the panorama displayed in Figure 4. Figure 6 displays such a superimposition.



P27-39

Figure 6. An illustrative 6 story hotel superimposed on the coastal panorama photo at the location of Trinidad Rancheria's existing casino. Pastel paints and non-reflective glass would not mitigate the visual impacts to less than significant. Panorama photo: David Hankin; hotel image superimposed by Tim Sheppard.

If one imagines being in a kayak in Trinidad Bay, paddling across from the existing casino complex, the view with six story hotel imposed would look like that in Figure 7. No words are needed to dramatize the incompatibility of the proposed 6 story structure with the natural landscape.



P27-39 (Cont.)

Figure 7. Photo of the current location of Trinidad Rancheria casino facilities, taken from Trinidad Head, with proposed six story hotel superimposed in front of the existing casino, facing Trinidad Bay and Trinidad Head. Photo credit: Richard Clompus.

Sec. 7.5 of the BIA NEPA Guidebook provides that "[s]ignificance varies with the setting of the proposed action. For instance, for a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole." The setting here is one of the most visually stunning coastlines in California. Thus, it takes less of an intrusion to constitute real significance than it would take in say, Santa Barbara, where development is much denser. The same section also says that "[u]nique characteristics of the geographic area" should be considered when evaluating "significance." "These generally include historic or cultural resources, parklands, prime farm lands, wetlands, wild and scenic rivers and ecologically critical areas. The Trinidad Bay kelp beds is a California Area of Special Biological Significance (ASBS), which carries with it strict requirements to minimize runoff of toxic materials into the Bay.

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Likewise for the "[d]egree to which properties eligible or listed on the National Register of Historic Places are adversely affected. Significance may arise from the loss or destruction of significant scientific, cultural, or historical resources. For resources listed in or eligible for listing in the National Register of Historic Places, significance depends on the degree to which the action would adversely affect these resources."	P27-40 (Cont.)
As the attached photographs indicate, the hotel would have a major impact on, among others, the view from Trinidad Head, a completely "unique" place in all of California, which is also a California Historic Landmark. Taken together, these factors compel the conclusion that the EA's declaration that these impacts can be mitigated does not pass the "rule of reason" which every EA must meet under Dept. of Transportation v. Public Citizen, 541 U.S. 752, 767 (2004) ("[I]nherent in NEPA and its implementing regulations is a 'rule of reason,' which ensures that agencies determine whether and to what extent to prepare an EIS").	P27-41
As noted elsewhere in our letter of comment, we reiterate that no alternatives to the proposed action were described or evaluated in the EA with the exception of the "no action" alternative. The proposed action consists only of construction of a six-story 100 room hotel adjacent to the existing casino and facing out on the coastal landscape, fully viewable from the ocean and from Trinidad Head by many thousands of residents, fishermen and tourists every year. If pursued, this proposed action (construction of six story hotel) would clearly have significant negative impacts on visual resources. The contention that proposed mitigation measures could somehow reduce these impacts to less than significant is an unsupported and unsupportable contention.	P27-42 P27-43
We also note that the "No Action" option affords the opportunity for returning to the drawing board to develop a project that is more consistent with Tribal members' visioning during the 2009 and 2011 focus groups, in which there was universal preference for low profile, rural, culturally consistent hotel and build-out designs over multi-story urban motifs, such as this Project proposes. We urge you to review the Comprehensive Community-based Plan of the Cher-Ae Heights Indian Community of the Trinidad Rancheria's "The Community Image Survey" ("A Tool for Public Participation in Planning"), in which participants graded 40 images that depicted pastoral, rural, and urban graphics. (https://www.lgc.org/wordpress/reports/trinidad_rancheria/TR_Comprehensive_Plan_Final-Dec2011_web.pdf).	P27-44

F.2 Other Issues Associated with Visual Resources

HARP also wishes to express concern about two other visual issues that receive little attention in the EA. First, at both of the local public meetings noted in this section of our letter, individuals expressed concern about how the existing casino lighting has already materially changed the night landscape for many Trinidad area residents who reside near the existing casino. The casino apparently exudes a "bright glow" in the evening, in contrast to the near absence of night lighting along our coastline. More attention needs to be given to minimization of any additional contribution to this recognized issue with current casino operation.

Second, we wish to express concern about signage for the proposed hotel. Signage does not seem addressed anywhere in the EA, but it certainly ought to be. If a 100 room hotel is indeed developed, then it seems certain that freeway signage as well as signage within the City of Trinidad will be developed by the Trinidad Rancheria. In the EIS that we argue is absolutely needed for this proposed project, we believe that signage must be considered and that public input must be sought to prevent outcomes like Figure 7 which are incompatible with natural landscape values within the coastal zone.



P27-45

Figure 7. Electronic sign advertising Bear River casino-hotel along highway 101 near Loleta, CA. Reproduced from https://www.times-standard.com/2015/08/06/bear-river-caltrans-settle-electronic-billboard-issue/

P27-46 (Cont.)

G. The EA is Defective Because it Erroneously Assumes That the City of Trinidad has Enough Water to Supply the Proposed Hotel

There are two distinct water supply issues raised in the EA. Issue 1 concerns the magnitude of the water need at the proposed 6-story 100 room hotel. Issue 2 concerns the ability of the Trinidad City water system to supply the hotel's water needs without having adverse impacts on other obligations that the City has to provide water to other users.

Based on our reading of the EA and our understanding of the data provided in the EA, we conclude that the water needs of the proposed 6-story, 100 room hotel will be substantial (from 15,088-18,860 gallons per day (gpd). The EA contends that this substantial water need, equivalent to about 45 average residences, could easily be satisfied by the City of Trinidad's Luffenholtz Creek water supply. The logical basis of this contention is seriously flawed, however, and the conclusion that there would be "no adverse effect on municipal water supplies" is unsupported.

Below we first summarize our understanding of the probable water needs of the hotel (Issue 1). We then summarize our concerns regarding the availability of water for the proposed hotel and the possible adverse implications of delivery of this water for other entities requesting water service from the City of Trinidad at present and in the future (Issue 2).

G.1 Water Need.

Section 2.2.1 of the EA states that "Water demands for the Hotel and accessory components would be approximately 18,860 gallons per day (gpd)." In this same Section it is stated that "Construction of a 100-room Hotel would result in the need to treat and dispose of approximately 10,000 gallons of wastewater per day" and that "Recycled water would be utilized for toilet flushing within the Hotel, accounting for approximately 20 percent (2,000 gpd) of the proposed Hotel wastewater generation rate." Figures concerning recycling of treated wastewater are presented for the Rancheria's casino which is stated to recycle 60% of treated wastewater back into casino toilets. Because the casino provides no lodging for its customers, however, it would be unreasonable to expect a 60% recycling rate for

P27-47

the proposed hotel. Indeed, the EA appears to propose a 20% treated wastewater recycling rate for the hotel.

Assuming that water needs of the hotel are indeed 18,860 gpd and that 10,000 gpd will need to be treated and disposed of, it is reasonable to ask "what happened to the missing 18,860 – 10,000 gpd"? If the hotel can effectively recycle 20% of its treated wastewater and recycle it for use in toilets, and the hotel needs are 18,860 gpd, then the daily wastewater treatment need of the hotel would be approximately 18,860 – 0.20*18,860 = 15,088 gpd which would then be equivalent to the **net** daily water need of the hotel. That is, there must be a *balanced daily water budget*, with water supplied to the hotel and disposed from the hotel on a daily basis generally being equal to one another, while accounting for a 20% recycling rate for toilets. The EA's stated need to dispose of only approximately 10,000 gpd of wastewater would require a recycling rate of 47%, a rate that is considerably greater than the 20% recycling rate stated for recycling of treated waste back to hotel toilets.

P27-48 (Cont.)

There is further evidence in the EA that 18,860 gpd is, in fact, the estimated daily water need for the hotel. In Section 3.10.1 of the EA it is stated that "The City has permits to use approximately 355,392 gpd of water. However, they are currently only using approximately 82,191 gpd (Buckman, 2017)." And at Section 3.10.7, the EA states that "The Proposed Project would use approximately seven percent of the City's available water supply, increasing the City's total water usage to approximately 30 percent of available capacity. (Buckman, 2017)." These statements are consistent with the following calculation: City's current available water supply = 355,392 gpd – 82,191 gpd = 273,201 gpd, and 18,860 gpd/273,201 gpd = 0.069 = 7%. That is, the calculation of the hotel's water need compared to remaining "available water supply" of the City are consistent with the hotel requiring 18,860 gpd. Although we believe that the EA's characterization of available water is misleading and incorrect, we do believe that these calculations suggest a daily water need of 18,860 gallons.

P27-49

To summarize the above:

- The proposed hotel would require from 15,088 18,860 gpd of water;
- It is not clear how the EA arrives at a figure of 10,000 gpd of wastewater for which disposal would be required. Given a need of 18,860 gpd, and assuming 20% recycling for toilets, the net water need of the hotel would be 15,088 gpd, roughly equivalent to the supply required to operate the hotel, and an equivalent wastewater flow require disposal.

G.2 Water Availability.

The EA (in Sections 3.10.1 and Section 3.10.7, see above) uses calculations based on the City of Trinidad's *permitted* daily extraction rate of 355,392 gpd from Luffenholtz Creek to conclude that "approximately 70 percent of the City's water supply (would be) available after project development", falsely implying that there are no concerns whatsoever regarding ability of Trinidad to supply water to a new 100 room hotel development. A 2017 personal communication with Bryan Buckman, Director, Trinidad Water Department, rather than a rigorous assessment, is cited to support this implication. It is not supported by substantial evidence.

A rigorous analysis of the ability of the City of Trinidad to supply water to the proposed hotel agreement should instead be based on a hydrologic assessment of the *actual* available supply, under low flow, drought year conditions that create the *constraints* for the total gpd that can be safely assured to be available to supply customers. Water supply available under these low flow, drought year conditions then needs to be compared with (b) peak water delivery obligations and usage by existing customers during low flow periods, (c) pending or anticipated future delivery obligations to new customers, including assessment of priorities for addition of new customers, as well as (d) needs of fish and amphibians that may place additional constraints on water extraction at low flows.

(a) Water availability under low flow drought conditions.

The most recent hydrologic studies of Luffenholtz Creek appear to have been carried out as a result of water-related issues raised by the Moss Minor Subdivision project. A letter from Winzler and Kelly (then a local engineering firm), dated 06 April 2009, contained in Exhibit O of the Moss SEIR states the following:

"the City sole raw water supply is Luffenholtz Creek. The City is allowed to extract a maximum of 0.56 cfs from Luffenholtz Creek. The City's water right permit stipulates that when the flow in Luffenholtz Creek is lower than 0.86cfs, the City must leave at least 0.15 cfs in the creek, including enough for the 0.0054cfs worth of water rights downstream from the City, resulting in a total of 0.1554 cfs or approximately 70 gpm that must bypass the City's water intake. During the drought period of 1977, the flow in Luffenholtz Creek was recorded to drop to 0.62 cfs. This is considered the lowest recorded flow conditions for Luffenholtz Creek. At this flow the City could still divert up to 208 gpm or 299,520 gpd, which is slightly less than the City's current peak demand." (underlining added)

P27-51

P27-52

Due to concerns regarding adequacy of flows in Luffenholtz Creek to serve additional users, the Moss Minor Subdivision (in the headwaters of Luffenholtz Creek) was required to store winter rainwater and forbear from pumping from the creek or from a well from July through October. Such restrictions would not have been placed on the Moss Minor Subdivision had there been no concerns regarding possible impact on the Trinidad Luffenholtz Creek water supply. We also note that more serious droughts than the 1976-77 drought can certainly take place and that long-term planning must also account for possible effects of climate change on water supply.

P27-53 (Cont.)

Assuming the 2009 Winzler and Kelly analysis for the Moss Minor Subdivision is correct, the implication is that available water supply form Luffenholtz Creek during low flow drought year (1977) conditions is marginally greater than flow needed to support peak demand from existing customers. It is unclear whether available water supply under such conditions could support additional build-out within the City limits, much less support additional outstanding requests, as well as the additional water required by the proposed hotel.

P27-54

Because availability of Trinidad's water system to supply additional customers with water is currently unclear, the City of Trinidad has recently received grant funding (Project LCP-17-03) to complete a water supply assessment to allow completion of its Local Coastal Plan for the Trinidad Planning Area. Justification and motivation for the water supply assessment include the following: (a) the recent drought has caused well failures in the area outside the City limits and has generated requests for additional service connections and possibly annexation to expand Trinidad's water service area, and (b) there is need for a water supply assessment to determine the number of additional service connections that could be added. The proposal for funding states that "Data confirm that the Luffenholtz Creek watershed can support build-out within City limits", but that more data is needed to determine the extent to which Trinidad can provide for an expanded service area, including provision of potable water to the CAL-FIRE station approximately 1 mile north of City limits and expanded demand from the Trinidad Rancheria. The objectives of the water assessment study include the following:

- Assemble and assess data to complete water supply assessment
- Meet and consult with community stakeholder, coastal commission staff
- Explore and assess service boundary options
- Identify strategies to meet multiple goals across water resource service area
- Explore watershed capacity and provide economically effective policies and regulations to respond to water service connection requests.

Note that the City's first obligation for new service connections is to ensure that adequate water is available to support future buildout *within the City limits*. The water needed to supply the Rancheria's hotel would be roughly equivalent to adding about 45 new service connections to typical homes served by the water system proposed. The water assessment study is expected to be completed in January, 2019, should provide a greatly improved basis from which to judge availability of Trinidad's water supply to support additional users, and should provide a framework for establishing priorities for adding future service connections (see also below).

P27-55 (Cont.)

Obligations to provide service to other customers. As noted above, Trinidad's first obligation is to ensure that adequate water supply is retained to allow full build out within the City limits so that within the City customers can always be guaranteed access to the City's water system. The City has recently made a request to provide potable water to the CAL-FIRE station about 1 mile north of City limits on Patricks Point Drive. This action would require a 1-mile extension of the City's water lines. The local District of the California Coastal Commission has recommended approval of Trinidad's proposal to provide service to the CAL-FIRE station, but with the following relevant modifications:

- prioritize services to visitor-serving commercial recreation lands; and
- allow for extensions of water service to these priority uses as long as the
 extension would not remove capacity necessary to serve all existing and
 planned development within the City limits.

P27-56

Thus, these requested modifications would mean that Trinidad would need to treat all visitor-serving commercial properties along the extension 1 mile north of the City as a having priority for service connections, assuming that addition of such connections would not mean that service connections could not also be provided for full buildout within the City limits. A potential maxim demand of 17,269 gpd, comparable to the hotel need, could result from these proposed modifications. (see page 17 of LCP-1-TRN-17-0072-1 (CalFire Water Service Extension), dated 24 August 2018. A decision on the local District's recommendation will be issued by the California Coastal Commission by April 24, 2019.

To summarize:

• A rigorous hydrologic analysis of available water production from Luffenholtz Creek is needed to allow confident assessment of additional water service that can be provided by the City of Trinidad.

- The City of Trinidad is currently carrying out such a rigorous water supply assessment which should be completed in January, 2019
- The local District of the California Coastal Commission (CCC) has recently recommended approval of Trinidad's request to extend it's water system approximately 1 mile north of City limits, to provide potable water to a CAL-FIRE station
- The recommendation for approval of the CAL-FIRE extension carries with it a recommendation for priority provision of water service to visitor-serving commercial properties along this 1-mile extension, properties which have not previously received water from the City of Trinidad. The CCC's decision is expected by April 24, 2019.

Until the results of the water assessment have been presented, and until the CCC's decision is made known, it is impossible to judge whether adequate water will be available to provide the needs of the proposed hotel, nor is it possible to determine whether or not provision of water to the hotel would adversely affect other users on the City's water system.

H. The Hotel Should not be Built on Geologically Unstable Land

Included in the Environmental Assessment for Trinidad Rancheria is and Appendix that is a Geotechnical report prepared by Crawford and Associates, dated 2016. The Crawford and Assoc document includes the following description for the evaluation of the risk of landsliding:

An active slide extends upslope of Scenic Drive to near the southwest corner of the proposed hotel. This slide appears to be relatively shallow (perhaps on the order of 10-15 feet deep). The head of the slide is near the edge of the existing casino parking area.

The active slide appears to involve primarily the terrace deposits overlying the bedrock. Groundwater is a major contributor to slope instability and appears to move within and through the terrace materials, "daylighting" out-of-slope where the rock is exposed. Areas of surface seepage, springs and water-loving vegetation are evidence of seasonal, shallow groundwater within the slope.

Based on preliminary discussions with the design team, we expect the hotel footprint will be modified to avoid the slide feature. Depending

P27-57 (Cont.)

on the final hotel layout, some level of slope stabilization should be considered to limit headward encroachment of the slide.

The Crawford and Assoc's report does not directly address the risk of landsliding at the location of the proposed building.

The proposed building is located at and maybe slightly over, the edge of a bluff. Risk for top of bluff along Scenic Drive is often described with an average bluff retreat rate (one foot per yr. is sometimes used) and is a function of distance from the edge and presumed economic lifespan of the improvements. The question should be "what is the rate of bluff retreat"?, rather than will there *be* bluff retreat.

For comparison, a geologic report completed for the Baker Ranch subdivision adjacent to the subject site (as close as 300 feet), in 1989 by Busch Geotechnical Consultants, described an area of high risk as extending 65 feet back from the break in slope.

The borings completed by Crawford and Assoc's encountered bedrock in four of the six holes. The depth to bedrock materials in four of the borings was relatively consistent, possibly suggesting they penetrated a large, highly weathered block. Yet, the field descriptions regarding the intensity of shearing, and the recorded blow-counts shows the material varies widely. Use of the term "bedrock" may be misleading. It often implies a hardness, like hearing a ping sound when hitting with a hammer. But that is not the case for these materials. Hitting with a hammer results in a thud. The measured blow-counts attest to these materials more likely to behave as soil than rock

A characteristic of the Franciscan rock structure can be large differences over short areas. Please see boring number one by Crawford and Assoc's and compare with boring number three from Selvage, Huber, and Nelson (SHN) for an example of a large variation over a short area.

The most economical and prudent way to mitigate the risk of landsliding is to move the building to a different location, away from the buff top. Some of the proposed mitigation measures for repairing the landslide area involve adding more weight to the top of slope, which could be a poor choice since weight is a principal driving force.

The evaluation of slope stability is incomplete. It is recommended to include a good topographic profile from the head of the slide to the ocean. A main purpose

P27-58 (Cont.)

P27-59

is to highlight the height of some of the scarps within the slide complex, which may be greater than 10-15 feet high, and to make observations in the slide mass. We recommend showing the slope directly below the proposed building footprint in more detail.

The depth of the failure plane(s) of the identified active slide are unknown. Assuming the slide is shallow may be a poor judgement. The mitigation proposed is embedment of structural elements into the bedrock. The proposed depth of embedment appears to be the same as the assumed depth of the slide. It is a large risk to assume things for a structure of this magnitude at this location on the bluff.

More work should be completed for a full assessment. We recommend the slope below the proposed building site be described in detail and evaluated for potential failure during the earthquake that has a 10% chance of being exceeded in the next 50 years (this is not the potential Cascadia Subduction zone earthquake, rather it is a Gorda Plate event). We recommend lateral forces, the possibility of soil moving around and possibly with the proposed piers, be included in design elements. We recommend using the lowest recorded strength parameters in design and strongly consider using residual values instead of peak values. We strongly urge reconsideration of the location of this proposed building footprint.

As is well known by anyone know who travels regularly along Scenic Drive, earth flows and other types of landslides are common and they are not readily fixable. Some of the welded wire walls constructed along Scenic Drive to span some segments of earthflows are beginning to show signs of movement (cracks in the asphalt). These are often explained by settlement of back-fill but an alternative explanation is progressive movement below the wall.

Because significantly more work is required on the geotechnical component of the EA, a joint EIR/EIS should be done to ensure that public safety is not compromised.

I. The EA is Defective in That it Does not Adequately Consider Biological Impacts

I.1. Bird and Wildlife Habitat

The Trinidad coastline has attained special status because of the high caliber of its many habitats, from under the ocean to the tops of the sea stacks and coastal bluffs.

P27-60 (Cont.)

P27-61

D27-62

It has been designated a California Coastal Nation Monument because of the abundance of wildlife in the waters and on the offshore rocks. The Bureau of Land Management (BLM) has designated Trinidad as a Gateway Community to this National Monument. This both recognizes the special beauty and adds protections to ensure proper management of these nationally and internationally significant places. The proposed casino also lies in close proximity to the Trinidad Area of Special Biological Significance, further discussed under section I.2.

Trinidad lies in the Pacific Coast Flyway, a major migration corridor for neotropical birds migrating through Humboldt County on their way to their summer habitats and some of which reside in the area throughout the summer. There are also many sea birds that migrate daily from their nests in the coastal forest to their feeding grounds on the ocean. Bird life is abundant (see Table C-1, Birds Observed in the Trinidad Area) and in addition to a group of avid local birdwatchers, people come to Humboldt County from around the world to observe birds.

P27-63 (Cont.)

A major hazard for birds in flight is accidental strikes on reflective surfaces, especially windows. A six-story glass sided hotel as displayed on the Cher'ae Heights Casino website and as depicted in the Environmental Assessment (EA), would elicit a high rate of bird strikes because of the large reflective surface that looks just like the sky to birds – they don't see the glass. Tuft's Wildlife Clinic reports that windows can be deadly for birds (https://wildlife.tufts.edu/bird-strikes-windows/). Their web site states: "Ornithologists estimate that up to 100 million birds are killed each year by collisions with windows. These collisions usually involve small songbirds, such as finches, that may fall unnoticed to the ground. Sometimes the birds are merely stunned and recover in a few moments. Often, though, window hits lead to severe internal injuries and death."

The EA does not adequately address this hazard nor the expected number of bird deaths and species of birds most likely to be affected. With several special status birds that could be impacted by the project there should be a more thorough assessment. The EA glosses over potential wildlife impacts, stating; "[a]lthough the project site does not contain suitable habitat for nesting birds, there is potential for migratory birds that are accustomed to high levels of human activity to nest adjacent to the project site within the mature trees. The trees are located adjacent to the edge of the asphalt surface." (EA, Section 3.4.1). While admitting that the proposed hotel is close to potential nesting (and roosting) trees, the EA does not assess potential bird mortality form bird strikes on the proposed six-story glass sided hotel.

Table I-1 Birds Observed in the Trinidad Area (partial list):

1. Coope	2.Red-shouldered	3. Red-	4. Peregri	5. Kestrel
1			4. Peregri ne falcon	
r's hawk	hawk (Buteo	tailed hawk	200 C 20	(Falco
(Accipiter	lineatus)	(Buteo	(Falco	tinnunculus)
cooperii)	-56 1 1	jamaicensis)	peregrinus)	100 1 1
6.Band-	7. Mourning dove	8.Pygmy owl	9. Wester	10. Great horned
tailed pigeon	(Zenaida	(Glaucidium	n screech owl	owl (Bubo
(Patagioenas	macroura)	californicum	(Megascops	virginianus)
fasciata)	200)	kennicottii)	
11. Allen'	12. Anna's	13. Red-	14. Downy	15.Hairy
S	hummingbird	breasted	woodpecker	woodpecker
hummingbird	(Calypte anna)	sapsucker	(Dryobates	(Leuconotopicus
(Selasphorus	27 ASSESSED 10	(Sphyrapicus	pubescens)	villosus)
sasin)		ruber)		
16.Northern	17. Pileated	18. Wild	19. Black	20. vireo
flicker	woodpecker	turkey	phoebe	(disambiguation
(Colaptes	(Dryocopus	(Meleagris	(Sayornis	sp.)
auratus)	pileatus)	gallopavo)	nigricans)	
21. flycate	22. willow	23. Stellar	24. Americ	25.Common
hers	flycatchers	's jay	an crow	(Northern)
(Erythrocerc	(Empidonax	(Cyanocitta	(Corvus	raven (Corvus
us sp.)	traillii)	stelleri)	brachyrhynch	corax)
			os)	
26. Purple	27. American	28. Barn	29.Black-	30.Chestnut-
Martin	Cliff Swallow	Swallow	capped	backed
(Progne	(Petrochelidon	(Hirundo	Chickadee	chickadee
subis)	pyrrhonota)	rustica)	(Poecile	(Poecile
Suois)	pyrrionolay	/ ustrear)	atricapillus)	rufescens,
			air reaprinas)	formerly <i>Parus</i>
				rufescens)
31. Red-	32. Brown	33. Golde	34. Swains	35. Hermit
breasted	creeper (aka	n-crowned	on's thrush	thrush
nuthatch	American	kinglet	(aka olive-	(Catharus
			backed	78
(Sitta	Treecreeper)	(Regulus	MINISTER MANAGEMENT MANA	guttatus)
canadensis)	(Certhia	satrapa)	thrush)(Catha	
20 37	americana)	20 Di	rus ustulatus)	40 0
36. Varied	37. Wrentit	38. Pine	39. Cedar	40. Orange-
thrush	(Chamaea	siskin	waxwing	crowned
(Ixoreus	fasciata)	(Spinus	(Bombycilla	warbler (Oreot

P27-64 (Cont.)

naevius)		pinus)	cedrorum)	hlypis celata)
41. Yellow-rumped warbler (Setophaga coronata)	42.Townsend's warbler (Setophaga townsendi)	43. Wilso n's warbler (Cardellina pusilla)	44. Spotted towhee (aka rufous-sided towhee) (<i>Pipilo maculatus</i>)	45.Fox sparrow (Passerella iliaca)
46. Song sparrow (Melospiza melodia)	47. White-crowned sparrow (<i>Zonotr ichia leucophrys</i>)	48. Golde n-crowned sparrow (Zonotrichia atricapilla)	49.Dark-eyed junco (Junco hyemalis)	50. Black-headed grosbeak (Pheucticus melanocephalus)
51. Ameri can goldfinch (Spinus tristis)	52. turkey vulture (Cathartes aura)	53. mourn ing dove (Zenaida macroura)	54. California gull (<i>Larus</i> californicus)	55. American robin (<i>Turdus migratorius</i>)
56. Marble murrelet (Brachyramp hus marmoratu)	57. Northern Spotted Owl (Strix occidentalis caurina)	58.	59.	60.

P27-64 (Cont.)

I.2. Water Resources:

The EA states that "[n]o Waters of the U.S. occur on the project site. No discharge of dredged or fill material, or other disturbance to wetlands or other waters of the U.S. would occur as a result of Alternative A." However there is a perennial stream which flows under the existing casino parking lot and which is subject to Army Corps of Engineers jurisdiction. The creek was put into a pipe and filled over to create the parking lot. Sinkholes developed in the parking lot due to shoddy construction practices (using wood in the fill; improper compaction). The assessment in the EA is inadequate in addressing potential impacts to waters of the U.S and to potential species that may occur in the waterway.

P27-65

I.3: Trinidad Area of Special Biological Significance

The kelp beds around Trinidad Head are designated as an Area of Special Biological Significance (ASBS) by the State Water Quality Control Board (SWOCB). ASBS status recognizes biologically important areas and prohibits discharges into the designated area. In 2005 the SWQCB sent letters of prohibition to the entities discharging into the ASBS, notifying them that they were violating State Water Quality regulations. The ASBS protected area is confined to the kelp beds around Trinidad Head but any discharges into the ocean near the kelp beds have the potential to negatively impact this environmentally sensitive area. The City of Trinidad, the Trinidad Rancheria, and the Humboldt State University Telonicher Marine Laboratory were required to develop and implement plans to capture, redirect, and infiltrate runoff to prevent the introduction of pollutants into the ASBS. The City has had to develop an on-site wastewater treatment system (OWTS) ordinance to bring septic systems into compliance and to commit to ongoing monitoring of systems. The Trinidad Rancheria, the casino, and the planned hotel are not subject to the City's OWTS ordinance, therefore inspection is not required, nor are corrective actions. Yet the proposed hotel proposes to treat its effluent with an on-site wastewater treatment system, more commonly known as a septic system.

P27-66 (Cont.)

The proposed 100 room hotel on the eastern side of Trinidad Bay poses a significant threat to water resources in Trinidad Bay, discussed elsewhere in this comment letter in regard to water quality impacts, but which have relevance on biological resources also because impaired water quality can have a negative impact on aquatic species and sensitive habitats such as the Trinidad Area of Special Biological Significance. The EA notes that there have been problems in the past with the on-site sewage disposal system. The Winzler & Kelly wastewater investigation (2004), cited in the EA, notes that existing septic tanks are under wooden decks, a driveway, and a large above-ground pool. Only 7 of 25 tanks have access ports. The report notes problems with leach field design, high ground water levels, inadequate setbacks from steep slopes and bluffs, inadequate stream setbacks, unstable landforms, and shallow depth to bedrock. Page 2-3 of the W-K report states "It is expected that some sites did not exhibit surfacing effluent in the summer would have problems in winter when groundwater was at a maximum." On page 2-4 of the W-K report, the authors recommends: "the Rancheria should consider replacing the system with a community system." One of the problems cited in the report was clogging of leach lines from grease. Yet the proposed hotel will rely on a septic system to treat a potential 19,000 gallons per day. The EA is inadequate in its assessment of and consideration of alternatives for waste water disposal. Based on past performance of the Rancheria's septic system, there is no reason for the public to feel reassured that the proposed hotel will not have a

significant negative effect on groundwater and discharges into Trinidad Bay, with negative impacts to the significant biological resources in Trinidad Bay.

The proposed water use and volume of waste water associated with the hotel and its facilities (swimming pool, laundry, kitchen) that will need to be treated under the proposed facility will present a significant engineering challenge and will place a huge strain on the local groundwater and soil resources in the leach fields. Monitoring conducted by the City of Trinidad at seeps and springs along the base of the bluffs on local beaches, and water quality monitoring at local beaches by Humboldt Baykeeper and the Humboldt County Environmental Health Department, and as reported by "Heal The Bay; Beach Report Card 2017-18: Banner Year for Water Quality" (06.07.2018 | Matt Kin) show that we currently have poor water quality at our local beaches (Luffenholtz Beach, Clam Beach). Failing septic systems are cited as a likely cause. Noting the previous problems with waste water treatment at Cher'ae Heights Casino, including failure of leach lines, there needs to be a much more thorough analysis of local ground water dynamics and the impact of the proposed water use and introduction of waste water into the local soils and the potential transmission of polluted water into Trinidad Bay and the ASBS. The numbers cited in the EA and claims by Trinidad Rancheria representatives vary on how much water the hotel will use. In order to properly assess the potential impacts of the proposed project, a definitive volume of water use must be provided and analyzed for both its waste water treatment needs and the impact of the waste water discharge on ground water and biological resources.

The EA is inadequate in this regard and a combined EIR/EIS is needed to provide a more thorough analysis of the impacts.

J. The EA is Defective in That it Does not Adequately Consider Solid Waste

The EA fails to account for recent changes in global trade affecting U.S. landfills, instead it assumes sufficient capacities: "Unsuccessful attempts were made to contact both the McKinleyville transfer station and Anderson Landfill to determine daily capacities. However, there is no indication that capacities have been exceeded." (EA 3.10.3, pg. 3-21.) These are issues that can be addressed in a future EIR/EIS.

K. Miscellaneous Inaccuracies in the EA

P27-67 (Cont.)

P27-68

At page 2-3 of the EA, it is stated that "[a]s part of the lease agreement, Hyatt would provide the design standards for the Hotel to ensure development is commensurate with Hyatt standards and the Tribe's culture." The final design should not wait for the lease agreement. An effective EA cannot be done, certainly with respect to visual impacts, when it is unknown what the final design will be. How can visual impacts be evaluated when no one knows what the hotel will look like? The graphic provided in the EA clearly shows that Hyatt's standards are being met, but it is difficult to see where the Rancheria's cultural values are being represented. Who's project is this anyway, Hyatt's or the Rancheria? The final design can be evaluated as part of an EIR or an EIS.	P27-69 (Cont.)
Sec. 3.2 states that "[t]he project site and surrounding lands do not directly contribute surface water to Luffenholtz Creek-Frontal Pacific Ocean subwatershed; rather, overland flow drains via stormwater outlets into the Pacific Ocean." What is not mentioned is that it actually drains into the east portion of Trinidad Bay, right next to the area which is listed by the State of California as an Area of Special Biological Significance because of the kelp beds located there. Parking lots are notorious for contributing oil and grease to drainage water, and also ethylene glycol, a highly toxic component of anti-freeze which routinely leaks from vehicles.	P27-70
This raises federal Clean Water Act issues that are not addressed anywhere in the EA. These can and should be considered in a combined EIR/EIS.	
Sec. 3.6.3 states that "the area currently has a shortage of lodging." No source is cited for that pronouncement. There are numerous vacation rental units available in the area, as well as RV parks, cabins and bed and breakfasts for rent. The only shortage is of high-rise hotels, and that is no accident.	P27-71
Sec. 3.10.2 states that the Rancheria "currently utilizes City sewer connections" It does not say what city, but if the EA means Trinidad, that is impossible because Trinidad has no sewer system.	P27-72
Sec. 3.10.4 states that there are no issues with natural gas that would create impacts because of the new hotel. That might be because there is no natural gas service north of McKinleyville. The Trinidad area is serviced by propane delivered to onsite storage tanks. It will obviously take a very large on-site storage tank to support a 100-room hotel. The presence of such a large tank should be evaluated in an EIR/EIS.	P27-73

Sec. 3.10.6 states that the Trinidad Volunteer Fire Department has two fire stations, one located in Trinidad, and one located in Westhaven. This is wrong. The station in Westhaven is for a completely separate fire department. And, neither department has a truck capable of fighting a fire in a six-story hotel. These are issues that must be fully examined in an EIR/EIS.	P27-74
Sec. 3.10.7 incorrectly states that the Rancheria's wastewater treatment system will be upgraded to handle 50,000 gpd. The letter from Northstar Design Solutions attached to the EA just prior to Appendix A states at page 2 that the plan is to upgrade the existing capacity to 30,000 gpd, not 50,000.	P27-75
The Section on noise impacts does not acknowledge that the hotel includes a bar with outdoor seating on the top floor. Bars stay open until 2:00 a.m. This clearly creates the probability of drinking, loud talking and laughter, not to mention music, late at night. With all this happening so far off the ground, it must be assumed that this noise will travel to the neighboring residential areas. A future EIR/EIS should include a realistic assessment of this potential affect on the human environment.	P27-76
Sec. 3.12.2 mentions something called "Citizens Mortuary" located at 470 Oceans Ave., in Trinidad. There is no such place, and if there ever was, it is long gone now.	P27-77
Sec. 4.1.3 states that " the development of the proposed project would be generally consistent with the visual goals of County and City land use regulations" Nothing could be further from the truth. A future EIR or EIS could properly evaluate the visual impacts of the proposed project.	P27-78
Sec. 4.4.2 states that "[a] project that would include 'disorderly growth' (i.e. would conflict with local land use plans) could indirectly cause adverse environmental or public service impacts." The proposed project itself is an example of "disorderly growth," because it is in total conflict with both Trinidad and County of Humboldt ordinances and General Plans.	P27-79
CONCLUSION	
The proposed hotel is incompatible with the surrounding area. The area is among an increasingly rare class of unspoiled California coastline. It must be protected and valued so it can be enjoyed by all persons, regardless of their domicile, in perpetuity. Therefore, the Regional Director should reasonably exercise her authority and select option B of the EA, the no project alternative.	P27-80

Failing that, for the reasons set forth herein, a joint EIR/EIS should be undertaken with agencies of the State of California, which examines the cumulative impacts of the Rancheria's long-term plans, including a new freeway interchange to serve the hotel, tripling the size of the existing casino, adding a gas station and RV park and other aspects of the Rancheria's General Plan.

P27-80 (Cont.)

Very Truly Yours,

J. Bryce Kenny Attorney for HARP

Attn:

Bureau of Indian Affairs - Pacific Region

C/O:

Amy Dutschke Chad Broussard Harold "Dan" Hall PACIFIC REGIONAL OFFICE BUREAU OF INDIAN AFFAIRS

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Wednesday, October 17th, 2018

Greetings,

My name is Jolene Thrash and I am a Eureka resident. I am writing with public comment on the Trinidad Rancheria's plans for the casino hotel.

I have lived in Humboldt County my entire life. This is the place I chose to get my education, to buy my home, have a career, and raise my child. I am someone who really appreciates the rural beauty of our area. I am a person who loves to be outdoors.

Trinidad is somewhere I retreat to enjoy the uninhibited beauty of the coast. I am not opposed to a hotel; I understand the benefits of moving forward on such a project. I support Trinidad Rancheria's self-sufficiency and local economic opportunities. My main concerns with the plans for the hotel are related to aesthetics/design and potential environmental impact.

I find it unacceptable to move forward with a design that completely undermines the serenity of the surrounding area. I feel strongly that the design must fit more appropriately within the existing coastal surroundings. I think about State and National Park lodging as an example to turn to in this situation. I personally think the current design renderings are a disgrace to the integrity of the aesthetics of our coastal atmosphere.

More importantly though, I also feel strongly that a comprehensive and careful Environmental Impact Study is prudent and should be supported in order to determine potential environmental impacts that could result from such a development. I think mainly about biological concerns, noise, pollution, water usage, waste, and traffic which are only a few examples. I am hopeful that it is the Trinidad Rancheria's goal to set a tone and culture emphasizing the importance of preserving the Trinidad coast. I fear however, that since the premise of proper consultation and consideration is not being sincerely engaged at the onset of the project, a different message is being sent to the community. How can our community be assured that Trinidad Rancheria will protect the environmental interest of this fragile coastal environment which includes us all? Again, I feel this situation must be likened to a process that would take place in the case of a State or National Park, one with the utmost respect and reverence for the environment and with an emphasis on a duty to protect it.

Thank you for the opportunity to comment.

Sincerely,

Jolene Thrash

P28-01

P28-02

10/26/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Fwd: Trinidad Rancheria Project



Hall, Harold <harold.hall@bia.gov>

[EXTERNAL] Fwd: Trinidad Rancheria Project

1 message

Charles Netzow < netzows@gmail.com >

Mon, Oct 22, 2018 at 4:32 PM

To: "chad.broussard@bia.gov" <chad.broussard@bia.gov>, "harold.hall@bia.gov" <harold.hall@bia.gov>

----- Forwarded message ------From: Charles <netzows@gmail.com> Date: Mon, Oct 22, 2018 at 4:30 PM Subject: Trinidad Rancheria Project To: <amy.dutschke@bia.gov>

I am a local property owner, general contractor and designer, and have built about 20 coastal projects. This project is completely acceptable in my opinion and the owners should be left to their considerable skills to implement it as they see fit.

P29-01

Charles Netzow 1337 Stagecoach Road Trinidad Ča 95570

707 834 2176

Josiah Raison Cain 58 Maiden Lane | SF, Ca | 94108 jcain@sherwoodengineers.com | (415) 685-4423

Monday, October 22, 2018

Ms. Amy Dutschke Bureau of Indian Affairs - Pacific Region, 2800 Cottage Way Sacramento, CA 95825 (916) 978-6041

RE: Trinidad Rancheria Hotel Development Project

Dear Ms. Dutschke:

I am writing with regard to the Environmental Assessment (EA) for the proposed Trinidad Rancheria Hotel in the town of Trinidad, CA. I am a Landscape Architect and an owner/principal at Sherwood Design Engineers, a full service civil engineering firm headquartered in San Francisco. Via 5 offices throughout the USA, our 70+ professionals provide design, engineering, and entitlement services for a variety of development projects including residential, commercial, healthcare, corporate and higher education campus, winery, and hospitality facilities including hotels. Highly regarded as water experts, our team regularly provides stormwater management, sewer treatment and conveyance, roadway alignments, grading packages, and other site engineering services. As such, I am intimately familiar with the development process, and am regularly asked to evaluate project feasibility and merits.

I also lived in Westhaven during formative years of my youth, from age 10 to 17, and returned regularly until well into my 20s. I attended Trinidad Elementary as well as Arcata High School, and had after school and summer jobs at Saunders Market and Trinidad Chevron. I spent many hours riding my bike along Scenic Drive to get to school, to the beach, and to visit friends.

I have strong concerns regarding this EA and associated project as proposed. While I am in support of the project conceptually, what is proposed is wildly out of scale with the infrastructure, resources, and character of the community. Frankly, it is beyond my comprehension how such a proposal could be considered appropriate by any measure in its current form. The impacts described would significantly and negatively impact the community in ways the EA fails to adequately address. My concerns are as follows:

- The massing and character of the proposed structure(s) are out of keeping with the scale and character of the community, and make no attempt to integrate with the prevailing vernacular of a town that is highly regarded and visited for its character.
- Impacts to traffic and road infrastructure are not sufficiently mitigated for; Scenic Drive is a small, narrow road with perennial problems associated with steep slopes, erosion, and unstable soils. It is in my opinion irresponsible to assume this condition can support a development of this size for any substantial period of time. Impacts to existing

P30-01

P30-02

P30-03

P30-08

Josiah Raison Cain 58 Maiden Lane | SF. Ca | 94108 jcain@sherwoodengineers.com | (415) 685-4423 P30-03 residents and visitors must be addressed, as well as those of trucks and heavy (Cont.) equipment associated with the construction phase(s) of work. Stormwater and wastewater from the project are not adequately addressed. The aforementioned soil instability and erosion are likely to be exacerbated by the P30-04 concentration and infiltration of significant volumes of water, particularly in winter. Additional hydrological and geotechnical analysis must better demonstrate that water quality and soil stability can be maintained. The assumptions and single visual P30-05 inspections referenced in the EA are inadequate documentation for a project of this scale. The proposed project would impose a prominent and visually dominant feature into the viewshed of a protected biologically sensitive marine zone and National Coastal Monument. At night, this facility would almost certainly dominate the viewshed from P30-06 many surrounding areas, creating light pollution that may affect wildlife, and forever changing the ambience of this small fishing town nestled on the bluff in a rural redwood forest. Perhaps of greatest concern is the obvious lack of sensitivity to existing natural assets, and the local residents who value them. There is nothing about the proposed project that suggests any real concern for what appear to be dramatic impacts to viewsheds, road infrastructure, sensitive coastal erosion, and the small town vernacular that exists today P30-07

suggests any real concern for what appear to be dramatic impacts to viewsheds, road infrastructure, sensitive coastal erosion, and the small town vernacular that exists today in Trinidad. This is an outdated design approach that features materials and forms that in no way respond to the unique setting, topography, scale of either landscape or existing built fabric, or indeed socio-cultural heritage of this unique place. I would hope and expect something much more thoughtful and appropriate, and am likely to support such an effort.

Currently I can only support either a no-build decision or the ordering of an Environmental Impact Study. As submitted, the EA does not adequately provide mitigation measures for the significant impacts of the proposed development, and certainly fails by any rigorous standard to provide an adequate basis for a finding of nonsignificant impacts (FONSI).

Thank you for the opportunity to share my opinions regarding the proposed development in this very special location.

Sincerely,

Josiah Raison Cain, ASLA



Mailing: PO Box 4259 Arcata, CA 95518

Physical: 415 I Street Arcata, CA 95521

(707) 822-6918 nec@yournec.org www.yournec.org

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Mr. Chad Broussard Bureau of Indian Affairs - Pacific Region 2800 Cottage Way Sacramento, CA 95825

October 18, 2018

Reg Dir. Dep RD Trust Dep RD IS

Route DECRW Response Required

Due Date Memo. Ltr.

Dear Mr. Broussard:

The Northcoast Environmental Center (NEC) submits the following comments in response to the Trinidad Rancheria Hotel Project's Environmental Assessment, on behalf of NEC's members, staff, board of directors, and member groups.

Re: Comments on Trinidad Rancheria Hotel Project Environmental A

The Northcoast Environmental Center Inc. is a non-profit corporation that has been engaged in conservation and environmental protection in northwestern California since 1971. Our mission includes informing and raising concerns with agencies and the public about actions that may have an effect on our local environment, ecological resources and citizens. We appreciate the opportunity to comment on this EA and wish that you would have granted the customary extension for public comment. We look forward to your in depth response to the issues we have raised.

The full build out of all the Trinidad Rancheria's plans must be analyzed so that all the synergistic and cumulative effects are revealed to the public. It's clear that the Rancheria is involved in some type of master planning process and has been for over a decade. All of the elements envisioned in their master planning process need to be reviewed concurrently and made public, not piecemealed and analyzed one at a time. The National Environmental Policy Act (NEPA) does not allow for piecemealing of projects. The Bureau of Indian Affairs (BIA) needs to do a robust, full and complete Environmental Impact Statement (EIS) for all these contemplated projects. We are certain that most of these projects will have individually significant impacts on the human and ecological environment. The combined effect will be unknown until a thorough Environmental Impact Statement (EIS) is completed where all these many effects are addressed.

Visual and Scenic Resources:

Trinidad Bay is one of the most visually spectacular places along California's coast. Trinidad is a very small community that has escaped the wave of over development that the rest of California's coast line has been subjected to. It makes Trinidad a visitor destination and a place where locals love to visit. Sticking a large box-type hotel and accompanying development right on the bluff overlooking Trinidad Bay will profoundly blemish the unrivaled beauty of this area.

Federal Consistency Required:

The California Coastal Act requires coastal development to "fit in: "The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting." (From Sec. 30251 (chapter 3, Coastal Act)).

P31-01

P31-02

Full Range of Alternatives:

A full and complete NEPA evaluation requires a full range of alternatives. The BIA has failed to offer a full range, only offering basically a "Build" and "No Build" leaving the public unable to properly evaluate other potential ways of accomplishing the purpose and need as envisioned by the Rancheria. The BIA acknowledges the significant impacts that Alternative A would create but then claims that these can somehow be mitigated. That is a false statement. The impacts of just the hotel aspect of the project by itself will be impossible to fully mitigate, not to mention all of the related and connected activities this project will produce. There needs to be a full range of alternatives where other ideas for how to accomplish some type of hotel can be discussed that will not have the dramatic and significant impacts that Alternative A will have.

P31-03

CEQA Review:

Section 10.8 of the Tribal-State Compact Between the State of California and the Trinidad Rancheria requires that the Rancheria, among other actions, make "...a good faith effort to incorporate the policies and purposes of the National Environmental Policy Act and the California Environmental Quality Act..." (10.8.1). We have looked throughout the document and can find no reference to CEQA in the document. Is the Rancheria claiming an exemption from its required obligation to do a CEQA review? We do not believe the Rancheria is exempt.

P31-04

Water:

Alternative A makes the faulty assumption that this project would use 7% of Trinidad's water supply from Luffenholtz Creek. The methodology for this assumption is flawed or non-existent. Climate change is already producing more frequent long lasting dry spells which are already impacting water users in the city of Trinidad. The potential exists for the city of Trinidad to be unable to deliver water to its current users during any given dry summer. We are very concerned about the horrific repercussions this could have during a wildfire event in a dry summer.

P31-05

Traffic:

The existing local road network in the project vicinity is failing and is unable to handle the current flow of traffic year round. Adding the traffic that the hotel and its axillary developments will create and is way beyond its existing capacity. The BIA has not included and is averse to including any discussion about the proposed new Highway 101 interchange that is obviously directly connected to the hotel project and the additional developments that the Rancheria plans.

P31-06

Wastewater:

This environmental document fails to adequately reveal and explain how all of this additional wastewater will be able to be dealt with without causing great environmental harm through erosion and contamination.

P31-07

In summary the Northcoast Environmental Center is supportive of the Rancheria being self-sufficient and having more economic opportunity. We would be able to endorse a smaller scale hotel type project that is designed to fit with the scenic coastal environment of Trinidad Bay, but not the multi-storied hotel type that you'd find in Miami Beach. The lack of any alternatives prevents the public from being able to show support for the tribe's endeavors at economic development.

Sincerely,

Larry Glass

Executive Director

Northcoast Environmental Center

PACIFIC REGIONAL OFFICE BUREAU OF INDIAN AFFAIRS

EDWARD C. PEASE

2018 OCT 22 PM 1: 40

PO Box 996 Trinidad, California 95570

	Reg Dir_ Ot L
	Dep RD Trust
	Dep RD IS
V	Route DECKINS
	Response Required
	Due Date
	MemoLtr
	Fax
	Parameter Control

Oct. 19, 2018

Ms. Amy Dutschke Bureau of Indian Affairs - Pacific Region 2800 Cottage Way Sacramento, CA 95825

RE: Trinidad Rancheria Casino-Hotel Proposal

Dear Ms. Dutschke & the Bureau of Indian Affairs:

Like scores of my neighbors in and around the little North Coast village of Trinidad, I am opposed to the Trinidad Rancheria's casino-hotel project as proposed.

I am a homeowner and fulltime resident who lives just 1-1/2 miles from the Rancheria. My wife and I walk our dogs on the beaches below the Rancheria property. I am a sport fisherman who moors his boat in Trinidad Harbor and fishes/crabs the waters of Trinidad Bay off the Rancheria bluff. I am a retired university professor and work as a local newspaper editor and nature photographer. The addition of a massive 6-story Hyatt hotel on this beautiful bluff would be an affront to me and all of us who love this coastline, and who work and recreate here.

In shorthand, my concerns include the impact of the project on Trinidad Bay's unique and pristine scenic vistas from the city of Trinidad, from Trinidad Head (a National Coastal Monument), and from the ocean; our fragile coastal environment (Trinidad Harbor is a protected biologically sensitive zone); light and noise pollution; danger to dozens of species of birds from birdstrikes on the 70+-foot facade; effects on a geologically fragile bluff of 19,000 gallons/day in wastewater processing; intrusive signage.

The most obvious concern shared by the more than 100 citizens — a big crowd for this little town — who turned out at each of two public meetings about the project is its appalling design, completely inappropriate and even destructive on this pristine stretch of coastline. Although the massive Environmental Assessment report is supposed to offer various alternatives to the details of the project it evaluates, there is apparently no alternative being considered to the gross 6-story, 100-room Hyatt box that would tower on the edge of a geologically fragile sandy bluff above beautiful and unsullied Trinidad Bay.

Many of us would welcome a tasteful structure that would reflect both the natural environment and the native cultural heritage and values of the Trinidad Rancheria's people, a hotel that celebrates and meshes with the landscape and forest. But the proposed Hyatt hotel box looks like any one of thousands that can be found outside airports and along freeways across America. A design that is in harmony with the coastline would be so much more appropriate, and so much

P32-01

P32-02

P32-03

more acceptable both to Humboldt residents who love this coast, and to visitors who travel here for the natural beauty.

P32-03 (Cont.)

Environmental and traffic concerns are a close second to the hotel's awful design in the minds of worried citizens here. The existing Cher-ai Heights Casino, which the hotel is proposed to abut, sits atop the sand and clay bluff formations that are common along hundreds of miles of Northwestern Coast. Scenic Drive, the former Redwood Highway, runs directly below the Rancheria property. The road and the sandy hillside on which it was built are in a constant state of slumping into the Pacific. Surely this is a poor choice for a heavy 6-story building that will use a projected 19,000 gallons of water/day. Even if a large percentage of that water is recycled, pouring even half that much water into a sandy bluff through leachfields will undoubtedly have an adverse effect on groundwater, cliff erosion and bluff stability.

P32-04

Scenic Drive itself, the only access to the construction site and subsequent 100-room hotel and casino, is wholly unsuited to the level of traffic projected for the hotel and an expanded casino, as the EA acknowledges. The "solution" is a proposed interchange exit on Highway 101 to the property's east, a massive project that is opposed by many Trinidad residents, and which could not be in place until 2026 at the soonest, according to the EA and the California Transportation Commission, which will not even decide on the interchange project until 2022.

P32-05

As a Trinidad municipal water system customer, I am doubtful that our water district, which has already been described as fully allocated and in jeopardy during times of drought can support this additional demand, the equivalent of 45 new single-family homes. I will strongly urge the City of Trinidad to reject the Rancheria's request for 19,000 gallons/day from the municipal system. The hotel should seek other water sources.

P32-06

I have many more objections to the various ways this hotel project would adversely affect my life, my town's character and environment, and this entire coastline. I refer you to the detailed comment document submitted by the citizen group Humboldt Alliance for Responsible Planning (HARP), which I would attach to this letter if I could. I urge close review of the HARP comments, and I strongly endorse the HARP criticisms and comments of the substandard EA on this project.

P32-07

One significant measure of public concern is the number of local residents who turned out for special meetings to learn more about what for many was a surprise development project. About 100 residents came to a hastily arranged citizens group meeting, called on Sept. 27 after the 500-page EA was released. Another 100 came to a special meeting between the Trinidad City Council and Rancheria representatives on Oct. 15. During public comment Q&A periods at both meetings, feedback focused on how to improve the design to fit the setting, water concerns, land-taking for the interchange, and environmental impacts.

P32-08

Under the rules of the Environmental Assessment process, as I understand it, the BIA now has the option to make a finding of no significant impacts (FONSI) for this project. That would be inconceivable, given that the impacts of the proposed hotel would be not just significant but enormous in terms of multiple adverse effects on the area's environment, traffic, bluff stability, unsullied beauty, small-town culture & etc., etc. The EA review of the project and its impacts is

insufficient, and the project has been rushed through without adequate consultation with the public and other stakeholders who will be affected. I strongly urge the BIA to order a comprehensive Environmental Impact Study and design review to provide a much more complete evaluation of the true impacts of this project, and to educate the public.

P32-08 (Cont.)

Absent a major revision of the visual, environmental, traffic and related impacts of the project, I strongly recommend that the BIA reject the hotel proposal in its entirety.

Thank you for your attention.

Sincerely,

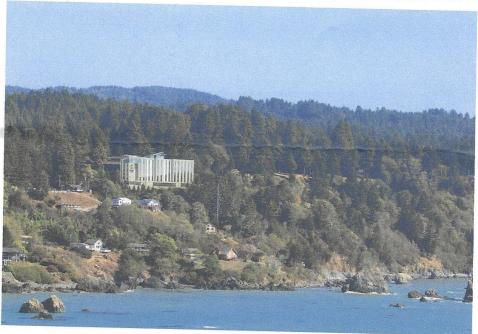
Edward C. Pease, Ph.D.

cc: Gov. Jerry Brown; U.S. Sen. Dianne Feinstein; U.S. Sen. Kamala Harris; U.S. Rep. Jared Huffman; CA Sen. Mike McGuire; Assemblyman Jim Wood; California Coastal Commission; U.S. Park Service; Humboldt Board of Supervisors; Trinidad City Council; Humboldt Alliance for Responsible Planning.

Trinidad Bay, Before & After

Impact of the Trinidad Rancheria's proposed 6-story, 100-room Hyatt hotel on the bluff above Trinidad Bay, California. Top: The Bay today (existing Casino is about one-third of the way along the bluff from the left/north). Bottom: Photoshopped illustration.





10/26/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Trinidad Rancheria Hyatt casino-hotel project



Hall, Harold <harold.hall@bia.gov>

CONNECT	
[EXTERNAL] Trinidad Rancheria Hyatt casino-hotel 1 message	project
Ingrid Bailey <ingridhaven@gmail.com> To: Amy Dutschke <amy.dutschke@bia.gov>, Chad Broussard <chad.broussa< a=""><aharold.hall@bia.gov></aharold.hall@bia.gov></chad.broussa<></amy.dutschke@bia.gov></ingridhaven@gmail.com>	Mon, Oct 22, 2018 at 10:05 AM ard@bia.gov>, "\"and Harold "Dan" Hall .\""
Dear BIA Representatives- We here in the beautiful coastal community of Trinidad both welcome and won the bluff along Scenic Drive. The bluff here in this extremely earthquake-been an issue limiting growth here and the projects reliance on the town of much to address drought and fire, which have historically been problems he	prone area is highly unstable. Water has long Frinidad's very small water system won't leave P33-
the design for the hotel will be an improvement on the widely circulated pho- peoples support without a better idea of what we can expect to see built, is for Native Americans to not longer be the poorest minority class in this coun success of the project, a full Environmental Impact Report must be required	to of an "airport" style hotel, but to ask for the unfair. I have long felt that whatever it takes try should be supported. For the long-term

Thank you, Ingrid Bailey 302 Westhaven Dr. S, Trinidad, California

Ken Miller 1658 Ocean Drive McKinleyville, CA 95519 707-4967444 October 22, 2018

Amy Dutschke Regional Director Bureau of Indian Affairs Pacific Regional Office Attn: Dan Hall 2800 Cottage Way Sacramento, CA 95825

Chad Broussard Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825

Re: Environmental Assessment (EA) for Trinidad Rancheria Hotel Project

Dear Ms. Dutschke & Mr. Broussard:

I live in McKinleyvile, a small un-incorporated town in Humboldt County about 10 miles from Trinidad. I visit Trinidad very frequently to walk the beaches and trails, and visit museums and local eateries. Whenever out of town guests visit, Trinidad beaches always top the list of places to go. Although small in size, even including Westhaven and scattered neighborhoods nearby, the area is a world-class destination.

So I write this from the perspective of a nature-loving visitor concerned that this Project will despoil a rare treasure loved by all.

When I arrived in California in 1975, I was employed by the Hoopa Tribe as a physician, and developed a respect and admiration for Tribal culture, history and self-sufficiency that I retain to this day. So I also write this from the perspective of someone who is entirely supportive of Tribal sovereignty and opportunity. I also understand that sovereignty, like private property rights, is constrained by impacts to others, and that this Project would usher in a train-wreck to this unique community.

Because of my concern for the grave consequences of this Project, I affiliated with the Humboldt Alliance for Responsible Planning (HARP), but these comments are my personal ones. After review of the EA, I conclude that:

- •The No Build Option is the only justifiable determination
- •The BIA should exercise its discretion to "seek public input" during the decision-making process and involve the Trinidad City Council and representative members of the public to participate.

P34-01

Comments to Bureau of Indian Affairs RE: Trinidad Rancheria Environmental Assessment

•If "No Build" is infeasible, for whatever reasons, then an Environmental Impact Statement (EIS) is the only compromise position that could possibly address the myriad concerns of significance under NEPA/CEQA.	P34-01 (Cont.)
The Environmental Assessment (EA), with a public comment period of only 30 days, ending October 22, 2018, is entirely inadequate to address the controversial issues arising from this Project, many of which have un-mitigatable impacts or are inconsistent with local and Coastal Commission plans.	P34-02
The No Build Ontion:	

The No Bulla Option:

The "No Build" option affords the opportunity and incentive for returning to the drawing board to develop a project that is more consistent with Tribal members' visioning during the 2009-2011 focus groups, in which there was universal preference for low profile, rural, culturally consistent hotel and build-out designs over urban motifs, such as this Project proposes. I urge you to review the Comprehensive Community-based Plan of the Cher-Ae Heights Indian Community of the Trinidad Rancheria's "The Community Image Survey" ("A Tool for Public Participation in Planning"), in which participants graded 40 images that depicted pastoral, rural, and urban graphics:(https://www.lgc.org/wordpress/reports/trinidad rancheria/TR Comprehensive Plan Final-Dec2011 web.pdf).

One concern I share with many others is that the current Project does not represent the inclinations of many tribal members, as reflected in the focus group choices, but rather a leadership committed to an expanded casino economy rather than more culturally appropriate development that is sensitive to the overall community and environmental character.

The "No Build" option would open the door to Alternatives that meet Rancheria economic needs, and many tribal members' preferences, without compromising the scenic and socio-economic values of our community. Tourism in Humboldt County last year totaled almost \$15 billion, a quarter of our revenues. The Rancheria is perfectly positioned to benefit from many opportunities aside from this 100-room, casino dependent hotel, yet the Alternatives never explore any. Local residents have consistently voiced a preference for tourist-focused development that targets and draws adventurous travelers from around the world interested in Native culture and our world class, unique redwood, mountain, riverine and coastal attractions, not just catering to gambling. The proposed project site is suitable for a lodge that fits in with the hillside topography and has the world-wide appeal of an architecturally magnificent Ahwahnee or "Falling Waters."

"No Build" for all of the reasons contained herein, including:

- overwhelming evidence of a substantial public and expert controversy over the impacts of this and related Projects to the human environment, especially visual impacts;
- •the remaining unanswered questions and concerns regarding the water supply and wastewater issues;
- •geotechnical questions regarding adverse impacts on the unique characteristics of the geographic area which are unmatched anywhere in the world;

P34-03

•the precedent for inappropriate development in a very rural, highly scenic tourism destination listed in the National Register of Historic Places;

•and finally, because this Project is related to other actions with cumulatively significant impacts on the natural and built environment, notwithstanding that they have been broken down into smaller component parts

P34-03 (Cont.)

P34-04

EIS

For the following reasons, an EIS is necessary if the No Build option, which is the only justifiable decision, is not possible:

- Public scoping is essential to quell the anxieties of a concerned public, and will foster wider community buy-in and participation of local government entities.
- •Public scoping allows for a wider range of alternatives to emerge than proposed in the EA, which includes only one, the "No Build" option, ignoring our vast tourism resource.
- An EIS affords time for ongoing analyses of water supply to reach fruition.
- An EIS introduces independent expert evaluations of water supply, wastewater treatment, slope stability and other pertinent issues.
- An EIS considers the cumulative impacts of strategies designed to accommodate projected traffic needs associated with the Hotel and related projects

General Concerns regarding significance and complexities in the EA

This EA describes not just a single Hotel Project, but refers, without elaboration, to a suite of interrelated development projects that the Rancheria has plans for, with no serious attempts to educate or involve the broader communities affected by these projects.¹

Everyone was blindsided by the July 4, 2018 interview on KINS radio (at 22:50 minutes in, https://www.kins1063.com/talkshop-070418-ryan-sundberg/), in which Dave Tyson, the project manager, stated that "It's definitely a go," and Humboldt County Supervisor Ryan Sundberg, a Tribal member, disclosed that the Project will now be "Funded by a large Native American bank from back east that is funded by casinos," rather than the local Redwood Capital Bank which was originally the proposed funder. He also claimed that they were ready to break ground at or near the beginning of the year (2019).

Until three months ago, hardly anyone knew about this, and until publicized by HARP and local concerned residents in September, the public had no meaningful notice or education from the Tribe of the impending project that would adversely affect our lives forever. Expecting an uninformed but concerned public to weigh in on projects that could and should have been publicized and discussed over the past fourteen years in 30 days is unreasonable. Furthermore, only an EIS affords the requisite "hard look" envisioned under NEPA for such impactful, complex Projects.

P34-06

P34-05

Ken Miller RE: Trinidad Rancheria EA

¹ Winzler and Kelly Assessment attached to Appendix A of EA.

Loan and Lease Arrangements

This Project is secured by public guarantees of loans from "a Native American bank funded by casino money." (https://www.kins1063.com/talkshop-070418-ryan-sundberg/). In November, 2017, the BIA was criticized for its lax oversight of these loans.

This Project relies on financing from "casino funding." Many in our communities have reasonable fears that the casino-dependent complex envisioned by this leadership will invite and attract anti-social elements into our environs. Aside from feeding gambling addiction, well-known associations with alcohol, drunkenness, prostitution, hard drugs, loud parties, and dangerous traffic are exacerbated by such reliance.

Such an arrangement has facilitated consortia of builders, architects and casino money people whom can take advantage of these no-lose propositions to exploit Indian Tribes' needs and desires for self-sufficiency, thereby foreclosing more lucrative, community-friendly and culturally appropriate ventures.

Despite such public legal-financial obligations, no details are provided in the EA. There is no way to gauge the economics involved or the rationale of the "no alternatives," because there is no market data. Similarly, no details of the lease arrangements are provided. A public reasonably alarmed by these obligations in a black box has no ability to evaluate risk or consequences in the event of default, construction problems, or natural disasters affecting the Project. (Public Law 93-262-Apr. 12, 1974, https://www.gpo.gov/fdsys/pkg/STATUTE-88/pdf/STATUTE-88-Pg77.pdf)

Visual and Scenic Resources

The proposed Rancheria development is taking place in one of the most spectacular and environmentally sensitive places in California, or anywhere. Trinidad is California's smallest coastal city, a quaint fishing village in the midst of oceanic splendor enjoyed by thousands of tourists, surfers, and local residents. Biologically sensitive receptors abound, and the visual aesthetics are unmatched. Remarkably, these assets are downplayed in the EA.

The "Preliminary Environmental Analysis Report" (PEAR) of the CalTrans Project Study Report (PSR) for US 101/Trinidad Area Access Improvements emphasizes the specialness of this entire area:²

"The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas (Trinidad Area Plan Section 3.40 Visual Resource Protection, 2007)."

P34-07

P34-08

² Appendix H Visual/Aesthetics: 8.5 Visual/Aesthetics: "Coastal scenic views, scenic areas, and coastal access points occur along Scenic Drive. Aesthetics are generally a substantial concern with any development in the Coastal Zone." *** 30251 & pg 9, Attachment H, Preliminary Environmental Analysis Report (PEAR, pg 55)

The Trinidad Area Plan describes the incomparable coast affected by this Project:

"Offshore rocks and intertidal areas within this area are unprecedented anywhere along the County's coast. Rocky intertidal areas along the Trinidad Planning Area, are very productive marine habitats and support lush growths of plants and animals. The offshore rocks provide important resting, roosting, and nesting sites for many resident and migratory birds as well and haul-out areas for harbor seals, Stellar sea lions and California sea lions. Restricted or no public access into these areas is one technique for insuring their protection. In addition, enforcement or current waste water disposal techniques and the policy requirement which prohibits any increased risk of biological or other impacts to these areas will also protect these resources."

The sine qua non of the California Coastal Act is that coastal development "fit in. So far, images of the Hotel have been universally condemned as an eyesore in a sacred site, where the height limit of thirty feet is just one of many prescriptions in the Trinidad Area Plan that is violated.⁴

Simply stated, there is no mitigation that can compensate for the irreparable harm to visual and scenic aesthetics from this Project.

This EA describes a project that itself dramatically affects multiple local communities, with an extraordinary regional impact, yet despite these consequences, none of the affected communities has had any meaningful opportunity to evaluate, comment, or influence the proposal(s). Furthermore, this Project anticipates substantial related projects, including major federal, state and local highway endeavors, but does not consider the cumulative impacts of these interrelated projects.

Among many concerns requiring more time for competent attention, I include the following partial list:

Alternatives

The EA glibly dismisses any alternative to the Proposed Project without any detail sufficient for a reasonable evaluation of incompatibilities with the Purpose and Need, depriving the reader of the ability to assess any alternatives aside from "No Build." Such lack of detail fails to comply with NEPA.⁵ Obviously, there are many variations on this Project that would satisfy Rancheria needs without adversely impacting off-site receptors, stirring expert controversy over these impacts, and disrupting the socio-economic characteristics and quality of life of the local communities. In fact, examples abound of Alternatives that would enhance rather than diminish these features.

P34-09

5

P34-08

(Cont.)

Ken Miller RE: Trinidad Rancheria EA

https://humboldtgov.org/DocumentCenter/View/50848/Trinidad-Area-Local-Coastal-Plan 3.30A

⁴ ibid; 3.40 B3c2

⁵ "However, these alternatives and the reasons for their elimination must be documented in the EA. http://www.dot.ca.gov/ser/downloads/guidance/alternative_analyfaq.pdf, page 1

Water Supply:

The Trinidad City Planning Commission (PC) is currently considering forming a "Water District" in order to annex additional service areas and water users (page 31 of Trinidad PC agenda for 10/17/2018):

CIRC-12.4: "If capacity and / or storage is adequate, study the feasibility of forming a Water District that includes the area to the east and southeast of the City on either side of the freeway, where some properties are already connected to the system, to allow for additional connections outside the City, as the system allows. Eventual annexation should be considered. An 'annexation agreement' (agreeing not to object to future annexation) with the City is a minimum requirement for providing any new connections City of Trinidad Draft General Plan p. 31 Draft Circulation, Energy and Public Services Element October 2018 outside of City limits. Areas to the north of the City should be part of such a district if services are to be provided there in the future. (LU-8.2)"

and

CIRC-12.5: "The existing commercial area on the west side of Patrick's Point Drive south of Anderson Lane and the area on the east side of Patrick's Point Drive north to the CalFire (CDF) station, should be included in the City service area / water district to allow for future consideration of water service. Annexation, or an annexation agreement, is a requirement for water service expansion, unless it is already part of services;"

The Casino is already the city's largest water customer at 11,000+ gal./day, followed by Hidden Creek RV Park and the Trinidad School.

Additionally, Humboldt County is currently re-zoning parcels within the potential service area of the Trinidad water supply. These unclassified parcels will likely add to the priority water recipients. These additional draws on Luffenholtz Creek are not included in the EA water supply evaluation.

Adding any more users to the system before a comprehensive study of availability, resilience and future needs may create hardships for existing users, and limit prospects for development.

The Public:

The very first public meeting dedicated to this Project occurred on 9/27/2018, leaving only 25 days for an uninformed public to understand the scope of these massive interrelated projects and express its concerns. Over one hundred local residents attended. With rare exception, every speaker voiced concerns, predominately about the inappropriate scale and look of the Project on such a sacred coastline, but also specific ones regarding traffic, increasing gambling-related tourism, water and wastewater, and geo-technical issues. Most everyone agreed that more time was needed to comprehend the EA; even the Rancheria representatives acknowledged that the EA was not accurate or complete.

http://humboldt.legistar.com/gateway.aspx?M=F&ID=39d7e1b6-aa06-4ecf-b5c6-059650b57583.pdf

P34-10

P34-11

Comments to Bureau of Indian Affairs RE: Trinidad Rancheria Environmental Assessment

A second public meeting was held by the Trinidad City Council on 10/15/2018, again attended by approximately 100 alarmed citizens. Although public comment was cut off after only 15 or so speakers, the sentiments are clear: no one likes the Project as proposed, everyone supports the Rancheria's (and community's) desire for a Hotel *if* it were smaller scale and designed to fit in.

P34-11 (Cont.)

The Rancheria presentation attempts to obscure these impacts, which can be confusing. Without more robust community engagement, projects of this scale, that are unprecedented in this area, threaten to disrupt our community equanimity.

Wastewater:

The Project estimates that 10,000gpd of wastewater will be discharged into leachfields. This amount is bad enough, but adding to the pollution and over-wetting risks is the fact the 10000 gpd discharge falls short of the approximately 15100gpd calculated discharge based on the 18,860gpd water intake for the Hotel, minus the estimated 20% recycle rate. (EA 2.2.1)

P34-12

Piece-mealing

The "Rancheria Master Plan Development" (pg 11, EA) refers to a plan to expand the casino from its current 50,000 sq ft to 150,000, the RV park from 22 spaces to 50, and office space from "minimal" to 100,000 sq ft, with retail and community space adding another 75,000 sq ft, not including a 6-pump gas station. A new interchange and overpass along Highway 101 are integral components of this announced "build-out." The surrounding community is unaware of the extent and scale of these developments, some of which are reasonably foreseeable, connected to the Hotel, and casino-related, and therefore subject to a cumulative effects analysis with an EIS and an EIR, with an appropriate planning horizon at least to 2038.

P34-13

Conclusions:

•The BIA should exercise its discretion to "seek public involvement" during its evaluation of the EA. That involvement should be participatory and influential.

•This Project As Proposed Should Be Rejected With A "No Build" Decision.

P34-14

•Otherwise An EIS Is More Than Justified By The Unmitigated (And Un-mitigable) Impacts Disclosed And Undisclosed By The Proponent.

Respectfully submitted,

Ken Miller

Comments to Bureau of Indian Affairs RE: Trinidad Rancheria Environmental Assessment

10/26/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Trinidad Rancheria Environmental Assessment



Hall, Harold <harold.hall@bia.gov>

[EXTERNAL] Trinidad Rancheria Environmental Assessment

1 message

Kimberly Tays <kimkat067@gmail.com>

Mon. Oct 22, 2018 at 3:49 PM

To: "Broussard, Chad" <chad.broussard@bia.gov>, "amy.dutschke@bia.gov" <amy.dutschke@bia.gov>, "harold.hall@bia.gov" <harold.hall@bia.gov>

Dear Mr. Broussard, Mr. Hall and Ms. Dutschke:

I am a 16-year resident of Humboldt County, 12 years of which I lived in Trinidad (2003-2014). I am very familiar with the Trinidad Rancheria's properties on Scenie Drive and at the pier/harbor in the City of Trinidad. I am particularly aware of the visual impacts from the Casino on Scenic Drive, as I frequently hike around Trinidad Head. Years ago, you could barely see the Rancheria's Casino and surrounding development on Scenic Drive. Over the past few years, however, the Rancheria (I presume to enhance views for their Casino restaurant) has cleared many large trees on their Scenic Drive properties. Now, the Casino is very visible from Trinidad Head and from nearby trails and beaches. This now-visible development has degraded the wild, natural aesthetic that many people come here to see and enjoy. In addition to the impact of the Casino on the visual qualities of the Trinidad area, the pier at the Trinidad Harbor contributes significant amounts of light pollution to the area and degrades the night-sky. Sadly, the pier lighting causes the harbor and bay, at night, to look very industrial, and the resulting light pollution is visible to Clam Beach, Little River and beyond. The Rancheria's proposed 6-story hotel will cause further negative impacts to the visual qualities of the Trinidad area, which cannot be mitigated, as it is simply too big and out of character for this rural part of coastal California. Even if the proposed hotel fits in with the Rancheria's Master Plan, it absolutely does not fit in with the surrounding development in the area. In fact, it would be the largest building in the area and would stick out like a sore thumb.

I have serious doubts about the Trinidad Rancheria's ability to provide adequate water supplies to the hotel or to properly process the sewage generated from such a large development. However, my main concerns are the significant and lasting impacts that this out-of-scale, out-of-character development would have on the visual qualities of this scenic part of California's coastline. In addition, the 6-story hotel would significantly (and cumulatively) increase light pollution in the Trinidad area, because of its prominent location on the bluff. Excessive light pollution (such as can be seen from the pier) will further degrade the nightsky and habitat values for noctural wildlife, due to the distance the light would reflect outwards. The wall of windows from the proposed 6-story hotel will also likely increase bird mortality, because the reflective qualities of the windows will disorient the birds and cause them to fly into the windows. My husband and I own a 2,000 square-foot, single-story home in Arcata with ceiling-to-floor windows, and we have a lot of problems with bird mortality due to our reflective window surfaces. I cannot imagine the number of birds that would die from the hotel, due to the immense number of windows that would face the ocean. It seems unlikely that there would be adequate mitigation measures that could be taken to reduce the impacts that the proposed hotel windows and lighting would have on birds and nocturnal wildlife.

There are certain projects that cannot be mitigated for, due to their excessive, damaging impacts on the natural environment. Due to these significant, unmitigatable, impacts, I am submitting my strong objections to the Environmental Assessment and approval of the Trinidad Rancheria's proposed 6-story hotel. I believe this development must be redesigned to better fit in with the beauty and natural surroundings of the Trinidad area.

Sincerely, Kimberly Tays Arcata, CA

P35-01

P35-02

P35-03

Oct. 10, 2018

PACIFIC R DEFICE BUREAU OF LAN AFFAIRS

2018 OCT 22 PM 1: 39

Reg Dir Old Dep Rivision PECRMS

Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825

Dear Sir or Ms.,

I am writing to provide public comment on the proposed Trinidad Rancheria Economic Development Corporation Hotel Development Project.

As an enrolled member of the Choctaw Nation of Oklahoma, and as a resident of Trinidad, California, I am certainly in favor of the proposed hotel and the possibilities for economic benefit to the Rancheria. There are a number of issues that have been raised in public meetings in the area that I believe need to be addressed for the project to be the success area residents also envision. I will address three of those issues in this comment, leaving to others the issues involving water, and wastewater treatment.

The issues I wish to address are 1) Design of the hotel, 2) Electricity use and generation, and 3) Provision for electric car charging infrastructure.

Design of the hotel:

Trinidad Bay is a natural wonder. Not only is it beautiful and relatively untouched, it is part of the California Coastal National Monument. It is the home of a fishing fleet, and is on the West Coast whale migration route. It is not unusual for kayakers and others to have close encounters with whales and other sea life. The main industry in Trinidad (besides the fishing fleet) is tourism. People come here for the coastal beauty, and an experience of nature.

The "placeholder design" of the proposed hotel as pictured on page 2-4 of the Environmental Assessment is not an acceptable design for this area. If built in the pictured manner, it would be out of place and intrusive to the nature of the area, and to the local environs. It simply does not fit the character and natural beauty of the area.

A more environmentally sensitive design is called for. I once had the pleasure of visiting architect Frank Lloyd Wright's stellar project

P36-01

P36-02

"Fallingwater" in Mill Run, PA. This organic design, which seemed to grow out of the rocks, trees, and water of the land on which it was placed, is an inspiration not only to me, but to the 180,000+ visitors yearly who go to rural Pennsylvania to visit it now, over 80 years after it was built. This is the type of design that the Trinidad Rancheria's hotel should emulate. There are numbers of commercial projects (lodges and hotels) in the Pacific Northwest that incorporate such organic design elements. Placing this type of organic design here would draw far more people to the area, and uphold the natural beauty that attracts visitors.

P36-02 (Cont.)

Electricity Use and Generation

Page 2-6 of the EA states that "The Hotel would obtain a normal power supply via a new utility service." Section 3.3.5 suggests no mitigation measures are required for climate change and greenhouse gas emissions. I disagree. I believe the Rancheria should do more to address the environmental impact of hotel operations through electricity generation. The 2018 United Nations report of the Intergovernmental Panel on Climate Change (IPCC) details the importance of creating a changed culture regarding climate change and its impacts. These can be addressed by incorporating solar, wind, and battery storage elements directly into the design of the hotel. Immediate neighbors of the Rancheria on Scenic Drive in Trinidad have shown the effectiveness of solar power generation through solar panels, and the newest technology of Solar Smartflowers. Integrated wind energy electricity generation should also be explored, along with large scale battery storage for power.

P36-03

Electric Vehicle Charging Infrastructure

The EA states on page 3-11 that "Operational emissions would primarily be comprised of mobile emissions associated with hotel patron's motor vehicle use..."

One avenue to address these emissions would be to encourage the use of electric vehicles for both hotel patrons and the Rancheria's transportation department. I think that the Rancheria should contact the Tesla Corporation, headquartered in Palo Alto, CA to provide a bank of Tesla destination chargers for patrons of the hotel and casino, and investigate placement of a Tesla Supercharger location (as has been done in Oregon at hotels I have frequented) in the parking lot.

P36-04

The Redwood Coast Energy Authority (RCEA) in Eureka has a division which assists in siting level 2 and higher power level 3 electric vehicle chargers in the Tri-county area. They can assist the Rancheria in grant applications to cover the cost of such chargers.

This charging infrastructure will draw electric vehicle enthusiasts to the site, prepare the Rancheria for the coming rapid decline in fossil fuel powered transportation, and help mitigate the carbon emissions projected in the EA.

In summary, I believe this project can be a boon to the Rancheria and the local community, if this project is approached with an eye firmly on the future of changing energy technologies, and a commitment to world class organic design of the hotel.

Respectfully,

James Vandegriff

379 Roundhouse Creek Rd.

Trinidad, CA 95570

jimvan@suddenlink.net

cc: dtyson@trinidadrancheria.com jhostler@trinidadrancheria.com jujoynt@gmail.com P36-04 (Cont.)

P36-05

Katrin Homan P.O.Box 1261 Trinidad, CA 95570

Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825

Dear Sir or Madam,

Thank you for the opportunity to provide comment on the Trinidad Cher-AE Heights Rancheria Hotel Project.

My husband and I used to live on Scenic Drive. Now we own property adjacent to Trinidad City limits. This is the fifteenth year that we have one or more of our children enrolled at Trinidad School. On school days we typically make two or more trips to the School to drop off or pick up kids. We shop, dine, and recreate in Trinidad.

The Trinidad Cher-Ae Heights Rancheria is and has been an outstanding neighbor and community member. The tribe assists Trinidad School with traffic control during pick-up and drop-off time. Cher-AE Heights Rancheria supports fundraising events for many local organisations. The Cher-AE Heights Tribe is an exceptional land steward of both, their own land and public land. At own expenses the Rancheria maintains Scenic Drive between its Rancheria Land and the City of Trinidad. Several years ago the tribe purchased the Trinidad Harbor Property and has completed several improvement projects including the much needed reconstruction of the Trinidad Pier, while consistently improving public access to its Harbor property and the adjacent beaches.

When last winter a different group of Native Americans demanded that the Trinidad Memorial Lighthouse be removed from land that bordered indian burial ground, the Cher-Ae Heights tribe opened their Harbor property as a temporary and ultimately permanent home for the Memorial Lighthouse. By providing this sanctuary for the Lighthouse the tribe immediately defused a precarious situation that had split the community.

I hope you will find an opportunity to visit Trinidad and its surrounding area. You would see that there are not many places from which the Cher-Ae Heights Casino and the Hotel project site are visible. Looking from Trinidad Head, the view across the many miles of stunning coastline is far more overwhelming than the little speck of earth that is proposed to house the hotel. Placing the hotel in front of an existing structure will further curtail the encroachment in the viewer's eyes.

P37-01

I do not possess the expertise to decipher the Hotel project's Environmental Assessment. However I have more confidence in a report prepared by engineers and scientists that have studied the project site, than I trust the word of any remote "experts" who voice an opinion at the urging of project opponents.

Any suggestions that the proposed Hyatt Hotel will encourage and increase crime are completely unfounded.

Over 100 years ago the Federal Government gave the rancheria land to the Cher-Ae Heights tribe, for them to keep and do with as they please.

If you and all other involved agencies are satisfied by the Environmental Assessment of the Hotel Development Project then please approve the project! IT IS THE TRIBE'S RIGHT!!

Sincerely,

Katrin Homan

P37-01 (Cont.) DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Public Comments - Trinidad Rancheria Hotel Project



Hall, Harold <harold.hall@bia.gov>

[EXTERNAL] Public Comments - Trinidad Rancheria Hotel Project

1 message

Richard Johnson <rfjbrr@gmail.com>
To: amy.dutschke@bia.gov, chad.broussard@bia.gov, harold.hall@bia.gov

Mon, Oct 22, 2018 at 9:43 AM

Ms. Amy Dutschke Bureau of Indian Affairs - Pacific Region, 2800 Cottage Way Sacramento, CA 95825 (916) 978-6041

Dear Ms. Dutschke,

I am requesting that your agency immediately begin an Environmental Impact Statement for the proposed Trinidad Rancheria hotel project.

I have lived in the Trinidad area for 15 years. During that time, I attended 2 community forums presented by the Trinidad Rancheria describing their economic development plans. The first of these was a presentation titled "Highway 101 Interchange Community Design Fair" in 2009. The second of the presentations was the "Comprehensive Community-Based Plan" in 2011. In both presentations, a proposed hotel was discussed. Pictorial renderings showed the hotel integrated with the existing casino such that the architecture, coloring, size and shape would complement the casino and the existing and proposed surrounding structures.

During the last two months I also attended two additional presentations on the proposed hotel based on the Environmental Assessment issued by your agency. The first, sponsored by the Humboldt Alliance for Responsible Planning on September 27, and the second presentation by the Trinidad Rancheria at a Special Meeting of the Trinidad City Council on October 15. Much to my surprise (and to many in the community), in both of the presentations, renderings of a 6 story, 100 room box like hotel structure were presented that were in no shape or form like the previous hotel designs. While this hotel design was described as a placeholder, the shape and size are clearly out of character with the natural beauty of this area.

While I am supportive of Rancheria efforts for self-sufficiency and local economic opportunities, and supported the previous hotel designs integrated with the existing casino, I have significant issues that I feel have not been adequately addressed in the current EA.

Availability of Water Supply: While the EA states that sufficient water is available for purchase from the City of Trinidad, it appears that statement is based on the allowable water that Trinidad is allocated to take from the source, Luffenholtz Creek, and not on the amount of water that physically flows in the creek during dry or drought seasons. This issue is so sensitive that recent development projects upstream from the Trinidad pumping point are prohibited from taking water from Luffenholtz during the dry summer months and must pump and store water in the winter months for use during the dry periods of the year. Additionally, the City of Trinidad has publicly expressed doubts if there is sufficient water to supply all their current and future users and has authorized a comprehensive study of the water supply availability and potential consumption that will be completed in 2019. Until the water supplier (City of Trinidad) can confidently state there is adequate water for this project, plus the Rancheria's additional development briefed in 2009 and 2011; or until alternate water sources are identified, it is difficult to see how this issue is mitigated in the EA.

P38-01

P38-02

10/26/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Public Comments - Trinidad Rancheria Hotel Project

Wastewater: The Cher-ae Heights Casino, which is already the biggest single water user on the Trinidad system, claims to recycle up to 40% of the water it uses. This is admirable and a positive aspect of future development atop a very sensitive and unstable ocean bluff. It also unclear from the current EA if the 40% recycle rate is achievable with the proposed hotel project. The hotel water uses (showers, linen laundry, swimming pool, etc.) are very different than those in a casino (toilet flushing) and the EA does not adequately demonstrate that the proposed recycle rate is achievable for the hotel.

P38-03

Additionally, the current EA includes expert concerns regarding the availability of sufficient space to support the required increased size of the septic system needed to process wastewater. Nor does the current EA address the need for reserve leech fields.

P38-04

Traffic and Circulation: The public discussions and EA sections dealing with traffic and circulation are confusing. The public is asked to comment on the hotel as a stand-alone project. However, the EA states that the proposed Highway 101 interchange is required to mitigate traffic issues, but which may not be completed until 2026. In the meantime, all traffic to and from the casino, hotel and other new development utilize Scenic Drive. Logic suggests that the need for an interchange (by its self a significant environmental impact) should be evaluated at the same time as the hotel project and together should be considered as one project.

Hotel architecture and aesthetics: In the four meetings that I have attended, the overwhelming majority of public comments supported the Rancheria's proposal for a hotel. On the other hand, the current hotel design is considered by many community members to be totally out of character for this rural area of the California coastline that contains some of the most scenic off shore rock formations anywhere. (Trinidad is a gateway city to the California Coastal National Monument). The Rancheria admits that the hotel design shown in the EA is a "placeholder" and may be changed in the future. However, the community is left with the task of providing public comments on a design that may have no bearing on the final version.

The EA states: "The proposed Hotel would impact the overall coastal aesthetics of the project site. Mitigation measures would require features to soften the visual impact and allow the proposed Hotel to blend into the scenery and adjacent existing Casino so that the Proposed Project would not result in any adverse effects to scenic resources." How is possible to provide public comment when the hotel design is a placeholder and what would be the mitigation measures if the final design is not known? With the present 6 story, 100 room box-like structure, it is difficult to envision how to soften the visual impact and allow the hotel to blend into the scenery.

P38-05

This community is struggling to find a design that meets the needs of the Rancheria and preserves the aesthetic beauty of our local environment. Most of the issues raised during the recent meetings on the hotel revolve around how to fit this project into our community with the least amount of impact; visually, environmentally and socially.

For these reasons alone, an EIS is required to evaluate the final hotel design and environmental impacts.

As currently proposed, the Environmental Assessment does not describe adequately mitigation measures for various impacts, some of which are discussed above, and thus fails to provide an adequate basis for a finding of no significant impacts (FONSI) or of non-significant environmental impacts. A comprehensive and careful Environmental Impact Study is needed to engage the public, resolve issues discussed in this letter and to evaluate the relationship of the interchange to the hotel project

P38-06

Thank you for your attention to this matter,

10/26/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Public Comments - Trinidad Rancheria Hotel Project

Richard Johnson Box 802 Trinidad, California 95570

10/26/2018

DEPARTMENT OF THE INTERIOR Mail - FW/. [EXTERNAL] Trinidad Rancheria Hotel Development project comment



Hall, Harold <harold.hall@bia.gov>

FW: [EXTERNAL] Trinidad Rancheria Hotel Development project comment

1 message

Amy Dutschke <amy.dutschke@bia.gov > To: Harold Hall , Chad Broussard <chad.broussard@bia.gov"> Mon, Oct 22, 2018 at 6:58 AM

FYI

From: Sandra Schachter <schachtersj@comcast.net>

Sent: Sunday, October 21, 2018 2:07 PM

To: amy.dutschke@bia.gov

Subject: [EXTERNAL] Trinidad Rancheria Hotel Development project comment

Dear Ms. Dutschke

As a frequent visitor to the Trinidad area, I would like to voice my opposition to the Trinidad Rancheria Hotel Development project, not only on the basis of its potential harm to the environment but also on the basis of its lack of consideration for Native American history. It needs to be carefully reconsidered.

P39-01

Sandra Schachter

74 Poppy Road

Carmel Valley, CA 93924

P40-05

10/26/2018

DEPARTMENT OF THE INTERIOR Mail - FW: [EXTERNAL] Proposed 6 story hotel at Trinidad Rancheria Trinidad CA 95570



never know.

BISON	Hall, Harold <harold.hall@bia.gov></harold.hall@bia.gov>	
FW: [EXTERNAL] Proposed 6 story hotel at Trinidad Ranch 1 message	eria Trinidad CA 95570	
Amy Dutschke <amy.dutschke@bia.gov> To: Harold Hall <harold.hall@bia.gov>, Chad Broussard <chad.broussard@bia.gov></chad.broussard@bia.gov></harold.hall@bia.gov></amy.dutschke@bia.gov>	Mon , Oct 22 , 2018 at 6:57 AM	
PYI		
From: Trisha Lee <trishale@sonic.net> Sent: Sunday, October 21, 2018 2:11 PM To: amy.dutschke@bia.gov</trishale@sonic.net>		
Subject: [EXTERNAL] Proposed 6 story hotel at Trinidad Rancheria Trinidad CA 9557	70	
Dear Amy Dutschke,		
I live in Northern California, just south of the beautiful coastal town of build or at the very least a thorough EIS to assess all factors in the buthis Trinidad Rancheria Casino located right on the precarious coast, Trinidad, CA 95570. In this area, windy road is already slipping into the	uilding of a 6 story hotel at slightly south of the town of	P40-01
We frequently visit Trinidad for arts night or other gatherings, and I had and precarious road to Trinidad Rancheria. This is an area where how erosion. My friend has a friend who's house has had to be moved up to of this cliff where this proposed monstrosity of a project is being project would fit in, but it will not fit in to our lovely coastal Trinidad Villag	ses are slipping down with wice due to severe erosion posed. If this was a big city,	P40-02
This location has unique and pristine scenic vistas; fragile coastal en is a protected biologically sensitive zone); visual impacts from Trinida National Coastal Monument), and from the ocean; light and noise poll species of birds; effect of 19,000 gallons/day in wastewater processing constant process of slumping; intrusive signage.	ad, from Trinidad Head (a ution; danger to dozens of	P40-03
There are issues of wastewater, water, light pollution and many othe most comprehensive document I have read so far explains all the detaddressed. That document was presented by Humboldt Alliance for R Trinidad, CA 95570.	ails that should be	P40-04

Perhaps building on a smaller scale might be acceptable, but without the proper studies we will

P40-05 (Cont.)

10/26/2018

DEPARTMENT OF THE INTERIOR Mail - FW: [EXTERNAL] Proposed 6 story hotel at Trinidad Rancheria Trinidad CA 95570

the scenic surrounds to the tiny fishing village of Trinidad, California.	_
Sincerely,	
Patricia Lee Lotus	
Trisha Lee on email	
trishale@sonic.net	
2425 C Street	
Eureka, CA 95501	

From: Andrew Pruter trustyourguide@yahoo.com Subject: BIA	PACIFIC REGIONAL OFFICE BUREAU OF INDIAN AFFAIRS
Date: Oct 17, 2018 at 6:15:19 AM To: Andrew Pruter trustyourguide@yahoo.com	2018 OCT 22 PM 1-R39 Dir Dep RD Trust
on junctions, the intersection of Main Street, Personal the frontage road, Scenic Onve two freeway on-ramps	
Sent from my iPad	MemoLtr
On Oct 17, 2018, at 5:52 AM, Andrew Pruter < trus	styourguide@yahoo.com>
wrote:	
October 16, 2018 Bureau of Indian Affairs 2800 Cott	tage Way Sacramento, CA
I am writing to express my concern regarding the pla Rancheria land. The community has many issues with particular, I am worried about water usage, visual im- wildlife, and wastewater. Please consider these impart this project. Visual Impact Scenic Drive is one of the	ith the proposed plan. In negative proposed plan. In pacts, unstable roadways, size, P41-0 acts before moving forward on
The California Coastal Commission (CCC) regulation the rancheria is sovereign land, which I respect, CCC to honoring the compact the tribe has with the state stringent regulations in development. These CCC repoint of a structure shall not exceed 30 feet vertically point of the foundation, nor 40 feet from the lowest p	to "follow equivalents of the most regulations include, "The highest ly measured from the highest

Traffic: Roads in Trinidad are narrow and in poor condition in general. Scenic Drive, in particular, south of the Casino, is difficult to traverse and only one lane in many sections. It is unstable and suffers damage every winter often closing for periods of time. If hotel visitors come from the south, this road cannot accommodate the impact. The EA acknowledges this very concern stating, "The project site is not currently mapped for landslides or liquefaction. However, landslides are common

planned six-story hotel by the tribe will be more than twice the allowable height

DEVELOPMENT PROJECT (EA), the hotel will be visible from Trinidad Head, a

In addition, according to the ENVIRONMENTAL ASSESSMENT TRINIDAD RANCHERIA ECONOMIC DEVELOPMENT CORPORATION HOTEL

California Historical Landmark #146 and a national monument.

according to the picture that the BIA issued.

P41-02

P41-03

along the slopes located in the vicinity of the project site, specifically at and below Scenic Drive, located immediately adjacent to and southwest of the project site." If hotel visitors come from the main Trinidad exit, there is also cause for concern. Locally known as the "dysfunction junction", the intersection of Main Street, Patrick's Point Drive, Westhaven Drive, the frontage road, Scenic Drive two freeway on-ramps and two freeway off-ramps is confusing. Only stop signs control the eight-road intersection, with one direction having no restriction. Given how many children live in Trinidad and walk/bike to school, this is especially concerning for their safety. Should a new off-ramp be built, there is no assurance this would happen in a timely manner before the completion of the hotel project. Furthermore, this project comes with its own environmental concerns.

Wastewater: There is no public sewer system in Trinidad. Residents, including the rancheria, rely on septic systems with leach fields. Due to this wastewater system, Humboldt County beaches consistently rank amongst the dirtiest in California, including Luffenholtz. According to the EA, the Rancheria currently has its own wastewater treatment plant which utilizes leach fields and recycles a sizable amount of the casino's wastewater. The EA states, "Construction of a 100-room Hotel would result in the need to treat and dispose of approximately 10,000 gallons of wastewater per day." 20 percent of the wastewater is expected to be recycled for toilet flushing, yet the additional discharge would require upgrades to the current plant and the creation of new leach fields with two potential locations identified in the EA. There is concern that these leach fields could destabilize the bluff and cause further failures to Scenic Drive. Furthermore, the proximity of creeks and beaches is a grave concern for inadvertent contamination from these leach fields during wet winter storms.

Water: Drought is the new normal in California. The proposed hotel would require nearly 19,000 gallons/day of water from the Trinidad municipal water system. The primary sources of water are Mill Creek and Luffenholtz Creek. The EA states that the city of Trinidad only uses 23 percent of its permitted water from these sources. What such a statistic fails to include is the use of these creeks by people outside of the city water system that put an additional drain on these resources in drought years. Residents are concerned water rationing may occur given the extra demand of the proposed hotel during severe drought years. It's also important to note that the permitted water rights of the city of Trinidad do not equate to the availability of water which fluctuates year to year. For example, the nearby Little River is running "much below normal" according to the USGS. As of October 16, 2018, the Little River is

P41-03 (Cont.)

P41-04

P41-05

P41-06

running 3.37 cubic feet per second yet the mean is 16 cubic feet per second. Furthermore, water needs to be available for CalFire and additional growth to the city itself for long-term residents and tourism.

P41-06 (Cont.)

Wildlife Concerns: According to the American Bird Conservancy, the leading cause of bird death is flying into windows. The image of the proposed hotel highlights large amounts of windows that could cause potential bird deaths in large numbers. Please revise the scope of this project to address the community of Trinidad. We deserve more transparency in the process and to have our concerns addressed adequately if the project should move forward. The only viable option is to scale back the design to be more ecologically sound to the unique geological and environmental aspects of Scenic Drive and the community of Trinidad.

P41-07

Sincerely, Andy Pruter

Sent from my iPad

October 16, 2018

PACIFIC REGIONAL OFFICE BUREAU OF INDIAN AFFAIRS

2018 OCT 22 PM 1:39

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Fax	

Amy Dutschke, Regional Director Bureau of Indian Affairs, Pacific Regional Office 2800 Cottage Way Sacramento CA 9582

I am writing to express my concern regarding the planned hotel on Trinidad Rancheria land. The community has many issues with the proposed plan. In particular, I am worried about visual impacts and scale; traffic and unstable roadways; wastewater; water usage and resource integrity; wildlife hazards; and construction materials. Please consider these impacts before moving forward on this project.

This project could represent an <u>exemplary model of innovation</u>, <u>beauty and sustainability in design and function</u>. At the end of each issue section, I'll provide suggestions to consider to that end.

Visual Impact

Trinidad is one of only a few Gateway Communities to the federally-managed California Coastal National Monument (CCNM). Considered one of the most beautiful places on Earth, it's rocky undeveloped and protected shores provide a seascape that draws many to experience nature's abundance. The California Coastal Commission (CCC) and Bureau of Land Management (BLM) regulations maintain this beauty. Has the BLM been consulted and included in the planning phase? What effect would this have on the tone of the CCNM objectives, designation and mission?

I respect the sovereignty and economic development of the Rancheria community, but I believe the CCC guidelines should be adhered to, honoring the compact the Rancheria tribal community has with the state to "follow equivalents of the most stringent regulations in development". These CCC regulations include, "The highest point of a structure shall not exceed 30 feet vertically measured from the highest point of the foundation, nor 40 feet from the lowest point of the foundation." The planned six-story hotel will be more than twice the allowable height according to the picture that the BIA issued. The Trinidad Rancheria Economic Development Corporation (TREDC) says that this picture is just a "placeholder", but the public hasn't been provided with any other plans or images.

In addition, according to the ENVIRONMENTAL ASSESSMENT TRINIDAD RANCHERIA ECONOMIC DEVELOPMENT CORPORATION HOTEL DEVELOPMENT PROJECT (EA), the hotel will be visible from Trinidad Head, a California Historical Landmark #146 and a national monument.

P42-01

I am an ecotour guide with Kayak Trinidad, which runs wildlife tours in Trinidad Bay. Ecotourism could be a huge boon for the Rancheria and greater Trinidad communities, but a hotel of this size and proposed design wouldn't be consistent with those values; it would impose a significant visual barrier to the forested coastline view from the water and pose a tangible eyesore to the area's undeveloped landscape.

P42-02 (Cont.)

I also work with Hemp-Technologies Global. Hemp-lime insulated walls can be employed in large, commercial buildings. I'll discuss this more in the construction materials section. Hempcrete creates beautiful, structurally-sound, resilient structures that blend very well with the natural environment with decreased impact.

Traffic

Roads in Trinidad are narrow and in poor condition in general. Scenic Drive, in particular, south of the Casino, is difficult to traverse and is only one lane, collapsing, gravel, and dangerously sloped in many sections. Highly unstable, it suffers damage throughout the year, often closing for periods of time. Traffic from Trinidad town to the casino, on the improved sections of road, is often dangerously fast. Pedestrians, cyclists, and families don't have designated lanes and feel unsafe.

If hotel visitors come from the south, this road cannot accommodate the impact. The EA acknowledges this very concern stating, "The project site is not currently mapped for landslides or liquefaction. However, landslides are common along the slopes located in the vicinity of the project site, specifically at and below Scenic Drive, located immediately adjacent to and southwest of the project site." General Manager of TREDC, David Tyson, said at the latest town council meeting that traffic wouldn't be increased because hotel guests would stay in their rooms and at the casino. This seems extremely short sighted and questionable, given the tourism draw of the area being the many natural sites, parks, events, quaint towns, etc.

If hotel visitors come from the main Trinidad exit, there is also cause for concern. Locally known as the "dysfunction junction", the intersection of Main Street, Patrick's Point Drive, Westhaven Drive, the frontage road, Scenic Drive two freeway on-ramps and two freeway off-ramps is confusing. Only stop signs control the eight-road intersection, with one direction having no restriction. Given how many children live in Trinidad and walk/bike to school, this is especially concerning for their safety.

Should a new off-ramp be built, there is no assurance this would happen in a timely manner before the completion of the hotel project. Furthermore, this project comes with its own environmental concerns.

Mitigation should include measures to improve the safety of pedestrians, cyclists, and motorists in the main intersection of Trinidad and along the entire length of Scenic Drive. I also think that if

water will be taken from Luffenholtz Creek, then erosion control infrastructure and road improvement should occur along Scenic Drive to the south of the hotel site as well.

P42-03 (Cont.)

Wastewater

There is no public sewer system in Trinidad. Residents, including the rancheria, rely on septic systems with leach fields. Due to this wastewater system, Humboldt County beaches consistently rank amongst the most polluted in California, including Luffenholtz.

According to the EA, the Rancheria currently has its own wastewater treatment plant which utilizes leach fields and recycles a sizable amount of the casino's wastewater. The EA states, "Construction of a 100-room Hotel would result in the need to treat and dispose of approximately 10,000 gallons of wastewater per day." Twenty percent of the wastewater is expected to be recycled for toilet flushing, yet the additional discharge would require upgrades to the current plant and the creation of new leach fields with two potential locations identified in the EA. There is concern that these leach fields could destabilize the bluff and cause further failures to Scenic Drive. Furthermore, the proximity of creeks and beaches is a grave concern for inadvertent contamination from these leach fields during wet winter storms.

I believe that local geology experts should be able to weigh in on the assessment of the proposed plans, as they have the best understanding of the combination of factors involved in the conditions of the site. Also, constructed wetlands should be considered as an exemplary and responsible option for wastewater treatment, wildlife habitat generation, and clean water discharge to protect soils and watersheds.

Water

Drought is the new normal in California. The proposed hotel would require nearly 19,000 gallons/day of water from the Trinidad municipal water system. The primary sources of water are Mill Creek and Luffenholtz Creek. The EA states that the city of Trinidad only uses 23 percent of its permitted water from these sources. What such a statistic fails to include is the use of these creeks by people outside of the city water system that put an additional drain on these resources in drought years.

Residents are concerned water rationing may occur given the extra demand of the proposed hotel during severe drought years. It's also important to note that the permitted water rights of the city of Trinidad do not equate to the availability of water which fluctuates year to year. For example, the nearby Little River is running "much below normal" according to the USGS. As of October 16, 2018, the Little River is running 3.37 cubic feet per second yet the mean is 16 cubic feet per second. Furthermore, water needs to be available for CalFire and additional growth to the city itself for long-term residents and tourism.

P42-04

Catchment systems, low flow fixtures and infrastructure, rationing protocols and permaculture design principles of water and landscape management should be considered as ecologically and socially responsible mitigation measures.

P42-05 (Cont.)

Wildlife Concerns

According to the American Bird Conservancy, the leading cause of bird death is flying into windows. The image of the proposed hotel highlights large amounts of windows that could cause potential bird deaths in large numbers.

Again, as Trinidad is perched adjacent to the CCNM, the protected colonies of nesting sea birds, especially those that use land features for nesting, such as the endangered Marbled Murrelet, could be adversely affected. Also, draining small creeks of its capacity is irresponsible for not only humans who depend on it, but also an abundance of temperate coastal redwood forest wildlife and fisheries.

Solutions for this should include no glare, perhaps smaller windows, lower profile structure, and design that integrates regeneratively with surrounding ecosystem.

Construction Materials

Traditional construction generates 50% of landfill waste. "Sick building syndrome" contributes to health crises due to toxic materials and mold issues. The construction industry generates one of the largest shares of greenhouse gasses into the environment, due to forest destruction, mining, cement, landfill waste and petrochemical commodity production.

All new construction should be carbon negative or at least neutral, at best, in this age if climate change.

Hemp masonry systems provide carbon negative buildings. Hotel operation, insurance, and construction labor costs can be reduced if hempcrete is integrated into the construction design. It can be added and permitted seamlessly to the existing plan, as it is considered an infill wall.

Benefits and savings:

- Over 50% insurance reduction
- Less foundation material required
- Over 50% HVAC savings
- Reduced labor costs
- Less framing material required
- Reduced construction waste expenditure
- Fire, mold, pest proof/resistant
- Superior thermal performance and R-value
- Longevity and resiliency in the hemp-lime matrix
- Recyclable & reusable

P42-06

Hypoallergenic, non toxic and breathable, yet airtight

- Carbon sequestering
- Comparable cost/sq ft

Governor Brown just signed SB 1409, authorizing hemp production in California. Along with existing ecotourism draws of the area, a hempcrete hotel would be the <u>first commercial building</u> of a larger size <u>in the</u> nation. Be the first in the hemp boom coming to California.

Please revise the scope of this project to address the concerns of the community of and influx of visitors to Trinidad. We deserve more transparency in the process and to have our comments addressed adequately before the project moves forward.

Please scale back the design to be more ecologically sound to the unique geological and environmental aspects of Scenic Drive and the community of Trinidad.

I encourage you to contact me regarding hempcrete incorporation into the plans. I can set up a Skype meeting with the team of experts at Hemp-Technologies upon request. More information can be reviewed here: Hemp-Tech (scroll to view PDF hempcrete attachments)

Thank you for reading this in its entirety. We have confidence you'll act in accordance with community trust, good faith, ecological stewardship, transparency and the spirit of collaboration.

Signed,

Annalisa Rush

- Trinidad Resident, 21 years
- Ecotour Guide, Kayak Trinidad
- Certified Installer, Hempcrete Hemp-Technologies Global

951 Westhaven Dr. So. Trinidad, CA 95570 P42-07 (Cont.)

	Reg Dir Royal Trust
2800 Cottage Way	ber 17,20 Route DECRMS Response Required Due Date
Ms. Dutschke,	MemoLtrFax
I am writing to you regarding the Environmental Assessment (EA) for the T Rancheria Economic Development Corporation Hotel Project issued in Sept urge you to require an Environmental Impact Statement (EIS); a Finding of Impact (FONSI) would not be appropriate. The main concerns I would like that are water, wastewater, fire protection, traffic, and visual aesthetics.	ember 2018. I
The project proposes to use water from the City of Trinidad via Luffenholz of allotted a certain amount. However, the current estimated discharge of Luffe September 23, 2018 was 1.04 cubic feet per second (cfs). This discharge is be for the citizens of Trinidad, my concern is that the current amount of water wadequate for a hotel with 100 rooms. Also of great concern is the amount of resident trout and other aquatic life. Further research regarding this issue is p	nholz on arely sustainable would not be
The EA erroneously states that the Rancheria will use the septic system of the Trinidad. This is of great concern because Trinidad has no septic system; the wrote the report and the people submitting the report have not presented the This inaccuracy leads me to the concern that other facts in the EA are misrep	people who facts correctly. resented.
The Rancheria currently has a wastewater system but further research and ass to be done as to whether they can provide an adequate wastewater system. The can recycle waste water is commendable but only so much wastewater can be that needs to be addressed and presented clearly. Slope stability issues associatinger wastewater treatment system should be assessed.	sessment needs ne idea that they
Current fire protection is ok at best for this community. The only adequate fir the proposed hotel is in Eureka, CA. In case of emergency, fire protection in the needed for the proposed project is over 30 miles away. It would take 45 minus services needed in case of fire emergency. A fire could be devastating; impact protection need to be further assessed.	the capacity P43-03
Lastly, traffic congestion and thereby potential for more accidents in the area my children to and from school is of concern. Also the visual impact a large have on the pristine beauty of Trinidad Bay should be evaluated thoroughly.	where I take P43-04 otel would
Thank you for your considered	

Afeelly Holly Vadurro

hvadurro@gmail.com

PACIFIC REGION JFFICE BUREAU OF INDIA AFFAIRS Response Requir Due Date	
2018 OCT 22 P 1:41 FaxLt	MemoLtr

October 19, 2018

Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825

Re: Comments on Environmental Assessment of Trinidad Rancheria Hotel Project

Dear Bureau of Indian Affairs,

I have lived a half mile away from the Trinidad Rancheria for 25 years. I support the Rancheria's right to develop their property in the way it works for them.

After reviewing the Environmental Assessment I have two significant concerns that have ramifications beyond their property.

The Environmental Assessment states that the new hotel will use water from the City of Trinidad water system and that "The City has a permitted water use rate of 355,392 gallons per day (gpd), of which the City is using approximately 23 percent (Buckman, 2017)."

Permitted use is not actual potential. The City has engaged a firm to provide a analysis of the actual potential of water availability factoring in climate change, drought and other factors. This study will take 3 months to prepare.

Additionally, during the meeting at the Trinidad Town Hall, one of the members of the development team said there was no back up plan for a water source.

Given these facts it is prudent to review the City of Trinidad water report before moving forward with the hotel project.

My other concern relates to sewage capacity. In the Environmental Assessment it states in Table 9.1: Summery of Alternative Costs and Issues regarding sewage capacity that the capacity of upgrading the existing treatment facility is "limited by treatment capacity. In addition, it may be difficult to find sufficient leach field area, if not enough area can be found development needs to be reduced". The ocean outfall option mentioned later is not practical for the sensitive environmental condition of Trinidad Bay.

The size and impact of the proposed hotel needs to be within the limitations of water availability and sewage treatment capacity.

Thank you for taking this into consideration

Clay Johnson P.O. Box 599 Trinidad, CA 95570

P44-02

P44-01

PACIFIC REGIONAL OFFICE BUREAU OF INDIAN AFFAIRS

Bureau of Indian Afrans 22 PM 1: 39 2800 Cottage Way Sacramento, CA 95825

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October 16, 2018

I am writing to express my concern regarding the planned hotel on Trinidad Rancheria land. The community has many issues with the proposed plan. In particular, I am worried about water usage, visual impacts, unstable roadways, size, wildlife, and wastewater. Please consider these impacts before moving forward on this project.

Visual Impact

Scenic Drive is one of the most beautiful places on Earth. The California Coastal Commission (CCC) regulations maintain this beauty. Although the rancheria is sovereign land, which I respect, CCC guidelines should be adhered to honoring the compact the tribe has with the state to "follow equivalents of the most stringent regulations in development". These CCC regulations include, "The highest point of a structure shall not exceed 30 feet vertically measured from the highest point of the foundation, nor 40 feet from the lowest point of the foundation." The planned six-story hotel by the tribe will be more than twice the allowable height according to the picture that the BIA issued.

P45-01

In addition, according to the ENVIRONMENTAL ASSESSMENT TRINIDAD RANCHERIA ECONOMIC DEVELOPMENT CORPORATION HOTEL DEVELOPMENT PROJECT (EA), the hotel will be visible from Trinidad Head, a California Historical Landmark #146 and a national monument.

Traffic

Roads in Trinidad are narrow and in poor condition in general. Scenic Drive, in particular, south of the Casino, is difficult to traverse and only one lane in many sections. It is unstable and suffers damage every winter often closing for periods of time. If hotel visitors come from the south, this road cannot accommodate the impact. The EA acknowledges this very concern stating, "The project site is not currently mapped for landslides or liquefaction. However, landslides are common along the slopes located in the vicinity of the project site, specifically at and below Scenic Drive, located immediately adjacent to and southwest of the project site."

If hotel visitors come from the main Trinidad exit, there is also cause for concern. Locally known as the "dysfunction junction", the intersection of Main Street, Patrick's Point Drive, Westhaven Drive, the frontage road, Scenic Drive two freeway on-ramps and two freeway off-ramps is confusing. Only stop signs control the eight-road intersection, with one direction having no restriction. Given how many children live in Trinidad and walk/bike to school, this is especially concerning for their safety.

Should a new off-ramp be built, there is no assurance this would happen in a timely manner before the completion of the hotel project. Furthermore, this project comes with its own environmental concerns.

P45-02

Wastewater:

There is no public sewer system in Trinidad. Residents, including the rancheria, rely on septic systems with leach fields. Due to this wastewater system, Humboldt County beaches consistently rank amongst the dirtiest in California, including Luffenholtz.

P45-03

According to the EA, the Rancheria currently has its own wastewater treatment plant which utilizes leach fields and recycles a sizable amount of the casino's wastewater. The EA states, "Construction of a 100-room Hotel would result in the need to treat and dispose of approximately 10,000 gallons of wastewater per day." 20 percent of the wastewater is expected to be recycled for toilet flushing, yet the additional discharge would require upgrades to the current plant and the creation of new leach fields with two potential locations identified in the EA. There is concern that these leach fields could destabilize the bluff and cause further failures to Scenic Drive. Furthermore, the proximity of creeks and beaches is a grave concern for inadvertent contamination from these leach fields during wet winter storms.

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P45-04

Residents are concerned water rationing may occur given the extra demand of the proposed hotel during severe drought years. It's also important to note that the permitted water rights of the city of Trinidad do not equate to the availability of water which fluctuates year to year. For example, the nearby Little River is running "much below normal" according to the USGS. As of October 16, 2018, the Little River is running 3.37 cubic feet per second yet the mean is 16 cubic feet per second. Furthermore, water needs to be available for CalFire and additional growth to the city itself for long-term residents and tourism.

Wildlife Concerns:

According to the American Bird Conservancy, the leading cause of bird death is flying into windows. The image of the proposed hotel highlights large amounts of windows that could cause potential bird deaths in large numbers.

P45-05

Please revise the scope of this project to address the community of Trinidad. We deserve more transparency in the process and to have our concerns addressed adequately if the project should move forward. The only viable option is to scale back the design to be more ecologically sound to the unique geological and environmental aspects of Scenic Drive and the community of Trinidad.

Patrick Harestad

Jong time resident of Trinidad, CA.

PACIFIC REGIONAL OFFICE BUREAU OF INDIAN AFFAIRS

2018 OCT 22 PM 1:40

BRENDA K. COOPER PO Box 996 Trinidad, California 95570

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Oct. 19, 2018

Ms. Amy Dutschke, Regional Director Bureau of Indian Affairs - Pacific Region 2800 Cottage Way Sacramento, CA 95825

RE: Trinidad Rancheria Casino-Hotel Proposal

Dear Ms. Dutschke & the Bureau of Indian Affairs:

Like scores of my neighbors in and around the little North Coast village of Trinidad, I am opposed to the Trinidad Rancheria's casino-hotel project as proposed.

I am a homeowner and fulltime resident who lives just 1-1/2 miles from the Rancheria. My husband and I walk our dogs on the beaches below the Rancheria property, and I walk on Trinidad Bay every day. A huge hotel sprouting from the bluff across the Bay would be more than an eyesore — it would be a scar on the beauty of the coastline, which is what drew us here in the first place 21 years ago, and what brings tourists to Humboldt County. The addition of a massive 6-story Hyatt hotel on this beautiful bluff would be an affront to me and all of us who love this coastline, and who work and recreate here.

In shorthand, my concerns include the impact of the project on Trinidad Bay's unique and pristine scenic vistas from the city of Trinidad, from Trinidad Head (a National Coastal Monument), and from the ocean; our fragile coastal environment (Trinidad Harbor is a protected biologically sensitive zone); light and noise pollution; danger to dozens of species of birds from birdstrikes on the 70+-foot facade; effects on a geologically fragile bluff of 19,000 gallons/day in wastewater processing; intrusive signage.

The most obvious concern shared by the more than 100 citizens — a big crowd for this little town — who turned out at each of two public meetings about the project is its appalling design, completely inappropriate and even destructive on this pristine stretch of coastline. Although the massive Environmental Assessment report is supposed to offer various alternatives to the details of the project it evaluates, there is apparently no alternative being considered to the gross 6-story, 100-room Hyatt box that would tower on the edge of a geologically fragile sandy bluff above beautiful and unsullied Trinidad Bay.

Many of us would welcome a tasteful structure that would reflect both the natural environment and the native cultural heritage and values of the Trinidad Rancheria's people, a hotel that celebrates and meshes with the landscape and forest. But the proposed Hyatt hotel box looks like any one of thousands that can be found outside airports and along freeways across America. A

P46-01

P46-02

P46-03

design that is in harmony with the coastline would be so much more appropriate, and so much more acceptable both to Humboldt residents who love this coast, and to visitors who travel here for the natural beauty. P46-03 (Cont.) Environmental and traffic concerns are a close second to the hotel's awful design in the minds of worried citizens here. The existing Cher-ai Heights Casino, which the hotel is proposed to abut, sits atop the sand and clay bluff formations that are common along hundreds of miles of Northwestern Coast. Scenic Drive, the former Redwood Highway, runs directly below the Rancheria property. The road and the sandy hillside on which it was built are in a constant state of slumping into the Pacific. Surely this is a poor choice for a heavy 6-story building that will P46-04 use a projected 19,000 gallons of water/day. Even if a large percentage of that water is recycled, pouring even half that much water into a sandy bluff through leachfields will undoubtedly have an adverse effect on groundwater, cliff erosion and bluff stability. Scenic Drive itself, the only access to the construction site and subsequent 100-room hotel and casino, is wholly unsuited to the level of traffic projected for the hotel and an expanded casino, as the EA acknowledges. The "solution" is a proposed interchange exit on Highway 101 to the P46-05 property's east, a massive project that is opposed by many Trinidad residents, and which could not be in place until 2026 at the soonest, according to the EA and the California Transportation Commission, which will not even decide on the interchange project until 2022. As a Trinidad municipal water system customer, I am doubtful that our water district, which has already been described as fully allocated and in jeopardy during times of drought can support this additional demand, the equivalent of 45 new single-family homes. I will strongly urge the P46-06 City of Trinidad to reject the Rancheria's request for 19,000 gallons/day from the municipal system. The hotel should seek other water sources. I have many more objections to the various ways this hotel project would adversely affect my life, my town's character and environment, and this entire coastline. I refer you to the detailed comment document submitted by the citizen group Humboldt Alliance for Responsible Planning (HARP), which I would attach to this letter if I could. I urge close review of the HARP comments, and I strongly endorse the HARP criticisms and comments of the substandard EA on this project. P46-07 One significant measure of public concern is the number of local residents who turned out for special meetings to learn more about what for many was a surprise development project. About 100 residents came to a hastily arranged citizens group meeting, called on Sept. 27 after the 500page EA was released. Another 100 came to a special meeting between the Trinidad City Council and Rancheria representatives on Oct. 15. During public comment Q&A periods at both meetings, feedback focused on how to improve the design to fit the setting, water concerns, landtaking for the interchange, and environmental impacts. Under the rules of the Environmental Assessment process, as I understand it, the BIA now has the option to make a finding of no significant impacts (FONSI) for this project. That would be inconceivable, given that the impacts of the proposed hotel would be not just significant but P46-08 enormous in terms of multiple adverse effects on the area's environment, traffic, bluff stability,

unsullied beauty, small-town culture & etc., etc. The EA review of the project and its impacts is insufficient, and the project has been rushed through without adequate consultation with the public and other stakeholders who will be affected. I strongly urge the BIA to order a comprehensive Environmental Impact Study and design review to provide a much more complete evaluation of the true impacts of this project, and to educate the public.

P46-08 (Cont.)

Absent a major revision of the visual, environmental, traffic and related impacts of the project, I strongly recommend that the BIA reject the hotel proposal in its entirety.

Thank you for your attention.

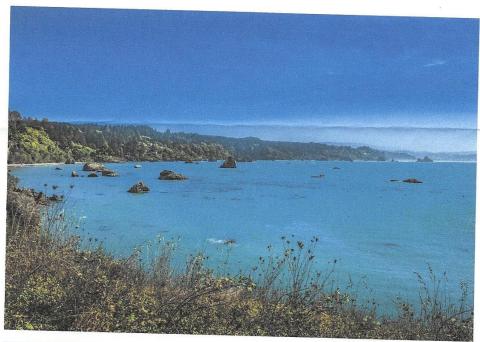
Sincerely,

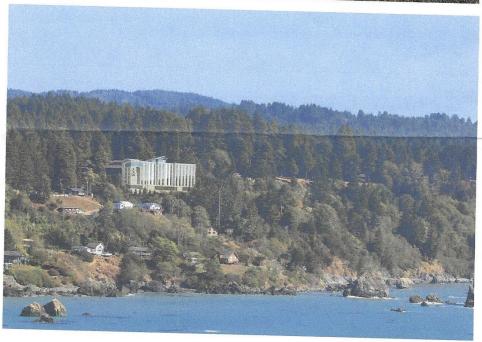
Brenda K. Cooper, Ph.D.

cc: Gov. Jerry Brown; U.S. Sen. Dianne Feinstein; U.S. Sen. Kamala Harris; U.S. Rep. Jared Huffman; CA Sen. Mike McGuire; Assemblyman Jim Wood; California Coastal Commission; U.S. Park Service; Humboldt Board of Supervisors; Trinidad City Council; Humboldt Alliance for Responsible Planning.

Trinidad Bay, Before & After

Impact of the Trinidad Rancheria's proposed 6-story, 100-room Hyatt hotel on the bluff above Trinidad Bay, California. Top: The Bay today (existing Casino is about one-third of the way along the bluff from the left/north). Bottom: Photoshopped illustration.





JENNIFER LANCE

PACIFIC REGIONAL OFFICE BUREAU OF INDIAN AFFAIRS 2018 OCT 22 PM 1:39

October 16, 2018

Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825

I am writing to express my concern regarding the planned hotel on Trinidad Rancheria land. The community has many issues with the proposed plan. In particular, I am worried about water usage, visual impacts, unstable roadways, size, wildlife, and wastewater. Please consider these impacts before moving forward on this project.

Visual Impact

Scenic Drive is one of the most beautiful places on Earth. The California Coastal Commission (CCC) regulations maintain this beauty. Although the rancheria is sovereign land, which I respect, CCC guidelines should be adhered to honoring the compact the tribe has with the state to "follow equivalents of the most stringent regulations in development". These CCC regulations include, "The highest point of a structure shall not exceed 30 feet vertically measured from the highest point of the foundation, nor 40 feet from the lowest point of the foundation." The planned six-story hotel by the tribe will be more than twice the allowable height according to the picture that the BIA issued.

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P47-01

P47-02

Traffic

Roads in Trinidad are narrow and in poor condition in general. Scenic Drive, in particular, south of the Casino, is difficult to traverse and only one lane in many sections. It is unstable and suffers damage every winter often closing for periods of time. If hotel visitors come from the south, this road cannot accommodate the impact. The EA acknowledges this very concern stating, "The project site is not currently mapped for landslides or liquefaction. However, landslides are common along the slopes located in the vicinity of the project site, specifically at and below Scenic Drive, located immediately adjacent to and southwest of the project site."

If hotel visitors come from the main Trinidad exit, there is also cause for concern. Locally known as the "dysfunction junction", the intersection of Main Street, Patrick's Point Drive, Westhaven Drive, the frontage road, Scenic Drive two freeway on-ramps and two freeway off-ramps is confusing. Only stop signs control the eight-road intersection, with one direction having no restriction. Given how many children live in Trinidad and walk/bike to school, this is especially concerning for their safety.

Should a new off-ramp be built, there is no assurance this would happen in a timely manner before the completion of the hotel project. Furthermore, this project comes with its own environmental concerns.

Wastewater:

There is no public sewer system in Trinidad. Residents, including the rancheria, rely on septic systems with leach fields. Due to this wastewater system, Humboldt County beaches consistently rank amongst the dirtiest in California, including Luffenholtz.

According to the EA, the Rancheria currently has its own wastewater treatment plant which utilizes leach fields and recycles a sizable amount of the casino's wastewater. The EA states, "Construction of a 100-room Hotel would result in the need to treat and dispose of approximately 10,000 gallons of wastewater per day." 20 percent of the wastewater is

P47-03

P47-04

P47-05

expected to be recycled for toilet flushing, yet the additional discharge would require upgrades to the current plant and the creation of new leach fields with two potential locations identified in the EA. There is concern that these leach fields could destabilize the bluff and cause further failures to Scenic Drive. Furthermore, the proximity of creeks and beaches is a grave concern for inadvertent contamination from these leach fields during wet winter storms.

P47-05 (Cont.)

Water:

Drought is the new normal in California. The proposed hotel would require nearly 19,000 gallons/day of water from the Trinidad municipal water system. The primary sources of water are Mill Creek and Luffenholtz Creek. The EA states that the city of Trinidad only uses 23 percent of its permitted water from these sources. What such a statistic fails to include is the use of these creeks by people outside of the city water system that put an additional drain on these resources in drought years.

P45-06

Residents are concerned water rationing may occur given the extra demand of the proposed hotel during severe drought years. It's also important to note that the permitted water rights of the city of Trinidad do not equate to the availability of water which fluctuates year to year. For example, the nearby Little River is running "much below normal" according to the USGS. As of October 16, 2018, the Little River is running 3.37 cubic feet per second yet the mean is 16 cubic feet per second. Furthermore, water needs to be available for CalFire and additional growth to the city itself for long-term residents and tourism.

Wildlife Concerns:

According to the American Bird Conservancy, the leading cause of bird death is flying into windows. The image of the proposed hotel highlights large amounts of windows that could cause potential bird deaths in large numbers.

P45-07

Please revise the scope of this project to address the community of Trinidad. We deserve more transparency in the process and to have our

concerns addressed adequately if the project should move forward. The only viable option is to scale back the design to be more ecologically sound to the unique geological and environmental aspects of Scenic Drive and the community of Trinidad.

P47-07 (Cont.)

Sincerely yours,

Jennifer Lance

PACIFIC RECURAL OFFICE BUREAU OF IL. AN AFFAL

Ms. Amy Dutschke
Bureau of Indian Affairs—Pacific Flegion PM 1:46
2800 Cottage Way
Sacramento CA 95825

	Reg Dir
	Dep RD Trust
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V	Route DECRINS
	Response Required
	Due Date
	MemoLtr
	Fax

Dear Ms. Dutschke

I am writing concerning the proposed hotel project adjacent to the Cher-ae Heights Casino in Trinidad. My husband and I have resided in Trinidad since 1972 and came here for the clean air, recreational opportunities and beautiful surroundings. We have been professional landscape photographers since moving up here and often took pictures along Scenic Drive of our awesome shoreline. Our images grace such iconic calendars such as Sierra Club and Audubon; our magazine credits included Sunset and National Geographic. Some of our best sellers to these publications were from Trinidad. Our shoreline, now part of the California Historic Landmark and Marine Sanctuary draws visitors from all over the world.

The Casino also draws people from all over the world. I don't believe that the tree-huggers and the gambling enthusiasts are mutually excludable; we have coexisted together since its inception. I understand the sovereignty of the tribes that were here before our arrival and positively support their pursuit of economic opportunity.

However, the design of the hotel and the impact upon our community are inappropriate. I support either a no-build decision or the ordering of an Environmental Impact Study. I attended a meeting recently hosted by the tribe and Trinidad officials. The proposed hotel is too large, sticks out like a sore thumb. If the tribe wants to introduce and educate visitors to their culture perhaps a structure that nestles into the surroundings rather than thrusting itself in such a glitzy manner would be more appropriate?

My other major concern is water. My husband pursued acquiring Senior Water Rights to the creek (McConnahas Mill Creek) that supplies water to the four residences on our road. It took almost 2 years but it was granted by the State of California this summer. We have the right to draw water from that creek and any other parties' needs will have to be assessed as the need comes up. It may rain 70 inches a year but that water is not available to us who use it. I was not happy with the answer to the question about a Plan B if Trinidad water is not available. The answer was there is no plan B.

Please consider that a comprehensive Environmental Impact Study is needed to keep the public in the loop and help us understand the impacts on our lives.

Sincerely

Donna B. Ulrich Larry Ulrich PO Box 178 Trinidad CA 95570 P48-01

P48-02

Ms. Amy Dutschke Bureao of Indian Affairs – Pacific Region, 2800 Cottage Way Sacramento, CA 95825

PACIFICE WOLAN AFFAIRS
2018 OCT 22 PM 1:41

18 October 2018

Dear Ms. Dutschke:

We are writing to express our concerns about the proposed Trinidad Rancheria Hotel Development Project.

We have lived in Humboldt County for 40 years and in our current home on Scenic Drive and Luffenholtz Creek for 30 years. We moved here for the area's natural beauty and quiet setting. We have tried to maintain those qualities on our property and in our lifestyle by respecting the environment and imposing minimal disruption to it.

Our concern is that the development project as currently written does not adequately address significant issues that have the potential to damage and/or destroy the environment we share. Some of those issues and questions include:

- o the visual aesthetics and engineering of the hotel at the proposed site,
- o how the project will maintain (enhance) the natural beauty in and around the development,
- o mitigation of water impacts (groundwater increases, potable water scarcity, road run-off),
- o why the highway interchange will not be completed until years after the hotel is completed,

At a community gathering initiated by the Rancheria eight or ten years ago we learned about the proposed development. Presentations and materials provided by Rancheria personnel elicited many questions, comments, and concerns at that time.

At a September 27, 2018 meeting arranged by the Humboldt Alliance for Responsible Planning, those concerns and the main points of the Environmental Assessment were discussed by local professionals and commented upon by dozens of Rancheria neighbors.

At the October 15, 2018 Trinidad City Council meeting Trinidad Rancheria staff reviewed the sovereign land status of the Trinidad Rancheria and presented information about the project proposal. Many community members asked questions and made comments.

The same questions and concerns expressed at the gathering eight or ten years ago remain. A more complete report about the hotel site and design, water resource contingencies, and environmental impacts is needed to seriously review a project of this size and significance to our small town. We hope that a complete assessment, thorough review, and necessary updates will be made and the project will commence. We want future visitors to Trinidad to be greeted by an aesthetically and ecologically inspiring hotel complex reflecting the natural beauty of our area.

Thank you for your consideration.

With Respect,

Melanie and Ron Johnson

23 Oke-Ga Lane

Trinidad, CA 95570

Response Required_

Due Date____

Fax____Ltr_

P49-01

P49-02

PACIFIC RE SHAL OFFICE BUREAU OF HOUAN AFFAIRS

2018 OCT 23 PM 1:54

To:

Regional Director Amy Dutschke

Bureau of Indian Affairs, Pacific Regional Office

2800 Cottage Way, Sacramento, California 95825

October 20, 2018 Reg Dir	41
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Route DECRMS	-
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Dear Ms. Dutschke:

These are my comments regarding the Trinidad Rancheria's Environmental Analysis for a proposed hotel construction.

As you know, the Trinidad Rancheria is moving forward on a planned hotel adjoining the Cher-Ae Heights Casino. They also have a planned RV park and gas station, though are not presently moving on these projects. While the tribe says a widely-circulated artist's conception showing a six-story-tall monolith looming over the coastline like Godzilla towering above Tokyo is only one proposal, I have yet to see another.

Besides the obvious concrete and glass wart upon the viewscape of Baja Trinidad, which by itself is bad enough, there are several environmental concerns which should be a cause for alarm. One is the issue of wastewater. Casino effluent is currently handled by a standard wastewater treatment system, i.e., tanks and leach field. The addition of a hotel will require doubling or tripling the current system. What is the proposal to mitigate the increase in sewage? The current facility has a very effective wastewater reclamation system, but will that be translated to a size to accommodate a 100-room hotel? Currently, the County of Humboldt requires 75' of leach line for every bedroom in a residence. Now, I realize this is a hotel and not a residence and being a tribe they are not obligated to follow county laws. But considering the ongoing, and increasing, failure of aging septic systems in Trinidad and Westhaven and the resulting contamination of groundwater and our beautiful local beaches, this is a matter which needs to be addressed.

Speaking of water, the proposed hotel will be drawing additional amounts from it's current source, Luffenholtz Creek, which also supplies water to Trinidad, the Trinidad Fire Department, the CalFire station and many residents surrounding the picturesque seaside village. While the Environmental Analysis says the creek has more than enough water for all the users, current and planned, many current users disagree. They are concerned that

P50-01

P50-02

P50-04

additional usage will overtax the creek, which has in the past struggled to supply water in dry	P50-02 (Cont.)
and drought years.	(Cont.)
There is also the issue regarding the construction of a new interchange on 101 near the	
casino. How will such an interchange affect the residents who live in the vicinity of such an	P50-03
interchange, and who will be displaced as a result? Additionally, what kind of impact will the	1 30-00
increased traffic have on the perpetually failing Scenic Drive?	

In the 41-years I have been fortunate enough to live here, I have never failed to be amazed by the beauty of our coast. I would hate to think someone's need for money would override everyone's need for something as intrinsic as beauty. "When the blood in your veins returns to the sea, and the earth in your bones returns to the ground, perhaps then you will remember that this land does not belong to you, it is you who belongs to this land."

Thanks for your time.

Sincerely,

Mark Dondero

P.O., Box 84

Orleans, CA 95556

REDWOOD REGION AUDUBON SOCIETY 2018 OCT 23 PM

P.O. BOX 1054, EUREKA, CALIFORNIA 95502

A MEMBER OF THE NATIONAL AUDUBON SOCIETY

Bureau of Indian Affairs (BIA)

2800 Cottage Way

Sacramento, CA 95825

To Whom it May Concern:

Reg Dir
Dep RD Trust
Dep RD IS
Route DECRMS
Response Required
Due Date
Memo Ltr
Fax

Date: Oct. 16, 2018

This letter is submitted in response to the Environmental Assessment (EA) prepared by BIA dated September 2018 for the "Trinidad Rancheria Economic Development Corporation Hotel Development Project". Redwood Region Audubon Society (RRAS) is a conservation organization with approximately 600 members in Humboldt and Del Norte counties, including members in nearby Trinidad and Westhaven, who are interested in seeing responsible development conducted in a safe and sustainable manner. Addressed below are concerns RRAS has about the hotel project including visual impacts, water supply, wastewater disposal, as well as traffic congestion.

The RRAS board believes that an EA is not adequate and that an Environmental Impact Statement (EIS) is needed for the Trinidad Rancheria Economic Development Corporation (TREDC) project for the following reasons:

The **visual design** of the hotel as illustrated in "Figure X" of the EA does not represent the final design may not be what the TREDC intends to construct, according to presentations made by project proponents at a recent public meeting. The September 2018 EA states that the "Hyatt would provide design standards" for the hotel. We feel it is imperative that a final design be provided in an EIS for the hotel building so that we may comment on adverse visual and avian impacts from striking window glass that are likely to occur based on the Architectural Renditions in Figure X.

Water supply issues discussed at recent public meetings indicate more detailed analysis is needed than was provided in the EA. There is a public controversy regarding the availability of adequate water for this project from current sources. Section 2.2.1 does not seem to adequately address the current source of water supply or the concerns raised at recent public meeting regarding reliable supplies during drought conditions.

Wastewater treatment and disposal presents a problem in light of documented inadequacies with the current system. The EA indicates landslides are common in the vicinity along Scenic Drive near the proposed project. Will creation of additional leach fields cause additional landslide potential? Would use of additional leach fields in conjunction with winter rainfall have the potential to cause

P51-01

P51-02

P51-03

P51-04

"liquefaction" as discussed on page 3-5, in Section 3.1.5? The EA does not provide clear answers to issues posed in the Appendix B, which states:

"Additionally, liquefaction is not anticipated to occur unless sustained high groundwater levels are identified within terrace deposits which overlay the shale bedrock (Appendix B)."

"The active landslide that currently extends from the southwest corner of the proposed Hotel southwest towards Scenic Drive has the potential to affect the foundation of the proposed Hotel. However, the active landslide is relatively shallow in nature and may be readily stabilized utilizing measures such as retaining wall systems, slope reconstruction, and sub-drainage elements" (see Section 3.1.5, page 3-5).

A more detailed engineering evaluation is necessary to address of the site, soils, and precise methods for addressing storm water runoff as well as leach field characteristics. The soils data provided in the EA was not adequate to determine if percolation rates are adequate for the expansion of the leach fields called for on page 2-5. The following quote is from the 2004 assessment included in Appendix A:

"In order to accommodate excess wastewater capacity from the proposed Hotel, a 2004 Wastewater Assessment identified two potential areas, shown in Figure 1-3, feasible for additional leach field dispersal: the mounded ridge to the south of Ter Ker Coo Lane and the hillside south of the Tribal office (Appendix A). Accordingly, both locations are assessed in this EA." In the 2016 letter included in Appendix A Mr. Nick Weigel, P.E., goes on to state that soils in the area are "marginal."

"Given the marginal soil conditions in the area, the Assessment assumed capacity for homes not connected to the wastewater system would be held in the design to address any failures of these systems in the future."

"However, with plugging believed to have been caused by the discharge of Casino wastewater to the field before the treatment plant was completed, the actual long-term capacity of the dispersal field at this time is not known. The existing dispersal field should be cleaned and then the capacity should be evaluated through field investigations and hydraulic stress testing to determine the actual operational capacity"

"We cannot stress enough the need to determine if there is additional dispersal capacity on the site and where this resource is on the Rancheria. The size and location of these areas will have a significant impact on the design and associated cost with the dispersal component of the system and may affect areas below this site. "

It is critically important to note that the 2004 Assessment states that the 10,000 gpd is an "ASSUMPTION" and that it must be verified. Unless this has been verified, the EA makes statements that are seriously flawed.

The following footnote in engineering review conducted for the TREDC addresses wastewater treatment capacity;

We feel that the Trinidad Rancheria, TREDC and entire community should have access to high quality design data that will be necessary for a successful hotel venture. RRAS would like to express our gratitude for the opportunity to provide comments that are intended to support a well-planned project.

P51-04 (Cont.)

This statement is NOT supported by the letter from 2016 by Mr. Nick Weigel, P.E. or by the 2004 Assessment. Nothing would indicate that there is a possibility to accommodate 50,000 gpd!!!!

Wastewater Service Section 3.10.2 on page 3-22 states:

"As discussed in Section 2.2.1, Alternative A would utilize the Tribes existing WWTP, requiring upgrades and an additional leach field. This upgrade would be solely on Tribal lands and would allow for the system to handle a total of approximately 50,000 gpd, enough capacity to accommodate operation of the new Hotel. Alternative A would have no impact on municipal wastewater systems."

This statement is NOT supported by the letter from 2016 by Mr. Nick Weigel, P.E. or by the 2004 Assessment. Nothing would indicate that there is a possibility to accommodate 50,000 gpd!!!! In fact the chart contained in the 2004 analysis indicates that an ocean outfall would be necessary for flows in excess of 20,000-30,000 gpd.

We feel that the Trinidad Rancheria, TREDC and entire community should have access to high quality design data that will be necessary for a successful hotel venture. RRAS would like to express our gratitude for the opportunity to provide comments that are intended to support a well-planned project.

Respectfully Submitted,

Conservation Committee,

Redwood Region Audubon Society

P51-04 (Cont.)

PACIFIC RE BUREAU OF AN AFFAIRS 2018 OCT 23 PM 1:54

October 19, 2018

Amy Dutschke, Regional Director Bureau of Indian Affairs 2800 Cottage Way, Sacramento, CA 95815

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Re: Trinidad Rancheria proposed expansion to include an enlarged casino, a new 100-room 6-story hotel, along with a new freeway off-ramp.

My name is Sam King. I live in McKinleyville, just south of Trinidad. I have visited Trinidad numerous times over the last 15 years, either on a bicycle or by car. The quaint town and surroundings should not be exploited for the sake of money.

When I moved to this area in 2002 to build a small house on a 20-acre parcel in McKinleyville, I employed a small construction firm located in Westhaven, which sits next to Trinidad. While my house was being constructed the topic of ground water came up often as I was required to put in a well. Several of the workers lived in Trinidad and mentioned limitations of building there because of limited water availability. This seemed to be a self-limiting growth factor that had been in place for some time, and that probably still applies.

The proposed expansion sounds like a corporate, money-making venture, without regard to impact of the community. I would imagine our current President would be whole-heartedly behind it.

I urge you to reconsider this project as it would defile one of the finest communities in our area.

Sam King sking62@suddenlink.net

P52-01

Amy Dutschke, Regional Director Indian Affairs
Bureau of Indian Affairs
2018 OCT 23 PM 1: 53

Reg Dir
Dep RD Trust
Dep RD IS
Response Required
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Ltr
Toctober 2018

Dear Ms. Dutschke -

I have been a resident of Westhaven, CA, immediately south of Trinidad, CA, since 1976, and I am recently retired from the Fisheries Department at Humboldt State University (HSU) in Arcata, CA where I taught from 1978-2016. I occupied an office at the HSU Marine Laboratory in Trinidad from 1982 – 2018, and I served as Director of the Marine Laboratory for perhaps 6 years total during periods of transition between administrators. During my professional career, I have had extensive interactions with the Hoopa and Yurok Tribes, having engaged on their behalf in grant and contract-funded research concerning fisheries and hatcheries for salmon and steelhead. For the past decade or more, I have taken hikes up Trinidad Head on almost every day that I have been unable to put in some quality exercise time in some other capacity. I never tire of these walks because the exercise is good and the scenic vistas are spectacular. I am a member of HARP (Humboldt Alliance for Responsible Planning), a grassroots movement that currently has about 200 supporters/members. I also serve as the President of the Board of Directors of the Westhaven Community Services District, which supplies water to the small rural village just south of Trinidad.

I am contacting you to relay my comments concerning the recently released "public review draft" of the BIA Environmental Assessment (EA) for the proposed Trinidad Rancheria hotel project. The EA proposes a six story 100 room hotel, to be located above Scenic Drive along the coastline just south of Trinidad Bay, one of the scenic jewels of the CA coast, and would be visible from Trinidad Head, from which the existing casino development can already be viewed. I have reviewed the EA carefully and it is hard not to read the released EA as an implied prejudgment for a finding of a mitigated FONSI. I believe that such a finding would be completely unsupportable. Only two possible actions seem appropriate: (1) pursue the "no action" alternative (i.e., do not build the proposed 6 story hotel), or (2) engage in a full EIS process to resolve the many unacceptable adverse significant environmental impacts of the proposed 6 story hotel, and to assessment of reasonable alternatives (e.g., down-sized 2-3 story 50 room hotel designs that would not have such unacceptable impact on the natural landscape/visual resaources).

I joined HARP because I love the relatively undeveloped rural character of our area in general and because I love the natural landscape surrounding Trinidad Bay. Construction of a six story hotel along Scenic Drive, overlooking Trinidad Bay, would destroy this natural landscape. My belief is shared by numerous individuals who provided comments at the 27 September 2018 informational meeting on the proposed hotel, hosted by HARP at the Trinidad Town Hall, and at

P53-01

P53-02

the 15 October special meeting of the Trinidad City Council, at which members of the Trinidad Rancheria spoke about the proposed project and members of the local community provided comments about the proposed six story hotel. There were numerous comments made at the two meetings that were entirely consistent with my own belief that construction of a 6 story hotel above Scenic Drive, on the Trinidad Rancheria's property, would have devastating impacts on the very special visual resources that we love and cherish. Not a single comment was made indicating clear support for a six story structure, though there was certainly broad support for possible construction of an attractive hotel design that might "blend in with the landscape". Local newspaper articles from the North Coast Journal (04 October 2018) and the Times Standard (16 October 2018) accurately summarize some of the comments made at these two meetings. It is inconceivable that "pastel paints and non-reflective glass" could possibly mitigate the adverse impacts of a six story hotel on visual resources. Simply put, a six story hotel would be grotesquely "out of place", no matter how it were designed. The "mitigation" proposed of these visual impacts (described in the EA at Sections 3.13.1 and 3.13.2) could not possibly be expected to reduce these visual impacts to "less than significant", as the EA contends. This seems a classic instance of "lipstick on a pig": a six story hotel is still a six story hotel; a pig is still a pig.

There are numerous other reasons to conclude that a mitigated FONSI would not be a supportable finding for the proposed 6 story 100 room hotel project. Among these reasons are at least the following:

- The water needs of the proposed hotel, as stated in the EA, appear to be something like 15,100 gallons per day (gpd), assuming 20% recycling of treated wastewater to toilets, or 18,900 gpd (the stated need). This need is large and would place the Trinidad Rancheria hotel as the single largest user on the Trinidad Water system if it were to provide service to the hotel. Current Rancheria water use is apparently about 11,000 gpd, so the combined draw would be about 26,000 30,000 pgd.
- It is presently unclear whether the City of Trinidad, given its relatively limited Luffenholtz Creek water supply, will be able to provide the water needed by the proposed hotel. Given the City's obligations to existing customers, to provide for future build-out within the City limits, as well an in-negotiation arrangement to provide water to a CAL-FIRE station approximately 1 mile north of City limits and associated potential obligations that may be imposed by the CA Coastal Commission to also provide priority to commercial recreation businesses along this 1 mile extension, it may be that adequate water will not be available to satisfy a new large need required by the proposed hotel which is outside of the City's normal service area. The City is in the process of completing a water assessment survey to help it develop a better understanding of how many additional service connections can be added and this will not be completed until January 2019 at earliest. (Adding the proposed hotel would be

P53-02 (Cont.)

P53-03

P53-04

analogous to adding 45 new residential homes to a City system which currently has about 250 service connections within the City limits. There are no other obvious local sources for 15,000-19,000 gpd of water that are currently available in the Trinidad area. The EA addresses none of these issues and arrives at a superficial and poorly supported contention that the City of Trinidad would very easily be able to provide the needed water. It seems abundantly clear that many issues concerning availability of water for the hotel are unresolved and it is not possible at this time to conclude that delivery of 15,100-18,000 gpd would have no adverse impacts on other City water customers.

P53-04 (Cont.)

• The EA claims that only 10,000 additional gpd of wastewater would need to be disposed of for the proposed hotel, but there is no clear explanation of how this figure is calculated. A better guess, assuming 20% recycling of water for toilets and the stated need for 18,900 gpd for the hotel, would be 15,100 gpd. As the EA notes, this additional amount of wastewater requiring disposal would require expansion of the existing leach field. Alternative locations for such expansion are indicated, but there is no clear evidence of a reserve area that would be large enough to replace the entire system in the event of failure of the existing/expanded system. There is also no estimate of the lifespan of the current leach field system nor of possible impacts on lower elevation properties of additional flows passing through soils on Rancheria lands. There are no "sewer" lines as Trinidad has no wastewater treatment system and remains dependent on individual septic tank/leach field systems. This topic clearly requires more study before the project can be stated to have no significant adverse environmental impacts.

P53-05

The EA states that, by 2040, adverse traffic effects from the hotel and associated buildout on Rancheria lands would have unacceptable adverse impacts on traffic UNLESS a freeway interchange were built which would then mitigate these adverse impacts. There are several things wrong with this argument. First, the buildout associated with the hotel suggests that the CUMULATIVE impacts of proposed Rancheria developments, in addition to the hotel, have not been adequately addressed in the EA. The EA instead attempts, incorrectly and probably illegally, to separate the proposed hotel development from other planned developments that will also impact traffic. Second, the proposed mitigation of these adverse traffic impacts by a currently non-existent interchange relies on speculation that such an interchange will indeed be constructed. There is widespread opposition to the freeway interchange idea and it is not a forgone conclusion that an interchange will be constructed. A possible "compromise" might be a freeway overpass that would improve connection between the freeway-separated Rancheria land holdings, but this would not mitigate adverse traffic impacts. Finally, over the "short term", the EA claims that construction of the hotel will reduce current traffic levels. This makes no sense at all. If the hotel is to have

P53-06

Comment Letter P53

any net economic value to the Rancheria, it is to attract additional customers to the Rancheria's casino operation. Thus, if the hotel is actually financially viable, it would certainly increase the number of individuals wishing to access the casino/hotel complex which would therefore increase traffic beyond the current level with no hotel.

P53-06 (Cont.)

For all of the above reasons, the EA can only have one of two conclusions: (1) The "no action" alternative is the only one which would not have unacceptable adverse environmental impacts, or (2) a full EIS process, with active public scoping, is needed to develop alternatives to the proposed action which might reduce adverse environmental impacts to a level which might be considered, by some, to be "less than significant" or "acceptable". Therefore, I urge the BIA to take one of these two actions.

P53-07

Sincerely,

David Hankin

756 9th Ave

Trinidad, CA 95570

EXHIBIT B

RESPONSES TO COMMENTS

EXHIBIT B

RESPONSES TO COMMENTS

Responses to comments are organized below in four sections based on the agency or individual. The Sections are organized as follows: Section 1.0 includes comment letters received from Federal agencies, Section 2.0 includes comments received from States agencies, Section 3.0 includes comment letters received from local agencies, and Section 4.0 includes comments received from individual entities and organizations. All of the comments, which have been bracketed and numbered in the margin for ease of reference, are provided in Exhibit A. Refer to Table A-1 of Appendix A, which provides an index of all of the comments received on the Environmental Assessment. Once an issue is addressed, subsequent responses to similar comments reference the initial response. This format eliminates redundancy where multiple comments have been submitted on the same issue. In accordance with CEQ and NEPA Regulations, 40 CFR Part 1500, comments that further NEPA's purposes are included and addressed, additionally, comments merely expressing an opinion are also included and noted for consideration purposed. Changes to the EA are included in Exhibit E of the FONSI.

1.0 FEDERAL COMMENT LETTERS (F)

Response to Comment Letter F1 – United States Department of the Interior

F1-01 The United States Department of the Interior, Bureau of Indian Affairs (BIA) provided one letter in the record (F1), denying a 30-day extension of the comment period as requested by the City of Trinidad. Refer to **Comment Letter L1** for the letter requesting the extension.

Response to Comment Letter F2 – United States Bureau of Land Management

F2-01-08 Comment noted. The EA assesses impacts to seabirds, including the Marbled Murrelet, in Section 3.4, Biological Resources. As discussed there within, foraging habitat for marbled murrelet exists within approximately 500 feet of the project site on the shoreline west of the development footprint and potential nesting habitat exists within approximately 25 feet of the project site to the west, south, and east. Mitigation Measure 3.4.5 was incorporated into the Proposed Project to ensure construction activities would not adversely impact nesting birds, including seabirds. Regarding operation and potential impacts from bird strikes, according to updated renditions provided by the Tribe, the hotel would be approximately 3.5 stories taller than the existing casino (**Figure 1**). As shown in the figure below, the massing and height of the hotel would not be considered a significant threat to seabirds flying at higher altitudes. For those birds flying lower near the cliffs, the casino area including Scenic Drive, is a



FIGURE 1
EXTERIOR RENDITIONS OF PROPOSED HOTEL

Source: Wright Group: Thalden-Boyd-Emery Architects

heavily traversed area which would deter seabirds from flying near the structure. However, the Tribe understands that the additional stories of the hotel compared to the casino may pose a risk to seabirds and has therefore agreed to incorporate the following design provisions into the hotel development:

- 1) Windows shall be fit with black out curtains within rooms that face the ocean;
- 2) Lighting shall be shielded and downcast; and
- 3) Building maintenance staff shall be trained to call the Humboldt Wildlife Care Center wildlife rehabilitation facility should disoriented or injured seabirds be found on the property.

Response to Comment Letter F3 – United States Environmental Protection Agency

F3-01 through 03

Comment noted. As stated in Section 2.2.1 of the EA, in order to accommodate excess wastewater capacity from the proposed Hotel, a 2004 Wastewater Assessment identified two potential areas, shown in Figure 1-3 of the EA, feasible for additional leach field dispersal: the mounded ridge to the south of Ter Ker Coo Lane and the hillside south of the Tribal office. In response to similar comments the Tribe received from the California Coastal Commission, the Tribe submitted additional information regarding the ability to provide additional wastewater treatment and disposal for the hotel project. As stated in a letter to the Coastal Commission dated May 13, 2019, the Tribe has worked with the developer, engineers, and a technical team, to analyze the operational capacity of the existing leach field, refine the estimate of project wastewater generated by the proposed project, and to conduct a site-specific soils survey in order to verify the necessary size and location of a new leach field and the need for expansion of the existing WWTP.

Based on the updated report submitted by SHN Consulting Engineers and Geologists, the projected peak day flow for the hotel is likely 14,185 gallons per day (gpd). An assessment of soil samples, bores, percolation tests, and observations at groundwater wells conducted by SHN indicated that an approximately 51,500 ft² area extending to the north and west around the existing leach field would be suitable for wastewater disposal and would be able to accommodate a maximum of 11,200 gpd of the peak day flow of 14,185 gpd. To make up for the difference in the capacity of the leach field to handle peak flows generated by the hotel, the Trinidad Rancheria is proposing additional storage capacity (storage tanks) to expand the recycled water system in the existing wastewater treatment plant. The Trinidad Rancheria will dispose of excess effluent on adjacent tribal property as land irrigation. The Tribe has agreed to incorporate these recommendation into the Proposed Project. With these final preliminary design components of the wastewater treatment and disposal system, the Tribe has further proven that the hotel would have adequate wastewater treatment and disposal options. The additional information provided by the Tribe substantiate the findings of the EA and no further analysis or revisions to the EA are required. Accordingly, the BIA has determined that a FONSI is the appropriate finding for the Proposed Action.

F3-04 Comment noted. The reference to the expanded capacity in Section 4.1.10 erroneously stated 50,000 gallons per day (GPD) instead of the 30,000 gpd of total capacity the facility was designed for expansion with extensive modifications as mentioned in Appendix A. The table referenced in Appendix A assumes that the existing septic systems used by residential homes, Tribal Office, and former clinic complex fail and therefore these existing community facilities become connected to the WWTP (refer to Row 1, Column 2 versus Column 3). The

engineers concluded that a new wastewater treatment demand of 30,060 would be within the daily flow ceiling of the expanded WWTP without the need for extensive retrofitting. In addition, the Tribe has submitted additional documentation relating to the wastewater treatment system. The installation of equalization and storage tanks would be within the existing wastewater treatment building along with a minor expansion (25% total floor area) of the building within the existing, disturbed property. No new impacts would result from the expansion of the WWTP building and therefore no revisions to the EA are required.

F3-05 Comment noted. As noted in the additional engineering presented to the California Coastal Commission, the recycle rate estimate has increased to 78% by adding the recommended features to the WWTP including the slight expansion. This information represents additional details submitted by the Tribe associated with the design phase of the hotel as requested by the California Coastal Commission. While there may be various alterations to the project description from those presented in the EA, the changes do not result in new adverse environmental impacts. In accordance with the Indian Affairs National Environmental Policy Act Guidebook (59 IAM 3-H), the BIA may direct the preparer of an EA to revise the analyses, consider new alternatives or mitigation measures, seek public involvement, or take other measures to make the EA adequate to determine whether or not an EIS is required. Accordingly, the changes to the proposed wastewater treatment system do not alter the adequacy of the EA to determine whether or not an EIS is required. Based on the entire record, including the EA, response to comments, and supplemental information provided as a result of the California Coastal Commission consistency determination, the BIA has determined that an EIS is not required and a FONSI is applicable.

2.0 STATE AGENCY COMMENT LETTERS (S)

Response to Comment Letter S1 – California Coastal Commission (Waiting for consistency determination)

S1-01 Comment noted. On February 11, 2019 the BIA submitted a Coastal Consistency Determination in compliance with 15 CFR, Section 930.35 (a). Accordingly, it was the BIA's determination that the Proposed Federal Action would be consistent with Chapter 3, Article 2 through 6 of the California Coastal Act of 1976. The February letter detailed the specific provisions of Chapter 3, Articles 2 through 6 of the California Coastal Act of 1976 (CCA) and illustrated how the Proposed Action complies with the CCA, in order to make a Federal Consistency Determination.

Prior to submission of the Coastal Consistency Determination letter, the BIA conducted a teleconference with California Coastal Commission (CCC) staff regarding the consistency determination and Coastal Commission hearing. During the teleconference, CCC staff suggested a March or April hearing date assuming a February submittal and requested

responses to the comments submitted to the BIA on the Environmental Assessment by the CCC that relate to issues outside of the consistency determination process.

On March 11, 2019, Commission staff formally requested that the BIA grant a time extension to enable a public hearing at the Commission's August 2019 meeting in Eureka. The Commission stated that the delay was necessary to provide additional time related to design changes implemented in response to comments on the project and to further develop details regarding water usage, wastewater disposal, water supply, and viewshed impacts. The BIA declined the request due to the resulting five-month time delay that would result. In addition, the letter included summaries of responses to the Coastal Commission main concerns regarding traffic, water demands, wastewater disposal, and slope stability.

Prior to the April Commission hearing, a staff report was published on March 22, 2019, which recommended that the Commission object to the consistency determination. On March 27, 2019, the BIA moved the determination hearing to May 10, 2019 Commission hearing to enable the BIA to provide updated project information. The determination was again moved to the June 14, 2019 Commission hearing to allow further discussion between the Tribe, BIA, and Commission staff.

On April 12th and May 13th, 2019, the Tribe submitted responses to the March 22nd, 2019 Coastal Commission Staff Report. These submittals provide further concurrence with the BIA's findings.

On May 24th, 2019, the staff report for the June 14, 2019 Commission hearing was released. The staff report had the same conclusions as the March 22 regarding impact to the coastal viewshed (Sections 30251 and 30253(e) of the Coastal Act) and available public services (water supply, Section 30250(a) of the Coastal Act). Consistent with the BIA's findings, the May 24th staff report concluded that:

Wastewater

The proposed project would include an expansion of the casino's existing leach field, wastewater recycling, increased storage capacity, and landscaping irrigation. These measures would result in sufficient capacity to appropriately dispose of wastewater, including at times of peak flows, generated by the proposed hotel. Therefore, staff recommends the Commission find the proposed project consistent with Section 30250(a) with respect to wastewater treatment.

Traffic

A traffic assessment for the proposed project finds that the hotel would not result in significant impacts to the existing transportation network and that there is sufficient capacity to handle traffic generated by the proposed hotel. Therefore, staff recommends the Commission find the proposed project consistent with Section 30250(a) with respect to transportation.

Geotechnical

A geotechnical feasibility and design report concludes that the site is suitable for the proposed hotel with below-grade foundation design elements and the use of slope stabilization walls. The Trinidad Rancheria has committed to incorporating landscaping to conceal such walls where they extend above grade. Therefore, staff recommends the Commission find the proposed project consistent with Sections 30253(a) and 30253(b) of the Coastal Act.

On June 7, 2019, the BIA submitted a supplement to the Consistency Determination in response to the Mary 24th staff report. The BIA reiterated that the Proposed Action for which the Consistency Determination is required is the approval of a lease agreement for the Tribe's operation of the hotel and approval of a loan guarantee pursuant to the BIA land guarantee program. As noted in the CZMA, "each Federal agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs." (25 U.S.C. § 1456(c)(1)(A)) The CZMA regulations define the phrase "consistent to the maximum extent practicable" to mean: "fully consistent with the enforceable policies of management programs unless full consistency is prohibited by existing law applicable to the Federal Agency". The supplement provides a number of federal laws and regulations applicable to the Proposed Action which govern the BIA's authority to carry out its activities consistent with CZMA and CCMP. Furthermore, the BIA summarized the history of the Rancheria and the availability of land to accommodate the Proposed Action (for example, the Tribe does not own all the lands within the Trinidad Rancheria), along with the need for the economic development project. Furthermore, where conditions respecting water delivery to the Tribe's Rancheria are concerned, an issue is whether the conditions intend to regulate use of the Rancheria, or whether the conditions are serving an objective that is not preempted by federal law prescribing how the federal land is to be used. Where federal property is concerned, the Property Clause, Art. IV, § 3, cl. 2, provides that "Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States." Thus, the Property Clause allows the United States to take land into trust for the Tribe, and to specify uses for that land. If State law conflicts with the land use specified by the United

States, it may be preempted by federal law pursuant to the Supremacy Clause. Conditions concerning water delivery may not interfere with Congressionally-approved uses of the Rancheria. Accordingly, the Tribe is engaged in discussions with the City that will ensure that water delivery is provided to the hotel.

An addendum to the May 24th, 2019 staff report was released on June 11, 2019 providing an update on comments received on the staff report and a summary of additional information received from the BIA and Tribe. However, there were no changes to the May staff report recommendations regarding the consistency determination.

At the June 12th California Coastal Commission hearing in San Diego, the Commission filed a motion to object to the BIA's determination. Many Commissioners stated that water supply remained an open concern and that the BIA should resubmit a determination to be heard in August at the Eureka hearing to allow time for the BIA, Tribe, and Commission to work on the water supply issue.

The BIA resubmitted the Coastal Consistency Determination on July 10th, 2019 with the intent of working with the Coastal Commission to address the issues from the June hearing. The subsequent Coastal Consistency Determination was schedule for the August Coastal Commission hearing in Eureka. A staff report was submitted on July 26, 2019 with the same recommendations as the June Coastal Commission Hearing. Prior to the hearing, the Tribe announced that groundwater explorations indicated a potential volume adequate to meet the needs of the hotel.

The federal consistency determination was addressed at the August 9th, 2019 Coastal Commission Hearing in Eureka. After deliberation the Coastal Commission concurred with the BIA's consistency determination 8 to 3, with a condition that the Tribe secure a consistent water source.

S1-02 Comment noted. The language in the second bullet of Section 1.7 of the EA is hereby revised as follows:

Consultation with the California Coastal Commission concerning consistency of the Proposed Action with the enforceable policies of the California Coastal Management Program (i.e., the Chapter 3 policies of the Coastal Act, Cal. Pub. Res. Code §§ 30200 *et seq.*) in accordance with 15 CFR Section 930.36 of the National Oceanic and Atmosphere Administration, Federal Consistency Regulations.

S1-03 Comment noted. The language under *Coastal Zone* in Section 4.1.8 of the final EA is hereby revised as follows:

While the project site is located within the Coastal Zone, the site is considered excluded from the Coastal Zone as that phrase is defined in the CZMA, as it is on land held in trust by the federal government. Therefore, the Proposed Project is not required to be developed in accordance with the Local Coastal Program. However, for the BIA to issue a loan guarantee for this project, the project is required to be consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program (CCMP) under the CZMA. The type of land use for the proposed Hotel is consistent with the adjacent land use of the existing Casino.

S1-04 and -05

Comment noted. As provided in the Tribe's July, 2019 response to the Coastal Commission's Staff Report, the design features of the hotel have been modified to alleviate issues with the viewshed. These alterations to the hotel are consistent with Mitigation Measure 3.13.3 of the EA that states:

Design elements shall be incorporated into the Proposed Project to minimize visual impacts of buildings and associated structures, including landscaping that compliments buildings and parking areas, with setbacks and vegetation consistent with existing landscaping. Earth-toned paints and coatings shall be used, all exterior glass shall be non-reflective and low-glare, and signs and facades shall be designed with a non-reflective backing to decrease reflectivity.

The hotel has been sited to overlap the existing structure as much as possible in part, to minimize the appearance of additional development on the site. The design has also been revised with a smaller grade level building footprint to better fit within the topography. This in turn lowers the perceived height of the building above the adjacent grade by one floor at the South end of the exposed façade. The changing grade results in an overall height of 78.5' vs. 65.5' on the North and South ends respectively. The materials used on the exterior consist of natural stone veneer, lap siding and vertical siding in multiple earth toned colors. Several roof planes have been sloped back from the exposed elevations minimizing the amount of visible roof surface and larger overhangs create greater depth of shadow on the building face. The natural coloration along with offsets in the building face and roofline all help to break up the perceived overall size of the building.

S1-06 Comment noted. The decision to build an approximately 100 room or more upper midscale hotel (3+ star quality) was recommended by a lodging consultant as market justified at the Cher-Ae Heights Casino. It was determined that a hotel of this quality would be attractive to the Casino, leisure/recreational and commercial demand segments, and improve the Casino's attractiveness as a destination. The Tribe considered building a hotel with fewer rooms to

reduce the cost of the hotel, but research revealed that the Tribe would not realize the return on investment with a smaller hotel, which would impair its ability to secure financing for the project.

The proposed location was determined to be the only adequate location for the hotel as the Tribe does not own additional lands within the Trinidad Rancheria on which the hotel can be built. Due to land lost during the construction of Highway 101, the Rancheria Parcel is only 46.5 acres, on which is located the Tribe's Casino, Tribal office buildings, parking facilities, public service facilities, and Tribal member housing. The Casino parking lot is not a viable option as it is not buildable and has destabilization issues related to ground water. Aside from the land within the Rancheria's "urbanized" area, the remaining developable acreage is set aside for Tribal member housing. Due to the size of the existing land base, the Rancheria's only site location for the hotel is directly adjacent to and tucked behind the Casino, which is consistent with the Coastal Act requirement to locate new development contiguous with existing development and public services. Because of limitations related to this site, the only alternative for an economically viable hotel with the necessary 100 rooms is a multi-story hotel at the proposed location.

- S1-07 Comment noted. As stated in the prepared EA, **Section 3.13.3**, as a measure to address glare during daytime all exterior glass shall be non-reflective and low-glare. Non-reflective, also known as anti-reflective glass, is intended to reduce the glare as seen from the face of the glass. Additionally, low-glare glass provides low reflection off the surface of the window.
- S1-08 Comment noted. After release of the EA, the Tribe had consulted with Caltrans regarding the scheduling of the new offramp would not coincide with the potential opening of the new hotel. Accordingly, a Traffic Impact Analysis (TIA) for the Trinidad Rancheria Hotel was conducted in 2019 to assess the impacts of the hotel on the existing transportation network without the new interchange. As recommended by Caltrans, four scenarios were studied, these include: existing conditions, Forecast 1 existing conditions with the commencement of hotel operations slated for 2019, Forecast 2 20 year projection to 2039 with no development, and Forecast 3 20 year projection to 2039 with development. The TIA conclusions were consistent with the findings of the EA. The key findings of the TIA are summarized below:
 - 1. The Trinidad Rancheria Hotel has little to no impact on the existing transportation network and traffic patterns.
 - At the intersection #1 Main Street/Scenic Drive/Patrick's Point Drive the Level of Service for the intersection is already operating in relatively poor condition with LOS ratings of:
 - "C, A, C, E" from a two-way-stop-control analysis.
 - "C, C, B, B" from an all-way-stop-control analysis.

- At the intersection #1 Main Street/Scenic Drive/Patrick's Point Drive the Level of Service for the intersection is minimally impacted by the proposed hotel development:
 - Two-way-stop-control analysis identifies the Southbound LOS reduces from an "E" already poor rating, to an "F" poor rating.
 - All-way-stop-control analysis identifies the Southbound LOS reduced from a "C" average but acceptable to a "D" below average rating.
- No other intersections or roadways show any reduced state of operation due to the proposed Hotel development.
- 2. Area Transportation Improvements not related to the Development project are needed to improve, or at a minimum, maintain the existing functionality of the transportation network.
 - 20-Year Project LOS analysis, assuming a realistic 2 percent per year traffic growth rate and with no significant regional developments identifies the following issues:
 - Intersection #1 Main Street/Scenic Drive/Patrick's Point Drive will be operating in failing condition in year 2039 regardless of development, if no improvements are made.
 - Intersection #4 N Westhaven Drive/Trinidad Frontage Road/US101 northbound Off Ramp will be operating in failing condition in year 2039 regardless of development, if no improvements are made.
 - All other intersections and roadways analyzed in this report, if maintained to their current condition, adequately serve the area from a LOS analysis perspective.
- S1-09 Comment noted. The draft EA for the hotel project was published in 2018 and indicates that water would be delivered through the City of Trinidad's water system. This has been the Tribe's intention since planning and development of the project began. The Tribe initiated the formal discussion process with the City of Trinidad through Government-to-Government consultation meetings in March and July of 2018. The City was notified that the hotel project would move forward, and of the Tribe's need to increase the amount of water use through the existing Casino connection to service the hotel. As a result of these notifications, the City began discussions regarding water rates, usage, capacity and other related topics.

The BIA agrees with the City's efforts to gather appropriate data and re-evaluate water rates, etc. Doing so will allow them to better determine their water capacity in response to the Tribe's request for service. The City has had numerous discussions at City Council meetings related to the Tribe's request, and has hired and engineering firm to work on the particular

issues. The Tribe shared this information with the Commission to illustrate its commitment to working with the City, and that the Tribe is fully aware and support their need to study the water supply. Again, the Tribe pointed the Rancheria already receives water service from the City of Trinidad, and that the Tribe's request is not for a new service, but the expansion of existing service.

The Tribe has been involved with and provided funding for a number of infrastructure improvement projects related to the City's system from 1989-2015. The Tribe's contributions total \$847,693, and include improvements to the City's water main, water tank and water plant.

The Tribe has been consistent in our efforts to be transparent, to continue to work collaboratively, and to contribute funding to the City's water infrastructure. For example, because the City provides water service to the Tribe, the Tribe is eligible for federal funding through Indian Health Service. Those funds can be used to address infrastructure needs as well as water supply needs for all users.

Based on information provided by TBE Architects, via FEA Consulting Engineers, and industry standards, the Tribe's best available information to date is that the hotel will require approximately 14,184 gallons per day. This number reflects 100% occupancy. However, according to Wright, Inc., hotels average between 65% and 70% occupancy on an annual basis. As a result, this brings the average down to approximately 9,000 gallons per day. With off-site laundry, the recycling of water, and additional water saving techniques, the Rancheria can achieve and estimated daily consumption number that is much lower.

Since the publication of the EA, the Tribe has met with the City in two government-to-government meetings related to our water request. During the second meeting the Tribe was able to discuss the results of one of their commissioned water studies. The conclusion of the study indicated that the City does have a surplus of water and therefore could meet the Tribe's need. The report stated initial evaluations would be needed as the study focused specifically on the treatment plant's production capacity and did not address the City's water policy issues. The Tribe has sent the City a letter formally requesting water and will send a follow-up letter requesting an exact amount. In the meantime, the City and the Tribe continue to move forward on the water request and other related projects.

While using the City's water and infrastructure is the preferred alternative, in the event that they are unable to provide the necessary water, the Tribe plans to seek water from on-site groundwater sources. The EA has been revised to include the option to develop groundwater wells on the Reservation to serve the Proposed Project. According to preliminary well explorations, on-site well development could provide approximately 6.8 gallons per minute (gpm) or 9,792 gpd, approximately 99 percent of the average day demand. With trucking of

- supplemental water to ensure stored levels can meet max demands, the optional water strategy can meet the proposed water demands for the Proposed Project.
- S1-10 Comment noted. Refer to the response to **Comment F3-01-03** concerning the verification of the leachfield capacity and expansion review.
- S1-11 Comment noted. Appendix B of the EA includes the Draft Geotechnical Feasibility and Preliminary Design Report which provides geotechnical data, geological hazards assessment, and preliminary geotechnical recommendations for the proposed hotel project. Following the draft report, the Final Geotechnical Report was completed and a Geotechnical Summary Letter was published on April 10, 2019. The Summary Letter summarizes the geotechnical findings from the Final Geotechnical Report. It states that at the time the EA was published, the Proposed Project was a 6-story hotel with complementary facilities located along the southwest side of the existing casino building and that some retaining walls were expected to be incorporated into the final design to account for sloping ground to the southwest of the building. The Draft Geotechnical Report (Appendix B) of the EA concluded that the site is suitable for construction of the proposed hotel and complementary facilities provided that appropriate mitigation of the geologic hazards is incorporated into project design. The Summary Letter indicates that the likelihood of an active fault through the project site to be low and that the risk of fault rupture does not represent a "fatal flaw" to the project. Furthermore, it indicates that, depending on the final hotel layout, some level of slope stabilization should be considered to limit head-ward encroachment of the slide. This slope stabilization may include options such as a soil nail wall, welded wire wall, or cantilevered solider pile wall, with wall height likely on the order of 10-15 feet. The Summary Letter concludes that further geotechnical study is anticipated for final design based on the final structure layout, retaining walls, and site grading. Therefore, it is anticipated that once the final project design is completed, the final geotechnical study would be conducted.

Response to Comment Letter S2 – Department of Transportation

- S2-01/2 Comment noted. The Tribe has clarified that the hotel has been a phased component of the existing casino and is therefore independent of the Master Plan and associated interchange. Accordingly, the Tribe has conducted an additional traffic impact study to assess the impacts of the hotel on the existing transportation network as an independent project. The cumulative analysis accurately assesses the implementation of the Master Plan within a 20-year timeframe and associated need for the interchange. The impacts associated with the interchange require review at the local level under the California Environmental Quality and associated mitigation would reduce impacts below adverse levels.
- S2-03 Comment noted. All appropriate studies required for the interchange to be developed off the Reservation will completed to meet local, state, and any federal requirements (should federal

funding by used by Caltrans to complete the interchange). The project would comply with Caltrans Standard Environmental Reference (SER) which outlines the procedures and documents required to comply with CEQA and NEPA, if applicable. In addition, the project would be required to comply with Volume 5 of the SER, which outlined the procedures to be incorporated into projects developed within the Coastal Zone.

S2-04/05 Comment noted. The Tribe's Master Plan relies on the new interchange to meet the demands. Should the new interchange become infeasible, the Tribe would revise the Master Plan to incorporate feasible development in accordance with the existing available transportation infrastructure. The Master Plan is a planning level document and can be readily altered by the Tribe to assess conditions at implementation of the various features of the plan. As noted above, the hotel is considered a phase of the casino and is independent of the implementation of the Master Plan and accordingly is assessed separately in the new traffic impacts study.

3.0 LOCAL AGENCY COMMENT LETTERS (L)

Response to Comment Letter L1 – City of Trinidad

L1-01 The City of Trinidad requested an extension to the comment period which was denied by the BIA. Refer to **Comment Letter F1** for the response from the BIA.

Response to Comment Letter L2 - City of Trinidad

- L2-01 Comment noted. The response to specific comments provided on the topics presented by the Commenter are provided below. The findings provided in the EA address the commenter's concerns. Section 3.10.1 of the EA addresses the water supply,
- L2-02 Comment noted. It is acknowledged that the City of Trinidad, the Trinidad Rancheria, and the surrounding landscape and ocean are part of an incredibly beautiful, environmentally sensitive, and unique location. Section 1.3 of the EA details the location and setting of the project site in a general manner, this response serves as a further addendum to the setting described in Section 1.3 to elaborate in a more specific manner. The proposed project is located just onshore of the Waterboard designated Trinidad Bay Area of Special Biological Significance (ASBS), Coastal Commission designated State Water Quality Protection Area and designated coastline as the Trinidad Head Critical Coastal Area (CCA), and it is recognized by the Bureau of Land Management (BLM) as a formal Gateway to the California Coastal National Monument (CCNM). Trinidad Head is one of the few onshore portions of the Federal CCNM and it provides the public access to scenic views of the area and the project site. The State ASBS and CCA designations strictly prohibit any degradation of natural water quality (BLM 2019, CCC 2014, Waterboard 2017). As noted in the footer, Figure 1-2 was generated using the "Trinidad, CA" United States Geological Survey 7.5 minute topographic quadrangle and accurately depicts the regional topography and associated

features, including Trinidad Head. Section 3.4.4 of the EA accurately assesses the potential impacts of the Proposed Project which would be localized to the area surrounding the existing casino which has been previously disturbed. Implementation of the Proposed Project would not adversely affect Trinidad Head ASBS, Trinidad Head, CCA, or the federal CCNM.

Comment noted. Based on information provided by TBE Architects, via FEA Consulting Engineers, and industry standards, the Rancheria's best available information to date is that the hotel will require approximately 14,184 gallons per day. This number reflects 100% occupancy. However, according to Wright, Inc., hotels average between 65% and 70% occupancy on an annual basis. As a result, this brings the average down to approximately 9,000 gallons per day, similar to the estimate provided in the EA. Wastewater recycling and landscape irrigation have been proposed as options to reduce wastewater discharge flow rates from the new hotel. The amount of recycling and irrigation to be implemented may be determined based on potential disposal shortfalls resulting from limited available disposal field capacity. FEA Consulting Engineers estimates that 15% wastewater recycling can be accommodated in the proposed hotel.

Based on monthly water usage rates from similar size and type of hotels in the region provided by Smith Travel Report (STR), projected water use variation on a monthly basis indicates that the proposed hotel will increase during the summer and decrease during the winter, with peak flows occurring in July. The actual recorded water use rates from these similar facilities was compared with the maximum expected flow using the fixture unit method to determine a percent of total capacity for each month. The monthly percent of total capacity was then used to scale the maximum expected flow rate for the hotel to estimate maximum monthly flow rates. The maximum monthly water use of 12,553 gpd occurs in July at 88.5% of the peak daily flow. The average water usage rates over the year 2018 provided by STR indicates that the average flow rate will be 10,130 gpd (71% of the peak daily flow).

According to SHN, excess treated wastewater may be disposed of using onsite landscape irrigation. The Tribe wishes to implement the measures necessary to use landscape irrigation as a means of disposing of excess treated wastewater when necessary. Any excess treated effluent that cannot be disposed of onsite can be transferred to adjacent tribal lands for land application. The Rancheria owns lands sufficient for this purpose.

- L2-04/-05 Comment noted. Refer to the response to Comment S1-09 regarding water supply.
- L2-06 Comment noted. Refer to the response to **Comment S1-09** regarding water supply. As discussed there within, preliminary studies indicate that there is available capacity for the City to meet the updated demands of the hotel project. Furthermore, the EA has been revised to include the option to develop groundwater wells on the Reservation to serve the Proposed

Project. Based on preliminary drilling investigations, a well may be developed with a capacity of approximately 10,000 gpd; which, when taking into account storage, would be sufficient to meet the water demands of the hotel. Accordingly, based on the EA and response to comments including associated clarifications added to the EA, there are no changes necessary to the findings of the EA in regards to water supply and a FONSI is warranted.

- L2-07 Comment noted. Refer to the response to **Comment S1-08** regarding the proposed interchange scheduling and the results of the TIA that was conducted in consultation with Caltrans to address impacts for three scenarios: 2019 hotel operations, 2039 hotel operations without cumulative development, and 2039 with cumulative development. The results indicate that the EA accurately assessed impacts of the hotel which requires development of the interchange as mitigation solely for the 2039 scenarios. Under the 2019 scenario, operation of the hotel would not require mitigation. Accordingly, based on the EA and response to comments, including associated clarifications added to the EA, there are no changes necessary to findings of the EA in regards to traffic impacts and a FONSI is warranted.
- L2-08-11 Comment noted. Refer to the response to **Comment F3-01** through **-03** regarding the verification of the leachfield capacity. Refer to response to **Comment L2-03** regarding the water demand and project wastewater flows.
- L2-12 Refer to the response to **Comment S1-06** regarding feasible alternatives for the scale of the hotel and location.
- Comment noted. As shown in the updated rendering provided in the response to **Comment F2-01-08**, the Tribe has already incorporated the mitigation measure that requires design elements to be incorporated into the Proposed Project to minimize visual impacts of buildings and associated structures, including landscaping that compliments buildings and parking areas, with setbacks and vegetation consistent with existing landscaping. Earth-toned paints and coatings were used. Furthermore, the requirements for all exterior glass to be non-reflective and low-glare, and signs and facades to be designed with a non-reflective backing to decrease reflectivity with be required through incorporation in the FONSI. As the Tribe has included the mitigation measures into the updated design, no revisions to the EA are necessary in regards to visual impacts and a FONSI is warranted.
- Comment noted. The impacts assessment provided in the EA provides adequate analysis and mitigation for visual impacts. In accordance with requests from the Coastal Commission, the Tribe submitted simulated views of the proposed hotel (including the incorporated mitigation for design features). These views are included as **Attachment I** of the response to comments as their inclusion in the EA are not necessary for the BIA to determine a FONSI is warranted.

As shown in the photos, the proposed hotel is hidden by topography and various trees. The elevation of the hotel would rest below the tree line and only 2.5 stories taller than the connecting portion of the casino. Accordingly, the findings of the EA regarding visual resources are accurate and the mitigation appropriately addressing the findings. No further revisions or analysis are required in the EA for visual resources.

- L2-15 Comment noted. In relation to impacts under NEPA, an adverse impact would occur if project-related demands on public services would cause an exceedance of system capacities that result in a need for additional facilities, the construction and operation of which would result in adverse effects to the physical environment. The analysis adequately states that compared to the existing setting which states that the County Sheriff would continue to provide law enforcement services to the project site, a will serve is not applicable because, as stated in Section 3.10.7 of the EA, in accordance with Public Law (PL) 280, 18 USC §1162, the State of California and other local law enforcement agencies have criminal enforcement authority on tribal lands. Furthermore, as stated in Section 3.10.6, per an agreement between the County Sheriff's Office and the Tribe, the Tribe provides funding for a deputy to patrol and provide law enforcement services in the vicinity of the Rancheria offsetting impacts from the Rancheria including existing casino. Based on the size of the hotel, calls for service would not be disproportionate to the current number of calls for service at the Casino and no additional law enforcement facilities would be required. Therefore, adverse impacts would be minimal to law enforcement services.
- L2-16 Comment noted. As noted in response to Comment L2-15, impacts from the hotel would be significant if new facilities would be required to service the hotel, the construction or expansion of which would result in significant adverse effects to the environment. Fire service is currently provided to the casino and Reservation and, as with law enforcement, the addition of a 100-room hotel would not result in a disproportionate number of calls compared to the current number of calls for service at the Casino. Accordingly, no additional fire protection facilities would be required. Therefore, adverse impacts would be minimal to fire protection services.
- L2-17 Comment noted. However, air emissions are generated in relation to a federal action on land held in trust by the federal government; therefore, the General Conformity provisions of the Clean Air Act apply to the project. State and local air quality regulations, including state-established air quality thresholds more stringent than the National Ambient Air Quality Standards (NAAQS), do not apply to tribal trust lands and therefore associated criteria are not applicable. The analysis within the EA accurately assess the impacts on the Proposed Action and Proposed Project on the North Coast Air Basin (NCAB) in relation to General Conformity. Although the NCAB is in conformance with all designated NAAQD, the EA analysis utilized the General Conformity de minimis thresholds to assess impacts. As noted

- in Section 3.3.4 of the EA, emissions from the Proposed Project would be below the General Conformity *de minimis* levels and therefore operation of the Proposed Project would not cause an exceedance of NAAQS or conflict with the implementation of California's SIP.
- L2-18 As stated in Section 3.11.3 of the prepared EA, a list of typical noise levels produced by construction equipment was provided to assess impacts related to noise. This list included the higher noise-producing equipment that may be utilized on the project site and did not include every piece of equipment that may be used. Additionally, based on Table 3.11-1, the maximum projected construction noise level on the project site would be approximately 89 dBA. This is a conservative maximum noise level based on the assumption that louder equipment (pavers) could potentially be used daily. However, not all equipment would be used simultaneously and not all equipment would be used on a daily basis. Thus, the actual noise level would be lower than calculated. Using an attenuation factor of 8.0 dBA Leg per doubling of distance, maximum average sound levels at nearby sensitive receptors (approximately 165 feet east of construction activity) would be approximately 77 dBA Leq. which is less than the FHWA threshold of 78 DBA Leq. As noted in the EA, this level is higher than the County threshold of 50 dBA Leq for commercial land use noise, however construction noise is exempt from County noise requirements. The discussion of the County noise threshold was provided for comparison to the applicable federal threshold.
- Comment noted. However only a few examples are presented. Propane is a refined natural gas that would be utilized for the gas mentioned in Section 2.2.1 of the EA. The EA has been revised to clarify the use of propane. Minimal grading would be required as the site below the proposed hotel has already been leveled for historic residential land uses. Because of the pre-existing leveling and tree removal, minimal cut will be required to develop a sloped roadway. Appendix B of the EA, the Draft Geotechnical Feasibility and Preliminary Design Report assessed the area for the proposed access roadway and provided recommendations to ensure construction would result in minimal adverse impacts. Because these recommendations are part of the Proposed Project, they are incorporated into the project and adequately addressed in the EA. For example, Mitigation Measure 3.1.6 states that prior to construction of the Hotel foundation, the contractor shall implement one of the slope stabilization options recommended by the soil engineers in the Draft Geotechnical Feasibility and Preliminary Design Report.
- L2-20 Comment noted. The considerations into the location of the hotel were considered during the initiation of the hotel design process. Refer to the response to **Comment S1-04 and -05** for further discussion of the design process for the hotel.
- L2-21 As stated in Section 3.3.4 of the prepared EA, the impacts to air quality were considered using an estimated eight to twelve month construction period, and the operational emissions were determined to be below *de minimis* levels. Additionally, both constructional and

operational emissions would result in GHG emissions were determined to not have significant impacts. Based on the relatively small footprint of the new hotel, impacts to sensitive receptors would be minimal. A health risk assessment is unwarranted for this type of construction project. A review of the corresponding local documents for comparision (District Rules and Regulations for the North Coast United Air Quality Management District [NCUAQMD]) indicates that should a project like the Proposed Project be built outside of trust land, further air quality analysis for air toxics and associated cancer and non-cancer impacts is unwarranted under CEQA (per the guidance found in CAPCOA's "Health Risk Assessments for Proposed Land Use Project" referenced by the NCUAQMD webpage titled Air Quality Planning & CEQA).

- L2-22 Comment noted. Refer to the response to **Comment L2-02** regarding a response concerning the unique habitat in the region.
- Comment noted. While the public meeting referenced by the commenter were well attended, may of the comments were based purely on requesting updating visual simulations of the design due to concerns regarding visual impacts of the Proposed Hotel. Visual impacts were mitigated in the EA in response to such concerns received prior to release to the EA. However, local controversy alone does not render an impact significant requiring further analysis. Furthermore, the areas of controversy including visual effects, water supply, geotechnical have been addressed through mitigation of further planning activities conducted by the Tribe above the requirements of the environmental review process. Accordingly, the impacts identified, including the context and intensity, do not require further review and a FONSI is warranted.
- L2-24 Comment noted. These issues have been addressed in the responses above and the resulting findings are identical to those in the EA that the Proposed Project would not have a significant effect on the environment and a FONSI is warranted.
- L2-25 Comment noted. The presence of a master plan does not indicate that the projects will be developed. A master plan is a guidance document but does not indicate that the project will be built as many factors including Tribal citizen growth, financial health and growth of the Tribe, and Tribal Council directives may prevent various or even all of the provisions of the master plan from being developed. Accordingly, cumulative analysis does not cover speculation as there are currently no funding mechanism for any of the developments mentioned by the commenter.
- L2-26 Comment noted; however, state and local laws do not apply to trust lands and therefore the project would not violate any local or state environmental law.

- L2-27 Comment noted. Refer to the response to **Comment S2-02** and **Comment S2-04** for response to a timeline and alternative mitigation measures, respectively.
- L2-28 Comment noted. Refer to the response to **Comment S1-08** regarding additional information provided through a TIA conducted in consultation with Caltrans. The interchange project is in the design phase and is close to commencing the environmental review stage. The mitigation is for the cumulative year which is 2039. The impacts themselves are projections and are as likely as the mitigation measure to become a reality. Accordingly, the project is viable as being considered as mitigation since there are mechanisms already in place to consider the mitigation beyond more than speculation.
- L2-29-30 Comment noted. Based on the findings of the EA and responses to comments a FONSI is warranted.

4.0 PRIVATE CITIZENS/COMMERCIAL ENTITIES COMMENT LETTERS (P)

Response to Comment Letter P1 – Bryce Kenny, Humboldt Alliance for Responsible Development (HARP)

P1-01 Comment noted. Refer to the response to **Comment F1-01** concerning a request for an extension to the 30-day commenting period. Petitioners are noted as concerned parties and will be included in mailing lists to received further correspondence related to the Proposed Action.

Response to Comment Letter P2 – Bryce Kenny, HARP

- P2-01 The 30-day comment period for the prepared EA was established in accordance with Section 6.2 of the BIA's NEPA Guidebook (59 IAM 3-H). A Notice of Availability (NOA) was released providing the contact information for commenters and copies of the prepared EA. The comment period was open beginning September 19, 2018 and ending on October 22, 2018. A request for an extension to the commenting period was submitted by the City of Trinidad, and was denied by the BIA, refer to the response to **Comment L1-01** and **Comment Letter F1-01**.
- P2-02 Comment noted. The EA was prepared on behalf of the Cher-Ae-Heights Indian Community of the Trinidad Rancheria (Tribe), in the interest of an Indian Loan Guarantee and approval of lease for a Hotel development and operation (Proposed Action). As per the BIA NEPA Guidebook, an EA must analyze and described the direct and indirect effects which as "caused by the action and occur in at the same time and place" (40 CFR 1508.8(a)). Additionally, the cumulative effect must also be considered and discussed in the EA. As discussed in **Section 4.0** of the prepared EA, the cumulative and growth-inducing effects as a

result of the proposed action are addressed as a result of the Proposed Action with respect to the affected environment. The commenter notes the mention of "interrelated development", assuming the reference is being made to the Tribe's Comprehensive Economic Development Strategy (Master Plan). Discussion of the potential affects as a result of the Master Plan as it pertains to the Proposed Action includes supporting infrastructure and tribal enterprises, and is discussed in **Section 4.0** of the prepared EA.

- P2-03 Comment noted. Refer to the response to **Comment S1-05** concerning impacts to visual resources.
- P2-04 Comment noted. Refer to **Comment P2-01** for information concerning the public comment period.
- P2-05 Refer to the response to **Comment L2-25**.
- P2-06 Comment noted. The EA was prepared in accordance with BIA NEPA Guidebook standards as the project is within Tribal lands. Therefore, CEQA standards are not considered within the prepared EA.
- P2-07 Comment noted. Refer to the response to **Comment S2-01** to **-02** concerning traffic related impacts, and **Comment S2-04** to **-05** concerning mitigation alternatives for traffic impact.
- P2-08 Refer to the response to **Comment P1-01** concerning extension of 30-day commenting period.
- P2-09 Refer to the response to **Comment L2-03** concerning the availability of water to supply the Proposed Project.
- P2-10 Refer to response to **Comment F1-01**.
- P2-11 Appendix G was accidentally removed from the original public release draft of the EA but was subsequently included in additional copies and was made available to those who received the initial version where the appendix was missing. Nonetheless, a summary of its contents in respect to the proposed project were included in Section 3.7 and 4.1.7 of the EA, in sufficient detail for the public review.
- P2-12 As stated in response to **Comment P2-02**, the EA was prepared for the loan and operation of a Hotel. Pertinent impacts relating and resulting from the proposed project were addressed in the EA in accordance with NEPA standards.
- P2-13 Refer to the response to **Comment P2-01**.

Response to Comment Letter P3 - Carole Mone

- P3-01 Comment noted.
- P3-02 Comment noted. Refer to the response to **Comment L2-03** and **Comment S1-09** concerning the capacity of water supply and alternatives to the water supply, respectively.
- P3-03 Comment noted. Biological Evaluation techniques are described in Section 3.4 of the EA. As required under NEPA, the EA evaluates impacts to protected species listed under the Endangered Species Act. Accordingly, As stated in Section 3.4.3, there are no habitats delineated by the USFWS as being critical to the survival of a protected species within or immediately adjacent to the project site. It was discovered that seven listed species had the potential to be present in the project area. Specific site conditions were examined in relation to these seven species with the conclusion that two of the seven species are met by the immediate project area, the marbled murrelet and spotted owl. Potential for disturbance during construction could occur as a temporary effect. Mitigation measures relating to these species are outlined in the EA. As noted in Section 3.4.5, a qualified biologist shall conduct a preconstruction nesting bird survey within 100 feet of the project site during nesting seasons. Furthermore, if active nests are found to be within the project site, a no-disturbance buffer zone will be established. Refer to Section 3.4.5 for more details related to mitigation measures to biological resources.
- P3-04 As stated in Section 3.4 of the EA, biological resources were evaluated through a review of pertinent literature, consultation of relevant databases, and biological field surveys in order to document habitat types and the potential occurrence for federally listed species. Refer to the response to Comment P3-03 for additional investigative methods. In accordance, the analysis must be commensurate with the potential for impact. Building on an existing parking lot and paved areas would not adversely impact habitat for federally protected species, therefore the analysis is commensurate to the level of impact. Furthermore, the analysis meets the requirements to identify impacts under NEPA and the Endangered Species Act.
- P3-05 Comment noted. As stated in Section 3.1.3 of the EA, the project site is not currently mapped for landslides or liquefaction Section 3.1.5 also notes landslides may be readily stabilized utilizing measures such as retailing wall systems, slope reconstruction, and sub-drainage elements. As a mitigation measure, noted in Section 3.1.6, the contractor shall implement one of the slope stabilization options recommended by the soil engineers. The concern for the "scenic drive sliding continually and hopelessly into the sea" would not be as a result of the proposed project.
- P3-06 Comment noted. Design alternatives are outside of the scope of the prepared EA.

P3-07 Comment noted. Concerns relating to water capture and transportation were discussed as a part of the prepared EA. As stated in Section 2.2.1 of the EA, to improve drainage conditions, a storm drainage inlet system would be connected to the existing Casino system to capture runoff from the building.

Response to Comment Letter P4 – Patty Stearns

- P4-01 Comment noted. Refer to the response to **Comment S1-05** concerning the alternative design considerations. Section 3.13 of the EA discusses the impacts to visual resources, including the effects of lighting. As discussed in the EA, lighting from the proposed Hotel would be minimal as the Tribe would use downcast, bi-level dimming motion sensor external lighting, which would not alter the visual aesthetics of the area. Furthermore, the mitigation measure discussed in Section 3.13.3 of the EA would minimize the impacts to visual resources to less-than-significant levels.
- P4-02 Comment noted.

Response to Comment Letter P5 – Sara March

- P5-01 Comment noted. Refer to the response to **Comment P2-01** concerning the commenting period.
- P5-02 Comment noted. Refer to the response to **Comment P3-05** concerning the slope stabilization for the Proposed Project. Further, refer the response to **Comment F3-01** and **Comment F3-04** concerning the capacity for wastewater treatment and sizing, respectively.
- P5-03 Refer to the response to **Comment S1-09**.
- P5-04 Refer to the response to **Comment S2-04 to -05** concerning the impacts to existing transportation networks and alternatives.
- P5-05 Comment noted. Refer to the response to **Comment S1-04** to **-05**.

Response to Comment Letter P6 – Colin Fiske, Coalition for Responsible Transportation Priorities

- P6-01 Comment noted. Refer to the response to **Comment S2-01** to **-02** regarding the Proposed Project as a separate development from the interchange and the traffic impacts from the Proposed Project.
- P6-02 Comment noted.

- P6-03 Comment noted. Refer to response to **Comment S2-04** to **-05** for alternatives to the interchange traffic mitigation.
- P6-04 Comment noted. Refer to the response to **Comment S2-03** concerning the determination of needs associated with the proposed interchange.
- P6-05 Comment noted.
- P6-06 Comment noted.
- P6-07 Comment noted. As stated in the prepared EA Section 3.3.4, the determination for the construction and operational GHG emission was found to be below the *de minimus* levels based on values from the CalEEMod, 2016. The operational use is based on mobile emissions associated with hotel patron's motor vehicle usage.
- P6-08 Based on the definition for "Cumulative impact" as described in 40 CFR 1508.7, "the impacts on the environment which results from the incremental impact of the action when added to…reasonably foreseeable future actions". Therefore, speculation of future development related to growth-inducing impacts from the construction of an interchange in not within the scope of the prepared EA.
- P6-09 Comment noted.

Response to Comment Letter P7 – Sandra Haux

- P7-01 Comment noted.
- P7-02 Comment noted. Refer to the Response to **Comment P3-05** concerning the slope stability of the proposed project site.
- P7-03 As stated in Section 3.1.2 of the prepared EA, the project site is not currently mapped for liquefaction. Furthermore, as stated earlier in Section 2.2.1, the site is considered stable for Hotel development. Additionally, cast-in-drilled-hold pile foundations at a minimum of 24-inches in diameter would be driven into the bedrock in order to counteract potential for caving soils. Further measures, such as concrete cantilever retaining walls, would be constructed as additional support.
- P7-04 Refer to the response to **Comment S1-09** concerning a confirmation for the water supply capability.

- P7-05 Refer to the response to **Comment S2-03** and **Comment S2-04 to -05** concerning an evaluation to determine the related needs for an interchange construction and alternative measures, respectively.
- P7-06 Comment noted. Refer to the response to **Comment S2-01** to **-03** concerning the interchange in relation to the proposed project and its impacts.
- P7-07 Comment noted. Refer to the response to **Comment F3-02** concerning the verification of leachfield capacity, and **Comment F3-03** concerning the determination of suitable soils.
- P7-08 Comment noted. Refer to the response to **Comment L2-19** concerning natural gas supply.

Response to Comment Letter P8 – Richard Salzman

P8-01 Comment noted.

Response to Comment Letter P9 – Charley Custer

- P9-01 Comment noted. As mentioned in Section 4.1.1 of the EA, the proposed project would be required to implement measures consistent with local permitting requirements for construction in order to address any geotechnical, seismic, or mining hazards. Additionally, construction fill was used during the construction of the existing Casino. As a result, the effects of soil erosion would not result in significant effects.
- P9-02 Comment noted. As discussed in Section 3.2.1 of the EA, the project site and surrounding lands do not directly contribute surface water to the Luffenholtz Creek-Frontal Pacific Ocean sub-watershed. Refer to response to **Comment S1-09** for confirmation of water supply capability.
- P9-03 Comment noted.

Response to Comment Letter P10 – Richard Clompus

- P10-01 Comment noted. Refer to the response to **Comment L2-02** concerning the State designations.
- P10-02 Refer to response to **Comment S1-09** for confirmation of water supply capability.
- P10-03 Refer to response to **Comment F3-01** concerning the capacity of the proposed wastewater treatment.
- P10-04 Comment noted. As stated in Section 3.10.7 of the EA, it is not expected that increased demand for emergency medical services would be created as a result of the proposed project. As concluded in Section 3.10.8, there is no mitigation required for public services.

Response to Comment Letter P11 - Alan Grau

- P11-01 Comment noted. Refer to the response to **Comment S2-02** concerning a timeline for the interchange.
- P11-02 As stated in Section 3.7.2 of the prepared EA, an increase in traffic on Scenic Drive at the proposed project entrance in forecasted to occur. Construction of a new intersection off Highway 101 would reduce adverse effects and is currently under consultation between the Tribe and Caltrans.
- P11-03 Comment noted. Refer to the response to **Comment S1-09** concerning confirmation of the source of water supply to the proposed project.
- P11-04 Comment noted. As addressed in the response to **Comment F3-02** concerning the confirmation of leachfield capacity for the Proposed Project and **Comment F3-01** concerning the capacity of wastewater treatment.
- P11-05 Refer to the response to **Comment L2-13** concerning the proposed Hotel design.

Response to Comment Letter P12 – Larry Goldberg

- P12-01 Comment noted.
- P12-02 Refer to Section 3.0 of the prepared EA for discussion of affected environment, impacts, and mitigation for the considered alternatives.
- P12-03 Comment noted. As stated in the prepared EA, alternative locations or a reduction of size would not meet purpose and need, and are therefore not defined as "reasonable" under the CEQ's Regulations for Implementing under NEPA.
- P12-04 Comment noted.
- P12-05 Refer to the response to **Comment S1-05** concerning visual impact mitigation. Additionally, refer to the response to **Comment F2-01 to -08** and **Comment P4-01** regarding the light pollution and its potential impacts to species of birds. Refer to the **Comment L2-18** regarding potential impacts from noise during construction.
- P12-06 Refer to the response to the **Comment S1-09** concerning the confirmation of water supply related to the proposed project.
- P12-07 Refer to the response to **Comment F3-01** to **-03** concerning the capacity for wastewater treatment.

- P12-08 As state in the EA, traffic impacts are anticipated to occur at the intersection of the Main Street corridor and project entrance on Scenic Drive under cumulative conditions. The Tribe and Caltrans are in consultation for the construction of an intersection off Highway 101 as a mitigation measure to alleviate these impacts, further refer to the response to **Comment S2-01** to **-02** for consideration of a timeline for the interchange construction.
- P12-09 Comment noted.

Response to Comment Letter P13 – Gail Kenny

- P13-01 Comment noted. Refer to the response to **Comment S1-09** for water supply issues.
- P13-02 Refer to the response to **Comment F3-01** to **-03** concerning wastewater treatment. As stated in Section 3.3.4 of the EA, the proposed project location is 230 feet above mean sea level and is set back 150 feet from the cliff edge. It is not vulnerable to coastal erosion.
- P13-03 Comment noted. Refer to the **Comment S2-01** to **-02** for consideration of a timeline for the interchange construction.
- P13-04 Refer to the response to **Comment S104** to **-05** concerning visual impact mitigation.

 Additionally, refer to the response to **Comment S1-06** concerning the consideration of the Proposed Project size.
- P13-05 Comment noted. As stated in the response to **Comment F2-01** to **-08** concerning potential impacts to birds from the Proposed Project.
- P13-06 Comment noted. Refer to response to **Comment P3-03** concerning biological impact methodology and species consideration.

Response to Comment Letter P14 – Geoff Proust

- P14-01 Comment noted.
- P14-02 Comment noted.
- P14-03 Comment noted. Refer to the response to **Comment P12-03** and **Comment S1-06** concerning the consideration of design and size alternatives for the proposed project, respectively.

Response to Comment Letter P15 – Dianne Rowland

P15-01 Comment noted. Refer to the response to **Comment S1-09**.

P15-02 Comment noted. Refer to the response to **Comment S2-02** concerning the timing for the traffic impact mitigation.

Response to Comment Letter P16 – Steen and Tami Trump

- P16-01 Comment noted. Refer to the response to **Comment S1-04** to **-05** concerning impacts on visual resources.
- P16-02 Refer to the response to **Comment P4-01** concerning light impacts. As stated in the EA, a significant impact due to noise would not result as a result of the proposed project as mitigation measures during construction would be implemented, and noise resulting from traffic would be below federal abatement criterion. Additionally, refer to the response to **Comment L2-18** for further potential construction noise impacts.
- P16-03 Comment noted.
- P16-04 Refer to the response to **Comment S1-09** and **Comment F3-01** to **-03**, respectively, concerning water supply and wastewater capability.
- P16-05 Comment noted.

Response to Comment Letter P17 – Jim and Sandra Cuthbertson

- P17-01 Comment noted.
- P17-02 Refer to the response to **Comment S1-09** addressing water supply for the proposed project.
- P17-03 Comment noted. For concerns relating to wastewater, refer to the response to **Comment F3-01** to **-03**.

Response to Comment Letter P18 – Julie Joynt

- P18-01 Comment noted.
- P18-02 Comment noted. Additional considerations for designs of the proposed project Hotel are not in the scope of the prepared EA. Alternatives consideration can be found in the response to **Comment S1-06**.

Response to Comment Letter P19 – Joyce King

- P19-01 Refer to the response to **Comment P2-01**.
- P19-02 Comment noted. Impacts and related mitigation measures to the proposed project have been addressed in the prepared EA in accordance to NEPA standards and guidelines.

P19-03 Comment noted. Potential impacts to cultural resources were examined in Section 3.5 of the EA in accordance with Section 106 of the National Historic Preservation Act. No historical resources were found to be present within Area of Potential Effects for the Proposed Project. The BIA has consulted with the appropriate authorities as required under Section 106 of the National Historic Preservation Act whom concurred that no adverse impacts to historical resources would result from the Proposed Action. Refer to Exhibit E of the FONSI. Furthermore, the mitigation in Section 3.5.5 of the EA would reduce potential impacts to undiscovered paleontological resources to less than significant levels.

In regards to hotel design, the visual impacts as a result of the hotel design were considered. However, it is outside of the scope of the prepared EA to prepare and provide alternative designs. Refer to the response to Comment

Response to Comment Letter P20 – Erin Rowe

P20-01 Comment noted.

Response to Comment Letter P21 - Kathleen Mill

P21-01 Comment noted.

Response to Comment Letter P22- Andrea Bustos

- P22-01 Refer to the response to **Comment S2-01** to **-02** addressing the impacts to traffic as a result of the proposed project.
- P22-02 Comment noted. As discussed above in response to **Comments S1-09** and **Comment F3-01** to **-03**, concerning the water supply and wastewater, respectively, for the proposed project.

Response to Comment Letter P23 – Karin Rosman

- P23-01 Comment noted.
- P23-02 Refer to the responses to Comments S2-04 to -5, S1-09, F3-01 to -03, and P9-01 address impacts concerning relating to traffic, water supply, wastewater, and coastal erosion, respectively.

Response to Comment Letter P24 – Gina Rimson

- P24-01 Comment noted.
- P24-02 Comment noted. Refer to the response to **Comment P2-02**, speculation of future projects are outside of the scope of the prepared EA. Furthermore, refer to **Comment S2-04** to **-05** for alternatives to the interchange.

- P24-03 Refer to the response to **Comment S1-09** concerning water supply.
- P24-04 Comment noted. Refer to response to Comment F3-01 to -03 concerning the leach fields, Comment S1-09 for city water supply, and Comment L2-14 regarding impacts to visual resources. In terms of the Proposed Project being inconsistent with local land use regulations, the local jurisdiction does not have a designated land use for the project area. Furthermore, the Proposed Project would be compatible with the mixed land use surrounding the project site, including the adjacent Casino. Because of these factors, the EA determined that the impact to land use was less than significant.
- P24-05 Comment noted. Refer to the **Comment S1-06** regarding the determination process for the hotel location and size. Furthermore, refer to the Section 3.0 of the EA for the environmental impacts of the Proposed Project.
- P24-06 Comment noted. Refer to response to **Comment S2-04** to **-05** concerning the Tribe's Master Plan.

Response to Comment Letter P25 – Don Allen

- P25-01 Comment noted.
- P25-02 Comment noted. Refer to response to **Comment P3-05** concerning the stability of the slope. Furthermore, stability of the Proposed Project location and mitigation measures are discussed in Section 3.1.6 of the prepared EA. As stated, the contractor shall implement one of the slope stabilization options as recommended by the soil engineers prior to the construction of the Hotel foundation. Options included are soil nail walls, reconstructed embankment, solider pile, and welded wire walls. Additionally, as mentioned in Section 3.1.5, the project location is outside of the 50-foot setback boundary as mandated by the Alquist-Priolo
- P25-03 Refer to the response to **Comment S1-09** addressing water supply infrastructure. The commenter is referring to the GHD, 2019 study referenced in the Final EA.
- P25-04 Refer to the response to **Comment S1-09** addressing water supply.
- P25-05 Refer to the response to **Comment F3-01** to **-03** concerning the capacity for wastewater and the leach fields. Refer to **Comment P3-05** regarding slope stabilization.
- P25-06 Comment noted. Alternative designs of the Hotel are out of the scope of work for the prepared EA, refer to the response to **Comment S1-04** to **-05** concerning visual impacts.
- P25-07 Concerning the potential impact to birds, refer to the response to **Comment F2-01** to **-08**. Additionally, for biological impact methodology, refer to the response to **Comment P3-03**.

P25-08 Comment noted. Refer to the response to **Comment S2-04** concerning traffic and the Tribe's Master Plan.

Response to Comment Letter P26 – Emelia Berol

- P26-01 Comment noted.
- P26-02 Refer to the response to **Comment S1-09** concerning the availability of water supply for the proposed project, and **Comment F3-01** to **-03** for wastewater concerns. Refer to the response to **Comment F3-05** regarding the applicability of an EA and associated FONSI.
- P26-03 Comment noted. Refer to the responses to **Comments F2-01** to **-08** regarding impacts to birds.
- P26-04 Comment noted. Refer to the **Comment S1-04** to **-05** for concerns regarding visual resources.
- P26-05 Comment noted

Response to Comment Letter P27 – Bryce Kenny, HARP

- P27-01 Comment noted.
- P27-02 Comment noted. Individual responses to the comments are addressed as they are presented.
- P27-03 Comment noted. As stated within Section 8 of the BIA's NEPA Guidebook, the determination for preparing an EIS is based on the significance of impact, not the scale or "class" of the Proposed Action and thereby the Guidebook meets the CEQ Regulations.
- P27-04 In accordance with Section F.1. of the Tribe's Ordinance titled *Environmental Policy*Ordinance for Gaming Facility Development [Tribal State Gaming Compact Section 10.8.1] that became effective May 16, 2000, "(i)n the event that the Project requires the approval of a federal agency, and therefore NEPA applies to the Project, compliance with NEPA and the federal process related thereto shall constitute compliance with this Ordinance.
- P27-05 Refer to the response to **Comments S2-04** to **-05** concerning the Tribe's Master Plan and the interchange, and refer to the response to **Comment Letter S2** in regards to contacting the Department of Transportation. Refer to the response to Comment P27-04 regarding the Environmental Ordinance.
- P27-06 Comment noted.
- P27-07 Comment noted.

P27-08	Comment noted.
P27-09	Refer to the response to Comment P27-04 regarding the Environmental Ordinance.
P27-10	The purpose of the prepared EA is to determine whether the Proposed Action would result in significant impact on the quality of human environment. The documents listed do not fall under the scope of word for the prepared document and are therefore not included.
P27-11	Comment noted.
P27-12	Refer to the response to Comment P27-10 . The considerations presented in the comment do not fall under the scope of the prepared EA.
P27-13	Refer to the response to Comment S2-01 to -02 regarding the Proposed Project and the interchange as independent developments.
P27-14	Comment noted.
P27-15	Refer to the response to Comment S1-05 for impacts to visual resources.
P27-16	Comment noted.
P27-17	Comment noted.
P27-18	Comment noted.
P27-19	Comment noted.
P27-20	Comment noted.
P27-21	Comment noted. Comment Letter S2 in Appendix XX states that Caltrans "concur[s] that a new freeway interchange would provide adequate capacity to serve the hotel". Therefore, approval from a qualified government agency for this EA has been obtained.
P27-22	Comment noted. Refer to the response to Comment P27-13 regarding the Proposed Project and the interchange as independent developments.
P27-23	Comment noted. The cumulative impact analysis within the EA considered the construction of the projects in the vicinity of the project site along with the full implementation of the Tribe's Master Plan until 2032, which is the County of Humboldt's planning horizon year. The justification for a planning horizon until 2038 is not clearly stated within the comment

	and the only readily available planning horizon with information that can be reference is 2032.
P27-24	Comment noted. Refer to the response to Comment S1-06 concerning the consideration for alternatives presented in the prepared EA.
P27-25	Refer to the responses to Comment F3-01 to -03 regarding the leach fields.
P27-26	Refer to the responses to Comment F3-01 to -03 regarding wastewater discharge.
P27-27	As stated in the prepared EA, the existing leachfield capacity would need to be expanded in order to accommodate the Proposed Project. In summary, an upgrade to the WWTP, expansion of the current leachfield, and an additional leach field are proposed to meet wastewater needs. Refer to the responses to Comments F3-01 to -04 pertaining to wastewater.
P27-28	Refer to the response to Comment P27-27 regarding leach fields.
P27-29	Refer to the response to Comment P7-03 concerning site stability.
P27-30	Refer to the response to Comment F3-01 to -03 regarding leach fields.
P27-31	Comment noted. Refer to the response to Comment F3-01 to -03 in determining leachfield capacity.
P27-32	Comment noted.
P27-33	Comment noted.
P27-34	Refer to the response to Comment L2-02 regarding the natural setting of the Proposed Project.
P27-35	Comment noted.
P27-36	As stated in Section 4.1.13 of the prepared EA, the development of the Proposed Project would generally be consistent with the visual goals of both the County and the City land use regulations.
P27-37	Refer to the response to Comment S1-04 to -05 regarding issues with the visual resources.
P27-38	Comment noted.

P27-39	Comment noted.
P27-40	Refer to the response to Comment L2-02 regarding the natural setting of the Proposed Project.
P27-41	Comment noted.
P27-42	Comment noted. Refer to the response to Comment S1-06 concerning the consideration for alternatives for the Proposed Action.
P27-43	Comment noted.
P27-44	Comment noted.
P27-45	Comment noted. Refer to the response to Comment P4-01 regarding impacts from lighting.
P27-46	As signage was not a part of the Proposed Action, it does not fall under the scope of the prepared EA and is therefore not included in the discussion.
P27-47	Refer to the response to Comment S1-09 regarding water supply.
P27-48	Refer to the response to Comment L2-03 regarding water usage.
P27-49	Comment noted.
P27-50	Refer to the response to Comment L2-03 regarding water usage.
P27-51	Refer to the response to Comment S1-09 and Comment L2-06 , concerning the confirmation of water supply and the alternative solutions to water supply for the Proposed Project, respectively.
P27-52	Refer to the response to Comment L2-06.
P27-53	Comment noted.
P27-54	Comment noted.
P27-55	Refer to the response to Comment S1-09 concerning the City's effort to generate information on minimum flow and operational capacity.
P27-56	Refer to the response to Comment S1-09 and Comment L2-16 concerning the City's service priority and fire service, respectively.

P27-57	Comment noted.
P27-58	As stated in Section 3.3.4 of the prepared EA, the Proposed Project site is located 150 feet away from cliff edge. Additionally, as stated in Section 3.1.2, the site is not currently mapped for landslides, however they are common in the vicinity. Measures such as nail walls, welded wire walls, and those mentioned in Section 3.1.6, as recommended by soil engineers, shall be implemented prior to construction of the proposed project.
P27-59	Comment noted.
P27-60	Comment noted.
P27-61	Comment noted. Refer to the response to Comment P3-05 regarding landslides and Comment P7-03 for site stabilization.
P27-62	Comment noted.
P27-63	Comment noted. Refer to the response to Comment L2-02 regarding the setting of the Proposed Project and Comment F2-01 to -08 regarding the hotel impacts to birds.
P27-64	Refer to the response to Comment F2-02 regarding the hotel impacts to birds and Comment P3-03 regarding the biological surveys and impacts.
P27-65	Comment noted. According to updated data as a result of the construction of the existing casino and parking lot, there are no waters of the U.S. located within the project area.
P27-66	Refer to the response to Comment F3-01 to -03 regarding wastewater facilities.
P27-67	Comment noted. Refer to the response to Comment F3-01 to -03 concerning the confirmation for the capacity of wastewater treatment for the Proposed Action.
P27-68	Comment noted. An updated review of the CalRecycle website ¹ indicates that the Anderson Landfill has a remaining capacity of 10.4 million cubic yards as of 2015, 7 years after the date of the information that was available at the time the EA was developed. Extrapolating out using the capacity loss from 2008 to 2015 (0.6 million tons), the landfill will reach maximum capacity in 2134 (119 years from 2015).
P27-69	Comment noted. Please refer to the response to the Comments S1-04 and -05 regarding hotel

design and visual impacts.

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¹ https://www2.calrecycle.ca.gov/SWFacilities/Directory/45-AA-0020/Detail

- P27-70 Comment noted. Refer to the response to **Comment L2-02** concerning the Federal and State designations and associated impacts. Furthermore, as noted in Section 3.2.14, potential impact to water quality would be reduced to less than significant with the incorporation of the BMPS listed in Appendix C of the EA.
- P27-71 Comment noted. Prior to the decision to develop a hotel, economic studies are conducted in order to determine if the investment will provide an adequate return in order to fund the project. For a hotel, the determining factor is competition and the number of available units in the region. The Tribe's consultant has indicated that there is a lack of the type of hotel the Tribe would provide and therefore the Tribe decided to move forward with the project. These studies are highly confidential as they outline economic strategies of the Tribe and therefore are not included in the analysis or as an appendix. Whether or not there is an intentional lack of hotel rooms of the type the Tribe is developing is irrelevant.
- P27-72 Comment noted. The statement referenced by the Commenter is very general in that some of the Tribal facilities are connected to City municipal systems while the Casino and thereby the hotel are connected to the Tribe's wastewater system. The statement has been revised to remove the general statement and focus on the Proposed Project.
- P27-73 Comment noted. Refer to the response to Comment L2-19 for gas service clarification.
- P27-74 Refer to the response to **Comment L2-16**.
- P27-75 Refer to the response to **Comment F3-01** to **-03** concerning the capacity for the wastewater treatment system.
- P27-76 Noise attenuates as distance increases. Therefore, since the bar would be at the top of the hotel, the noise would attenuate more than if the bar were on the bottom levels since the distance would be greater due to the angle of incidence between the ground level and top level bar.
- P27-77 The reports generated in 2015, by Environmental Data Resources indicate the Citizens Mortuary as closed. However, as to 40 CFR Part 312 and ASTM (E 1527-13) standards, the location is listed due to the proximity (0.5 miles) to the project site and listing as Leaking Underground Storage Tank incident.
- P27-78 Comment noted.
- P27-79 Comment noted.
- P27-80 Comment noted.

Response to Comment Letter P28 – Jolene Thrash

- P28-01 Comment noted. Refer to the response to **Comment S1-04** to **-05** for impacts to visual resources.
- P28-02 Comment noted.

Response to Comment Letter P29 - Charles Netzow

P29-01 Comment noted.

Response to Comment Letter P30 – Josiah Cain

- P30-01 Comment noted.
- P30-02 Refer to the response to **Comment P27-36**.
- P30-03 Refer to the response to **Comment P3-05** and **Comment L2-25**, concerning the slope stability and the cumulative impacts as associated with the intersection project, respectively.
- P30-04 As stated in the response to **Comment F3-01 to -03** regarding leach field capacities, and **Comment P9-01** regarding soil erosion.
- P30-05 Refer to the response to **Comment P3-05**. Additionally, as included as Appendix B, a Draft Geotechnical Feasibility and Preliminary Design Report was conducted involving laboratory testing, sampling and analyses of the proposed project site.
- P30-06 Refer to the response to **Comment S1-04** to **-05** regarding the potential impacts to visual resources, and **Comment F2-01** to **-08** and **Comment P4-01** regarding the light pollution and its potential impacts to species of birds.
- P30-07 Comment noted. Refer to the response to **Comment S1-04** to **-05** regarding the potential impacts to visual resources.
- P30-08 Comment noted.

Response to Comment Letter P31 - Larry Glass, Northcoast Environmental Center

- P31-01 Comment noted. As stated in the response to **Comment P6-08**, speculation concerning future developments is outside the scope of the prepared EA.
- P31-02 Refer to the response to **Comment S1-04** to **-05** concerning visual impacts.
- P31-03 Comment noted. Refer to the response to **Comment P12-03**.

- As the proposed project occurs within the Tribe's Reservation, the documentation was prepared in accordance with the Tribe's environmental Ordinance and associated NEPA regulations due to the approval of the BIA of the loan guarantee. CEQA is not required nor does the gaming compact require compliance with CEQA. The intent of the environmental provisions within the gaming compact was to ensure project's that support gaming conduct some level of environmental review even though the project would support gaming on sovereign land. In accordance with the Tribe's Environmental Ordinance, because NEPA is required for the Proposed Project, no additional environmental review is required.
- P31-05 Refer to the response to **Comment S1-09** concerning water supply.
- P31-06 Refer to the response to Comment S1-01 to -02 regarding the interchange and traffic.
- P31-07 Refer to the response to **Comment F3-01** to **-03** regarding wastewater, and **Comment P12-03** regarding project alternatives.

Response to Comment Letter P32 – Edward Pease

- P32-01 Comment noted.
- P32-02 Comment noted. Refer to the responses to Comments S1-04 to -05 concerning visual impacts. The responses to Comment P4-01, Comment P16-02, Comment F2-01 to -08, and Comment F1-01 to -03 provide discussion for light pollution, noise pollution, impact to bird species, and wastewater respectively. As signage was not included as a part of the Proposed Project, it is not discussed in the prepared EA, and therefore does not require a response.
- P32-03 Comment noted. As stated in the response to **Comment P32-02**, the visual impacts as a result of the hotel design were considered. However, it is outside of the scope of the prepared EA to prepare and provide alternative designs. The additional comments presented here are addressed in the responses to **Comment P3-05** addresses the slope stability for the proposed project.
- P32-04 Refer to the response **to Comment P3-05** regarding the slope stability for the proposed project, and **Comment S1-09** concerning the water supply for the proposed project.
- P32-05 Refer to the responses to **Comment S2-01** to **-02** regarding the interchange timeline.
- P32-06 Refer to the response to **Comment S1-09** regarding City water supply.
- P32-07 Comment noted.
- P32-08 Comment noted.

Response to Comment Letter P33 – Ingrid Bailey

- P33-01 Comment noted. Refer to the response to **Comment P3-05** concerning the slope stability for the proposed project site.
- P33-02 Refer to the response to **Comment S1-09** concerning water supply.
- P33-03 Refer to the response to **Comment P3-06** concerning the proposed Hotel design alternatives.
- P33-04 Comment noted.

Response to Comment Letter P34 – Ken Miller

- P34-01 Comment noted.
- P34-02 Refer to the response to **Comment P2-01**.
- P34-03 Comment noted.
- P34-04 Comment noted.
- P34-05 Comment noted.
- P34-06 Refer to the response to **Comment P6-08**, speculation of future developments is outside of the scope of the prepared EA.
- P34-07 Comment noted. Refer to the response to **Comment L2-15** regarding law enforcement for the Proposed Project, and **Comment P12-03** and **Comment S1-06** concerning the consideration of design and size alternatives for the proposed project, respectively.
- P34-08 Refer to the response to **Comment S1-04** to **-05** concerning the impact to visual resources.
- P34-09 Comment noted. Refer to the response to **Comment P34-07** regarding the range of alternatives.
- P34-10 Refer to the response to **Comment S1-09** regarding water supply for the proposed project.
- P34-11 Comment noted. Comments received are included within the administrative record and will be considered by the BIA in the decision on the project. This will be recorded as a part of the Record of Decision (ROD).
- P34-12 Refer to the response to **Comment F3-01 to -03** for wastewater discharge.

P34-13	Refer to the response to Comment P6-08 , speculation of future projects is outside of the scope for the prepared EA, and Comment S2-04 to -05 regarding the Tribe's Master Plan and the interchange.
P34-14	Comment noted.
Response	e to Comment Letter P35 – Kimberly Tays
P35-01	Comment noted. Refer to the response to Comment S1-05 to -04 concerning the visual impacts of the proposed project.
P35-02	Refer to the response to Comment S1-09 for the water supply for the proposed project.
P35-03	Comment noted. Refer to the responses to Comment F2-01 to -08 regarding bird strikes.
Response	e to Comment Letter P36 – James Vandegriff
P36-01	Comment noted.
P36-02	Comment noted. Refer to the response to Refer to the response to Comment S1-05 to -04 concerning the visual impacts of the proposed project.
P36-03	Comment noted. The EA considers the alternatives presented, and evaluates the associated environmental impacts. Alternative sources of energy and design features are not included in the scope of the prepared EA.
P36-04	Comment noted. As stated above, this is not included in the scope of the prepared EA.
P36-05	Comment noted.
Response	e to Comment Letter P37 – Katrin Homan
P37-01	Comment noted.
Response	e to Comment Letter P38 – Richard Johnson
P38-01	Comment noted.
P38-02	Refer to the response to Comment S1-09 concerning water supply.
P38-03	Refer to the response to Comment F3-01 and Comment F3-04 concerning wastewater treatment capacity.

P38-04	Refer to the response to Comment S2-01 to -02 concerning the development of the interchange.
P38-05	Comment noted. Refer to the response to Comment S1-04 to -05 concerning the visual impacts.
P38-06	Comment noted.
Respons	e to Comment Letter P39 – Sandra Schachter
P39-01	Comment noted.
Respons	e to Comment Letter P40 – Patricia Lee Lotus
P40-01	Comment noted.
P40-02	Comment noted. Refer to the response to Comment P3-05 concerning the slope stability for the proposed project site location.
P40-03	Comment noted.
P40-04	Comment noted.
P40-05	Comment noted.
Respons	e to Comment Letter P41 – Andrew Pruter
P41-01	Comment noted.
P41-02	Comment noted. Refer to the response to Comment S1-04 to -05 concerning visual impacts.
P41-03	Refer to the response to Comment P3-05 concerning the stability of the slope for the proposed project.
P41-04	Refer to the response to Comment S2-01 to -03 concerning the interchange. As previously stated, speculation of future projects is outside of the scope of the prepared EA.
P41-05	Refer to the response to Comment F3-01 to -03 concerning the leach field capacity.
P41-06	Refer to the response to Comment S1-09 concerning water supply.
P41-07	Comment noted. Refer to the response to Comment F2-01 to -08 concerning bird strikes.

Response to Comment Letter P42 – Annalisa Rush

P42-01 Comment noted. P42-02 Comment noted. Refer to the response to Comment S1-04 to -05 concerning the visual impact of the proposed project. P42-03 Comment noted. Refer to the response to Comment S2-01 to -03 concerning the interchange and traffic impacts. P42-04 Refer to the response to Comment F3-01 to -03 concerning wastewater P42-05 Refer to the response to **Comment S1-09** concerning water supply. P42-06 Comment noted. Refer to the response to Comment F2-01 to -08 concerning bird strikes. P42-07 Comment noted. As stated in Section 3.3.4 of the prepared EA, construction activities incorporating provided BMP's are anticipated to not result in any adverse air quality effect and therefore require no mitigation measures. P42-08 Comment noted. Response to Comment Letter P43 – Holly Vadurro P43-01 Comment noted. Refer to the response to Comment S1-09 concerning the water supply for the proposed project. P43-02 Refer to the response to Comment L2-03 and F3-01 to -03 concerning wastewater treatment capacity. P43-03 Refer to the response to Comment L2-16 concerning fire protection.

Response to Comment Letter P44 – Clay Johnson

- P44-01 Comment noted. Refer to the response to Comment S1-09 concerning water supply.
- P44-02 Refer to the response to **Comment F3-01** to **-03** concerning sewage capacity.

Comment noted. Refer to the responses to Comment S2-01 to -03 regarding traffic impacts and Comment S1-04 to -05 concerning traffic impacts and visual impacts, respectively.

P43-04

Response to Comment Letter P45 – Patrick Harestad

- P45-01 Comment noted. Refer to the response to **Comment S1-04** to **-05** concerning the impact to visual resources.
- P45-02 Comment noted. Refer to the responses to **Comment S2-01** to **-03** regarding traffic impacts.
- P45-03 Comment noted. Refer to the response to **Comment L2-03 and F3-01** to **-03** concerning wastewater treatment capacity.
- P45-04 Comment noted. Refer to the response to **Comment S1-09** concerning the water supply for the proposed project.
- P45-05 Comment noted. Refer to the response to **Comment F2-01 to -08** concerning bird strikes.

Response to Comment Letter P46 – Brenda Cooper

P46-01-08 Comments noted. Refer to the responses to **Comments P32-01** to **-08** as the comments submitted are identical.

Response to Comment Letter P47 – Jennifer Lance

P47-01-07 Comments noted. Refer to the response to **Comments P41-01** through **P41-07** as the comments submitted are identical.

Response to Comment Letter P48 – Donna Ulrich

- P48-01 Comment noted. As previously stated, the design for the hotel as proposed was considered as presented in the prepared EA, however, preparation of design alternatives are outside of the scope of the EA. Refer to the responses to **Comment S1-04** to **-05** for the impact to visual resources.
- P48-02 Comment noted. Refer to the response to **Comment S1-09** concerning water supply.

Response to Comment Letter P49 – Melanie and Ron Johnson

- P49-01 Comment noted. Refer to the responses to **Comment S1-04 to -05, Comment S1-09,** and **Comment S2-01** to **-03** regarding the visual impact and design of the proposed project, the water supply impact, and the proposed mitigation measure of the interchange, respectively.
- P49-02 Comment noted.

Response to Comment Letter P50 – Mark Dondero

P50-01 Refer to the response to **Comment F3-01** to **-03** concerning wastewater.

P50-02	Refer to the response to Comment S1-09 concerning water supply.
P50-03	Speculation regarding future development is outside of the scope of the prepared EA. Refer to the response to Comment S2-01 to -03 regarding the proposed mitigation measure of a new interchange.
P50-04	Comment noted.
Response	to Comment Letter P51 – Chet Ogan, Redwood Region Audubon Society
P51-01	Comment noted.
P51-02	Comment noted. Refer to the response to Comment S1-04 to -05 concerning the design of the proposed project Hotel.
P51-03	Comment noted. Refer to the response to Comment S1-09 concerning water supply.
P51-04	Comment noted. Refer to the response to Comment F3-01 to -03 concerning wastewater treatment capacity.
Response	to Comment Letter P52 – Sam King
P52-01	Comment noted.
Response	to Comment Letter P53 – David Hankin
P53-01	Comment noted.
P53-02	Comment noted.
P53-03	Refer to the response to Comment L2-03 concerning water needs for the proposed project.
P53-04	Refer to the response to Comment S1-09 concerning the water supply.
P53-05	Refer to the response to Comment F3-01 to -03 concerning wastewater.
P53-06	Refer to the response to Comment S2-01 to -03 concerning traffic and the proposed mitigation measure of an interchange construction.
P53-07	Comment noted.

REFERENCES

- California Coastal Commission (CCC), 2014. California's Critical Coastal Areas: Partnering to Protect our Coast from Polluted Runoff. Available online at: https://www.coastal.ca.gov/nps/Web/cca_ncoast_regional.htm. Accessed July 22, 2019.
- California State Water Resources Control Board (Waterboard), 2017. California's Areas of Special Biological Significance. Available online at:

 https://www.waterboards.ca.gov/water_issues/programs/ocean/asbs_map.shtml. Accessed July 22, 2019.
- United States (U.S.) Bureau of Land Management (BLM), 2019. California Coastal National Monument. Available online at: https://www.blm.gov/programs/national-conservation-lands/california/california-coastal. Accessed July 22, 2019.

ATTACHMENT I

REPRESENTATIVE VIEWSHED SIMULATIONS























EXHIBIT C

MITIGATION MONITORING AND ENFORCMENT PROGRAM

INTRODUCTION

Pursuant to 40 C.F.R. 1508.13, a Finding of No Significant Impact (FONSI) has been prepared. The Council of Environmental Quality (CEQ) recommends that a Mitigation Monitoring and Enforcement Program (MMEP) be adopted and summarized in certain FONSI documents. The Bureau of Indian Affairs (BIA) is the lead agency for National Environmental Policy Act (NEPA) compliance purposes. In order to minimize or avoid potentially significant impacts that could occur as a result of the Proposed Action, mitigation measures have been developed and incorporated into this MMEP.

TRIBAL MITIGATION MONITORING OVERVIEW

This chapter has been created to guide mitigation compliance before, during, and after implementation of the selected alternative, as required by NEPA. The mitigation measures described below were created through the analysis of potential impacts within the Final EA and in response to comment received on the Final EA. As specified in the following table, the compliance monitoring and evaluation will be performed by the Tribe as indicated in the description of each measure. In addition, the BIA has the duty to monitor mitigation to ensure all measures are implemented as required. The MMEP is included within the FONSI to provide:

- Requirements for compliance of the mitigation measures specifically created to mitigate impacts;
- List of responsible parties;
- Timing of mitigation measure implementation.

Mitigation measures included within the following table list the responsible party, the compliance standards, implementation timeline, and verification of completion. Where applicable, mitigation measures will be monitored and enforced pursuant to federal law, tribal ordinances, and agreements between the Tribe and appropriate governmental authorities, as well as the FONSI.

Mitigation Measure	Implementing Responsibility	Compliance Standards	Timing	Verification (Date/Initial)
Prior to construction of the Hotel foundation, the contractors will implement one of the slope stabilization options recommended by the soil engineers in the Draft Geotechnical Feasibility and Preliminary Design Report (Appendix B of the EA). Options include soil nail walls, reconstructed embankment, soldier pile, and welded wire walls.	Tribe General Contractor	Measure shall be included in construction specifications	Site Prep	
Coverage under the General Construction National Pollutant Discharge Elimination System (NPDES) permit shall be obtained from the U.S. Environmental Protection Agency (EPA. As required by the NPDES permit, a Storm Water Pollution Prevention Plan (SWPPP) shall be prepared that addresses potential water quality impacts associated with construction and operation of the Proposed Project. The SWPPP shall make provisions for erosion prevention and sediment control and control of other potential pollutants. The SWPPP shall describe construction practices, stabilization techniques and structural Best Management Practices (BMPs) that are to be implemented to prevent erosion and minimize sediment transport. BMPs shall be inspected, maintained, and repaired to assure continued performance of their intended function. Reports summarizing the scope of these inspections, the personnel conducting the inspection, the dates of the inspections, major observations relating to the implementation of the SWPPP, and actions taken as a result of these inspections shall be prepared and retained as part of the SWPPP. The BMPs shall include, but are not limited to, the following: Stripped areas shall be stabilized through temporary seeding using dryland grasses. Exposed stockpiled soils shall be covered to prevent wind and rain erosion. The construction entrance shall be stabilized by the use of rip-rap, crushed gravel, or other such material to prevent the track-out of dirt and mud. Construction roadways shall be stabilized through	Tribe General Contractor	NPDES permit shall be obtained from USEPA SWPPPs shall be completed for all construction and excavation activities Measures identified on the SWPPP shall be included in construction plans A copy of the SWPPP shall be current and remain on-site SWPPP practices shall be implemented on-site during construction Measures shall be included in construction specifications	Planning and Construction Phases	

Mitigation Measure	Implementing Responsibility	Compliance Standards	Timing	Verification (Date/Initial)
 the use of frequent watering, stabilizing chemical application, or physical covering of gravel or rip-rap. Filter fences shall be erected at all onsite stormwater exit points and along the edge of graded areas to stabilized non-graded areas and control siltation of 				
 onsite stormwater. Prior to land-disturbing activities, the clearing and grading limits shall be marked clearly, both in the field and on the plans. This can be done using construction fences or by creating buffer zones. 				
Concentrated flows create high potential for erosion; therefore, any slopes shall be protected from concentration flow. This can be done by using gradient terraces, interceptor dikes, and swales, and by installing pipe slope drains or level spreaders. Inlets need to be protected to provide an initial filtering of stormwater runoff; however, any sediment buildup shall be removed so the inlet does not become blocked.				
 The SWPPP shall address maintenance and repair of heavy equipment on site to remove the potential for pollution from oil, fuel, hydraulic fluid, or any other potential pollutant. 				
 If construction occurs during wet periods, sub-grade stabilization shall be required. Mulching or netting may be needed for wet-weather construction. 				
Temporary erosion control measures (such as silt fence, gravel filter berms, straw wattles, sediment/grease traps, mulching of disturbed soil, construction stormwater chemical treatment, and construction stormwater filtration) shall be employed for disturbed areas.				
 Exposed and unworked soils shall be stabilized by the application of effective BMPs. These include, but are not limited to, temporary or permanent seeding, mulching, nets and blankets, plastic covering, sodding, and gradient terraces. 				

Mitigation Measure	Implementing Responsibility	Compliance Standards	Timing	Verification (Date/Initial)
 Existing vegetation shall be retained where possible. To the extent feasible, grading activities shall be limited to the immediate area required for construction. 				
 Temporary erosion control measures (such as silt fences, staked straw bales, and temporary revegetation) shall be employed for disturbed areas and stockpiled soil. 				
 Potentially hazardous materials shall be stored away from drainages and containment berms shall be constructed to prevent spilled materials from reaching water bodies. 				
 Vehicles and equipment used during construction shall be provided proper and timely maintenance to reduce potential for mechanical breakdowns leading to a spill of materials into water bodies. Maintenance and fueling shall be conducted in an area that meets the criteria set forth in the spill prevention plan. 				
 Disturbed areas shall be revegetated after completion of construction activities. 				
Water Resources				
Construction Activities Refer to Land Resources	Tribe	NPDES permit shall be obtained from USEPA	Construction	
		SWPPPs shall be completed for all construction and excavation activities		
		Measures identified on the SWPPP shall be included in construction plans		
		A copy of the SWPPP shall be current and remain on-site		
		SWPPP practices shall be implemented on-site during construction		

Mitigation Measure	Implementing Responsibility	Compliance Standards	Timing	Verification (Date/Initial)
		Measures shall be included in construction specifications		
Operational Measures The following BMPs would be implemented to reduce water usage at the Hotel: In order to reduce water consumption and support LEED and sustainability goals of the building, all plumbing would include low-flow and ultra-flow fixtures to reduce water consumption. All fittings are made of brass construction with a high-quality chrome finish, and polished, per the current Hyatt Place hotels plumbing and accessories list. All proposed fixtures would comply with applicable water use reduction requirements of American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 189.1 Section 6.	Tribe General Contractor	Measure shall be included in construction specifications	Construction	
Biological Resources		1	1	
The following mitigation measures shall be implemented to minimize impacts to Migratory Birds. A qualified biologist shall conduct a preconstruction nesting bird survey within 100 feet of the project site during marbled murrelet, northern spotted owl, bird-of-prey, and migratory bird nesting seasons. If any active nests are located within the vicinity of the project site, a no-disturbance buffer zone shall be established to avoid disturbance or destruction of the nest(s). The distance around the no-disturbance buffer shall be determined by the biologist in coordination with USFWS and will depend on the level of noise or construction activity, the level of ambient noise in the vicinity of the nest, and the line-of-sight between the nest and disturbance. The biologist shall delineate the buffer zone with	Tribe	Measures shall be included in construction specifications	Planning and Construction Phases	

Mitigation Measure	Implementing Responsibility	Compliance Standards	Timing	Verification (Date/Initial)
construction tape or pin flags. The no-disturbance buffer will remain in place until after the nesting season or until the biologist determines that the young birds have fledged. A report shall be prepared and submitted to the Tribe and the USFWS following the fledging of the nestlings to document the results.				
Cultural Resources				
The following mitigation measure is required for Alternative A to avoid adverse effects to cultural resources and/or paleontological resources:	Tribe General Contractor	Measures shall be included in construction specifications	Planning and Construction Phase	
Halt work within 50 feet of the find, retain a qualified archaeologist and/or paleontologist to assess significance. If the find is determined to be significant, determine the appropriate course of action, including recovery, analysis, curation, and reporting according to current professional standards.				
Transportation (Cumulative Environment)				
For the cumulative setting, the following mitigation measure is required for Alternative A to reduce impacts to transportation and circulation: Construct the Cher-Ae Lane interchange off of HWY	Tribe California Department of Transportation (Caltrans)	Caltrans Requirements for Project Implementation	Planning Phase	
101 to provide direct access to the Rancheria and Westhaven Drive.				
Noise				
The following mitigation measures shall be implemented to minimize impacts from noise during construction:	Tribe General Contractor	Measures shall be included in construction specifications	Planning and Construction	
 Construction activities would only occur between the hours of 7:00 am to 6:00 pm Monday through Friday, and 9:00 am to 5:00 pm on Saturday. No construction activities would occur on any Sunday. 		Hazardous materials storage and disposal plan shall be developed in accordance with industry practices	Phases	
 Where feasible, the stationary construction equipment shall be located on the southern portion of the project site. 				

Mitigation Measure	Implementing Responsibility	Compliance Standards	Timing	Verification (Date/Initial)
 All construction equipment over 50 horsepower shall be equipped with noise reducing mufflers. 				
Visual Resources				
The following mitigation measures shall be implemented to minimize visual impacts of buildings and associated structures. These elements include:				
Design elements shall be incorporated into the Proposed Project to minimize visual impacts of buildings and associated structures, including landscaping that compliments buildings and parking areas, with setbacks and vegetation consistent with existing landscaping. Earth-toned paints and coatings shall be used, all exterior glass shall be non- reflective and low-glare, and signs and facades shall be designed with a non-reflective backing to decrease reflectivity.				
 Windows shall be fit with black out curtains within rooms that face the ocean; 				
 Lighting shall be shielded and downcast; and 				
 Building maintenance staff shall be trained to call the Humboldt Wildlife Care Center wildlife rehabilitation facility should disoriented or injured seabirds be found on the property. 				

EXHIBIT D

THPO CONCURRENCE



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Pacific Regional Office
2800 Cottage Way, Room W-2820
Sacramento, CA 95825

JAN 3 1 2020

IN REPLY REFER TO Environmental and Cultural Resources Managemen

Rachel Sundberg, THPO PO Box 630 Trinidad, CA 95570

Dear Ms. Sundberg,

The Bureau of Indian Affairs (BIA), Pacific Regional Office wishes to initiate consultation under Section 106 of the National Historic Preservation Act, as amended, concerning the Cher-Ae Heights Indian Community of the Trinidad Rancheria's (Tribe) proposed loan guaranty and lease approval in connection with a hotel that is to be constructed on federal trust land adjacent to the Tribe's casino (Undertaking). These two federal actions, pursuant to regulations under 25 CFR 103 (Loan Guaranty, Insurance, and Interest Subsidy) and 25 CFR 162 (Leases and Permits), require that the BIA afford an opportunity for the Tribal Historic Preservation Office (THPO) to comment on the Undertaking and its potential to affect Historic Properties.

The Area of Potential Effects (APE) for this federal Undertaking is located on previously disturbed land of approximately 0.40 acres situated on the south and west sides of the Tribe's casino. The project site for the proposed hotel has previously been graded down to mineral soil or bedrock, and currently serves as paved parking and an access roadway to the existing casino. The legal location is Township 8 North, Range 1 West, the SW ¼ of the NE ¼ of Section 25 HBM.

Several archaeological studies have been conducted either on or nearby the Trinidad Rancheria. A records search and examination of historic maps and land patent records conducted by Analytical Environmental Services (AES) on January 26, 2017 concluded that no cultural resources have been identified within a 0.25 mile buffer of the project site. One land patent from 1870 for 126.9 acres was identified that included what was to become the northern portion of the Trinidad Rancheria. However, AES located no records that would include the APE for the current Undertaking. Additionally, there is no vertical APE, as it has been stated that the hotel will be constructed on bedrock topped with fill. The hotel will be designed so as to not affect the view shed, either from or to a Historic Property. For these reasons, it was determined that no pedestrian archaeological survey was needed to confirm BIA's identification efforts and effects determination.

Therefore, the BIA is forwarding our determination of *No Historic Properties Affected* to result from this federal Undertaking. You may indicate THPO concurrence with this determination pursuant to 36 CFR 800.4(d)(1), by executing the signature block below and returning a copy of the signed correspondence to the BIA.

Your concurrence will constitute satisfactory evidence of BIA compliance with Section 106 for this Undertaking. If you do not concur with this determination, further consultation will be necessary. If you have any questions or require additional information, please contact Dan Hall. Regional Archeologist at (916) 978-6041.

Sincerely,

any Klutschke
Regional Director

Concur:

Ms. Rachel Sundberg,

Date

Tribal Historic Preservation Officer, Cher-Ae Heights Indian Community of the Trinidad Rancheria

EXHIBIT E

FINAL EA



FINAL ENVIRONMENTAL ASSESSMENT

TRINIDAD RANCHERIA ECONOMIC DEVELOPMENT CORPORATION

HOTEL DEVELOPMENT PROJECT

JANUARY 2020

LEAD AGENCY:

Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825 (916) 978-6000



FINAL ENVIRONMENTAL ASSESSMENT

TRINIDAD RANCHERIA ECONOMIC DEVELOPMENT CORPORATION

HOTEL DEVELOPMENT PROJECT

JANUARY 2020

LEAD AGENCY:

Bureau of Indian Affairs 2800 Cottage Way Sacramento, CA 95825 (916) 978-6000



PREPARED BY:

Analytical Environmental Services 1801 7th Street, Suite 100 Sacramento, CA 95811 (916) 447-3479 www.analyticalcorp.com



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SECTION 1.0

INTRODUCTION

1.1 INTRODUCTION

Programs administered by the U.S. Bureau of Indian Affairs (BIA) allow tribes to improve tribal government infrastructure, community infrastructure, education, job training, and employment opportunities, along with other components of long-term sustainable development that work to improve the quality of life for their members. To help Indian tribes and individuals establish and expand Indianowned businesses, and to encourage self-sufficiency, Congress passed the Indian Financing Act of 1974 (Act). The Act was established to reduce the disparity between business capital available to Indian and non-Indian businesses. The Act is administered by the BIA, Office of Indian Energy and Economic Development (IEED): Division of Capital Investment (DCI) that oversees the various implementation programs such as the Indian Loan Guaranty, Insurance, and Interest Subsidy Program. BIA approvals under the program, including Indian Loan Guarantees which result in the physical disturbance of the environment (such as new construction), constitute a Federal Action requiring review under the National Environmental Policy Act (NEPA) of 1969. In addition to the DCI, the BIA Division of Real Estate Services assists tribes in improving the quality of life for its members. The Division of Real Estate Services reviews and approves leases on lands held in Trust by the Department of the Interior.

Accordingly, this Environmental Assessment (EA) has been prepared for the BIA to support the Trinidad Rancheria Economic Development Corporation (TREDC) requests, on behalf of the Cher-Ae Heights Indian Community of the Trinidad Rancheria (Tribe), for an Indian Loan Guarantee by DCI for capital to build a Hotel adjacent to the Tribe's Casino on the Reservation and the approval of a lease by the Division of Real Estate Services between the Tribe and TREDC to operate the Hotel. Combined, these two approvals represent the Proposed Action. The construction and operation of the Hotel constitute the Proposed Project. The BIA will use this EA to determine if the Proposed Action and subsequent Proposed Project would result in adverse effects to the environment.

This document has been prepared in accordance with the requirements set out in NEPA (42 United States Code [USC] §4321 et seq.), the Council on Environmental Quality (CEQ) Guidelines for Implementing NEPA (40 CFR Parts 1500-1508), and the BIA's NEPA Guidebook (59 Indian Affairs Manual [IAM] 3-H). Section 2.0 of this EA provides a detailed description of the Project Alternatives. Section 3.0 provides a description of the existing environmental conditions on and in the vicinity of the project site, an analysis of the potential environmental consequences associated with the Project Alternatives, and impact mitigation measures. Section 4.0 describes cumulative and growth-inducing effects, and Section 5.0 presents a list of preparers.

Consistent with the requirements of NEPA, the BIA will review and analyze the environmental consequences associated with the Proposed Action and Project Alternatives and either determine that a Finding of No Significant Impact (FONSI) is appropriate, request additional analysis, or request that an Environmental Impact Statement (EIS) be prepared.

1.2 BACKGROUND

The Cher-Ae Heights Indian Community of the Trinidad Rancheria is a federally recognized Indian Tribe with ancestral ties to the Yurok, Wiyot, Tolowa, Chetco, Karuk, and Hupa peoples. The Tribe is located within the ancestral territories of the Yurok, with core land holdings located on a coastal bluff east of U.S. Highway 101 (HWY-101), just south of the town of Trinidad, CA. The Tribe's culture, including but not limited to traditional and customary fishing and gathering, is inextricably tied to the land and marine resources found within the traditional homeland, which is defined as a 20-mile area of interest and concern surrounding the Tribe's lands. The Tribe has made a significant investment to revitalize the local economy and preserve the Tribe's cultural heritage and has developed a model that advances economic development and stewardship.

1.3 LOCATION AND SETTING

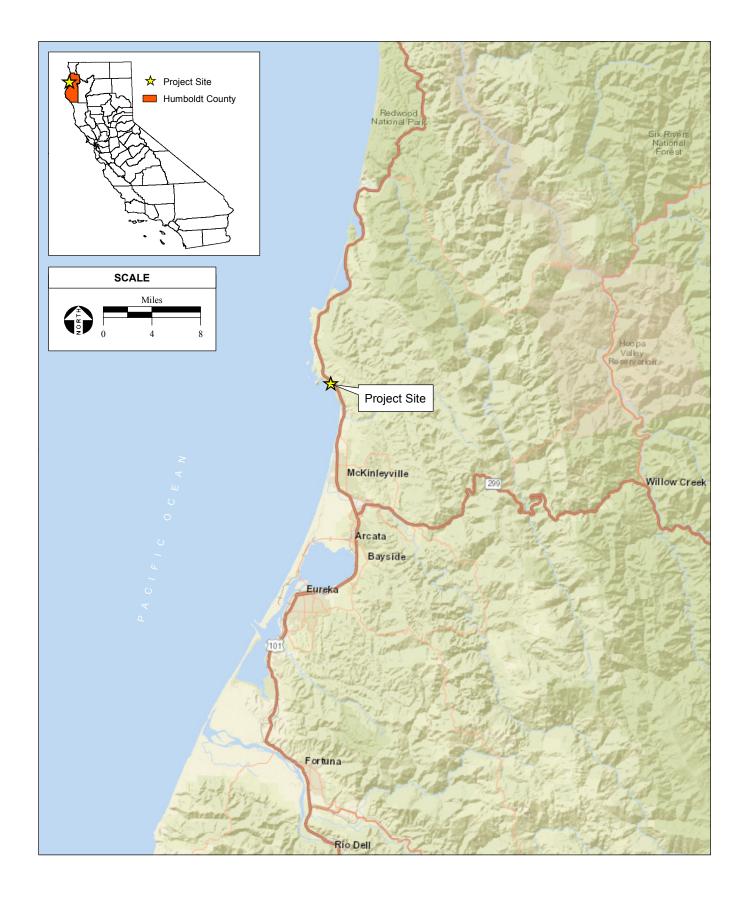
The project site is located west of HWY-101, adjacent to the City of Trinidad (approximately 0.75 miles southeast of downtown Trinidad) in Humboldt County, within the existing Reservation on the south and west side adjacent to the existing Casino. The project site is located in Section 25 of the Trinidad, CA U.S. Geological Survey (USGS) quadrangle within the southwest quarter of the northeastern quadrant of Township 8 North and Range 1 West. **Figure 1-1** and **Figure 1-2** show the regional location and vicinity of the project site. **Figure 1-3** shows an aerial photograph of the project site. The project site includes approximately 0.40 acres located on the south and west sides of the existing Casino that is currently developed and paved.

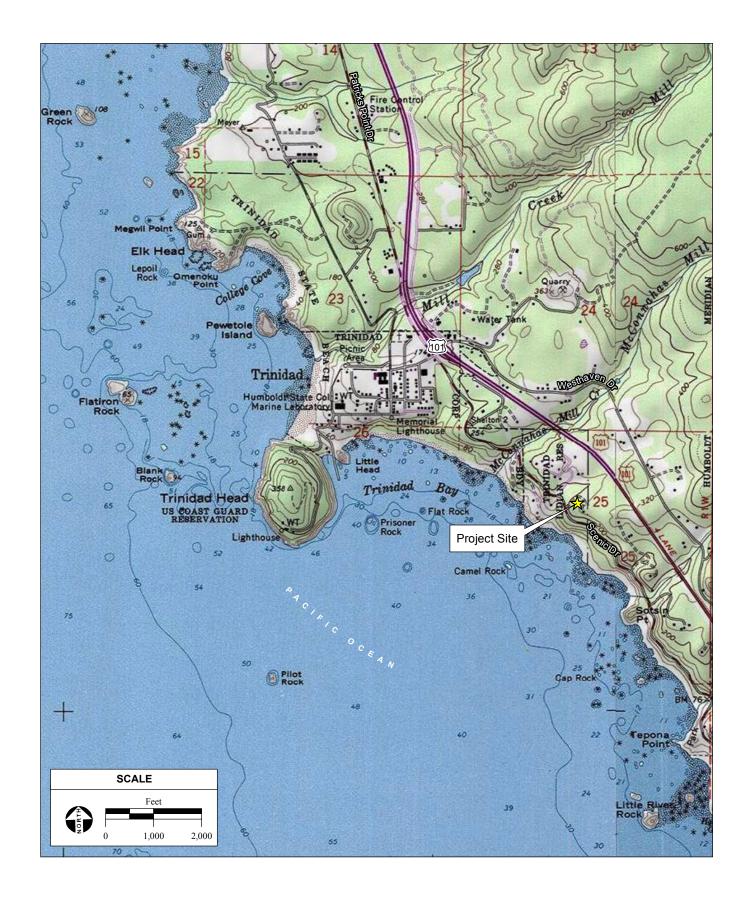
Regional access is provided by HWY-101, which travels in a general north-south direction and is located approximately 0.2 miles east of the project site. Local access to the project site is provided by Scenic Drive and Cher-Ae Lane. Scenic Drive is a two-lane paved road that runs in a general north south direction along the coastline from Trinidad to Westhaven going through the existing Reservation. Cher-Ae Lane is a two lane paved road on the Reservation connecting the Tribal amenities and Casino to Scenic Drive. The project site is composed of developed/paved parking and roadway behind and beside the existing Casino.

1.4 PURPOSE AND NEED FOR THE PROPOSED ACTION

The existing Cher-Ae Heights Casino provides a consistent revenue stream that has improved the socioeconomic status of the Tribe, allowing for development of programs and services that have resulted in reduced poverty and unemployment. Implementation of the Proposed Action would assist the Tribe in meeting the following project objectives:

- Maintain the socioeconomic status of the Tribe by providing an augmented revenue source that
 could be used to strengthen the tribal government, fund a variety of social, governmental,
 administrative, educational, health, and welfare services to improve the quality of life of tribal
 members; and to provide capital for other economic development and investment opportunities.
- Create new jobs for both tribal and non-tribal members.
- Reduce visitor trips on local roadways by providing additional overnight accommodations.
- Provide additional amenities to existing patrons and allow the target market to expand to nonresidential clients.
- Allow tribal members to enhance their economic self-sufficiency.







The Proposed Action and subsequent Proposed Project would ensure that the Tribe continues to maintain a long-term, viable, and sustainable revenue base and allow the Tribe to continue to compete with other gaming and tourist attraction venues in the region.

1.5 OVERVIEW OF THE ENVIRONMENTAL REVIEW PROCESS

This EA is intended to satisfy the environmental review process of 59 IAM 3-H, 40 CFR § 1501.3 and 40 CFR § 1508.9. The EA has been released for a 30-day comment period. Comments will be considered by the BIA, and either a FONSI will be prepared or additional environmental analysis will be conducted. After the NEPA process is complete, the DCI and Division of Real Estate may issue a determination on the request to approve the Indian Load Guarantee and lease agreement.

1.6 ENVIRONMENTAL ISSUES ADDRESSED

In accordance with NEPA and because the Proposed Project is located within a coastal zone, this EA evaluates the following environmental issue areas outlined within the BIA's NEPA Guidebook:

- Land Resources
- Water Resources
- Air Quality/Greenhouse Gasses
- Biological Resources
- Cultural Resources
- Socioeconomic Conditions / Environmental Justice
- Land Resources

- Land Use and Agriculture
- Public Services
- Noise
- Hazardous Materials
- Visual Resources
- Transportation and Circulation

1.7 REGULATORY REQUIREMENTS AND APPROVALS

The following direct and indirect federal approvals and actions may occur as a result of the Proposed Action:

- Consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) under Section 7 of the Federal Endangered Species Act (ESA), if endangered species may be impacted by the Proposed Action.
- Consultation with the California Coastal Commission concerning consistency of the Proposed Action with the enforceable policies of the California Coastal Management Program (i.e., the Chapter 3 policies of the Coastal Act, Cal. Pub. Res. Code §§ 30200 et seq.) in accordance with 15 CFR Section 930.36 of the National Oceanic and Atmosphere Administration, Federal Consistency Regulations was completed and the Proposed Action received conditional concurrence so long as a suitable water source was identified.
- Consultation with the Tribal Historic Preservation Officer under Section 106 of the National Historic Preservation Act (NHPA).

SECTION 2.0

PROPOSED ACTION AND ALTERNATIVES

2.1 SELECTION OF ALTERNATIVES FOR DETAILED EVALUATION

As discussed in **Section 1.4**, the Purpose and Need of the Proposed Action relates to the Tribe's goals of economic self-sufficiency, self-governance, and self-determination. The only reasonable alternative is for the DCI and the Division of Real Estate Services to deny approval of the Indian Loan Guarantee and lease agreement, respectively. Furthermore, the selected location of the Proposed Project provides for a reduced-level of potential environmental impacts compared to alternative locations as the site is previously developed and supports the existing gaming operation. Other potential alternatives to the Proposed Action, such as a reduction in the size of the area for development or alternative locations, do not meet the definition of "reasonable" under the CEQ's Regulations for Implementing the NEPA because the purpose and need would not be met. Due to the proposed location of the Hotel, the Tribe has reduced the size to the minimum size that would provide the economic gains that would make the Hotel profitable and thereby viable. Accordingly, a smaller area for the Proposed Project is not evaluated within this Environmental Assessment (EA).

Being that all the parcels near the existing Casino are designated for parking, tribal facilities, or housing under Tribal land use planning, the surrounding locations owned by the Tribe are not suitable for a Hotel development. There are no other available comparable and affordable lands that would meet the purpose and need of the Proposed Project (in that the funds needed to purchase surrounding lands would result in lack of funding for Hotel development). Furthermore, the Tribe's purpose for the development of a 100-room Hotel is to support the existing Casino (Proposed Project). There is no alternative location that would allow the Tribe to have a Hotel near the existing Casino without disrupting future plans essential to the Tribe's growth and facilities. In addition, developing a Hotel separated from the existing Casino would prevent sharing of operational costs. This increase in operating costs associated with a separated Hotel facility would not be economically feasible for the Tribe. Therefore, alternative locations for the Proposed Project are not evaluated within this EA as none have been evaluated as being a reasonable alternative to the Proposed Project. The Proposed Project would allow the Tribe to better support their existing Casino and patrons visiting the area of Trinidad, thus providing economic benefit to the Tribe and its members. The Proposed Project is detailed below in Section 2.2.

2.2 PROPOSED ACTION AND PROPOSED PROJECT

The Proposed Action consists of the guarantee of a loan by DCI to the Tribe's lender in accordance with 25 Code of Federal Regulations (CFR) Part 162 Residential, Business, and Wind and Solar Resource Leases on Indian Lands and approval of a lease agreement between the Tribe and TREDC by the Division of Real Estate Services for the operation of the Hotel.

2.2.1 ALTERNATIVE A – PROPOSED PROJECT

The Tribe proposes to develop a six-story, 100-room Hotel, and accessory components on approximately 0.4 acres within existing developed/paved areas to the south and east of the existing Casino (**Figure 2-1**)



south and east of the existing Casino (**Figure 2-2**). The Hotel would include a mix of room types, 1,552 square feet of meeting space divided into two separate areas, a business center, fitness room, café/bar, lounge, rooftop event space, and indoor pool. A porte-cochere along the eastern side of the existing Casino would provide a covered vehicle entrance for arriving guests. As part of the franchise agreement between TREDC and Hyatt Place, Hyatt Place would provide the design standards for the Hotel to ensure development is commensurate with Hyatt standards and the Tribe's culture.

WATER SUPPLY

Under the preferred option, water would be supplied though the existing three-inch diameter metered Casino water line. Maximum water demands for the Hotel and accessory components would be approximately 14,184 gallons per day (gpd) at full capacity (FEA, 2019). Typical capacity of the hotel is expected to be approximately 70 percent, resulting in an expected average water demand of 9,929 gpd. Except for connections from the Hotel to the system serving the existing Casino, no additional water infrastructure is required for Alternative A.

Hot and cold domestic water would be provided via a combination of three separate systems. A 750-gallon water heater and storage tank would provide water to guest rooms and common areas. A 100-gallon water heater would serve water to the laundry area. Lastly, the proposed system would include a second 100-gallon water heater with recirculating hot water for the kitchen. All piping materials would meet the California Plumbing Code standard.

Optional Water Supply

In the event that City water would not be available to meet the demands of the Proposed Project, the Tribe would utilize alternative water sources, primarily including on-site water storage and well development. According to preliminary well explorations, on-site well development could provide approximately 6.8 gallons per minute (gpm) or 9,792 gpd, approximately 99 percent of the average day demand (**Appendix H**). With occasional trucking of supplemental water as needed to ensure stored levels can meet peak demands, the optional water strategy can meet the proposed water demands for the Proposed Project.

WASTEWATER TREATMENT AND DISPOSAL

Wastewater generated by the existing Casino, averaging 7,200 gallons per day (gpd), is currently treated by the Tribe's wastewater treatment plant (WWTP) and leach fields. The existing WWTP utilizes a combination of biological treatment and membrane separation and has an existing capacity of 15,000 gpd. The existing WWTP was designed to double in size with the addition of three filters, without resizing or excessive retrofitting. Wastewater generated by the existing Casino is pumped to a 15,000-gallon holding tank before being transferred to a concrete bioreactor. After organic material is broken down in the bioreactor, the wastewater is filtered through membranes. Once filtered, the wastewater is disinfected with a UV system and chlorinated. Approximately 40 percent (4,000 gpd) of the treated wastewater is dispersed via pumps into a leach field with a capacity of 10,000 gpd located south of the Tribal office. The remaining 60 percent (6,000 gpd) of the treated wastewater is stored in storage tanks to be recycled back into the existing Casino toilets (**Appendix A**).

Construction of a 100-room Hotel would result in the need to treat and dispose of approximately 10,000 gallons of wastewater per day. The proposed Hotel would connect directly to the existing Casino wastewater treatment system, which would be expanded in order to accommodate the additional capacity



generated by the Hotel. The Hotel sewer collection system would be drained by gravity and multiple exit pipes would be connected to the existing underground sanitary sewer. Sanitary drainage and vent piping materials would meet the California Plumbing Code standard. Recycled water would be utilized for toilet flushing within the Hotel, accounting for approximately 20 percent (2,000 gpd) of the proposed Hotel wastewater generation rate. Accordingly, the Hotel would be dual-plumbed and cross connections would be prohibited to prevent contaminating potable water with recycled water.

In order to accommodate the increase in wastewater treatment capacity, additional pumps, blowers, and piping and a parallel carbon polishing system would be installed. Upgrades to the electrical system would also be completed. The UV disinfection systems would also require a larger impeller on the existing pump; however, the UV disinfection systems themselves are sufficiently sized to handle the new flow.

All of this equipment would be accommodated by the existing building. Some minor plumbing issues would be corrected at the time of upgrade. Currently, the floor drains and plumbing fixtures in the treatment building are plumbed to the effluent tank. This would be rerouted to the holding tank and processed prior to dispersal. Some upgrades would occur with plumbing in the pump tanks to replace corroded pipes and valves. An additional standalone recycled water tank that is not chlorinated would be installed for use in the backwashing process of the membranes. This tank may affect the space currently dedicated to maintenance staff and activities and additional building space may be required to make sure routine maintenance activities are not impacted.

Wastewater from the septic tanks from the nearby Tribal Office, the clinic complex, and two homes is discharged directly to a community dispersal field without treatment. The community dispersal field was designed with a capacity of 10,000 gallons per day. A comparison of water meter usage records for the existing Casino and the processed wastewater flows from the WWTP indicate that approximately 60 percent of the average daily flow is recycled back into the existing Casino for toilet flushing and does not require disposal at the dispersal field. Therefore, approximately 2,880 gpd of treated wastewater is discharged to the dispersal field. In addition, an estimated 960 gpd are discharged to the dispersal field from the Tribal Offices, the clinic complex and the two houses connected to the community dispersal field. Accordingly, the total estimated flow to the community dispersal field is approximately 4,000 gpd. According to design specifications, there is approximately 6,000 gpd of capacity remaining in the existing community dispersal field. With 8,000 gpd of wastewater generated at the proposed Hotel, the existing leach field would operate over capacity. In order to accommodate excess wastewater capacity from the proposed Hotel, a 2004 Wastewater Assessment identified two potential areas, shown in Figure 1-3, feasible for additional leach field dispersal: the mounded ridge to the south of Ter Ker Coo Lane and the hillside south of the Tribal office (Appendix A). Accordingly, both locations are assessed in this EA.

GRADING AND DRAINAGE

Minimal grading would be required for a new access roadway, as the site is currently developed with asphalt for circulation for the back of house operations of the existing Casino and an existing Tribal property that has been previously cleared and flattened for historic residential. All cut and fill would be balanced on the site. The building would be constructed in a manner consistent with the 2016 California Building Code (CBC), including seismic design criteria related to the geologic setting of the area. The site is considered stable for hotel foundations, as it is located on undisturbed deposits and bedrock (**Appendix B**). Therefore, cast-in-drilled-hold (CIDH) pile foundations driven into the bedrock would be installed to achieve hotel support. A minimum of 24-inch diameter piles would be driven at least ten feet

into the bedrock to counteract potential for groundwater and caving soils. The CIDH piles require smaller installation equipment and minimize noise/vibrations when compared to driven piles (**Appendix B**). Additionally, concrete cantilever retaining walls up to 10 feet in height would be constructed as soil support. All retaining walls would be drained with at least one-foot thick permeable filter fabric backing.

With the development of the Hotel over existing paved surfaces, development of the Hotel would not introduce additional impervious surfaces. To improve drainage conditions over existing conditions, a storm drainage inlet system would be connected to the existing Casino system to capture runoff from the building. Additionally, roof drains would be installed on all flat roofs of the proposed Hotel. Roof drains would collect water through a system of drains connected to leaders, which would route the water outside of the building into the storm drainage system.

UTILITIES

Propane

Propane fuel would be provided for gas fired water heaters and kitchen equipment. Gas piping materials would meet the California Plumbing Code standards.

Electricity

The Hotel would obtain a normal power supply via a new utility service. The utility service would be terminated at a metered main electrical service switchboard (MSB). The MSB would be 208Y/120V, three phase, rated 2,500 amps and sized to accommodate all hotel features, including, but not limited to, the building guestroom loads, HVAC equipment, Hotel back of house loads, lighting, general-purpose power receptacles, and kitchen loads. Separate panelboards for lighting, receptacles, and HVAC loads are designed in compliance with California Energy Code, Part 6, Title 24 Section 130.5(a) Electrical Distribution Systems. Hotel electrical distributions would meet the California Energy Code, Part 6 Title 24, as they are enabled to receive and act upon demand response signals. Door and exit lighting would be provided with Integral 90-minute battery back up at guest rooms, public areas, and hotel back of house.

LIGHTING

Interior

All guestroom lighting would be locally switched or, if available, integrated with the Building Management/Guest Card Access Entry System. Interior lighting in all public spaces would be controlled via computerized dimming system and would have equivalency with California Energy Code Title 24 lighting control and power allowance requirements. Additionally, all back of house lighting shall meet California Energy Code Title 24 lighting control and power allowance requirements.

Exterior

Parking lot lighting would consist of pole-mounted, LED fixtures equipped with motion activated bilevel dimming. Exterior stairwells would be installed with motion sensors activated lights and an emergency battery. All exterior lights would be on a photocell controlled, centralized astronomical digital clock to ensure lights only turn on at night. Additionally, the Hotel would have 90-minute battery for backup lighting to power all emergency door lighting and LED-type illuminated exit signs. Emergency shunt relays would be provided for all areas with switched exit lights.

PROJECT CONSTRUCTION

The Hotel and accompanying components would be constructed over an eight- to twelve-month period, with an anticipated completion date in the spring to winter of 2020. All staging areas will be located on previously disturbed areas. Construction would involve minimal earthwork, placement of concrete foundations, steel and wood structural framing, masonry, electrical and mechanical work, building finishing, and paving, among other construction trades. Prior to finalization of the grading and development plans for the property, design-level geotechnical specifications addressing the specific grading and development plans would be developed to meet seismic requirements of the IBC.

To minimize the risk of fire, all equipment that normally includes a spark arrester would be equipped with an arrester in good working order; structural fire protection would be provided through compliance with California Fire Code and National Fire Alarm Code requirements for commercial structures similar in size to the proposed Hotel; the Tribe would cooperate with the fire district by allowing routine inspections and would ensure that appropriate water supply and pressure is available for emergency fire flows; and typical fire flow allowances would be confirmed with the local Fire Marshall prior to construction of any water storage tank.

2.3 ALTERNATIVE B – NO-ACTION ALTERNATIVE

Under the No-Action Alternative, DCI and the Division of Real Estate Services would not approve the requested actions. Accordingly, without the guaranteed loan, it is highly unlikely that the Tribe could secure the loan necessary to develop the Hotel. Additionally, without the lease agreement, the costs associated with having to independently design and operate the Hotel would render implementation infeasible for the Tribe. Accordingly, the Hotel and accessory components would not be developed as identified for the benefit of the Tribe under Alternative A. For the purposes of the environmental analysis in this EA, it is assumed that, due to the economic considerations for operating the existing Casino by the Tribe, the property would continue to be utilized in its current state for back of house access to the existing Casino with no additional facilities constructed under this alternative.

2.4 COMPARISON OF THE PROJECT ALTERNATIVES

ALTERNATIVE A

Alternative A would result in significant but mitigable environmental impacts in the following areas:

- Land Resources
- Biological Resources
- Cultural Resources
- Traffic
- Noise
- Visual Resources

Of the project alternatives evaluated, Alternative A would best meet the Tribe's objectives by providing the Tribe with a Hotel for the benefit of the Tribe and visiting patrons and community while minimizing or eliminating adverse environmental impacts.

ALTERNATIVE B

While the No-Action Alternative would not result in any of the environmental effects identified for Alternative A, this alternative would not meet the Tribe's objectives of exercising tribal sovereign self-reliance and enhance the well-being of tribal resources; further, this alternative would not meet the Tribe's goal to fulfill self-reliance and promote the future of economic stability and development for the Tribe.

SECTION 3.0

AFFECTED ENVIRONMENT, IMPACTS, AND MITIGATION FOR THE ALTERNATIVES CONSIDERED

This section presents relevant information concerning existing resources and other values that may be affected by the Project Alternatives. In accordance with the NEPA and the BIA's NEPA Guidebook (59 IAM 3-H), the existing conditions described herein provide the baseline for determining the environmental effects. As used here within, the term "project site" refers to the approximately 0.40 acres being considered for the Proposed Project. Accordingly, the term "proposed development" refers to the proposed Hotel and accessory components.

Following the existing conditions, environmental consequences and mitigation measures are provided for both direct and indirect impacts. Direct impacts are those that are caused by the Proposed Action and occur at the same time and place, while indirect impacts are caused by the Proposed Action and occur later in time or further in distance but are still reasonably foreseeable (Council on Environmental Quality, Regulation 1508.8). Cumulative effects and growth-inducing effects of the project alternatives are also assessed in this section for each of the resource areas. Note that, consistent with the CEQ's NEPA Regulations Section 1508.8, the term "effects" is used synonymously with the term "impacts." **Section 3.0** addresses the resource and issue areas identified in **Section 1.6**.

3.1 LAND RESOURCES

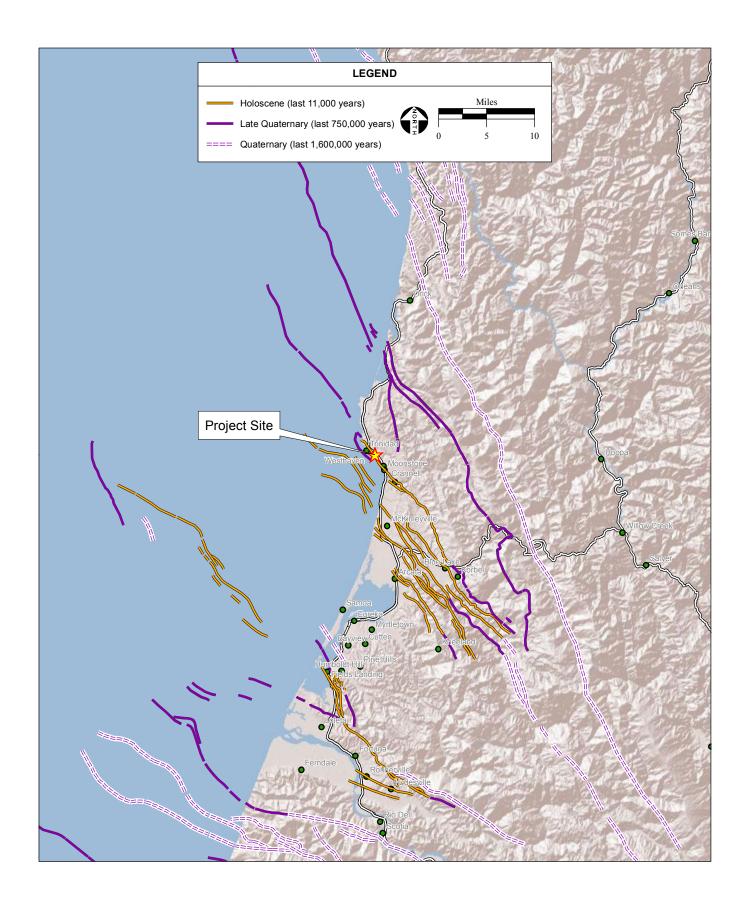
3.1.1 TOPOGRAPHY

Topography in the vicinity of the project site is typical of that of coastal bluffs and Pacific Northwest forests. The project site is located near the top of a coastal bluff, which is approximately 230 feet above mean seal level (amsl) and has an approximately 50 percent slope southwest towards the Pacific Ocean. The project site itself is relatively flat due to previous grading and development of the existing Casino.

3.1.2 GEOLOGIC SETTING AND SEISMICITY

The shale bedrock that underlies the project site is primarily composed of Mesozoic-Paleozoic-Precambrian Sedimentary and Metasedimentary Rocks, specifically that of the Jura-Cretaceous Franciscan Complex. Primary seismic concerns within the County include ground shaking and surface ruptures along existing fault traces. Secondary seismic concerns within the County include liquefaction, settlement, landslides, and tsunamis.

The County is located in a seismically active region. Three major fault traces meet offshore at the "triple junction": the San Andreas Fault, the Mendocino Fracture Zone, and the southern end of the Cascadia Subduction Zone. However, the project site is not located within a designated Alquist-Priolo zone, which is determined by the California Geological Survey (CGS) according to mandates of the Alquist-Priolo Earthquake Fault Zoning Act of 1972 (Alquist-Priolo). Alquist-Priolo zones are well-defined areas located within seismically active zones, typically along active fault zones susceptible to surface fault ruptures. As shown in **Figure 3-1**, several fault lines are located within the vicinity of the project site,



including the Trinidad Fault and McKinleyville Fault. The Trinidad Fault is located approximately 10 miles southeast of the project site and the McKinleyville Fault is located approximately 500 feet northeast of the project site. Both faults are less than 15,000 years old (USGS, 2016). The project site has as a maximum peak horizontal ground acceleration of 0.52g (or 5.10 meters per squared second (m/s²) for a seismic event with a ten percent probability for exceedance in 50 years (**Appendix B**).

The project site is not currently mapped for landslides or liquefaction. However, landslides are common along the slopes located in the vicinity of the project site, specifically at and below Scenic Drive, located immediately adjacent to and southwest of the project site. Landslides are initiated by wave erosion that undercuts the toe of such slopes, preferentially undercutting the "weak rock" areas within the shale bedrock. Block failures within the shale bedrock are caused by such wave erosion, which affects upslope and results in landslides due to sandy soils that become unstable during earth-shaking events at horizontal ground accelerations noted above. Landslides in the vicinity of the project site, specifically at and below Scenic Drive, have resulted in soil investigations, which in turn have led Humboldt County (County) to implement stabilization measures such as retaining wall systems, slope reconstruction, and sub-drainage elements.

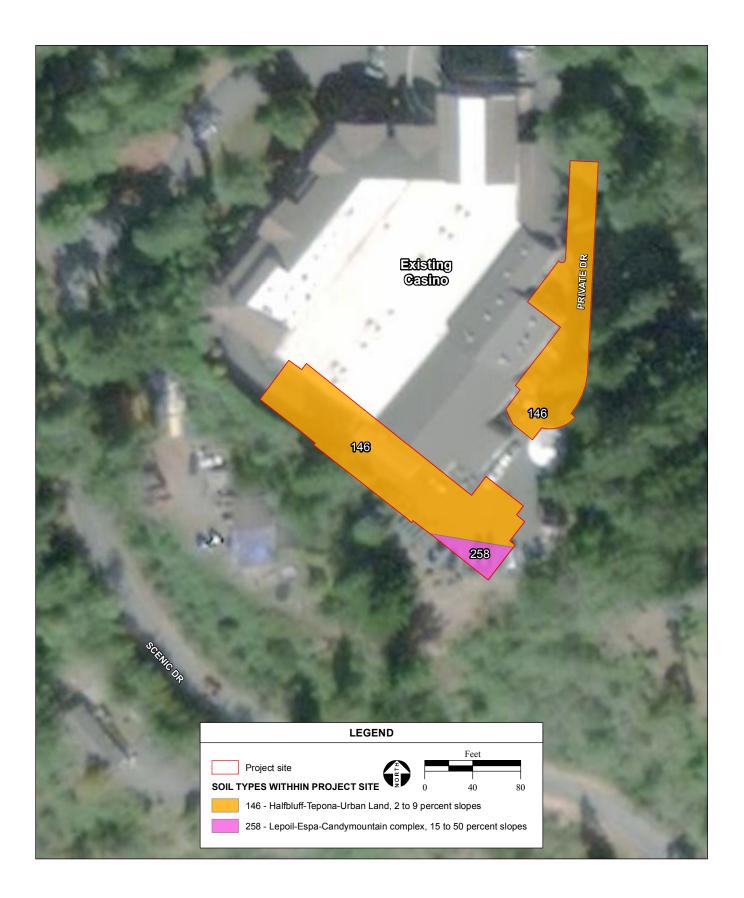
An active landslide currently extends from the southwest corner of the proposed Hotel southwest towards Scenic Drive. The active landslide is relatively shallow in nature and appears to involve the terrace deposits which overly the shale bedrock. Groundwater, a major contributor to the slope's instability, moves through the terrace deposits and emerges where the shale bedrock is exposed. Surface seepage, springs, and hydrophytic vegetation are present in the immediate vicinity of the slope. The active landslide has dropped approximately six vertical inches but has not damaged the existing Casino or surface parking lot.

The project site, being located near the top of a coastal bluff, is located outside of a tsunami inundation zone (DOC, 2009).

3.1.3 SOILS

As shown in **Figure 3-2**, soils within and in the vicinity of the project site are comprised of halfbluff-tepona-urban soils, lepoil-espa-candymountain complex soils, and atwell-ladydid complex soils. Soils within the project site have a low linear extensibility rate, which is related to the susceptibility of the soil to expand, and moderate to high soil erosion rates, which is related to the susceptibility of the soil to erode (NRCS, 2016a; NRCS, 2016b).

Construction fill material within and in the vicinity of the project site was used during the construction of the existing Casino and surface parking lot. The construction fill material, less than approximately five feet in depth, is comprised of stiff sandy clay and medium-dense silty gravel. Dense terrace deposits underlie the construction fill material to a depth of approximately 43 feet below ground surface (bgs). The weathered shale bedrock found below the project site is predominately decomposed to a lesser sandstone layer with mudstone and was drillable to the full depth of approximately 81.4 feet bgs for the test borings provided in **Appendix B**. **Appendix B** presents further analysis of the soil samples obtained during the onsite test borings.



3.1.4 MINERAL RESOURCES

The County has more than 32 permitted and active hard rock quarries (County of Humboldt, 2007a) and more than 90 extraction sites that produce sand, gravel, metals, stone, and clay. The majority of extraction activities within the County involves sand and gravel extractions along the Mad River, Eel River-Van Duzen River complex, Willow Creek, and Trinity River. Trinidad Quarry, located approximately 2.1 miles northeast of the project site, is the closest extraction site to the project site (USGS, 2003). No known mineral resources exist within the project site.

3.1.5 IMPACTS TO LAND RESOURCES

Alternative A would result in significant effects to land resources if construction or operation causes significant alterations to the site topography, significant soil erosion, or limits access to mineral resources of regional significance. Alternative A would also result in significant effects to land resources if geological/soil hazards associated with the existing setting would pose limitations to the development of Alternative A or pose a significant health hazard to new habitable structures.

TOPOGRAPHY

Alternative A would not result in substantial changes to the topography of the project site. Development within the project site, which is relatively flat in nature due to previous grading and development of the existing Casino, would be limited to the existing surface parking lot (**Figure 2-1**).

GEOLOGIC SETTING AND SEISMICITY

The County is located in a seismically active region (**Figure 3-1**). Alquist-Priolo mandates that human occupancy be set back at a minimum of 50 feet from an active fault; the Proposed Project is located outside the 50-foot setback boundary and there is little chance of an active fault on the project site (**Appendix B**).

The active landslide that currently extends from the southwest corner of the proposed Hotel southwest towards Scenic Drive has the potential to affect the foundation of the proposed Hotel. However, the active landslide is relatively shallow in nature and may be readily stabilized utilizing measures such as retaining wall systems, slope reconstruction, and sub-drainage elements (Section 3.1.6).

In order to reduce damage from tsunamis, the City's Draft General Plan designates all areas less than 20 feet above mean sea level (amsl) as Open Space or Special Environment (City of Trinidad, 2012). The project site, being located near the top of a coastal bluff at approximately 230 feet amsl, is located outside of a tsunami inundation zone and is therefore not designated as a Special Environment.

SOILS

Excavation activities for construction of the proposed Hotel within the project site have the potential to expose soils and increase the susceptibility of such soils to erode. However, construction fill material was used within and in the vicinity of the project site during the construction of the existing Casino and surface parking lot and therefore implementation of Alternative A would not result in significant effects due to soil erosion. Additionally, liquefaction is not anticipated to occur unless sustained high groundwater levels are identified within terrace deposits which overly the shale bedrock (**Appendix B**).

MINERAL RESOURCES

Excavation activities for construction of the proposed Hotel within the project site are not anticipated to result in a loss of economically-viable aggregate rock or to diminish the extraction of important ores or minerals. No known mineral resources exist within the project site and there are no abandoned mines, shafts, or tailings within or in the vicinity of the project site. Therefore development and use of the land would not affect extraction activities of known mineral resources of importance to the surrounding community.

Alternative B

Under the No Action Alternative, the project site would remain undeveloped. No mitigation required.

3.1.6 MITIGATION MEASURES

• Prior to construction of the Hotel foundation, the contractor shall implement one of the slope stabilization options recommended by the soil engineers in the Draft Geotechnical Feasibility and Preliminary Design Report (**Appendix B**). Options include soil nail walls, reconstructed embankment, solider pile, and welded wire walls.

3.2 WATER RESOURCES

The following section describes the existing surface water, drainage, flooding, water supply, groundwater, and water quality conditions at the project site.

3.2.1 SURFACE WATER, DRAINAGE, AND FLOODING

WATERSHEDS AND HYDROLOGY

The project site is located within the Luffenholtz Creek-Frontal Pacific Ocean sub-watershed of the Trinidad Hydrological Unit (HU). Mill Creek, McConnahas Mill Creek, and Luffenholtz Creek are located within the Trinidad HU, flow southwest, and eventually discharge into the Pacific Ocean. Mill Creek is located just north of the City and McConnahas Mill Creek is located immediately adjacent to the northern boundary of the Trinidad Rancheria. Luffenholtz Creek's headwaters are located northeast of the project site and discharge into the Trinidad Bay of the Pacific Ocean located approximately 1.4 miles south of the project site.

CITY WATER SUPPLY

Historically, homes within the City had individual wells or have been served from Mill Creek and Luffenholtz Creek. Currently, the City's water supply system serves approximately 315 connections, including connections to Tribal enterprises. The City has a permitted water use rate of 355,392 gallons per day (gpd), of which the City is using approximately 24 percent (GHD, 2019).

DRAINAGE

The project site has slopes which range from approximately zero to five percent. Runoff within the surface parking lot occurs as sheet flow and follows the topography southwest towards on-site detention basins and swales constructed during the development of the existing Casino. The project site and surrounding lands do not directly contribute surface water to the Luffenholtz Creek-Frontal Pacific Ocean sub-watershed; rather, overland flow drains via stormwater outlets into the Pacific Ocean.

FLOODING

The Federal Emergency Management Agency (FEMA) is responsible for assessing the potential for flooding by updating and issuing Flood Insurance Rate Maps (FIRM), which depict various levels of predicted inundation. FEMA has not completed an analysis of flood hazards within the City and therefore a FEMA FIRM is not available (FEMA, 2016). However, FEMA is in agreement with the City that due to the City's steep slopes, the potential for flooding within the City is nonexistent and therefore flood mapping is unnecessary (City of Trinidad, 2012).

3.2.2 GROUNDWATER

The project site is located within the minor Mad-Redwood Big Lagoon Area Basin groundwater basin, which is comprised of the Mad River, Redwood Creek, Eureka Plain, and Trinidad planning watersheds totaling approximately 34,000 acres (County of Humboldt, 2002). These planning watersheds are located within the California Coast Ranges and are mainly comprised of highly unstable, easily erodible rocks which contribute to high levels of sediment in its water features (County of Humboldt, 2002). The average annual runoff that percolates into the combined basin is approximately 1,000,000-acre feet (AF).

No groundwater wells supply water within the project site; however, monitoring wells were installed as part of the geotechnical studies investigated in **Appendix B**. Groundwater was originally measured at approximately 16.5 feet bgs, but has since risen to approximately 12.0 feet bgs. On-site groundwater levels are measured weekly and results indicate that groundwater is seasonally present within the terrace deposits near the shale bedrock. A groundwater balance was developed for the Rancheria (**Appendix H**). The inflows were attributed to recharge from precipitation and outflows were attributed to existing Rancheria uses and evapotranspiration by plants. The groundwater balance conservatively assumed that the approximately 20 structures on the Rancheria utilized groundwater resulting in an existing withdrawal from the basin of 20 acre-feet per year. Based on existing data, the annual recharge rate from precipitation (incorporating anticipated losses from evapotranspiration and runoff) is 174 acre-feet per year for the Rancheria. Taking into consideration the conservative assumption of existing use, the anticipated recharge would be approximately 154 acre-feet per year.

3.2.3 WATER QUALITY

Water is supplied to facilities within the project site by the City, and so water quality is assured by existing City systems.

3.2.4 IMPACTS TO WATER RESOURCES

ALTERNATIVE A

Alternative A would result in significant effects to water resources if construction or operation would result in off-site flooding, floodplain management, and/or cause an exceedance of applicable water quality criteria, result in a significant decline in groundwater levels, a significant decline in groundwater recharge rates, and/or cause an exceedance of applicable groundwater quality criteria.

Surface Water, Drainage, and Flooding

Development of the proposed Hotel within the existing surface parking lot would result in no net increase in impervious surfaces. Surface water would continue to follow the topography southwest towards onsite detention basins and swales constructed for the Casino. Roof drains installed on the proposed Hotel would route the water into the storm drainage system. FEMA has determined that the potential for flooding is nonexistent and therefore flood mapping is unnecessary (City of Trinidad, 2012).

Water and Groundwater Supplies

Water supply is described in **Section 2.2.1**. Under the preferred option, the City's water supply system (surface water) would serve the proposed Hotel's water needs through existing connections and no advese impacts to groundwater would result.

Optional Water Supply

The hotel water demand, at approximately 9,800 gpd of average use, would equate to approximately 11 acre-feet per year of water demand. Accordingly, the Rancheria groundwater basin would still receive 143 acre-feet per year of recharge and impacts to groundwater supplies would be minimal. Even at peak use, the hotel would require 15.8 acre-feet per year leaving approximately 138.2 acre-feet per year of recharge within the Rancheria groundwater basin. Furthermore, the immediate impacts of withdrawal within the wells, due to the low pumping rates, would be limited to a maximum radius of 50 feet from the potential wells. There are no wells within 50 feet of the proposed well areas and therefore no nearby wells would be adversely impacted by well pumping (**Appendix I**).

Wastewater Treatment and Disposal

As described in **Section 2.2.1**, primary treatment of wastewater would be provided by the Tribe's existing WWTF and expanded leach fields.

Water Quality

Construction activities may include excavation, which has the potential to result in the erosion of topsoil, potentially increasing sediment discharge into nearby waterbodies and degrading water quality. Construction activities may also include the routine use of potentially hazardous materials such as concrete washings, oil, and grease, which could spill onto the ground and runoff with stormwater. These effects would be reduced to less than significant with the incorporation of Best Management Practices (BMPs) provided in **Appendix C**.

3.2.5 MITIGATION MEASURES

ALTERNATIVE A

With the incorporation of the BMPs provided in **Appendix C**, construction materials would not reach surface waters and effects to water quality as a result of construction activities would be less than significant. No mitigation required.

ALTERNATIVE B

Under the No Action Alternative, the project site would remain undeveloped. No mitigation required.

3.3 AIR QUALITY AND GREENHOUSE GASSES

The Regulatory Context for Air Quality and Greenhouse Gasses is included in Appendix D.

3.3.1 Existing Air Quality Conditions

The project site is located in the North Coast Air Basin (NCAB), which extends for approximately 250 miles from Sonoma County in the south to the Oregon border in the north and east through Trinity County. The climate of the NCAB is influenced by the Klamath Mountains and the Coast Range provinces. The coastal plains, which are part of the Coast Range province, constitute less than 10 percent of the area of the NCAB but contain the major industrial and population centers. The project site is located on the edge of the coastal plain in the foothills of the Klamath Mountains.

3.3.2 REGIONAL AIR QUALITY

NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS) DESIGNATIONS

The NCAB is in attainment or is unclassified for all criteria air pollutants (CAPs) under the current NAAQS designation (USEPA, 2016). Pollutants of concern are CAPs, or CAP precursors (NOx and ROG), that are present in quantities exceeding the NAAQS in the applicable air basin or region. No CAPs exceed the NAAQS in NCAB (USEPA, 2016), and therefore, pollutants of concern are not present in the NCAB. Major hazardous sources are defined as stationary sources with potential to emit more than 10 tons per year (tpy) of any hazardous air pollutants (HAP) or more than 25 tpy of any combination of HAPs. The current operations at the project site do not meet this threshold.

CLIMATE CHANGE

The impacts of climate change could be both global and regional (IPCC, 2013). Development projects typically result in an increase in GHG emissions due to increases in mobile sources (trips generated), area sources (facility components or operations that directly emit GHGs), and indirect sources related to electrical power consumption. To provide a comparative analysis between sources of GHGs, the carbon dioxide equivalent (CO₂e) of each GHG is assessed. To calculate total GHG emissions for a source, estimated emissions for each GHG are multiplied by the corresponding CO₂e value and the converted values are then summed for a total CO₂e emissions rate.

3.3.3 SENSITIVE RECEPTORS

Sensitive receptors are facilities that house or attract children, the elderly, and people with illnesses or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors. The project site is surrounded by rural residential areas to the south, east and west, with Tribal buildings and the Casino directly adjacent to the northwest. A single-family rural residence, located on-Reservation approximately 75 feet south of the project site, is the nearest sensitive receptor. The nearest off-Reservation sensitive receptor is a single-family rural residence approximately 165 feet east of the project site. The nearest school, Trinidad Elementary School, is located approximately 0.9 miles north of the project site.

3.3.4 IMPACTS TO AIR QUALITY

ALTERNATIVE A

Criteria and Hazardous Air Pollutants

Adverse effects to ambient air quality would result if either construction or operation of the Proposed Project would result in non-conformance to an applicable State Implementation Plan (SIP) for NAAQS compliance or result in emissions of significant levels that would adversely affect the air quality of a federal Class I area. However, the project site is located within an air basin that is classified as attainment/unclassified for all the CAPs and the least stringent *de minimis* thresholds from the General Conformity rule have been selected as impact criteria for project evaluation.

Project-related air quality impacts fall into two categories: short-term impacts due to construction and long-term impacts due to project operation. Short-term construction activities would result in the generation of particulate matter (≤ 10 microns and ≤ 2.5 microns in diameter PM₁₀ and PM_{2.5}) from grading and demolition activities and ROG, NOx, and CO from diesel-fired construction equipment. Long-term operation of the Proposed Project would result in motor vehicle use. Motor vehicle use would contribute to ozone, the significance of which is determined through the generation of ROG, NOx, and CO pollution.

Construction emissions for the Proposed Project were estimated using California Emissions Estimator Model (CalEEMod), which is the latest version of the air quality model approved by the USEPA for use in California. CalEEMod provides default values when site-specific inputs are not available. Construction is assumed to begin in 2019 and continue for eight to 12 months. The following site-specific traffic inputs and assumptions were used for the purposes of air quality modeling:

- Construction will occur an average of 22 days per month.
- Construction will result in a maximum disturbance of 0.40 acres.
- CalEEMod default construction equipment list was used.
- The Proposed Project includes construction of a 100-room Hotel.

Default input values for the model included CalEEMod defaults and site-specific data are provided in **Appendix E**.

Climate Change and Greenhouse Gas Emissions

The County has identified goals and policies in its 2012 Draft CAP that support the State's GHG reduction goals. The USEPA has developed a GHG Reporting Program, which provides a GHG reporting threshold of 25,000 metric tons (MT) per year. In the absence of a federal significance threshold, the 25,000 MT reporting threshold was used to determine if project-related GHG emissions would exacerbate climate change effects. GHG Emissions were estimated using CalEEMod (**Appendix E**).

Federal Class I Area

If any alternative exceeds the Prevention of Significant Deterioration (PSD) threshold of 250 tpy for any one CAP from stationary sources during construction or operation, then further analysis must be conducted, however there are no stationary sources of CAPs included in the Proposed Project with the potential to emit 250 tpy of CAPs.

Construction Emissions

Construction of the Proposed Project would generate CAPs through the utilization of construction machinery (primarily diesel operated), construction worker automobiles (primarily gasoline operated), physical land disturbance, and construction of buildings. Construction typically proceeds in distinct phases: construction is initiated with demolition, site preparation, and paving, which is then followed by erection of structures, and finally the finishing of those structures and infrastructure. Of these phases, demolition can generate fugitive dust and diesel equipment emissions of PM₁₀ and PM_{2.5}. Construction and finishing of structures typically results in greater ROG and NOx emissions associated with diesel and gasoline combustion stationary equipment, mobile equipment, and employee vehicle trips. The Proposed Project annual construction emissions for each CAP are provided in **Table 3.3-1**.

TABLE 3.3-1
UNMITIGATED CONSTRUCTION EMISSIONS

CONSTRUCTION YEARS	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
CONSTRUCTION YEARS	TONS PER YEAR					
2019	0.29	0.84	0.55	0.00	0.10	0.06
De Minimis Levels	100	100	100	100	100	100
Exceeds De Minimis	No	No	No	No	No	No
Source: CalEEMod, 2016						

Project emissions are below the General Conformity *de minimis* levels and therefore construction of the Proposed Project would not cause an exceedance of NAAQS or conflict with the implementation of California's SIP. Construction of the Proposed Project would not produce greater than 250 tpy of a regulated pollutant and therefore the Proposed Project is not classified as a major source under the Prevention of Significant Deterioration (PSD) program and no pre-construction review is required.

Operational Emissions

Operational emissions would primarily be comprised of mobile emissions associated with hotel patron's motor vehicle use, though area and energy source emissions associated with maintenance equipment, space heaters, and water heaters would also contribute to operational emissions. Default assumptions for trip generation rate, trip lengths, average trip speeds, and vehicle fleet for residential land uses in CalEEMod were used to estimate project-related criteria emissions for the build-out year of 2020.

Table 3.3-2 summarizes project-related area, energy, and mobile source emissions. Project emissions are below the General Conformity *de minimis* levels and therefore operation of the Proposed Project would not cause an exceedance of NAAQS or conflict with the implementation of California's SIP. As with construction, operation of the Proposed Project would not be classified as a major source under the PSD program and no further review is required.

TABLE 3.3-2
UNMITIGATED OPERATIONAL EMISSIONS

SOURCES	ROG	NO _X	CO	SO ₂	PM ₁₀	PM _{2.5}
SOURCES	TONS PER YEAR					
Area	0.09	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.02	0.02	0.00	0.00	0.00
Mobile	0.59	3.89	8.78	0.02	1.23	0.36
Total Operational Emissions	0.68	3.91	8.79	0.02	1.23	0.36
De Minimis Level	100	100	100	100	100	100
Exceeds De Minimis	No	No	No	No	No	No
Source: CalEEMod, 2016						

Climate Change and Greenhouse Gas Emissions

As shown in **Table 3.3-3**, construction and operation of the Proposed Project will result in GHG emission of approximately 1,656 metric tons (MT) annually. These emissions equate to less than approximately 0.13 percent of total county-wide emissions in the most recent inventory (County of Humboldt, 2012a). As a result, no significant impacts concerning global climate change would occur as a result of implementation of Alternative A.

The 2016 CEQ guidance states that projects subject to NEPA should also analyze the effect of climate change on the project. Average temperature in the City could increase by approximately 2.8° F to 5.1° F by the 2080s, resulting in an increase in projected extreme heat days. Sea level rise is likely to increase by approximately 18 percent in the County and could lead to increased coastal erosion on the cliffs south of the Proposed Project. Additionally, the wildfire risk in the mixed conifer forest adjacent to the

TABLE 3.3-3
PROPOSED PROJECT GHG EMISSIONS

SOURCES	GHG EMISSIONS IN CO ₂ E (MT/YEAR)			
Direct				
Construction	8.58			
Area				
Indirect				
Mobile	1,554.04			
Energy	58.40			
Water	7.75			
Waste	27.53			
Total GHG Emissions	1,656.30			
Source: CaEEMod, 2016				

Proposed Project is projected to increase. The intensity of these effects is uncertain and depends on future GHG emissions world-wide (CEC, 2017).

No characteristics of the Proposed Project are unique or especially vulnerable to the impacts from climate change. The effects of increasing temperatures and frequency of extreme heat days will be damped by the use of on-site air conditioning. The project site is located on a coastal bluff approximately 230 feet amsl and set back approximately 150 feet from the cliff edge; therefore, the project site is not vulnerable to direct inundation or coastal erosion from sea level rise. The project site is located on an existing paved and developed area which is adequately served by emergency services (refer to **Section 3.10**) and therefore is not uniquely sensitive to increased risk from wildfires as a result of climate change.

3.3.5 MITIGATION MEASURES

No adverse air quality effects would result from the Proposed Project with the incorporation of the BMPs listed in **Appendix C**. No mitigation required.

Alternative B

Under the No-Action Alternative, the site would continue to be undisturbed. No mitigation required.

3.4 BIOLOGICAL RESOURCES

The following describes existing biological resource conditions, including habitat conditions, waters of the U.S., and listed species that occur within the project site and general vicinity. Existing biological resources were evaluated through a review of pertinent literature, consultation of relevant databases, and biological field surveys to document habitat types and the potential occurrence for federally listed species.

3.4.1 VEGETATIVE COMMUNITIES

Vegetative communities are assemblages of plant species that occur together in the same area that are defined by species composition and relative abundance. Vegetation communities were classified using the California Department of Fish and Wildlife (CDFW) Terrestrial Natural Communities of California system, or "Holland type." The project site habitat type is considered ruderal/developed with no vegetation within the areas to be disturbed. A habitat map of the project site is presented as **Figure 3-3**. Native vegetation surrounds the project site and borders the project site's impervious surfaces. There are no other habitat types located on the project site.

Habitat

Most of the undeveloped areas surrounding the project site are characterized by northern coastal scrub, consisting of low shrubs in dense patches that usually occur on windy, exposed sites with shallow and rocky soils. No wildlife occurs on or within the project site due to the high level of foot and vehicle traffic associated with the operation of the existing Casino back of the house. Surrounding the project site and on the adjacent properties, the following wildlife have been observed: turkey vulture (*Cathartes aura*), mourning dove (*Zenaida macroura*), California gull (*Larus californicus*), and American robin (*Turdus migratorius*).

Although the project site does not contain suitable habitat for nesting birds, there is potential for migratory birds that are accustomed to high levels of human activity to nest adjacent to the project site within the mature trees. The trees are located adjacent to the edge of the asphalt surface.

Potential Waters of the U.S.

There are no surface water features that are present within the boundaries of the project site that have the potential to be classified as waters of the U.S. or wetlands.

3.4.3 SPECIAL-STATUS SPECIES

For the purposes of this assessment, "special status" is defined to be species that are of management concern to federal resource agencies and include those species that are:

- Listed as endangered, threatened, or candidate for listing under the FESA; or
- Designated as species of concern or species of local concern by USFWS.

A list of special-status plant and animal species that have potential to be affected by the Proposed Project was compiled based on a review of pertinent literature, a reconnaissance-level site assessment, informal consultation with the USFWS, and the results of a California Natural Diversity Data Base (CNDDB)



query. Both the search results and a summary table of special-status species that have the potential to occur may be found in **Appendix F**. No habitat delineated by the USFWS as being critical to the survival of a protected species occurs within or immediately adjacent to the project site. The seven species listed in **Appendix F** have the potential to be present in the project region. These species were then examined by examining specific site conditions, and it was found that habitat needs for two of the seven species, the marbled murrelet and the northern spotted owl, are met by the immediate project site.

Marbled Murrelet

The marbled murrelet is a small, robin-sized diving seabird that spends the majority of its time on the ocean, resting and feeding, but flies inland to nest in old growth forest stands. Although no suitable habitat is located on the project site, potentially suitable habitat is located adjacent to the project site.

Northern Spotted Owl

The northern spotted owl is a medium-sized owl of slight varying shades of chocolate brown with dark eyes and a round face. Northern spotted owls live primarily in old 150 to 200-year old growth forests characterized by dense canopy closure typical of old forests. Although no suitable habitat is located on the project site, potentially suitable habitat is located adjacent to the project site.

3.4.4 IMPACTS TO BIOLOGICAL RESOURCES

ALTERNATIVE A

Significant effects to biological resources would result if Alternative A would:

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with local policies or ordinances protecting biological resources;
- Have a substantial significant effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA) through direct removal, filling, hydrological interruption, or other means:
- Have a substantial significant effect on species with special status under the federal Endangered Species Act (FESA);
- Have a substantial significant effect on habitat necessary for the future survival of such species, including areas designated as critical habitat by the U.S. Fish and Wildlife Service (USFWS); or
- Result in take of migratory bird species as defined by the Migratory Bird Treaty Act (MBTA) (16 USC §703-712).

Special-Status Species

Alternative A would not result in a loss of habitat for a protected species, as the project site has been previously disturbed and paved. Although no species have the potential to occur on the project site, the surrounding trees provide potential habitat for marbled murrelet and northern spotted owl.

Foraging habitat for marbled murrelet exists within approximately 500 feet of the project site on the shoreline west of the development footprint and potential nesting habitat exists within approximately 25 feet of the project site to the west, south, and east. Potential foraging and nesting habitat for the northern spotted owl exists directly adjacent to the project site. With the incorporation of the mitigation measures

provided below, neither of these species would be adversely affected by the Proposed Project, and there would be no effect to species in accordance with the Endangered Species Act.

Waters of the United States

No Waters of the U.S. occur on the project site. No discharge of dredged or fill material, or other disturbance to wetlands or other waters of the U.S. would occur as a result of Alternative A.

Migratory Birds

Although the project site does not contain suitable habitat for nesting birds, there is a potential for migratory birds to nest directly adjacent to the project site within the mature trees. However, the birds would have to be accustomed to areas of intense human activity. Construction activities could result in disturbance of nearby nest sites for migratory birds and other birds of prey through temporary increases in ambient noise levels and increased human activity within the Proposed Project area. Such disruptions could result in the abandonment of active nests. This would be a temporary effect and would not result in take of nesting migratory bird species.

Alternative B

Under the No Action Alternative, the project site would remain undeveloped. No mitigation required.

3.4.5 MITIGATION MEASURES

• A qualified biologist shall conduct a preconstruction nesting bird survey within 100 feet of the project site during marbled murrelet, northern spotted owl, bird-of-prey, and migratory bird nesting seasons. If any active nests are located within the vicinity of the project site, a nodisturbance buffer zone shall be established to avoid disturbance or destruction of the nest(s). The distance around the no-disturbance buffer shall be determined by the biologist in coordination with USFWS and will depend on the level of noise or construction activity, the level of ambient noise in the vicinity of the nest, and the line-of-sight between the nest and disturbance. The biologist shall delineate the buffer zone with construction tape or pin flags. The no-disturbance buffer will remain in place until after the nesting season or until the biologist determines that the young birds have fledged. A report shall be prepared and submitted to the Tribe and the USFWS following the fledging of the nestlings to document the results.

3.5 CULTURAL RESOURCES

Archaeological studies of the Trinidad Rancheria, including the Proposed Project footprint, were completed by Benson (1977) and Verwayen and Rohde (2011); neither resulted in the identification of any cultural resources on the Proposed Project site.

3.5.1 AREA OF POTENTIAL EFFECTS

The Area of Potential Effects (APE) for the Proposed Project includes the footprint of the proposed Hotel and any support structures, staging areas, etc.; however, all of these improvement and staging areas lie within already-developed locations. There is no vertical APE, as it has been demonstrated that the Proposed Project will be built on bedrock topped with fill (**Appendix B**).

3.5.2 METHODOLOGY

A record search was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System by AES staff on January 26, 2017 (NWIC File No. 16-1090). Sources reviewed included: the National Register of Historic Places; the California Register of Historical Resources; California Points of Historical Interest; California Inventory of Historic Resources; California Historical Landmarks; Directory of Properties in the Historic Property Data Files for Trinidad County; and Archaeological Determinations of Eligibility. No resources have been noted within 0.25 -miles of the Proposed Project in spite of the fact that six cultural resource studies have included the APE and 0.25-mile buffer.

Historic maps and land patent records were also examined, and it was determined that Alfred D. Dannes purchased approximately 126.9 acres in 1870 that would have included the northern portion of what would become the Trinidad Rancheria, however no land patent records could be found that include the project APE (BLM, 2017).

Geotechnical studies have shown that the Proposed Project site is located on Pleistocene marine terrace sediments deposited on a wave-cut bench in rock of the Jura-Cretaceous Franciscan Complex (**Appendix B**). Mollusks found in this formation, like those found near Trinidad Head approximately 2.5 miles to the west of the APE, are among the most common Pleistocene fossils, and frequently belong to species now living (Shimek, 1913). The presence of fossils nearby indicates the potential for fossils to be encountered during construction.

Native American Consultation

It is presumed that the BIA, as Federal Lead Agency, will conduct any necessary consultation.

3.5.4 IMPACTS TO HISTORIC PROPERTIES / PALEONTOLOGICAL RESOURCES

In accordance with Section 106 of the National Historic Preservation Act (NHPA), an adverse effect would result if the Proposed Project causes the physical destruction or alteration to all or part of, removal or change in the character to, or any deterioration or loss of integrity of an existing historic property (i.e. a resource eligible for listing on the National Register of Historic Places.

ALTERNATIVE A

No historic properties are known exist within the project site and there is no potential for historic properties to occur within the APE as it was previously cleared down to bedrock. Paleontological resources may occur within the APE, as Pleistocene fossil deposits have been identified within similar rock formations nearby. However, with implementation of appropriate mitigation measures, adverse effects to paleontological resources would be reduced to less-than-significant.

ALTERNATIVE B

Under the No-Action Alternative the site would remain undeveloped. No mitigation required.

3.5.5 MITIGATION MEASURES

• Halt work within 50 feet of the find, retain a qualified paleontologist to assess significance. If the find is determined to be significant, determine the appropriate course of action, including recovery, analysis, curation, and reporting according to current professional standards.

3.6 SOCIOECONOMIC CONDITIONS / ENVIRONMENTAL JUSTICE

3.6.1 TRINIDAD, HUMBOLDT COUNTY

The City's population is approximately 0.0026 percent of the population of the County and approximately 0.000009 percent of California's population. Over the next 20 years, the County is expected to grow from approximately 135,727 to approximately 140,513 individuals (Caltrans, 2015). The Trinidad unemployment rate is 2.5 percent, as compared to the County and State unemployment rate of 5.3 percent (U.S. Census, 2015; EDD, 2016a; EDD, 2016b; EDD, 2015.

Statistics for the Tribe were obtained from the BIA's American Indian Population and Labor Force Estimate Report (2014). Approximately 68 of the 102 enrolled Tribal members, ages 16 through 64, are classified as the labor work force.

3.6.2 Environmental Justice For Minority and Low Income Populations

The City is located within the census block group 060230102002 with a population of approximately 650 people. The total population that is reported as "low income" is approximately 30 percent (approximately 195 people), which is approximately 5 percent lower than the State estimation of low-income population (USEPA, 2016).

Approximately 18.4 percent of Humboldt County is classified as minority, including Hispanic, Asian, Black, Pacific Islander and American Indian, who make up approximately 5.74 percent of the population (including members of the Tribe) (California Department of Finance, 2016).

3.6.3 IMPACTS TO SOCIOECONOMICS/ENVIRONMENTAL JUSTICE

Implementation of the Proposed Project would result in significant effects to the socioeconomic and environmental justice settings of the region if it would reduce the ability of the local populace to obtain basic public health and safety services through loss of economic revenues or result in disproportionate and significant effects to an identified minority or low-income community.

ALTERNATIVE A

The Proposed Project would provide important socioeconomic benefits to the Tribe, including an augmented revenue source, new jobs, and would provide the Tribe with additional amenities within its Reservation. The project site is currently held in trust for the Tribe and therefore there would be no loss in property taxes that could affect public services. In addition, the area currently has a shortage of lodging; therefore, the addition of the proposed Hotel would bring additional tax revenue, assuming patrons would also visit nearby amenities. No mitigation required.

No adverse health or environmental impacts to low-income and minority populations would occur as a result of the Proposed Project; instead, the effect on low-income and minority populations would be beneficial. Alternative A would have no adverse effect with regards to environmental justice. No mitigation required.

ALTERNATIVE B

Under the No-Action Alternative the 0.4 acres would remain undeveloped. No mitigation required

3.6.4 MITIGATION MEASURES

No mitigation required.

3.7 TRANSPORTATION AND CIRCULATION

3.7.1 Existing Traffic Conditions

Hotel access and internal circulation would be provided by the existing Casino's access and internal roadways. A Traffic Impact Analysis (TIA) was completed to assess the impacts of the hotel on the regional transportation network (**Appendix I**). The TIA assessed 24-hour traffic counts and turning movement counts during the peak hour at the following roads and intersections within the study area:

Roadways:

- Patrick's Point Drive
- Main Street
- US 101 Exit 728 Ramps
- N Westhaven Drive
- S Westhaven Drive
- Trinidad Frontage Road
- Trinidad Scenic Drive
- Cher-Ae Lane

Intersections:

- Site #1 Patrick's Point Drive / Scenic Drive / Main Street
- Site #2 US101 Exit 728 Southbound Off-On Ramps / Main Street
- Site #3 US101 Exit 728 Northbound Off-On Ramps / S Westhaven Drive
- Site #4 US101 Exit 728 Northbound Off Ramp / Trinidad Frontage Road / N Westhaven Drive
- Site #5 Scenic Drive / Cher-Ae Lane
- Site #6 Scenic Drive / S Westhaven Drive
- Site #7 US101 Exit 726A Northbound Off Ramp / S Westhaven Drive

Per Caltrans recommended analysis procedures this study will analyze and evaluate four (4) scenarios:

- Existing Conditions (current year)
- Forecast 1 Existing Conditions with Development Slated for 2019.
- Forecast 2 20 Year Projection to 2039 with No Development
- Forecast 3 20 Year Projection to 2039 with Development

Forecasts 2 and 3 are addressed in **Section 4.0**.

Past traffic analysis, reports, roadway safety audits, and other studies prepared by the Cher-Ae Heights Indian Community of the Trinidad Rancheria demonstrates that Scenic Drive and the overall supporting transportation network is in functional condition. The TIA determined the following turning movement LOS ratings for the intersections:

- Site #1
 - AM Peak Hour 2019: Eastbound, LOS C; Westbound, LOS A; Northbound, LOS C; Southbound, LOS B
 - PM Peak Hour 2019: Eastbound, LOS C; Westbound, LOS A; Northbound, LOS C; Southbound, LOS E
- Site #2
 - AM Peak Hour 2019: Eastbound, LOS A; Westbound, LOS A; Northbound, NA; Southbound, LOS B

- PM Peak Hour 2019: Eastbound, LOS A; Westbound, LOS A; Northbound, NA; Southbound, LOS B
- Site #3
 - AM Peak Hour 2019: Eastbound, LOS A; Westbound, LOS A; Northbound, NA; Southbound, NA
 - PM Peak Hour 2019: Eastbound, LOS A; Westbound, LOS A; Northbound, NA; Southbound, NA
- Site #4
 - AM Peak Hour 2019: Eastbound, LOS A; Westbound, LOS A; Northbound, LOS B; Southbound, LOS C
 - PM Peak Hour 2019: Eastbound, LOS A; Westbound, LOS A; Northbound, LOS C; Southbound, LOS B
- Site #5
 - AM Peak Hour 2019: Eastbound, NA; Westbound, LOS A; Northbound, LOS A;
 Southbound, LOS A
 - PM Peak Hour 2019: Eastbound, NA; Westbound, LOS B; Northbound, LOS A; Southbound, LOS A
- Site #6
 - AM Peak Hour 2019: Eastbound, NA; Westbound, LOS A; Northbound, LOS A;
 Southbound, LOS A
 - PM Peak Hour 2019: Eastbound, NA; Westbound, LOS A; Northbound, LOS A; Southbound, LOS A
- Site #7
 - AM Peak Hour 2019: Eastbound, LOS A; Westbound, LOS A; Northbound, LOS A; Southbound, NA
 - PM Peak Hour 2019: Eastbound, LOS A; Westbound, LOS A; Northbound, LOS A; Southbound, NA

Currently, all sites have a LOS rating of C or better with the exception of Site #1; the PM peak hour LOS rating for southbound traffic is E.

3.7.2 IMPACTS TO TRANSPORTATION AND CIRCULATION

ALTERNATIVE A

Implementation of the Proposed Project would result in significant effects to the transportation and circulation network if daily traffic generated by the Proposed Project would result in an exceedance of LOS C, in accordance with the significance criteria provided in the County General Plan, or result in a substantial increase in the use of public transportation requiring additional infrastructure or vehicles.

Utilizing the Institute of Traffic Engineers (ITE) Trip Generation Manuals, 10th Edition, Volumes 1-3, the TIA concluded that the proposed 100-Room Hotel will generate an estimated 836 trips per day, of which 60 of those trips would occur during the PM Peak Hour of traffic. The detailed analysis and land use break down is provided on the Trip Generation Table. Total Trips Generated is the total number of vehicle trips to and from the new development in a typical weekday. The TIA identified several notable findings in relation to both the existing and the proposed traffic patterns and conditions. Primarily, the Trinidad Rancheria Hotel has little to no impact on the existing transportation network and traffic patterns with the exception of Main Street/Scenic Drive/Patrick's Point Drive (Site #1):

- a. The Level of Service for the intersection is already operating in relatively poor condition with LOS ratings: "C, A, C, E" from a two-way-stop-control analysis, and "C, C, B, B" from an all-way-stop-control analysis
- b. The Level of Service for the intersection is minimally impacted by the proposed hotel development: the two-way-stop-control analysis identifies the Southbound LOS reduces from an "E" already poor rating, to an "F" poor rating, and all-way-stop-control analysis identifies the Southbound LOS reduced from a "C" average but acceptable to a "D" below average rating.

No other intersections or roadways show any reduced state of operation due to the proposed Hotel development.

Currently, no public transit systems serve the project site. Due to the lack of nearby bus or train stops, public transportation would not be utilized as a source of transportation for the Proposed Project. Therefore, implementation of Alternative A would not result in a significant effect to public transportation and no new facilities or vehicles would be required to meet the needs of Alternative A.

ALTERNATIVE B

Under the No-Action Alternative, there would be no increase in vehicular traffic from construction or operation on area roadways. No mitigation required.

3.8 LAND USE

The project site and property is characterized by developed paved areas adjacent to the existing Casino and within the existing Reservation. Surrounding land uses vary from recreational trails to the west to residential on the north and southeast/east. HWY-101 is to the north/northeast. Surrounding land use designations are typical of a rural coastal community. The Reservation is not under the jurisdiction of the City's, County's, or State's land use designations.

3.8.1 IMPACTS TO LAND USE

ALTERNATIVE A

Significant effects to land use would occur if Alternative A would be incompatible with land uses of adjacent properties in such a manner that would impede local and regional planning efforts or result in land use conflicts that would impede neighboring land use. However, Alternative A would be compatible with the mixed land use surrounding the project site, including the adjacent Casino. As the property lacks a zoning classification by local jurisdictions but is designated as commercial land use by the Tribe, effects to land use would be less than significant.

While the project site is located within a Coastal Zone, the Proposed Project is excluded from the Coastal Zone Management Plan (CZMA) as it would be developed on land held in trust by the federal government. Therefore, the Proposed Project is not required to be developed in accordance with the Local Coastal Plan or the CZMA. Furthermore, the development of the proposed Hotel is consistent with the adjacent land use of the existing Casino.

ALTERNATIVE B

Under the No-Action Alternative, there would be no change in land use. No mitigation required.

3.8.3 LAND USE MITIGATION MEASURES

No changes to land use would occur as a result of the Proposed Project. No mitigation required.

3.9 AGRICULTURE

The project site is not used for agricultural operations and does not provide adequate acreage for crop development or cattle grazing. The project site is not under an active Williamson Act Contract (CDOC, 2017b), and the Proposed Project will not convert any farmland.

3.8.3 IMPACTS TO AGRICULTURE

ALTERNATIVE A

Significant effects to agriculture would occur if the Proposed Project would result in the conversion of agricultural lands designated as prime farmland, farmland of statewide importance, or farmland of local importance or impede local and regional planning efforts to protect agricultural lands, however no agricultural land conversion will result from implementation of Alternative A.

ALTERNATIVE B

Under the No-Action Alternative, the Hotel would not be built. No mitigation required.

3.9.4 MITIGATION MEASURES

No agriculture occurs on or within the immediate vicinity of the project site. No mitigation required.

3.10 PUBLIC SERVICES

3.10.1 WATER SUPPLY

The City operates the water treatment facility, which serves the City and surrounding unincorporated areas, including the Proposed Project site. This facility is located at 1313 Westhaven Drive North, Trinidad, CA. The City has permits to use approximately 355,392 gpd of water. However, they are currently only using a maximum of 85,289 gpd (averaged between 2013 and 2018;GHD, 2019). According to the 2019 study, the water treatment plant has a maximum production capacity of 113,400 gpd November through April, 126,000 gallons per day May through June, and 138,600 gallons per day July through October. Based on 2013 through 2018 data, the month of June has the smallest surplus production capacity at 48,578 (potential production rate minus average demand).

3.10.2 WASTEWATER SERVICE

As described in **Section 2.2.1**, the existing Casino is served by the Tribe's WWTF and associated leach fields.

3.10.3 SOLID WASTE

Humboldt Sanitation, a private contractor based in McKinleyville, provides solid waste disposal services to the Rancheria and associated properties. Humboldt Sanitation also operates Humboldt Recycling, which serves the City's recycling needs. Waste is collected and stored at the Humboldt Sanitation Company transfer station in McKinleyville and then transferred to the Anderson Landfill in Redding, California. The transfer station has a permitted capacity of 100 tons per day (tpd) and there are no

enforcement actions against the facility operation. Anderson Landfill has a maximum permitted capacity of 1,850 tpd and with a remaining capacity of over 11 million cubic yards (as of March 2008) with an expected closure date of 2055 (CalRecycle, 2016). Unsuccessful attempts were made to contact both the McKinleyville transfer station and Anderson Landfill to determine daily capacities. However, there is no indication that capacities have been exceeded.

3.10.4 ELECTRICITY, NATURAL GAS, AND TELECOMMUNICATIONS

PG&E supplies electricity to existing homes and businesses in the project site. American Telephone and Telegraph (AT&T) provides telephone service and would be responsible for any underground or overhead extensions necessary to serve the project site. Internet and cable TV is available to the project site from Suddenlink Communications and through various satellite television services. There are no known issues with the electricity, natural gas, and telecommunication services that would Hotel construction.

3.10.5 LAW ENFORCEMENT

In 2010, the City transferred law enforcement responsibilities to the County Sheriff. The County Sheriff's Department provides law enforcement services throughout the County and includes Administrative, Operations, and Corrections divisions. The Sheriff's Office also includes a Special Enforcement Team, boating unit, SWAT, and a drug enforcement unit. The County Sheriff's Department provides primary law enforcement, while the California Highway Patrol (CHP) provides traffic and supplemental law enforcement services to the project site. The County Correctional Facility is the detention facility for persons arrested in unincorporated areas, including the project site. The expected response times for this portion of the County are estimated at approximately 1 to 15 minutes. The Sheriff's Office is staffed by 61 sworn deputies, 45 of which are assigned to patrol, and approximately 217 total staff (Cavinta, 2015). There are approximately 38 patrol vehicles, plus specialized vehicles such as 4x4s and other off-road vehicles used in drug enforcement activities.

The County Sheriff's Office has stations in Eureka, Garberville, McKinleyville, and Hoopa. The Main Station is located in Eureka and serves the project site; that station is comprised of two Lieutenants, four Sergeants, six Corporals, and 21 Deputy Sheriffs. Per an agreement between the County Sheriff's Office and the Tribe, the Tribe provides funding for a deputy to patrol and provide law enforcement services in the vicinity of the Rancheria (Cavinta, 2015).

3.10.6 FIRE PROTECTION AND EMERGENCY MEDICAL

The Trinidad Volunteer Fire Department provides fire suppression and emergency medical services to the areas within the City limits with two fire stations located within approximately 9.9 square miles of the Trinidad Planning Area (City of Trinidad, 2012). The closest station is located at 409 Trinity Street in Trinidad, California, which is staffed by 29 volunteers, and therefore is not staffed on a regular basis. The second station is located to south of the project site in Westhaven, at 446 6th Avenue. All staff are trained as first responders or emergency medical technicians and the Trinidad Volunteer Fire Department regularly responds to medical emergency calls. Typically, the Trinidad Volunteer Fire Department responds to approximately 50 calls per year (City of Trinidad, 2015).

The Trinidad Volunteer Fire Department also has mutual aid agreements with the California Department of Forestry and Fire Protection (CalFire). Although CalFire aids local fire departments in wildfire situations, the project site is not located within a State Responsibility Area, as mapped by CalFire

(CalFire, 2013). The project site is located in high fire hazard area within a Local Responsibility Area (CalFire, 2013), where CalFire does not have responsibility to provide wildland fire protection services.

Emergency medical services are overseen and authorized by the North Coast Emergency Medical Services Authority (North Coast EMS). North Coast EMS is a Joint Powers Authority created to coordinate the regional EMS system and to reduce the occurrence of death and disability on the north coast (North Coast EMS, 2016). Ambulance and emergency medical services are dispatched through 911 and are provided by several companies on a rotating basis. The nearest hospital emergency room is Mad River Community Hospital located at 3800 Janes Road in Arcata, California. Emergency calls are routed through the Sheriff's Office and CHP to the respective fire departments. Response times to the project site are approximately 3 to 4.5 minutes, although this depends on available resources.

3.10.7 IMPACTS TO PUBLIC SERVICES

ALTERNATIVE A

Water Supply

Under the preferred option, Alternative A would obtain water through existing connections to the City's domestic water supply as described in **Section 2.2.1**. The Proposed Project would use approximately four percent of the City's permitted available water allotment. With a minimum surplus production capacity of 48,578 gpd, the maximum water demand for the Proposed Project would account for 30 percent of this total. Accordingly, 34,349 gpd would be available to meet additional demands in the City. Accordingly, the City has the treatment capacity to meet the Proposed Project water demands and minimal new infrastructure would be required resulting in minimal physical impacts to the environment.

Wastewater Service

As discussed in **Section 2.2.1**, Alternative A would utilize the Tribes existing WWTP, requiring upgrades and an additional leach field. This upgrade would be solely on Tribal lands and would allow for the system to handle a total of approximately 50,000 gpd, enough capacity to accommodate operation of the new Hotel. Alternative A would have no impact on municipal wastewater systems.

Solid Waste

Potential solid waste streams from construction would include paper, wood, glass, aluminum, plastics from packing material, waste lumber, insulation, empty non-hazardous chemical containers, concrete, metal, and electrical wiring. Solid waste and recycling from construction and operation of the proposed Hotel would be collected by Humboldt Sanitation and would be transferred to the Anderson Landfill. Utilizing the most conservative daily solid waste generation rate published by CalRecycle (2016b), each hotel room is anticipated to generate approximately 0.002 tons per day (tpd) of solid waste, resulting in a total daily solid waste generation rate of approximately 0.2 tpd. Based on the maximum capacity at the Anderson Landfill, this small addition of solid waste and would not impact solid waste services or facilities.

Electricity, Natural Gas, and Telecommunications

Electrical and telephone infrastructure is already on the project site, and would not require new facilities or upgrades for the Hotel. If available, natural gas will be provided for gas-fired water heaters and kitchen equipment.

Law Enforcement

In accordance with Public Law (PL) 280, 18 USC §1162, the State of California and other local law enforcement agencies have criminal enforcement authority on tribal lands. The County Sheriff's Department would continue to provide law enforcement services to the project site. The incremental increase in patrons may result in a proportionate increase in crime, potentially requiring response by off-Reservation law enforcement agencies, however due to the relatively small size of the proposed Hotel, calls for service would not be disproportionate to the current number of calls for service at the Casino.

Fire Protection and Emergency Medical Services

Construction-related impacts include potential fire threats associated with equipment and vehicles coming into contact with wildland areas. Construction vehicles and equipment such as welders, torches, and grinders may accidentally spark and ignite vegetation or building materials. The increased risk of fire during the construction of the proposed facilities would be similar to that found at other construction sites. Standard construction and operational measures have been incorporated into the project description to prevent fire caused by construction (**Appendix C**). With these measures, effects would be less than significant.

Increased emergency calls to 911 as a result of the Proposed Project would not result in delays to response times or the need for ambulances to be dispatched from more distant locations. Several ambulance companies provide services in the vicinity of the City; therefore it is not expected that increased demand for emergency medical services would create a significant effect. No new off-trust facilities or major renovation to any facilities would be required.

Alternative B

Under the No Action Alternative, the Hotel would not be developed. No mitigation required.

3.10.8 MITIGATION MEASURES

No adverse impacts to public services would occur as a result of the Proposed Project. No mitigation is required for the Proposed Project.

3.11 NOISE

3.11.1 SENSITIVE RECEPTORS

The project site is surrounded by rural residential areas to the south and west, with Tribal buildings and the Casino directly adjacent. A single-family rural residence, located on-Reservation approximately 75 feet south of the project site, is the nearest sensitive noise receptor. The nearest off-Reservation sensitive receptor is a single-family rural residence approximately 165 feet east of the project site. The nearest school, Trinidad Elementary School, is located approximately 0.9 miles north of the project site. With the exception of special status species, discussed in **Section 3.4**, there are no other noise sensitive receptors in the vicinity of the project site.

3.11.2 EXISTING NOISE SOURCES

The noise environment surrounding the project site is influenced primarily by vehicle, highway, and tidegenerated noise. Noise levels are increased during parts of the year when local fishery seasons open (e.g. salmon, Dungeness crab, etc.) and during popular tourist months.

3.11.3 IMPACTS TO AMBIENT NOISE

A significant effect would occur if project-related noise sources would cause an exceedance of the U.S. Department of Housing and Urban Development's day-night equivalent (Leq) threshold of 65 decibels Aweighted (dBA) at the nearest sensitive receptor during construction or operation (HUD, 2016).

ALTERNATIVE A

Construction Noise

Site preparation and grading associated with Alternative A would temporarily generate noise above background noise levels. The closest sensitive receptor that would be exposed to noise during project construction is a single family rural residence approximately 75 feet south of the project site. Impacts to the residence are not considered in this analysis because it is on-Reservation and the Tribe would handle the noise issues internally. The nearest off-Reservation sensitive receptor is a residence located approximately 165 feet east of the project site. Construction noise levels at and near the project site would fluctuate depending on the particular type, number, and duration of uses of various pieces of construction equipment. Construction-related material haul trips would raise ambient noise levels along truck routes, depending on the number of haul trips made and types of vehicles used. **Table 3.11-1** shows typical noise levels produced by various types of construction equipment.

TABLE 3.11-1
TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

CONSTRUCTION EQUIPMENT	NOISE LEVEL (DBA, LEQ AT 50 FEET)
Truck	88
Portable Air Compressor	81
Concrete Mixer (Truck)	85
Dozer	85
Paver	89
Generator	76
Backhoe	80
Source: FTA, 2006	

Sources of construction noise attenuate (lessen) at a rate of 6 dBA to 9 dBA per doubling of distance from the source, depending upon environmental conditions (i.e. atmospheric conditions and noise barriers, either vegetative or manufactured, etc.) (FTA, 2006). An attenuation factor of 8.0 dBA per doubling of distance is appropriate given the undulating topography and obstructing vegetation in the vicinity of the project site. Based on **Table 3.11-1**, the maximum projected construction noise level on the project site would be approximately 89 dBA. This is a conservative maximum noise level based on the assumption that louder equipment (pavers) could potentially be used daily. However, not all equipment would be used simultaneously and not all equipment would be used on a daily basis. Thus, the actual noise level would be lower than calculated.

Using an attenuation factor of 8.0 dBA Leq per doubling of distance, maximum average sound levels at nearby sensitive receptors (approximately 165 feet east of construction activity) would be approximately 77 dBA Leq, which is less than the FHWA threshold of 78 DBA Leq. This level is higher than the

County threshold of 50 dBA Leq for commercial land use noise, however construction noise is exempt from County noise requirements (County of Humboldt, 2012b).

Operational Noise

The level of traffic noise depends on three factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of the traffic. It is not anticipated that traffic speed or the mix of trucks in project-area traffic would change during the operational phase; however, implementation of Alternative A would increase traffic volumes. In accordance with the City's General Plan Draft Noise and Safety Element, the primary source of noise in the project area is traffic on U.S. Highway 101 (HWY-101). The ambient noise level in the vicinity of the Subject Property is approximately 65 dBA Leq, as stated in the 2013 Caltrans Technical Noise Supplement for typical commercial area noise levels (Caltrans, 2013).

The existing traffic volume on HWY-101 is approximately 10,600 vehicles per day (vpd) and Alternative A would add approximately 669 additional vpd to the existing traffic volume, which would result in an ambient noise level increase of approximately 0.27 dBA Leq (**Appendix G**). The increase in traffic on HWY-101 under Alternative A would increase the ambient noise level in the vicinity of the project to approximately 65.27 dBA, Leq, which is below the federal noise abatement criterion of 67 dBA Leq. Therefore, Alternative A would not result in significant adverse impacts associated with traffic noise levels for sensitive receptors located in the vicinity of HWY-101.

Parking lot noise due to vehicles is limited by low vehicle speeds and as a result is not expected to represent a significant source of noise. Human activity in parking lots can also produce noise, including talking, yelling, and opening and closing of car doors and trunk lids. Such activities can occur any time and frequently occur in the evening. It is typical for a passing car in a parking lot to produce a maximum noise level of 60–65 dBA at a distance of 50 feet, which is comparable to the level of a raised voice. This would not result in significant adverse impacts as maximum parking lot noise levels would be below the federal abatement criterion.

ALTERNATIVE B

Under the No-Action Alternative, the project site would remain undeveloped. No mitigation required.

3.11.4 MITIGATION MEASURES

The following mitigation measures shall be implemented to further reduce impacts from noise during construction:

- Construction activities shall only occur between the hours of 7:00 AM to 6:00 PM Monday through Friday and 9:00 AM to 5:00 PM on Saturday. No construction activities shall occur on any Sunday.
- Where feasible, stationary construction equipment shall be located on the northern portion of the project site.
- All construction equipment over 50 horsepower shall be equipped with noise-reducing mufflers.

3.12 HAZARDOUS MATERIALS

3.12.1 HAZARDOUS MATERIALS MANAGEMENT

Operation of the existing Casino involves a minimal amount of hazardous materials and the Hotel is expected to use similar products. Potentially hazardous materials that may be used and stored at the Hotel include paints, polishes, cleaning products, oils, and detergents. Even when hazardous materials are properly stored and disposed of, there is potential for an accidental spill to occur.

3.12.2 PHASE I ENVIRONMENTAL SITE ASSESSMENT

In December 2015, AES conducted a records search of hazardous material incidents for a nearby Phase I Environmental Site Assessment (Phase I ESA) at Trinidad Harbor (AES, 2015). The proposed Hotel is located within the area analyzed during that Phase I ESA, which identified several listings within a 1.0-mile radius of the Proposed Project site.

- 888 Galindo Street: two 500-gallon storage tanks containing diesel fuel
- Private Residence: heating fuel tank leak
- 807 Edwards Street: active storage tank
- 806 Edwards Street: two incidents with storage tank installation
- 570 Ewing Street: hazardous materials generator
- 470 Oceans Avenue: Citizens Mortuary
- 409 Trinity Street: current NPDES permit
- 408 Wagner Street: storage fuel tank
- Trinidad Union School: storage fuel tanks

No listings within the project site were identified. Additionally, a search of the SWRCB Geo Tracker website found three sites approximately 0.5 miles north of the project site (SWRCB, 2017):

- Chevron Station #9-1728: Case closed
- Humboldt State University (Marine Lab): Case closed
- Pacific Bell: Case Closed

3.12.3 IMPACTS FROM HAZARDOUS MATERIALS

ALTERNATIVE A

During grading and construction, it is possible that hazardous materials, such as gasoline, diesel fuel, and hydraulic fluid, may be brought on site. Temporary aboveground storage tanks, as well as storage sheds/trailers, would likely be used by contractors for fueling and maintenance purposes. During handling and transfer from one container to another, the potential for an accidental release exists. Depending on the relative hazard of the material, if a spill of significant quantity were to occur, the accidental release could pose as a hazard to construction employees, as well as the environment.

No environmental concerns were identified on or in the immediate vicinity of the project site that would likely pose an adverse effect to the environmental integrity of the project site. Development of the Proposed Project would not result in exposing employees or the public to existing hazardous materials conditions.

Alternative B

Under the No-Action Alternative, the Hotel would not be developed. No mitigation required.

3.12.4 MITIGATION MEASURES

No adverse effects from hazardous materials would result from the Proposed Project with the incorporation of the BMPs listed in **Appendix C**. No mitigation required.

3.13 VISUAL RESOURCES

3.13.1 EXISTING ENVIRONMENT

The development footprint is located on a paved parking lot adjacent to the existing Casino. Standing at six stories, the height of the proposed Hotel will be significantly taller than the existing Casino (**Figure 2-2**). Visual characteristics of the project site are typical of coastal rural-residential forested areas in the County. The Proposed Project vicinity is relatively undeveloped and features redwood trees and a variety of coastal vegetation. Views of the as-yet undeveloped site are blocked by trees to the south and west and by the existing Casino to the north and east. The project site is not visible from HWY-101 due to the tall forest lining the highway, but the site is visible from Trinidad Head, a California Historical Landmark.

3.13.2 IMPACTS TO VISUAL RESOURCES

ALTERNATIVE A

The proposed Hotel would impact the overall coastal aesthetics of the project site. Mitigation measures would require features to soften the visual impact and allow the proposed Hotel to blend into the scenery and adjacent existing Casino so that the Proposed Project would not result in any adverse effects to scenic resources. Residences to the east, west, and south may have views of the Proposed Project, but the Proposed Project would be adjacent to the existing Casino. Incorporation of mitigation measures in Section 3.13.1 would reduce effects to visual resources to less than significant.

Lighting from the proposed Hotel would be minimal. The Tribe would use downcast, bi-level dimming motion sensor external lighting, which would not alter the visual aesthetics of the area. Given the relatively small area proposed for development, the additional facilities would fill a small portion of the viewshed when compared to the expansive scenic resources in all directions (Camel Rock, Trinidad Head, Trinidad Bay, beaches, and associated costal bluffs). Incorporation of mitigation measures in Section 3.13.1 would reduce effects to visual resources to less than significant.

Alternative B

Under the No-Action Alternative, the project site would not be developed. No mitigation required.

3.13.3 MITIGATION

 Design elements shall be incorporated into the Proposed Project to minimize visual impacts of buildings and associated structures, including landscaping that compliments buildings and parking areas, with setbacks and vegetation consistent with existing landscaping. Earth-toned paints and coatings shall be used, all exterior glass shall be non-reflective and low-glare, and signs and facades shall be designed with a non-reflective backing to decrease reflectivity.

SECTION 4.0

CUMULATIVE AND GROWTH-INDUCING EFFECTS

Cumulative impacts are defined by CEQ as effects "on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions" (40 CFR Section 1508.7). No major development projects are proposed and/or are currently being constructed in the region surrounding the Tribe's lands (OPR, 2017). However, buildout of the City's Draft General Plan would result in commercial buildout along the west side of HWY-101 (City of Trinidad, 2009). Additionally, buildout of the Tribe's Comprehensive Economic Development Strategy (Master Plan) would result in development of tribal enterprises and supporting infrastructure on the Tribal lands near the existing Casino and proposed Hotel (Tribe, 2013).

The cumulative impact analysis within this EA considered the construction of the projects described above and conservatively assumes an approximately 1.3 percent annual growth rate (**Appendix G**), along with the full implementation of the Tribe's Master Plan. Cumulative impacts for each environmental issue area are discussed below. The time frame for the cumulative effects analysis generally extends to 2032; the County of Humboldt's planning horizon year (County of Humboldt, 2012b).

Some actions, which result in individually insignificant impacts, may have significant impacts when cumulative, synergistic, or additive effects are considered. The significance of these effects is particularly evident when impacts pass a threshold, such as causing a jeopardy opinion with regard to endangered species or a nonconformity determination under the CAA.

Growth itself is very perceptible and is sometimes regarded by the public as both adverse and an impact. Generally, growth is simply a part of the cumulative environment, rather than an effect or result. However, a shift to unplanned and unregulated growth could be a significant impact. The effects of potential cumulative projects, analyzed in conjunction with the Proposed Project, are presented below.

4.1 CUMULATIVE EFFECTS

4.1.1 LAND RESOURCES

The principal effects to land resources associated with any future development in the vicinity of the project site would include localized topographical changes and soil attrition, but as the site has already been graded and paved, this effect is minimal. The Proposed Project and other projects in the area would be required to implement measures consistent with local permitting requirements for construction to address any regional geotechnical, seismic, or mining hazards. Therefore, there are no cumulatively considerable land resources impacts associated with the Proposed Project.

No development or changes in land use are proposed under Alternative B, the No-Action Alternative. Accordingly, no land resources would be affected and no cumulatively considerable adverse effects would result from the implementation of Alternative B.

4.1.2 WATER RESOURCES

As discussed in **Section 3.2.1**, under the preferred water option, there is adequate supply of surface water from Luffenholtz Creek to serve additional projects in the region; therefore, there is no cumulative impact associated with groundwater availability. Cumulative impacts to water quality could occur if individual projects degrade water quality as a result of stormwater and point-source discharges. However, projects that may be constructed in the vicinity of the Proposed Project are required to comply with the CWA as it relates to stormwater and point-source discharges. Therefore, there are no cumulatively considerable water resource impacts associated with the Proposed Project.

GROUNDWATER OPTION

If the Tribe selects to utilize groundwater as the main potable water source, impacts would be negligible as indicated by the analysis presented in **Section 3.2.4.** As discussed there within, impacts from the potential groundwater wells would be minimal as the resulting basin recharge rate would be 1,200 percent greater than the water demand for the Proposed Project. Furthermore, impacts from well pumping would be limited to a maximum of 50 feet which would not be a cumulatively considerable impact.

ALTERNATIVE B

No development or changes in land use are proposed under Alternative B, the No-Action Alternative. Accordingly, no water resources would be affected and no cumulatively considerable adverse effects would result from the implementation of Alternative B.

4.1.3 AIR QUALITY

AIR QUALITY

The NCAB is either currently designated as attainment or maintenance for all CAPs, and therefore is currently meeting the attainment standards for all criteria pollutants established by the USEPA. Any future development in the vicinity of the Proposed Project would be subject to state and federal regulations. Furthermore, mobile sources such as passenger cars would become the main source of CAP emissions from foreseeable development as a result of increased trips to the hotel. Although vehicle miles traveled (VMT) may increase, technology advancements resulting in an increase in fuel efficiency will, on average, result in a decrease of mobile source emissions. Therefore, no cumulatively considerable adverse impacts to air quality are anticipated.

CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

Worldwide GHG emissions are likely to increase as a result of increased global development. However, annual emissions from the Proposed Project are estimated to be approximately four percent less in 2040 than in 2020 as a result of increased fuel efficiency and therefore would not result in a cumulatively considerable additions to GHG emissions.

No development or changes in land use are proposed under Alternative B, the No-Action Alternative. Accordingly, there would be no air quality changes and no greenhouse gasses would be generated. Therefore, no cumulatively considerable adverse effects would result from the implementation of Alternative B.

4.1.4 BIOLOGICAL RESOURCES

Potential cumulative effects to biological resources on the project site will be reduced to a less-than-significant level through incorporation of the mitigation measures discussed in **Section 3.4.5**. Similarly, all other development in the area affecting these resources is limited in scope by land use restrictions within the local coastal plan for the coastal zone and City zoning ordinance. Therefore, there are no cumulatively considerable biological resources impacts associated with the Proposed Project.

No development or changes in land use are proposed under Alternative B, the No-Action Alternative. Accordingly, no biological resources would be affected and no cumulatively considerable adverse effects would result from the implementation of Alternative B.

4.1.5 CULTURAL RESOURCES

Grading and development have eliminated the potential for cultural resources on site, however paleontological resources may be encountered. Protection measures for impacts to paleontological resources have been included in **Section 3.5.5**. Similarly, all other development in the area affecting these resources must adhere to similar protections for paleontological resources. Therefore, there are no cumulatively considerable cultural resources impacts associated with the Proposed Project.

No development or changes in land use are proposed under Alternative B, the No-Action Alternative. Accordingly, no cultural or paleontological resources would be affected and no cumulatively considerable adverse effects would result from the implementation of Alternative B.

4.1.6 SOCIOECONOMIC CONDITIONS / ENVIRONMENTAL JUSTICE

Cumulative socioeconomic effects could occur in the project area as the result of developments that affect the lifestyle and economic well-being of residents. The Proposed Project would introduce new economic activity in the County and in the City. This would be a beneficial effect to the region and the Tribe on several different socioeconomic levels. These effects would occur as the region's economic and demographic characteristics change. However, these cumulative effects would not be significant in comparison with existing economic conditions in the region. Planning documents for the County and the City will continue to designate land uses for businesses, industry, and housing, as well as plan public services for anticipated growth in the region. Specific potential cumulative effects include increases to regional and tribal employment, as well as the local economy.

The Proposed Project is not anticipated to result in an adverse environmental justice impacts. As Alternative A would benefit a minority group (the Tribe), the environmental justice impacts would be positive rather than adverse.

No development or changes in land use are proposed under Alternative B, the No-Action Alternative. Accordingly, there would be no changes in local socioeconomic conditions and no cumulatively considerable adverse effects would result from the implementation of Alternative B.

4.1.7 TRANSPORTATION AND CIRCULATION

The 20 year projected LOS analysis to 2039 in the TIA assumed a 2.0 percent per year traffic growth rate and no significant regional developments. Overall, the results indicated that area transportation improvements not related to Alternative A are needed to improve, or at a minimum, maintain the existing functionality of the transportation network:

- 1. Main Street/Scenic Drive/ Patrick's Point Drive (Site #1) will be operating in failing condition in the year 2039, regardless of development, if no improvements are made.
- 2. N Westhaven Drive/Trinidad Frontage Road/US101 northbound Off Ramp (Site #4) will be operating in failing condition in the year 2039, regardless of development, if no improvements are made.

All other intersections and roadways analyzed in this report, if maintained to their current condition, adequately serve the area from a LOS analysis perspective.

In order to maintain a LOS of acceptable levels, a new interchange located approximately 0.7 mile south of the Main Street interchange is proposed as part of the Master Plan to provide direct access to the Rancheria and Westhaven Drive and is incorporated in the Cumulative context as mitigation for Alternative A.

With the proposed Cher-Ae Lane Interchange incorporated into the Master Plan, the study intersections and interchanges would not exceed the target threshold of LOS C with the addition of traffic generated by Alternative A in the cumulative 2039 projection. Therefore, Alternative A in the cumulative 2039 projection would not have a significant adverse impact on the transportation network in the vicinity of the project site. The Proposed Project would not noticeably increase ridership on County bus and transit service; therefore, an adverse cumulative effect to public transit would not occur.

No development or changes in land use are proposed under Alternative B, the No-Action Alternative. Accordingly, no increased demands would be placed on the transportation system and no cumulatively considerable adverse effects would result from the implementation of Alternative B.

MITIGATION MEASURES

• Construct the Cher-Ae Lane interchange off of HWY 101 to provide direct access to the Rancheria and Westhaven Drive.

4.1.8 LAND USE

The project site is held in federal trust by the BIA, therefore, the project site would not be subject to state or local land use jurisdiction. While the project site is located within the Coastal Zone, the site is considered excluded from the Coastal Zone as that phrase is defined in the CZMA, as it is on land held in trust by the federal government. Therefore, the Proposed Project is not required to be developed in accordance with the Local Coastal Program. However, for the BIA to issue a loan guarantee for this project, the project is required to be consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program (CCMP) under the CZMA. The type of land use for the proposed Hotel is consistent with the adjacent land use of the existing Casino. The Tribe's Master Plan governs growth and the proposed Hotel is included as a component of the Master Plan. Therefore, there are no cumulatively considerable land use impacts associated with the Proposed Project.

No development or changes in land use are proposed under Alternative B, the No-Action Alternative. Accordingly, no cumulatively considerable adverse effects would result from the implementation of Alternative B.

4.1.9 AGRICULTURE

The Proposed Project would not remove any agricultural lands or resources, as none exist on the project site or adjacent to the project site. The project site is not under the Williamson Act contracts, nor does the site provide adequate acreage for crop development or cattle grazing or have history of agricultural uses. None of the features of the Tribe's Master Plan would result in loss of agricultural lands. Therefore, there are no cumulatively considerable agricultural impacts associated with the Proposed Project.

No development or changes in land use are proposed under Alternative B, the No-Action Alternative. Accordingly, no agricultural lands would be affected and no cumulatively considerable adverse effects would result from the implementation of Alternative B.

4.1.10 Public Services

The Proposed Project would utilize the existing on-site wastewater systems, thus there would be no cumulatively considerable impacts to this municipal service. All other public services would be accommodated by existing and planned public services. As development of the surrounding area continues, the combined need for public services may create a cumulative impact. However, all future land uses in the region will be subject to approval by local governments or the Tribe under the Master Plan. Should future infrastructure improvements be required, the Tribe and associated agencies would be responsible for mitigating all identified impacts. Therefore, there are no cumulatively considerable public services impacts associated with the Proposed Project.

No development or changes in land use are proposed under Alternative B, the No-Action Alternative. Accordingly, no new public services demands would be created and no cumulatively considerable adverse effects would result from the implementation of Alternative B.

4.1.11 Noise

Generally, noise increases as areas are developed. Therefore, the cumulative conditions under Alternative A would increase noise levels through increased traffic and operational activities. Using the growth rate of approximately 1.3 percent per year from the TIA, traffic volumes on HWY-101 would be approximately 13,356 vehicles per day. With the addition of project traffic to HWY-101, traffic volumes on HWY-101 would increase to approximately 14,025 vehicles per day. Therefore, in the cumulative 2040 year, the ambient noise level would increase by approximately 0.21 dBA, Leq. With the addition of cumulative traffic volume, the ambient noise level would be approximately 65.48 dBA, Leq, which is less than the federal noise abatement criterion of 67 dBA Leq. Therefore, the Proposed Project would not result in a cumulatively significant adverse impacts associated with traffic noise levels for sensitive receptors located in the vicinity of HWY-101. It is not anticipated that parking lot noise due to vehicles or human activity would change over the buildout year conditions. This would not result in cumulatively significant adverse noise impact, as maximum parking lot noise levels would be below the federal abatement criterion of 67 dBA, Leq. Therefore, there are no cumulatively considerable noise impacts associated with the Proposed Project.

No development or changes in land use are proposed under Alternative B, the No-Action Alternative. Accordingly, no new noise sources would be generated and no cumulatively considerable adverse effects would result from the implementation of Alternative B.

4.1.12 HAZARDOUS MATERIALS

Any new development in the area would be required to adhere to State and municipal regulations in the delivery, handling, and storage of hazardous materials, thereby reducing the risk of accidental exposure to the public's health and welfare. Under the Master Plan, the Tribal Council is responsible for ensuring development does not result in the release of hazardous materials and would be required to follow all associated Federal and Tribal requirements for use, storage, and handling. Therefore, there are no cumulatively considerable hazardous materials impacts associated with the Proposed Project.

No development or changes in land use are proposed under Alternative B, the No-Action Alternative. Accordingly, no new hazardous materials sources would be generated and no cumulatively considerable adverse effects would result from the implementation of Alternative B.

4.1.13 VISUAL RESOURCES

Cumulative development that takes place would be consistent with local land use regulations, including associated design guidelines and the Tribe's Master Plan. Cumulative effects would include a shift from undeveloped lots to views of developed areas, as well as an increase in the density of urban uses within the City and the Reservation. However, the development of the Proposed Project would be generally consistent with the visual goals of County and City land use regulations and implements the Tribe's Master Plan. Substantial development is located directly to the north of the project site, and the Proposed Project would be consistent with that development. Therefore, there are no cumulatively considerable visual resources impacts associated with the Proposed Project.

No development or changes in land use are proposed under Alternative B, the No-Action Alternative. Accordingly, no new structures would be built and no cumulatively considerable adverse effects would result from the implementation of Alternative B.

4.2 INDIRECT AND GROWTH-INDUCING EFFECTS

Under NEPA, indirect and growth-inducing effects of a proposed project must be analyzed [40 CFR 1508.8(b)]. The CEQ Regulations define indirect effects as effects that are caused by the Proposed Action and are later in time or further removed in distance, but still reasonably foreseeable. Growth-inducing effects are defined as effects that foster economic or population growth, either directly or indirectly. Direct growth inducement could result, for example, if a project includes the construction of a new residential development. Indirect growth inducement could result if a project establishes substantial new permanent employment opportunities (e.g. new commercial, industrial, or governmental enterprises) or if it removes obstacles to population growth (e.g. expansion of a wastewater treatment plant to increase the service availability). This section focuses on the indirect and growth-inducing effects of Alternative A, the Proposed Project. With no change compared to existing conditions, Alternative B would not result in indirect or growth-inducing effects and is therefore not discussed further.

4.2.1 INDIRECT EFFECTS

Analyses of the adequacy of local resources, infrastructure, and services are included in the discussion of environmental consequences for each Project Alternative. No significant, unmitigatible impacts to resources have been identified that would result from the implementation of Alternative A.

Any utility upgrades would occur on infrastructure already located on Tribal lands, and would be limited to modifications of the WWTP. The remaining utilities are already located on site and local utility

providers have existing capacity to serve the project site. A significant number of new employees would not move to the community from out of the area; as such, no new housing, schools, or other facilities would be constructed as a result of development on the project site. There would be no change in off-site land use and no significant change in population density in the vicinity of the project site. No significant adverse indirect effects relevant to any environmental issue area would occur.

4.4.2 GROWTH-INDUCING EFFECTS

Growth inducement may constitute a significant effect if the increased growth is not consistent with or accommodated by the land use and growth management plans and policies for the area affected. Local land use plans provide for development patterns and growth policies allow for orderly development supported by adequate public services and utilities such as water supply, roadway infrastructure, sewer services, and solid waste disposal services. A project that would induce "disorderly" growth (i.e. would conflict with local land use plans) could indirectly cause adverse environmental or public service impacts.

The Proposed Project is projected to employ approximately 50 full-time and part-time employees currently living in the City or nearby cities. Although it is anticipated that the majority of the permanent employees would already reside locally, there is room for accommodation if relocation must occur. Therefore, the Proposed Project would not directly induce substantial population growth in the region of the project site.

Analyses of the adequacy of local infrastructure and services are included in the discussion of environmental consequences for each proposed Alternative. No significant, unmitigated impacts have been identified that would result from the Proposed Project. Utility infrastructure would not be improved or expanded to increase service availability to any areas surrounding the project site. Wastewater treatment would only serve Tribal development on the proposed trust property and there is adequate domestic water supply available. Therefore, growth-inducing impacts would be less than significant for the Proposed Project.

SECTION 5.0

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SECTION 6.0

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APPENDICES

APPENDIX A

PRELIMINARY WASTEWATER FEASIBILITY REPORT



Civil Engineering
Architecture
Environmental
Planning
Surveying
Water Resources

September 29, 2016

Russ Wenham, P.E. Omni Means 330 Hartnell Avenue Suite B Redding, CA 96002

RE: Preliminary Feasibility Report for Trinidad Rancheria Cher-Ae Heights Facility

Dear Russ,

Here is our Preliminary Feasibility Report for the Trinidad Rancheria Cher-Ae Heights Facility, one mile south of Trinidad in Humboldt County California.

This report is based on a site visit with Kenneth Smith, the current plant operator on Monday September 26, 2016 and a review of available documentation. Of particular value to the review was the document prepared by Winzler & Kelly *Trinidad Rancheria Phase 2 Community Wastewater Investigation – Wastewater Treatment, Disposal and Reuse Assessment, March 2004* (Assessment.) This document is an excellent tool for the Rancheria to use in their planning efforts going forward and was used as the basis of this current analysis. A copy of the document is attached for reference. The assumptions in the assessment are sound and have been updated as necessary to reflect current data and our professional opinion.

Facility Description

The Cher-Ae Heights area includes a residential area, the Cher-Ae Heights Casino (Casino), a former clinic complex (currently vacant) and the Tribal Office. In 2002, the Rancheria expanded the Cher-Ae Heights Casino, which includes the 200-seat restaurant and event center. A wastewater treatment plant serves the Casino and approximately 60% of the treated wastewater is recycled back into the Casino and used for toilet flushing. The remaining treated wastewater is dispersed back into the environment by means of a dispersal field (leachfield) located just south of the Tribal Office. The homes at Cher-Ae Heights, with two exceptions, are served by individual septic tanks and dispersal fields. The remaining two homes, the Tribal Office and the former clinic complex are served by septic tanks that flow by gravity or are pumped to the same dispersal field that services the Casino's tertiary treatment system. No secondary or tertiary treatment is provided to flows from these auxiliary facilities.

The Rancheria is proposing to add a 100 room hotel to the facility.

Wastewater Flow Analysis

In Table ES.1 of the Assessment, a prediction of facility wastewater flows was provided. This table projected potential future wastewater flows from the Casino, the Cher-Ae Heights community flows, and a potential new 200-room hotel and gas station/mini-mart. Given the marginal soil conditions in the area, the Assessment assumed capacity for homes not connected to the wastewater system would

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be held in the design to address any failures of these systems in the future. Chapter 2 of the Assessment outlines an extensive evaluation of the individual septic systems. Given the conclusions from the evaluation and limited options for repair, we feel it is prudent to provide capacity for these systems in the community dispersal field evaluation and design.

Table 1 of this report shows the updated prediction of wastewater flows used in the analysis of the treatment and dispersal system assuming a 100 room hotel.

Area	Existing Average Flow (gal/day)	Potential Additional Future Average Flow (gal/day)	Total Average Flow (gal/day)
Existing Community Wastewater Flows	0	4,560 ¹	4,560
Casino ²	7,200	7,800	15,000
100 Room Hotel	0	10,000	10,000
Staff Expansion ³	0	500	500
Total Estimated Treatment Flow	7,200	22,860	30,060

Table 1- Predicted Wastewater Flows for Cher-Ae Heights Wastewater Treatment System

Treatment System Capacity

The existing treatment system is a Zenon, ZenoGem system which is a combination of biological treatment and membrane separation. In the existing system, the wastewater from the Casino is pumped to a 15,000 gallon holding tank. It is then pumped into a concrete bioreactor where it is aerated and bacteria breaks down the organics in the wastewater. The wastewater is then filtered through the ZeeWeed membranes. It is then polished with paper cartridge filters and disinfected with a UV system and chlorine injection system and stored in storage tanks to be recycled back to the Casino toilets. Excess flows are disposed of in the existing dispersal field via 15hp and 25hp pumps housed in the effluent tank.

There are currently three ZeeWeed membrane "cartridges" in the bioreactor. The bioreactor basin was designed to allow for the addition of three more cartridges without having to resize the basin. This would effectively double the size of the treatment system, giving it a capacity to handle 30,000 gpd.

Additional pumps, blowers, and piping would have to be added to handle 30,000 gpd and a parallel carbon polishing system would have to be added. Upgrades of the electrical system would also be required. The UV disinfection systems would also require a larger impeller on the existing pump, but the system itself is sufficiently sized to handle the new flow.

¹ Assumes 20 single family homes at 180 gpd/ home average daily flow each, 500 gpd in Tribal Office, 100 gpd for the Clinic complex and 2 single family homes at 180 gpd/ home average daily flow each.

² 15,000 gallons assumed future growth of casino per 1999 Master Planning Document referenced in Assessment.

³ Assumes 50 additional employees at 10 gpd/person/day.

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All of this equipment can be accommodated by the existing building. The existing treatment system has also experienced flows close to the peak flow capacity of the treatment plant, and additional tankage may be required at the head works to allow the peak flows to be equalized if additional flows are added in the future. For treatment capacity beyond 30,000gpd average flow, (60,000gpd peak flow) extensive modifications would be required to potentially create a parallel treatment train to provide the needed capacity.

The capacity of the existing treatment plant is 15,000gpd average daily flow, but was designed to be expanded to 30,000gpd average daily flow without requiring extensive retrofitting. With the future hotel flows and capacity held in reserve for the existing 20 single family homes the flows from the proposed hotel are within the window of expansion at the 30,060gpd average daily flow ceiling without extensive retrofitting.

Any expansion should incorporate an additional standalone recycled water tank that is not chlorinated for use in the backwashing process of the membranes. This tank may impact the space currently dedicated to maintenance staff and activities. Additional building space may be required to make sure routine maintenance activities are not impacted.

There are some minor plumbing issues that should be corrected at the time of upgrade. Currently the floor drains and plumbing fixtures in the treatment building are plumbed to the effluent tank. This should be rerouted to the holding tank and processed prior to dispersal.

There are some upgrades that should occur with plumbing in the pump tanks to replace corroded pipes and valves.

Dispersal System Capacity

According to the Assessment, Cher-Ae Heights currently disposes of wastewater in dispersal trenches. The wastewater from the Casino is treated in the treatment plant and discharged to the community dispersal field. Wastewater from the septic tanks from the Tribal Office, the clinic complex, and two homes is discharged directly to the community dispersal field without further treatment in the treatment plant. The community dispersal field was designed with a capacity of 10,000 gallons per day. However, with plugging believed to have been caused by the discharge of Casino wastewater to the field before the treatment plant was completed, the actual long-term capacity of the dispersal field at this time is not known. The existing dispersal field should be cleaned and then the capacity should be evaluated through field investigations and hydraulic stress testing to determine the actual operational capacity.

A visual inspection of the community dispersal area during our site visit showed no obvious signs of surfacing or clear breakout downslope from the dispersal fields.

The 1998 "Sanitary Sewer Leachfield" plans prepared by Winzler & Kelly show trench monitoring piezometers in the two zones. These were not found during our site investigation and Mr. Kenneth Smith was unsure of their existence. These piezometers are a good tool for assessing the condition of the dispersal fields and would be of great value in a hydraulic load test of the dispersal trenches to determine the actual capacity of the dispersal system.

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The Assessment also recommended, "...that the leach lines be cleaned and flushed, and that a number of backhoe test pits be excavated into the leach trenches to inspect the pressure distribution lines, the gravels, and groundwater elevations. Through this type of investigation, the actual operating capacity of the leachfield can be better assessed."

For this analysis, it is assumed that the Rancheria completed the cleaning and evaluation of the existing dispersal field still has the ability to disperse 10,000gpd as designed. With non-secondary treated effluent entering the system from: past practices prior to the treatment system installation; treatment system issues during startup leading to non-treated or partially treated effluent entering the dispersal trenches; and the existing facilities currently discharging septic tank effluent; it is critical that this capacity is verified. Additional dispersal trenches beyond this estimate may be required to compensate for the loss in dispersal capacity in the community dispersal field from the practices listed above.

According to the Assessment, comparison of water meter usage records for the Casino and the process wastewater flows from the treatment plant show that approximately 60% of the average daily flow is recycled back into the Casino and used for toilet flushing, and does not require dispersal field. Therefore approximately 2,880gpd goes from the treatment plant to the dispersal field. In addition, an estimated 960 gpd are discharged to the dispersal field from the Tribal Offices, the clinic complex and the two houses connected to the community dispersal field. The total estimated flow to the community dispersal field is therefore approximately 4,000gpd. If the community dispersal field has an actual long term operating capacity of 10,000gpd, then there is approximately 6,000gpd of capacity remaining in the existing community dispersal field.

The Assessment accurately points out a concern regarding dispersal field reserve capacity. It states, "An important issue to consider in planning leachfields is potential reserve capacity. Typical leachfield plumbing includes siting 100% reserve capacity so that there is a new leachfield location designated if the initial leachfield fails. This planning is done because leachfields are expected to eventually fail, which means their ability to receive wastewater diminishes. The effluent from the Zenon plant is much cleaner than septic tank effluent, but all leachfields are expected to diminish in performance over time. Figure 5.1 does not account for any reserve capacity. Someday the Rancheria may need replacement disposal capacity which may have to be provided by replacement leachfields or other disposal means."

Table 2 shows the predicted dispersal capacity required to support the existing community facilities and the hotel expansion. Using the Predicted Total Average Daily Flow of approximately 20,000gpd and using the same assumptions for site constraints in the Assessment ranging from 50% to 150% of land area for conflicts, and a long-term soil dispersal capacity of 5 gpd/lineal foot of trench, an additional 40,000 to 60,000 square feet of land would be required to install additional dispersal fields. This does not include full replacement area for dispersal field replacement.

Although not recommended, if the Rancheria chose to remove the expansion capacity for the existing community facility built in to the flow calculations (3,600gpd), an additional 10,000sf to 15,000sf would be required for the hotel expansion. Note: The dispersal fields for the individual homes would need to be found on an individual basis, and may not be locally available due to soil conditions, site constraints and setbacks.



The Assessment identified two potential areas on the facility that may be feasible for dispersal. These were the mounded ridge to the South of Ter Ker Coo Lane and the hillside south of the Tribal Office where the existing dispersal field was installed.

As illustrated here, the availability of acceptable soils for the dispersal field capacity is the critical item to support the hotel expansion. A site survey to locate usable soils that have adequate structure to disperse 5 gallons per lineal foot of trench per day, free of seasonal groundwater, and not constrained by setbacks from creeks and streams, bluffs, unstable landforms, or cuts. A site survey should be the first order of work to confirm the Cher-Ae facility has the capacity to support the proposed hotel wastewater flows.

Area	Existing Average Flow (gal/day)	Potential Additional Future Average Flow (gal/day)	Total Average Flow (gal/day)
Existing Community Wastewater Flows	960	3,600	4,560
Casino ⁴	2,880	3,120	6,000
100 Room Hotel ⁵	0	8,000	8,000
Staff Expansion	0	500	500
Total Estimated Flow	3,840	15,220	19,060

Table 2 - Predicted Wastewater Flows for Cher-Ae Heights Wastewater Dispersal System

Preliminary Opinion of Costs for the Wastewater System to Support a 100 Room Hotel

A preliminary opinion of cost for the conveyance of the hotel flows to the treatment plant, treatment plant expansion, dispersal field expansion, and delivery of treated effluent to the hotel for toilet flushing, is \$620,000. This number is to be used for planning purposes based on the following assumptions:

- a. Treatment system will be upgraded assuming a design capacity of 30,000gpd average daily flow, using existing infrastructure and expanding the treatment capacity within the existing footprint and expansion design.
- b. Inclusion of UV treatment and additional storage tank for additional toilet flush capacity and backwash water.
- c. Inclusion of minor plumbing upgrades discussed above.
- d. Dispersal capacity is assumed at 20,000gpd and 40,000 to 60,000 square feet can be found for dispersal.
- e. Gravity collection lines from the hotel will parallel the existing gravity collection lines from the casino.

⁴ Assumes 60% of treatment flow recycled for toilet flushing in casino

⁵ Assumes 20% of treatment flow recycled for toilet flushing in hotel

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Description	Quantity	Unit	Unit	Total Cost
			Cost	
Gravity Collection From Hotel To Treatment w/ Pavement Replacement	500	LF	\$ 90.00	\$45,000
MBR Upgrade, Equipment, Pumps, Tanks Etc.	1	Lump Sum	\$80,000	\$80,000
Electrical Upgrade	1	Lump Sum	\$20,000	\$20,000
Misc Plumbing, Tanks	1	Lump Sum	\$20,000	\$20,000
Reuse Pressure Line to Hotel	500	LF	\$90.00	\$20,000
Subtotal				\$185,000
15% Contingency				\$27,750
25% Engineering				\$46,250
TOTAL				\$ 259,000
Treatment Costs Used in Estimate				\$ 260,000

Table 3 - Preliminary Opinion of Cost for Treatment System Expansion

Description	Quantity	Unit	Unit	Total
			Cost	Cost
Dispersal Field Pump Station	1	Lump Sum	\$50,000	\$50,000
Force Main w/ Pavement Replacement (length assumed)	1000	LF	\$80.00	\$80,000
Dispersal Trenches	2000	LF	\$50.00	\$100,000
Land Preparation and Cleanup	1	Lump Sum	\$25,000	\$25,000
Subtotal				\$255,000
15% Contingency				\$38,250
25% Engineering				\$63,750
TOTAL				\$357,000
Dispersal Costs Used in Estimate				\$360,000

Table 4 - Preliminary Opinion of Cost Dispersal System

Recommended Next Steps and Additional Data Needs

The above opinion of cost is based on many conservative assumptions with regard to reserve capacity designed into the system for existing septic system failures not currently on the community system, casino expansion reserve capacity, and dispersal system capabilities. The following are a list of recommended next steps and information needs to refine this opinion of cost and further refine the concept.

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- 1. Investigate the long-term capacity of the existing community dispersal field to confirm its long-term acceptance rate. Confirmation of this area's actual capacity will have a significant impact on the additional dispersal area needed to support the hotel project. This may include:
 - a. Long-term hydraulic load test to determine the maximum dispersal system captivity
 - b. Install trench piezometers in selected dispersal trenches to monitor trench performance during dosing events and through the winter.
 - c. Selected trench excavations with a backhoe to physically inspect the trench conditions.
 - d. Conduct and document routine maintenance on the pressure dosed dispersal fields, particularly those areas where the septic tank effluent from the auxiliary uses are introduced.
- 2. Explore additional areas that are suitable for treated wastewater dispersal. This may include:
 - a. A catalog of potential areas known to long time staff and residents of areas on the Rancheria that have deeper soils not subject to seasonal high groundwater or unstable geological formations.
 - b. Field verify any areas identified as having potential for wastewater dispersal. This would include geotechnical analysis for any area's suitability to disperse treated wastewater long-term. This could include but not limited to:
 - i. Percolation testing
 - ii. Ring Infiltration Testing
 - iii. Long-term Infiltration Testing
 - iv. Seasonal Groundwater Monitoring
- 3. Conduct routine influent and effluent sampling and testing at the treatment system to inform the treatment expansion design process.
- 4. Consider the pros and cons of "holding" reserve capacity in the treatment and dispersal system design for existing system not currently connected to the community system. It may be beneficial to identify smaller areas elsewhere on the Rancheria that can accommodate individual or smaller clusters of systems.
- 5. Consider replacement of the existing MBR cassettes along with the installation of the expansion capacity.
- 6. Consider reviewing options for the complete replacement of the treatment system with an updated skid mounted MBR. This option could take advantage of treatment process technology, may make operations more streamline and alleviate some of the issues associated with retrieving operational data, troubleshooting and alarm responses.
- 7. An upgrade of the UV system that allows for redundancy should be explored. Currently, the existing UV system is a single unit that does not have redundancy in case of failure of the unit.
- 8. Explore the use of ozone as part of the disinfection train. Ozone is a very strong oxidant with known disinfection capabilities and has been proven successful in removing color from treated effluent. Ozone would help reduce chlorine consumption in the disinfection process, and may help with public perception of 'less than perfect" water in toilets and urinals.
- 9. With toilets in the hotels being flushed with reclaimed water, a review of toilet colors such as off white or biscuit colors reduces the contrast between any residual color in the toilet water. This could also assist with lowering water demand and chlorine consumption.

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I cannot stress enough the need to determine if there is additional dispersal capacity on the site and where this resource is on the Rancheria. The size and location of these areas will have a significant impact on the design and associated cost with the dispersal component of the system.

I hope this information proves informative for our client and aids in the conceptual planning process for what looks to be a spectacular hotel facility. As always, I am available to answer any questions you may have.

Sincerely,

NORTHSTAR

Nick Weigel P.E. Senior Engineer

Encl: Trinidad Rancheria Phase 2 Community Wastewater Investigation – Wastewater Treatment, Disposal and Reuse Assessment, March 2004, Winzler & Kelly

FINAL

TRINIDAD RANCHERIA PHASE 2 COMMUNITY WASTEWATER INVESTIGATION

WASTEWATER TREATMENT, DISPOSAL AND REUSE ASSESSMENT

MARCH 2004

Prepared for:

Trinidad Rancheria P.O. Box 630 Trinidad, California 95570



Prepared by:
WINZLER & KELLY

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EXECUTIVE SUMMARY

This report assesses various wastewater treatment, disposal, and reuse options for the Trinidad Rancheria's Cher-Ae Heights property to assist in considering future potential options for development. The further development of this land will result in the generation of additional wastewater that must be appropriately managed. This report assesses several wastewater treatment and disposal options for the Trinidad Rancheria and provides tools to assist the Rancheria in evaluating future development options. The goal is to develop reliable treatment and disposal alternatives that meet regulatory standards, while minimizing required capital, personnel, and maintenance costs.

This report includes an analysis of the capacity and performance of the existing wastewater management systems as well as an analysis of options to accommodate a potential future hotel facility (assumed to be up to 200 rooms for planning purposes) and a new gas station/mini-mart.

This report assesses current conditions, issues, and specific goals and potential growth areas of the Rancheria. It then develops anticipated wastewater flows for the existing and future conditions. The wastewater treatment requirements are then outlined and wastewater treatment, reuse, and disposal alternatives assessed. The alternative summary includes a conceptual level analysis for each alternative, our opinion of the conceptual level costs for construction, and other issues.

Cher-Ae Heights Site Description

The Cher-Ae Heights area includes a residential area, the Cher-Ae Heights Casino (Casino), a former clinic complex (a portion of which currently houses the Youth Program), and the Tribal Office. In 2002, the Rancheria expanded the Cher-Ae Heights Casino to its current 50,000 square-foot configuration, which includes the 200-seat Sunset Restaurant. A wastewater treatment plant services the Casino, and approximately 60% of the treated wastewater is recycled back into the Casino and used for toilet flushing. The remaining treated wastewater is disposed of in a leachfield located just south of the Tribal Office.

The homes at Cher-Ae Heights, with two exceptions, are served by individual leachfields. The remaining two homes, the Tribal Office and the former clinic complex are served by septic tanks that drain or are pumped to the same leachfield that services the Casino's tertiary treatment system.

EXISTING AND PROJECTED POTENTIAL WASTEWATER FLOWS

The projected potential future wastewater flows from the Casino, the Cher-Ae Heights community area, and a potential new 200-room hotel and gas station/mini-mart are presented in Table ES.1.

Table: ES.1: Projected Potential Cher-	Ae Heights Community	Wastewater Flows
Trinidad Rancheria		

Area	Existing Average Flow (gal/day)	Potential Additional Future Average Flow (gal/day)	Total Average Flow (gal/day)
Existing Community Wastewater flows	7,200	0	7,200
Casino	7,200	7,800	15,000
200 Room Hotel	0	20,000	20,000
Gas station/mini mart	0	1,000	1,000
Total Estimated Flow	14,400	28,800	43,200

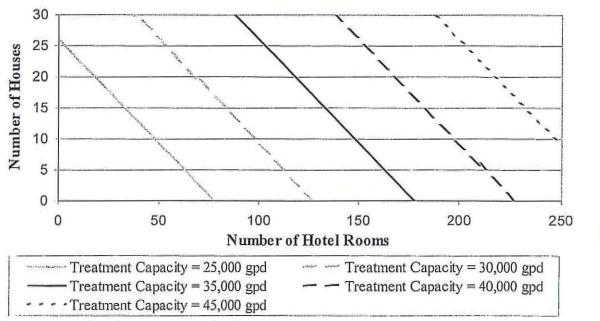
From Table ES.1, the Existing Community Wastewater Flows are defined to be those wastewater flows that are generated by homes, the Tribal Office, and the former clinic complex at Cher-Ae Heights. No future addition to these flows was projected. The total flows from the Casino were based on the Master Planning for the sizing of the treatment plant which was completed in the spring of 1999, and which estimated a projected maximum daily flow of 30,000 gallons per day (gpd) (15,000 gpd average flow). Table ES.1 assumes that the Hotel will have up to 200 rooms, although the exact size of the hotel has not yet been determined. Any new wastewater facilities must be able to potentially handle the existing flows, but also include capacity for planned expansion to help ensure that the facilities are adequately sized to be able to grow with the Rancheria.

WASTEWATER FLOW CAPACITY

As part of the development planning, the Rancheria may choose to combine some existing homes on individual septic systems along with a potential new hotel of some size and treat all the wastewater together. Different combinations of the number of homes and the size of the treatment plant result in different flows, which also include the projected future Casino/restaurant flows, the flows from the Tribal Office and the clinic complex, and flows from the gas station/ mini-mart. This relationship is graphically presented in Figure ES.1.

Figure ES.1 is based on potential future Casino wastewater flows (15,000 gpd average) plus the Tribal Office, clinic complex, two homes that are currently connected to the community leachfield, and gas station/mini-mart, in addition to a combination of homes served and hotel rooms developed. Figure ES.2 is a very valuable planning tool the Rancheria can use to evaluate the required wastewater treatment capacity from any combination of hotel size and number of homes served.

Figure ES.1: Treatment Capacity Relationship Between Number of Cher-Ae Heights Houses Served and Proposed New Hotel Rooms Trinidad Rancheria



Note: Assumes flows from the future Casino (15,000 gpd average) plus the Tribal Office, clinic complex, two homes currently connected to the community leachfield, and gas station/mini-mart are served (for a total required treatment capacity of 17,200) in addition to the combination of homes served and hotel rooms developed.

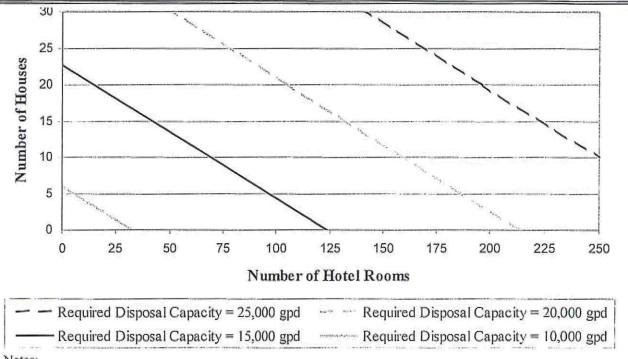
WASTEWATER TREATMENT CAPACITY SUMMARY AND ANALYSIS

Figure ES.1 is used to determine projected future flows that will require treatment at the Zenon plant. Different combinations of development can lead to different projected flows. The expansion requirements of the treatment plant were examined relative to different combinations of development. The capacity of the existing treatment plant is 15,000 gpd average daily flow, but was designed to be expanded to 30,000 gpd average daily flow without requiring extensive retrofitting.

Figure ES.2 shows a relationship between the stages in treatment plant capacity and what combinations of development may be served at the various stages. For example, if the existing treatment plant was expanded to its maximum size of 30,000 gpd, it could serve existing development plus the gas station/mini-mart and either a 128-room hotel and no homes or a 68 room hotel and all 20 Cher-Ae Heights homes not currently connected to the community leachfield. The projected flow for Cher-Ae Heights including the Casino/Restaurant, Tribal Office, former clinic building, existing homes, a 200 room hotel, and a gas station/mini-mart is approximately 43,200 gpd. Thus, to treat all wastewater, significant expansion of the existing treatment plant would be needed.

The figure shows that a disposal capacity of just over 25,000 gpd is needed to serve the 20 existing houses and a 200 room hotel in addition to the Casino/Restaurant (under future master planned capacity), Tribal Offices, former clinic complex, the two homes currently connected to the community leachfield, and a new gas station/mini-mart. Like Figure ES.1, Figure ES.3 serves as a valuable planning tool for the Rancheria to consider future development scenarios and how disposal capacity can be achieved.

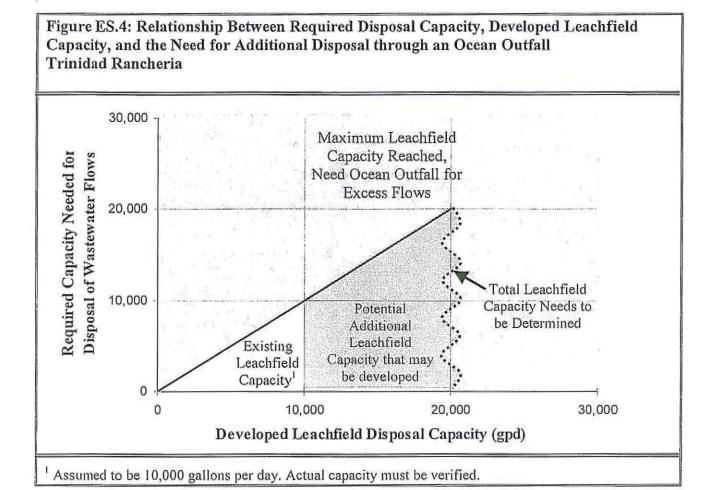
Figure ES.3: Disposal Capacity Relationship Between Number of Cher-Ae Heights Houses Served and Proposed New Hotel Rooms Trinidad Rancheria



Notes:

This graph assumes that 6,000 gpd of disposal capacity is reserved for the Casino at Master Plan build out flows (15,000 gpd with 60% of the water recycled). This graph also assumes that the Tribal Office, clinic complex, and two homes currently connected to the community leachfield, and the gas station/mini-mart are served with a combined disposal flow of 2,200 gpd (assumes no water recycling). This equates to a base disposal flow of 8,200 gpd. The remaining flow is distributed between homes served and hotel rooms developed. To serve the remaining 20 homes and a 200 room hotel, a disposal capacity of 25,200 gpd would be needed.

Use and expansion of the community leachfield system and ocean outfall disposal were the two viable disposal options developed. As presented in the next section on costs, development of leachfield capacity is less expensive than an ocean outfall. However, leachfield capacity can be a limiting factor in Rancheria development and ocean outfall capacity may be needed. Ocean outfall capacity is needed when available leachfield capacity is exceeded and this relationship is shown in Figure ES.4



Expansion of the Community Leachfield

Cher-Ae Heights currently disposes of wastewater in leachfields. This is the primary means of treatment and disposal for wastewater from the existing homes. The wastewater from the Casino is treated in the Zenon plant and discharged to the community leachfield. Wastewater from the septic tanks from the Tribal Office, the clinic complex, and two homes is discharged directly to the community leachfield without further treatment in the Zenon plant.

The community leachfield was designed with a capacity of 10,000 gallons per day. However with plugging believed to have been caused by the discharge of Casino wastewater to the field before the Zenon plant was completed, the capacity of the leachfield at this time is not known. The existing leachfield should be cleaned and then the capacity should be evaluated through field investigations and hydraulic stress testing to determine the actual operational capacity.

Depending on what the Rancheria wishes to develop in the future, how the flows at the Casino increase, and if more houses are connected to the Zenon system, additional leachfield capacity could be required. Several undeveloped sites have been investigated in the past. However, the Rancheria should think broadly in terms of overall land use when planning potential

developments. The best land for leachfields may currently be taken up by housing assignments, which were not previously evaluated for leachfield potential.

For the Rancheria to create some of the potential developments that have been envisioned, it may be necessary to re-evaluate land use to determine the highest and best use of land for the community. At this time it is not possible to accurately determine additional potential leachfield capacity because it depends on land use decisions and site characteristics. However, it may be possible for the Rancheria to develop an additional 5-10,000 gpd or more of capacity. Additional planning, field studies, and engineering analysis will be needed to determine what capacity can be developed.

Ocean Outfall

The other viable disposal option considered is to discharge the treated wastewater through an ocean outfall some distance off shore. The North Coast Regional Water Quality Control Board often requires that outfalls be extended from the shore to a point where the ocean depth is 60 feet below mean sea level or more. Near Cher-Ae Heights the pipeline would have to be approximately 7,600 feet long to reach an ocean depth of 60 feet. The cost for the pipe alone for this option would exceed \$2 million. To make this a more viable option, approval would have to be obtained to terminate the outfall at a shallower depth, which would require demonstration that the required mixing and dilution was met.

An ocean outfall option would have relatively high annual maintenance costs because the Rancheria would need to ensure that the outfall pipe is kept clear of debris and growths. Large storms can also damage the outfall pipe and lead to large repair costs.

A significant advantage to this option is that it would probably allow for much more disposal capacity than onsite leachfields, which are limited by the availability of acceptable land. With an ocean outfall, the Rancheria could likely have the capacity to accommodate wastewater flows from many types of future development projects.

CAPITAL COST ANALYSIS

Probable costs for the following treatment and disposal options were developed.

Treatment Options

- Utilize Existing Treatment Plant
- Expand Treatment Plant
- Construct a Parallel Treatment Train

Disposal Options

- Construction of a Community Leachfield
- · Construction of an Ocean Outfall

	Trinidad Rancheria	Table ES.5: Summary of Alternative Costs and Issues	Alternative	Costs and Issues
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Table F Trinida	Table ES.5: Summary of Alternative Costs and Issues Trinidad Rancheria	Costs and Issues				
Alt#	Development Served	Treatment Option	Disposal Option	Capital Cost for Treatment and Disposal	Degree of Permitting	Comments
-	Casino, Tribal Office, clinic complex, two houses	Existing treatment Discharge to capacity at existing Casi 15,000 gpd Leachfield	Discharge to existing Casino Leachfield	\$0	None (no change)	The master planned future average flow for the Casino plus the other existing developments use existing capacity.
2	Casino, Tribal Office, clinic complex, two houses, plus gas station/m-m, and a 44 room hotel (or 8 Cher-Ae Heights homes)	Upgrade existing Discharge to treatment capacity existing Casino to 30,000 gpd Leachfield	Discharge to existing Casino Leachfield	\$110,000	None (Assumes no Federal Oversight required)	For this alternative the number of hotel rooms or homes served is limited by the Casino leachfield disposal capacity.
m	Casino, Tribal Office, clinic complex, two houses, plus gas station/m-m, and a 134 room hotel (or 74 room hotel and 20 Cher-Ae Heights homes)	Upgrade existing treatment capacity to 30,000 gpd	Upgrade existing Increase Discharge treatment capacity Capacity by adding to 30,000 gpd new leachfield for 5,000 gpd	\$460,000	None (Assumes no Federal Oversight required)	This alternative is limited by treatment capacity. In addition, it may be difficult to find sufficient leachfield area. If not enough area can be found, development needs to be reduced or an ocean outfall considered.
4	Casino, Tribal Office, clinic complex, two houses, plus gas station/m-m, and a 200 room and 5 Cher-Ae Heights homes (or 116 room hotel and 20 Cher-Ae Heights homes)	Upgrade existing treatment capacity to 30,000 gpd, and build a new treatment train	Upgrade existing Increase Discharge treatment capacity Capacity by adding to 30,000 gpd, and new leachfield for build a new treatment train	\$460,000 + cost of additional treatment facilities	None (Assumes no Federal Oversight required)	It may be difficult to find sufficient leachfield area. If not enough area can be found, development needs to be reduced or an ocean outfall considered.
5	Casino, Tribal Office, clinic complex, two houses, plus gas station/m-m, and a 200 room and 20 Cher-Ae Heights homes	Upgrade existing Ocean out treatment capacity Discharge to 30,000 gpd, and build a new treatment train	Ocean outfall Discharge	\$1,460,000 to \$3,460,000 + cost of additional treatment facilities	Difficult (Assumes state and local involvement)	Difficult (Assumes state and local involvement) and local involvement) This option has ample disposal capacity for currently proposed development. However, the cost is much higher than the other alternatives, and treatment plant expansion would be required to treat the higher flows.

ES-10

INTRODUCTION

The Trinidad Rancheria would like to consider potential options for development of the land at the Cher-Ae Heights community in Trinidad. The further development of this land will result in the generation of additional wastewater that must be appropriately managed. This report assesses several wastewater treatment and disposal options for the Trinidad Rancheria to provide tools to assist the Rancheria in evaluating future development options. The goal is to develop reliable treatment and disposal alternatives that meet regulatory standards, while minimizing required capital, personnel, and maintenance costs.

This report includes consideration of capacity and performance of existing wastewater management systems as well as analysis of options to accommodate a potential future hotel facility (assumed to be up to 200 rooms for planning purposes) and a new gas station/mini-mart.

The current system performance issues as well as the potential for future system growth are mainly at the Cher-Ae Heights community, which is the focus of this report. The wastewater system for the Westhaven subdivision is relatively new and is working well and there are no plans for major developments at that site. The characteristics of the Westhaven subdivision system are considered under a separate brief analysis.

SITE AND WASTEWATER SYSTEMS DESCRIPTION

The Rancheria is located one mile south of the town of Trinidad, California in Humboldt County on the Northern Coast of California. The Rancheria has several property holdings including Cher-Ae Heights, the Westhaven subdivision, the Archer Road subdivision, the North Coast Inn, and the Trinidad Harbor. This study focuses on the Cher-Ae Heights property, which is entirely Trust land.

The Cher-Ae Heights area is the original Rancheria, with homes and wastewater management systems that date back to the 1950's. This 44-acre area has been developed over the years and currently includes a residential area, the Cher-Ae Heights Casino, a former clinic complex, a portion of which currently houses the Youth Program, and the Tribal Office. The residential area consists of approximately 20 homes housing about 60 people. The Tribal Office houses approximately 30 employees as well as visitors to the library and offices. The Youth Program, at the former clinic complex, houses 3 employees and an afternoon youth program for 5 to 10 children. The remainder of the clinic complex is currently unoccupied, and consists of approximately 9,000 square feet of office and utility space.

In 2002, the Rancheria expanded the Cher-Ae Heights Casino to its current 50,000 square-foot configuration, which includes the 200-seat Sunset Restaurant. The Casino and restaurant presently employs approximately 220 people. The Casino is serviced by a wastewater treatment plant with a current capacity of 15,000 gallons per day (gpd) average daily flow and 30,000 gpd peak daily flow. Currently, flows into the treatment plant average 7,100 gpd. Approximately 60% of the treated wastewater is recycled back into the Casino and used for toilet flushing. The remaining treated wastewater is disposed of in a leachfield with a design capacity of 10,000-gpd, located just south of the Tribal Office.

The homes at Cher-Ae Heights, with two exceptions, are served by individual leachfields. The remaining two homes, the Tribal Office and the former clinic complex are served by septic tanks that drain or are pumped to the same leachfield that services the Casino.

Cher-Ae Heights is situated on gentle to steeply sloping ground with elevations ranging from 80 feet at the eastern edge adjacent to Highway 101, down to sea level with a steep bluff on the western edge of the property down to the Pacific Ocean. The depth to groundwater is relatively shallow in many areas of Cher-Ae Heights, and there are also areas where the groundwater daylights at the surface, particularly during the rainy season. The soils consist mainly of sandy loams with shallow bedrock and bedrock outcroppings in several areas. The undeveloped areas of Cher-Ae Heights are typically forested and steep. McConnahas/Mill Creek runs along the northern property boundary of Cher-Ae Heights. It is a small stream that drains approximately two square miles of relatively undeveloped watershed. The Rancheria has been replacing about one residential leachfield system at the Cher-Ae location each year for the past five years, mainly due to age or problems relating to high groundwater.

PURPOSE

The purpose of this report is to provide an assessment of several wastewater collection, treatment and disposal scenarios in order to address current issues with individual leachfields and the community leach filed system, and to address wastewater capacity issues associated with potential development options for the Cher-Ae Heights area. This analysis provides a planning tool for the Rancheria to help in making future land use and development decisions through identifying options, range in costs, and further study, system design, and other implementation steps.

This analysis begins with a description of current conditions, issues, and specific goals for potential growth options of the Rancheria. Anticipated wastewater flows for existing and potential future conditions are developed based on a range of different options. Wastewater treatment requirements are outlined and wastewater disposal alternatives assessed based on the regulatory framework and known physical site conditions.

This alternatives analysis includes a conceptual level design for each feasible alternative as well as an assessment of the ability of the alternative to meet treatment and disposal requirements. A conceptual cost estimate was developed for feasible alternatives, and potential requirements associated with alternative implementation are also presented.

INTRODUCTION

The current conditions serve as the basis for evaluating existing issues that need to be addressed and potential approaches for addressing them, which are considered further in subsequent chapters. The homes at the Cher-Ae Heights development receives wastewater service predominately through individual septic tank and leachfield systems. The Casino is connected into the Zenon treatment plant which recycles highly treated effluent for toilet flushing in the Casino and the rest is discharged into a community leachfield. Two of the homes, the Tribal Office, and the old Health Clinic are connected to septic tanks and then to the community leachfield.

A summary of the conditions of the existing individual septic and leachfield systems, and the community system are discussed in the following sections. Subsequent chapters evaluate existing and potential future flows and options for alternative wastewater management strategies to address the issues identified in this chapter.

EVALUATION OF EXISTING INDIVIDUAL LEACHFIELD AND SEPTIC SYSTEM PROBLEMS

The individual septic tank and leachfield systems at the Cher-Ae Heights community have been developed over many years with various designs and little documentation. This has resulted in some system performance problems and in 2000 Winzler & Kelly performed a survey of the systems at Cher-Ae Heights (and Westhaven). The findings were presented in the *Trinidad Rancheria Septic System Survey, Final Report*, Winzler & Kelly, August 2000. The on-site systems were evaluated using a series of techniques including research of Indian Health Services records, interviews with residents, and field inspections.

The evaluation was based on the regulatory requirements of leachfield construction contained within Chapter 4 of the *Water Quality Control Plan for the North Coast Region*, North Coast Regional Water Quality Control Board, May 23, 1996 (Basin Plan), as well as Humboldt County Environmental Health Department standards. Although the sovereign status of the land means that the Rancheria is under no legal requirements to conform to State and local regulations, it is in the best interest of the Rancheria, and has been the past practice, to provide the highest level of standards practicable. Thus, in the Septic System Survey, the characteristics of the sites were evaluated based on typical regulatory requirements.

The results of the Rancheria Septic System Survey are reproduced in Appendix A of this report. Areas of potential problems or conflicts with regulations are labeled "Red". Problems found with treatment and disposal systems include the following (each of which is further discussed in subsequent paragraphs):

- Overly full with sludge or scum
- Lack of baffles and sanitary "T"s
- Access to tanks / Placement of structures above tanks
- Malfunction of leachfield
- Other problems

The Rancheria has corrected many of the more pressing problems identified in 2000 and has been replacing about one leachfield system each year for the past five years. Even so, there is reason to consider connecting all individual systems up to a central treatment and disposal system, which is discussed under a subsequent chapter.

Overly Full with Sludge or Scum

Septic tanks are the point of primary treatment in the septic system. It is in the septic tank where heavy solids and lighter scum are allowed to separate from the wastewater. Five of the twenty-one septic tanks examined in 2000 had sludge depths of 24-inches or more, and scum levels in excess of eight inches and were in need of being pumped. This condition of excessive sludge and scum can lead to carry over of solids or grease to the leachfield and premature degradation of capacity. The Rancheria has subsequently addressed this issue, but it points to the need of regular inspection and maintenance of individual septic systems.

Lack of Baffles and Sanitary "T"s

Baffles and sanitary tees help to separate sludge and scum from the wastewater, thus preventing it from entering into the disposal field and possibly clogging the leach pipes, gravels, or trench sidewalls. Sanitary tees and baffles are standard on new septic systems, but older systems may lack them. Three sites at Cher-Ae Heights lacked these features.

Access to Tanks / Placement of Structures Above Tanks

The placement of structures or driveways over tanks makes access for maintenance and pumping difficult or impossible, and may result in greater structural loads being placed upon a tank than it was designed for. Wooden decks have been built above the septic tank at one site at Cher-Ae Heights, thus making regular maintenance much more difficult. Other tanks at the Trinidad Rancheria are located underneath a driveway and a large above ground pool.

Tank-lid risers are recommended, which allow easy access to inspection ports above ground. This makes locating the septic tank and making regular maintenance easier and less expensive. Of the twenty-five septic systems surveyed at Cher-Ae Heights, only seven tanks had these access ports.

Malfunction of Leachfield

Common problems found with leachfield design that may cause malfunction were:

- High groundwater levels
- Inadequate setbacks from steep slopes and natural bluffs
- Inadequate setbacks from ephemeral streams
- Sharp changes in slope
- Unstable landforms
- Shallow depth to bedrock

The design and construction of a septic system and leachfield along with appropriate maintenance are the most important factors in system performance. Typical failure of a leachfield due to inadequate design or maintenance is effluent surfacing from a leachfield and causing odors and possible health or environmental impacts.

Although a significant number of the sites had either inadequate separation to groundwater or inadequate setbacks, only a small number of sites had either surfacing effluent or noticeable odor. However, the field investigations were conducted in the summer so surfacing wastewater problems would be at a minimum. It is expected that some sites that did not exhibit surfacing effluent in the summer would have problems in the winter when groundwater was at a maximum.

Of the 47 sites examined in the Septic System Survey, 26 had a depth to groundwater that was shallower than that recommended by the North Coast Regional Water Quality Control Board (NCRWQCB) in the Basin Plan. The Basin Plan requires a minimum of five feet of clearance from the bottom of the leaching trench to the seasonally high groundwater level. The majority of the sites with shallow depth to groundwater are located at Cher-Ae Heights.

Many of the sites at Cher-Ae Heights failed to meet the Basin Plan's required setbacks from breaks in slope, unstable landforms, and ephemeral streams. Fourteen of the 25 leachfield systems surveyed at Cher-Ae Heights were located within 25 feet of natural bluffs or sharp changes in slope. Two sites at Cher-Ae Heights have leachfields located within 50 feet of ephemeral springs or streams. There are four sites at Cher-Ae Heights where the leachfield is located on or within 50 feet of unstable landforms, such as hills, where visible slumping has occurred. One site at Cher-Ae Heights has a leachfield placed where the depth to bedrock is only four feet.

There was one site at Cher-Ae Heights where it appears that the leachfield is old and probably clogged. There were six sites at Cher-Ae Heights where effluent was surfacing either on the leachfield itself or down slope from it.

Although there was a multitude of design related issues, not every site with a design issue had an immediately obvious problem when surveyed. However, the design related issues suggest that long term performance is questionable and that problems may occur during wet periods and in the future sooner than if the systems were properly designed.

Other Problems

One plastic septic tank, which appeared to have been malformed by slope movement, was observed at Cher-Ae Heights. Continued movement of that slope seems likely, and may eventually cause either the inlet or outlet lines from the tank to separate, thus resulting in a release of untreated effluent and failure of the system.

Recommended Improvements

The Septic System Survey offered a series of recommendations and the original report should be referenced for details.

Overall, the analysis suggests there is a wide array of systems in place that appear to be of many designs, and there is little documentation available. A significant number of the systems currently have performance problems, and many of them have known design problems (but perhaps no performance problems yet). The lack of available information and the types of problems found suggests that the design related problems are likely more widespread than can be currently determined. This combination of factors suggests that the Rancheria should consider replacing the individual systems with a community system. The extent and type of system will depend in large measure on the Rancheria's development plans for the entire area. The potential wastewater flows from homes, treatment options, and disposal options are considered in the following chapters along with other development options.

EVALUATION OF EXISTING ZENON TREATMENT PLANT AND COMMUNITY LEACHFIELD

The Rancheria's plans to expand the Casino lead to the development of a new wastewater treatment and disposal system to replace a failed mound system. Due to the known difficulty in locating land on site for a leachfield and a shortage of potable water from the City of Trinidad, a water recycling treatment plant manufactured by Zenon was chosen. The Casino was designed to include dual plumbing so the highly treated effluent from the Zenon plant could be used for toiled flushing.

A study was conducted in the spring of 1998 of four potential leachfield sites at Cher-Ae Heights and found the following:

Site	Findings
South of Casino Parking Lot	Disturbed soils, blue clay, expected high groundwater, infeasible.
Between Casino Lower Lot and Ter Ker Coo Lane	Disturbed soils, high water table, infeasible.
Mounded Ridge South of Ter Ker Coo Lane	Well drained soils, potentially feasible.
Hillside South of Tribal Office (Leachfield developed at this site in fall of 1998)	Well drained soils, ample area, feasible.

The hillside south of the Tribal Office was developed into a leachfield with a design capacity of 10,000 gallons per day. After the leachfield was constructed the Casino expansion project was undertaken. The implementation strategy was based on using the old mound system until the new treatment plant was on line so that only clean water would be discharged to the new leachfield. However, the old mound system was decommissioned before the new treatment plant was completed and relatively untreated effluent, including greasy water from the snack bar, was discharged directly to the new leachfield for several months.

After the Casino and the new treatment plant were completed and connected to the new leachfield there were a number of startup issues that were addressed. After working through a series of details with the manufacturer and the operator regarding both how the system was to work, and a number of mechanical performance issues, the treatment plant was operated to consistently produce high quality effluent.

The leachfield began experiencing some operational problems several months after the new treatment plant was on line in the spring of 2002. The operator found he could not pump water to the leachfield at the needed capacity. After solving a valving problem, the leachfield still appeared to be operating under the design capacity. The operator located the ends of some of the leachlines and flushed them out and found a significant amount of grease and black slime in the pipes. Flushing of the pipes improved the performance for several months, but the same problem appeared to recur. The lines were flushed of grease and slime again in the fall of 2003. The grease and slime is most likely the result of discharging of effluent to the leachfield prior to the completion of the treatment plant and cleaning the system of this residue is essential to maintaining both near and long term capacity.

For the purposes of this study, it is assumed that the leachfield still has its original design capacity of 10,000 gpd. However, it is recommended that the leach lines be cleaned and flushed, and that a number of backhoe test pits be excavated into the leach trenches to inspect the pressure distribution lines, the gravels, and groundwater elevations. Through this type of investigation, the actual operating capacity of the leachfield can be better assessed.

INTRODUCTION

Current wastewater flows are not metered at most of the Rancheria's facilities except for the Casino. However, typical design flows can be estimated for facilities based on the type of facility, its use, and its occupancy. These design flows along with the data from the Casino/Restaurant were utilized to estimate current and projected wastewater flows for Cher-Ae Heights.

Wastewater flows generated from the Casino are evaluated first based on actual measurement data. Flows from the remaining Cher-Ae community, which includes homes, the Tribal Office, and the clinic complex are then considered. The potential reduction in wastewater flows due to installation of water conserving fixtures is considered. Finally, disposal capacity is considered based on a reduction in disposal requirements due to recycling for toilet flushing in the Casino and any potential future hotel.

CURRENT METERED CASINO WASTEWATER FLOWS

Actual wastewater flows from the Casino's Zenon Wastewater Treatment Plant were obtained from Ron Sundberg, the plant operator, and are summarized in Table 3.1. The raw data tables are provided in Appendix B along with water quality data for the treatment plant.

Date	Avg. Daily Flow (gallon/day)	Peak Daily Flow (gallon/day)
June 2002	8,875	14,850
July 2002	9,112	26,870
August 2002	8,896	28,150
September 2002	7,047	13,490
October 2002	6,539	11,200
November 2002	6,749	16,540
December 2002	6,831	14,250
January 2003	5,924	16,280
February 2003	6,261	23,140
March 2003	6,241	12,510
April 2003	6,442	20,510
Overall Avg. Daily Flow	7,174	
Peak Daily Flow		28,150
Avg. of Peak Daily Flows		17,981

The figures shown in Table 3.1 represent the actual measured influent wastewater flows and are not a function of how much water is recycled for toilet flushing. Water recycled for toilet flushing affects disposal capacity, not treatment capacity. Required disposal capacity accounting for water recycling is discussed in a subsequent section in this chapter.

CURRENT ESTIMATED COMMUNITY WASTEWATER FLOWS

For the purposes of this study, Existing Community Wastewater Flows are defined to be those wastewater flows that are generated by homes, the Tribal Office, and the former clinic complex at Cher-Ae Heights.

The estimated current wastewater flows for the Cher-Ae Heights community area are provided in Table 3.2.

Table 3.2: Current Estimated Cher-Ae Heights Community	Wastewater Flows
Trinidad Rancheria	

Description	Units	Average Unit Flow ⁽¹⁾ (gal/unit/day)	Estimated Avg. Flows (gal/day)
Estimated Current Averag	ge Wastewater Flow	Rates	
Tribal Offices	50 Employees	10	500
Clinic Complex	10 People	10	100
Single Family Homes on Community Leachfield	2 Houses	2	600
Single Family Homes	20 Houses	300	6,000
		**************************************	7,200

⁽¹⁾ Adapted from Metcalf & Eddy, Wastewater Engineering, Treatment, Disposal, Reuse, 3rd ed., pg 17,McGraw-Hill, Inc., New York, NY, 1991.

The flows presented in Table 3.2 are estimates, because there is no metering of these flows. These estimates are based on industry standard references of typical wastewater flows for these types of developments

PROJECTED CASINO WASTEWATER FLOWS

Master planning for the sizing of the treatment plant was completed in the spring of 1999 based on a projected maximum daily flow of 30,000 gallons per day from the Casino (15,000 gpd average flow). This master planned capacity should be reserved for potential future growth in the patronage of the Casino.

PROJECTED POTENTIAL COMMUNITY WASTEWATER FLOWS

Based on conversations with Rancheria staff, development plans for Cher-Ae Heights could include a new hotel facility and a new gas station/mini-mart. The analysis presented in this section assumes that the Hotel will have up to 200 rooms, although the exact size of the hotel has not yet been determined. Any new wastewater facilities must be able to potentially handle the existing flows, but also include capacity for planned expansion to help ensure that the facilities are adequately sized to be able to grow with the Rancheria.

The projected potential future wastewater flows from Cher-Ae Heights projected growth, including a new 200-room hotel and gas station/mini-mart, are presented in Table 3.3.

itial Hotel and G	as Station/Mini-Mart Wastev	vater Flows
Units	Average Unit Flow ⁽¹⁾ (gal/unit/day)	Estimated Avg. Flows (gal/day)
200 rooms	100	20,000
100 users	10	1,000
Wastewater Flor	W	21,000
	Units 200 rooms 100 users I Wastewater Flo	200 rooms (gal/unit/day)

(1) Adapted from Metcalf & Eddy, Wastewater Engineering, Treatment, Disposal, Reuse, 3rd ed., pg 17,McGraw-Hill, Inc., New York, NY, 1991.

The total wastewater flows from the Casino and the community facilities are summarized in the next section.

SUMMARY OF EXISTING AND PROJECTED POTENTIAL WASTEWATER FLOWS

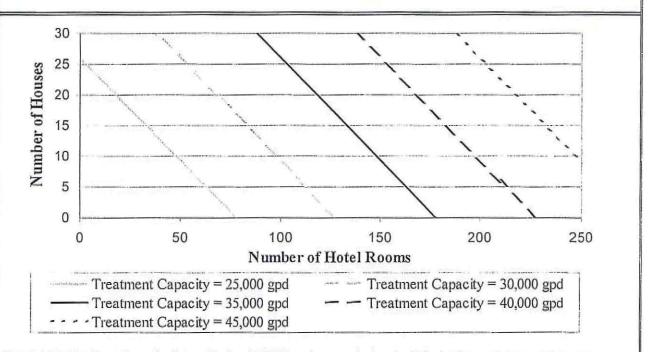
The projected future wastewater flows from the Casino, the Cher-Ae Heights community area, and a potential 200-room hotel and gas station/mini-mart are presented in Table 3.4.

Table: 3.4: Projected Cher-Ae Heights Community Wastewater Flows

Area	Existing Average Flow (gal/day)	Potential Additional Future Average Flow (gal/day)	Total Average Flow (gal/day)
Community Area (homes, Tribal Offices, clinic complex)	7,200	0	7,200
Casino	7,200	7,800	15,000
200 Room Hotel	0	20,000	20,000
Gas station/mini mart	0	1,000	1,000
Total Estimated Flow	14,400	28,800	43,200

As part of the development planning, the Rancheria may choose to combine some existing homes on individual septic systems along with a potential new hotel of some size and treat all the wastewater together. This scenario is discussed further in this report in the chapter on the development of alternatives. Different combinations of the number of homes and the size of the treatment plant result in different flows, which also include the projected future Casino/restaurant flows, the flows from the Tribal Office and the clinic complex, and flows from the gas station/mini-mart. This relationship is graphically presented in Figure 3.1. Figure 3.1 assumes that the Casino and restaurant will require the 15,000 gpd master planned average flow and that there is no growth in the flows from the Tribal Office and the clinic complex. Figure 3.1 is a very valuable planning tool the Rancheria can use to evaluate the required wastewater treatment capacity from any combination of hotel size and number of homes served. This is used further in subsequent chapters of this report.

Figure 3.1: Treatment Capacity Relationship Between Number of Cher-Ac Heights Houses Served and Proposed New Hotel Rooms Developed Trinidad Rancheria



Note: Assumes flows from the future Casino (15,000 gpd average) plus the Tribal Office, clinic complex, two homes currently connected to the community leachfield, and gas station/mini-mart are served (for a total required treatment capacity of 17,200) in addition to the combination of homes served and hotel rooms developed.

AFFECT OF LOW FLOW TECHNOLOGIES

The total estimated wastewater flow presented in Table 3.3 does not take into account any additional measures to reduce wastewater flows through conservation using low-flow technologies.

Low-flow water efficient toilets, fixtures, and other appliances could be installed in existing homes and other facilities. The American Water Works Association (AWWA) has conducted studies that show that household flows can be reduced by about 30% through the use of low-flow fixtures. This would reduce the estimated flow per household from 300 gpd to 200 gpd, which is an achievable usage rate. However, this would require that the Rancheria retrofit existing facilities at a substantial cost.

As a result of existing federal regulations, all toilets, showerheads, and kitchen and lavatory faucets newly installed are required to be low flow, and those are the only models legally sold. Thus, the existing Casino/restaurant and any new development would already have low flow devices installed.

Table 3.5 presents the potential reduction in wastewater flows if low-flow technologies are installed in homes. It was assumed that the Tribal Office and former clinic complex could achieve the same reduction in water use as a household. Because the existing federal regulations require low-flow devices in new construction, no flow reduction from the installation of these devices was assumed at the proposed hotel or gas station/mini-mart.

Table 3.5: Potential Reduction in Wastewater Flows From Installation of Low Flow Technologies Trinidad Rancheria

Description	Projected Average Flows (gal/day)	Percent Reduction Resulting from Low- Flow Technologies	Projected Reduction in Flows (gal/day)
Single Family Homes	6,000	30%	1,800
Homes on Leachfield	600	30%	180
Clinic Complex	100	30%	30
Tribal Offices	500	30%	150
Casino/Restaurant	15,000	0%	0
Hotel	20,000	0%	0
Gas Station/Mini Mart	1000	0%	0
TOTALS	43,200		2,610

As can be seen in Table 3.5 the use of all available water recycling and low flow technologies reduces the total amount of wastewater to be treated and disposed by less than 5% of the projected future flow. For the purposes of this study, it was assumed that existing facilities are not retrofitted with low flow fixtures. However, the Rancheria may wish to undertake this as a separate project.

WATER RECYCLING FOR TOILET FLUSHING

Water recycling for toilet flushing does not affect treatment capacity requirements, but it does affect disposal capacity requirements. If there is no water recycling, then the treatment capacity equals the disposal capacity. However, the Casino was developed with a water recycling system for toilet flushing to reduce the need for potable water and reduce the need for disposal capacity. Recycling for irrigation had also been previously investigated, however it is infeasible for reducing wastewater disposal capacity since there is no demand for irrigation in the winter when wastewater disposal is most critical.

Based on the comparison of water meter usage records for the Casino and the process wastewater flows from the treatment plant, approximately 60% of the average daily flow is recycled back into the Casino and used for toilet flushing, and does not require disposal.

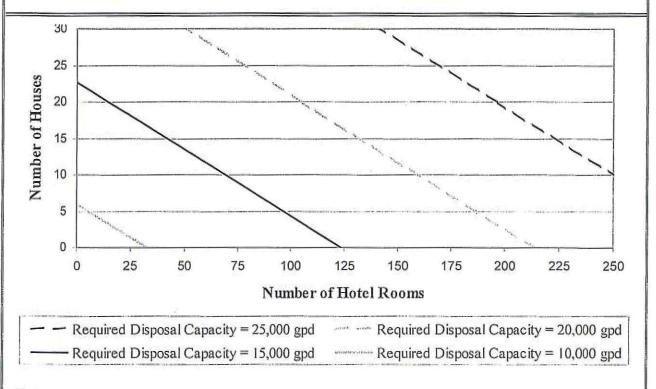
Given the wastewater treatment and disposal limitations and constraints, it is recommended that the hotel, and all new major construction at the Rancheria be constructed with dual plumbing systems and the ability to recycle treated wastewater for toilet flushing. For the remainder of this report it is assumed that the hotel will install water recycling facilities for toilet flushing to reduce needed disposal capacity and potable water supplies.

RELATIONSHIP BETWEEN DISPOSAL CAPACITY AND DEVELOPMENT OPTIONS

Like wastewater flow, there is a relationship between the number of houses served and the number of hotel rooms that can be developed and the resulting disposal capacity required. This relationship was developed based on the assumption that the Casino and the potential hotel will recycle water for toilet flushing. Figure 3.2 shows the relationship between the number of houses served and the number of hotel rooms developed for 15,000 gpd, 20,000 gpd, and 25,000 gpd disposal capacity.

The figure shows that a disposal capacity of almost 25,000 gpd is needed to serve all 20 existing houses and a 200 room hotel in addition to the Casino/Restaurant (under future master planned capacity), Tribal Offices, former clinic complex, and a new gas station/mini-mart. Like Figure 3.1, Figure 3.2 serves as a valuable planning tool for the Rancheria to consider future development scenarios and how disposal capacity can be achieved, which is also discussed further in subsequent chapters of this report.

Figure 3.2: Disposal Capacity Relationship Between Number of Cher-Ae Heights Houses Served and Proposed New Hotel Rooms Trinidad Rancheria



Notes:

This graph assumes that 6,000 gpd of disposal capacity is reserved for the Casino at Master Plan build out flows (15,000 gpd with 60% of the water recycled). This graph also assumes that the Tribal Office, clinic complex, and two homes currently connected to the community leachfield, and the gas station/mini-mart are served with a combined disposal flow of 2,200 gpd (assumes no water recycling). This equates to a base disposal flow of 8,200 gpd. The remaining flow is distributed between homes served and hotel rooms developed. To serve the remaining 20 homes and a 200 room hotel, a disposal capacity of 25,200 gpd would be needed.

INTRODUCTION

The type of wastewater treatment required for disposal alternatives can vary depending on the final disposal or use of the effluent. This has both a regulatory basis and an operational basis. For example, from a regulatory standpoint, a higher level of treatment is required for wastewater to be recycled for toilet flushing than is required for discharge to a leachfield. However, from an operational basis, it is to the owner's advantage to put the cleanest water possible into a leachfield, because it is much more likely to perform better at higher capacity and have a longer operating life. This is especially important when leachfield capacity is very scarce, such as is the case at the Cher-Ae Heights community.

Trust land at Cher-Ae Heights, falls under the regulatory oversight of the Federal government and is not subjected to State or Local regulations. However, non-Trust land and wastewater that flows off of Trust lands falls under State and Local jurisdiction. Leachfields and treatment of wastewater for recycling for toilet flushing on Trust land technically do not fall under the regulations established by State or Local agencies to protect public health and the environment. However, it has been the practice of the Rancheria, and is the basis of this analysis, to create systems that would comply with the intent of these requirements. Discharges to creeks, and ocean outfalls, however, would flow off of Trust land and would need to comply with all standards associated with non-Trust land.

OVERVIEW OF GOVERNING REGULATIONS

Congress passed the Clean Water Act (CWA) in 1972 with the goal of reducing the impacts of the discharge of pollutants to surface waters of the United States. The Act was amended in 1977 and again in 1987 and regulations were established for toxic pollution control and effluent limitations. The CWA governs discharge from "point sources" into "navigable waters of the United States" and provides guidelines for effluent limitations and permitting of these discharges. This is handled under the National Pollution Discharge Elimination System (NPDES). The State of California is fully authorized to administer the NPDES program and the discharge of wastewater from the Rancheria would fall under the NPDES requirements as overseen by the North Coast Regional Water Quality Control Board (NCRWQCB). An NPDES permit would have to be obtained from the NCRWQCB for discharge of wastewater to a surface water body that flowed off of Trust land.

There are no specific Federal regulations governing discharge through leachfields or through recycled water use. However, as stated earlier, State or Local regulations were established to protect public health and the environment, it has been the practice of the Rancheria to voluntarily conform to the intent of the requirements. Individual septic systems and leachfields would fall under the permitting and regulatory oversight of Humboldt County Division of Environmental Health. However, community leachfields on non-trust land fall under the regulation of North Coast Regional Water Quality Control Board. The regulatory requirements of leachfield construction on non-Trust land are contained within Chapter 4 of the Basin Plan. The Basin Plan establishes site evaluation criteria including ground slope and stability, soil depth, depth to groundwater, percolation rates, setback requirements, and other requirements.

Title 22, Chapter 3 of the California Code of Regulations covers treatment requirements for water recycling in California for non-Trust lands (see Appendix C). The North Coast Regional Water Quality Control Board (Regional Board) governs treatment requirements for other disposal options that involve treated effluent on non-Trust lands. Requirements are set to meet water quality objective set out in the "Water Quality Control Plan for the North Coast" (Basin Plan).

Three types of water treatment levels are discussed, which would apply to different disposal options. They are as follows:

- Undisinfected Wastewater
- Disinfected Secondary Wastewater
- Disinfected Tertiary Wastewater

A discussion of each of these treatment options in regards to potential disposal options for Cher-Ae Heights is presented in this section.

Undisinfected Wastewater

Undisinfected wastewater is currently being discharged through the individual residential leachfields and through the Tribal Office and former clinic complex septic systems. The typical design loading rates are much lower for leachfield systems using undisinfected wastewater that has only received low level septic tank treatment. This is because solids and grease from septic tanks can carry over into leachfields and can build up and block the soils pores reducing infiltration. From a technical standpoint, higher levels of treatment can allow an increase in typical loading rates and probable lifespan of the system. However, State and Local regulatory agencies do not allow for the consider of treatment level when designing leachfields.

Secondary Treatment Requirements

If wastewater were to be discharged directly to a surface waterbody such as a nearby stream or the ocean it would need to be treated to secondary standards or higher. The minimum standards for secondary treatment are included in Table 4.1.

Component	Average 30 day Concentration	Average 7 day Concentration	
BOD ₅	30 mg/L	45 mg/L	
Total Suspended Solids	30 mg/L	45 mg/L	
PH	6.0 to 9.0 at all times		
CBOD ₅ ⁽¹⁾	25 mg/L	40 mg/L	
Total Coliform	23 MPN/100 ml	230 MPN/100 m	

The levels in Table 4.1 are the minimum discharge requirements, or level that the wastewater would have to be treated to prior to discharge from a treatment system. However, the discharge would also have to conform to the Basin Plan. The North Coast Regional Water Quality Control Board, would likely impose other discharge requirements including standards for temperature, phosphate and nitrate levels, turbidity, dissolved oxygen, receiving water minimum flows, and sampling and reporting requirements. The Basin Plan generally prohibits the degradation of the quality of receiving waters and the established discharge requirements would likely be determined based on that limitation. Discharge to a surface water would also need to comply with the California Toxic Rule, which covers priority pollutants.

The Basin Plan makes some special distinctions for coastal streams, stating, "On all coastal streams and natural drainage ways that flow directly to the ocean, all new discharges will be prohibited." The Regional Board has upheld this position on wastewater discharge applications in other areas and it is very unlikely the Rancheria's situation would be viewed any differently. The only other option is to try to change the Basin Plan to allow a discharge to a coastal stream that would also be essentially impossible.

In the following chapter on wastewater disposal options, ocean outfall discharge will be considered potentially feasible and discharge to a coastal stream will be considered infeasible.

Reclaimed/Recycled Water Treatment Requirements

Recycled water intended to be reused for toilet flushing like in the Casino, would need to be treated to tertiary standards, such as is achieved with the Zenon membrane treatment plant. Water recycling regulations are contained in Chapter 3 of Title 22 of the California Code of Regulations (CCR) (See Appendix C). Other types of water recycling, such as irrigation, can have a different level of treatment depending on how the water is to be used. As discussed in a previous chapter, however, recycling water for irrigation does not reduce the wastewater disposal capacity requirement because there is no demand for irrigation in the winter when the disposal of wastewater can be most critical. Therefore, recycling of effluent for toilet flushing in the existing Casino and in a potential new hotel will be the only type of recycling considered in this study. Retrofitting existing homes or the Tribal Office or clinic complex is not considered because of the high costs of dual pluming retrofits and the relatively low use for these other facilities.

SUMMARY OF WASTEWATER TREATMENT APPROACH

The overall objective is to develop cost effective, long term, wastewater management solutions to allow the Rancheria the potential to create additional future developments. Since land for leachfields is scarce, the available land should be managed as best as possible. Continued treatment of water for toilet flushing requires a high level of treatment as provided by the Zenon plant. As will be discussed further in this report, the Zenon plant has expansion capacity in the existing treatment train, and an additional train could be developed in the future if needed.

Given the logic of developing a system to provide good long term performance, continued use and expansion of the Zenon plant to produce high quality effluent makes the most practical sense for Cher-Ae Heights. This system will provide effluent for an expanded community leachfield, and ocean outfall discharge options which are discussed further in the next chapter.

INTRODUCTION

Disposal of the treated wastewater typically drives system design and operation because there are few methods available for disposal from a technical and regulatory standpoint. Basically the treated effluent needs to be put back into the hydrologic cycle. It can be viewed that there are the following three mechanisms to accomplishing this:

- Discharge to the ground and groundwater
- Discharge to a surface water body
- Evaporate it into the air

Different disposal methods employ different mechanisms and sometimes one method can use several mechanisms. Discharge to the ground and groundwater is typically achieved through a leachfield. Irrigation is typically a combination of discharge to the ground and groundwater and evaporation into the air. Discharge to McConnahas Mill Creek and an ocean outfall are examples of discharge to a surface water body. Each of these alternatives is discussed in the following sections.

Depending on which discharge option is selected, the required treatment level can then be determined, (e.g., secondary treatment for discharge to surface water, or tertiary treatment for recycling the wastewater in the hotel). The discussion of disposal options assumed water recycling for toilet flushing is practiced at the proposed hotel, as discussed in Chapter 3. Treatment options are discussed in Chapter 6.

DISCHARGE TO LEACHFIELDS

Cher-Ae Heights currently disposes of wastewater in leachfields. As discussed in Chapter 2, this is the primary means of treatment and disposal for wastewater from the existing homes, and each home generally has their own septic tank and leachfield. The wastewater from the Casino is treated in the Zenon plant and discharged to the community leachfield. Wastewater from the septic tanks from the Tribal Office, the clinic complex, and two homes is discharged directly to the community leachfield without further treatment in the Zenon plant.

The existing Casino leachfield has experienced some operating problems as was discussed in Chapter 2. The community leachfield was designed with a capacity of 10,000 gallons per day. However, with plugging believed to have been caused by the discharge of Casino wastewater to the field before the Zenon plant was completed, the capacity of the leachfield at this time is not known. The existing leachfield should be cleaned and then the capacity should be evaluated through field investigations and hydraulic stress testing to determine the actual operational capacity.

Potential Excess Capacity in Existing Community Leachfield

For this analysis it is assumed that the Rancheria completes the cleaning and evaluation of the existing leachfield and that its capacity is 10,000 gpd as designed. The results of this analysis can be adjusted based on the results of the investigation of the leachfield.

Based on the comparison of water meter usage records for the Casino and the process wastewater flows from the treatment plant, approximately 60% of the current 7,200 gpd average daily flow is recycled back into the Casino and used for toilet flushing, and does not require leachfield disposal. Therefore approximately 2,900 gpd goes from the treatment plant to the leachfield. In addition, an estimated 500 gallons per day are discharged to the leachfield from the Tribal Offices, and an additional 100 gpd from the clinic complex. Two houses are also connected to the community leachfield with an estimated flow of up to 600 gpd. The total estimated flow to the community leachfield is therefore approximately 4,000 gpd. If the community leachfield has an actual long term operating capacity of 10,000 gpd, then there is approximately 6,000 gpd of capacity remaining in the existing community leachfield.

Depending on what the Rancheria wishes to develop in the future, how the flows at the Casino increase, and if more houses are connected to the system, additional leachfield capacity could be required.

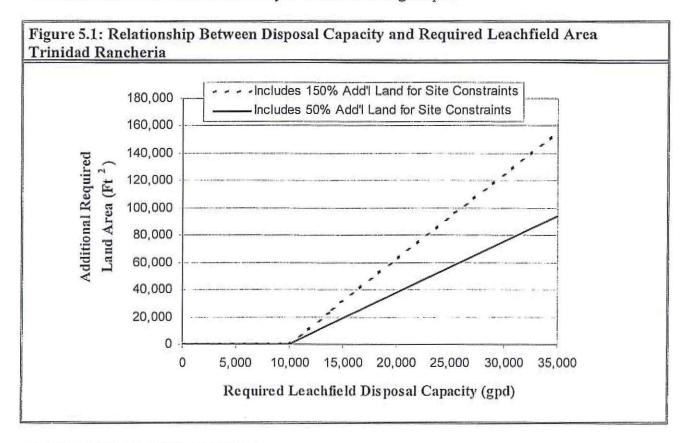
The relationship between disposal capacity and the additional required land area needed for leachfield disposal is shown in Figure 5.1. The disposal capacity is based on the existing leachfield, which is 25,000 ft² and has a design capacity of 10,000 gpd. Additional land area would be needed when the disposal capacity exceeds the existing community leachfield capacity. Figure 5.1 provides general guidance on overall sizing and assumes that new leachfield disposal sites may need additional land area to account for setbacks, topography, and other site constraints.

An important issue to consider in planning leachfields is potential reserve capacity. Typical leachfield planning includes siting 100% reserve capacity so that there is a new leachfield location designated if the initial leachfield fails. This planning is done because leachfields are expected to eventually fail, which means their ability to receive wastewater diminishes. The effluent from the Zenon plant is much cleaner than septic tank effluent, but all leachfields are expected to diminish in performance over time. Figure 5.1 does not account for any reserve capacity. Some day the Rancheria may need replacement disposal capacity, which may have to be provided by replacement leachfields or other disposal means.

Several undeveloped sites have been investigated in the past as was discussed under Chapter 2. However, the Rancheria should think broadly in terms of overall land use when planning potential developments. The best land for leachfields may currently be taken up by housing assignments, which were not previously evaluated for leachfield potential. For the Rancheria to create some of the potential developments that have been envisioned, it may be necessary to reevaluate land use to determine the highest and best use of land for the community. At this time it is not possible to accurately determine additional potential leachfield capacity available at Cher-

Ae Heights because it depends on land use decisions and site characteristics. However, it may be possible for the Rancheria to develop an additional 5-10,000 gpd or more of capacity. Additional planning, field studies, and engineering analysis will be needed to determine what capacity can be developed.

The potential to develop additional leachfield capacity to serve various development levels is considered under the alternatives analysis in the following chapter.



DISCHARGE BY IRRIGATION

Properly treated wastewater can be used for irrigation of some types of plants. Irrigation, however, is only useful during dry periods when plants need water, unless large and expensive seasonal storage reservoirs are provided. Irrigation with treated wastewater could not be practiced during the wet season because the ground cannot accept additional water and the treated wastewater applied would runoff. The Trinidad area receives a significant amount of rainfall and little irrigation is needed in the area except for during a short period of the summer. It is unlikely that even if wastewater were stored for irrigation in the summer, the demand would be high enough to dispose of all wastewater. Irrigation also takes large areas of land, which is very limited at the Rancheria, and could alternatively be used for other types of development. Irrigation with treated wastewater is often a good option in warmer climates with less rain where irrigation water is needed in greater amounts for longer periods of the year.

Irrigation even just for the summer months would require an extensive piping system and large areas of land. Due to cost prohibitions and limited need for irrigation water, disposal through irrigation would not be a viable option for year-round disposal, and this option is not considered further in this report.

DISCHARGE TO McCONNAHAS/MILL CREEK

A third alternative is the discharge of the treated effluent to McConnahas/Mill Creek. As discussed in more detail in Chapter 4, the Basin Plan prohibits discharges to coastal streams. The consideration of discharge to McConnahas/Mill Creek is impractical and will not be considered further in this report.

DISCHARGE TO AN OCEAN OUTFALL

The last option considered is to discharge the treated wastewater through an ocean outfall some distance off shore. This type of discharge would not fall under the Basin Plan's no new discharge policy. However, the NCRWQCB often requires that outfalls be extended from the shore to a point where the ocean depth is 60 feet below mean sea level or more. Near Cher-Ae Heights the pipeline would have to be approximately 7,600 feet long to reach an ocean depth of 60 feet, The cost for the pipe alone for this option would be approximately \$3 million. To make this a more viable option, approval would have to be obtained to terminate the outfall at a shallower depth, which would require demonstration that the required mixing and dilution was met.

An ocean outfall option would have relatively high annual maintenance costs because the Rancheria would need to ensure that the outfall pipe is kept clear of debris and growths. Large storms can also damage the outfall pipe and lead to large repair costs.

A significant advantage to this option is that it would probably allow for much more disposal capacity than on site leachfields, which are limited by the availability of acceptable land. With an ocean outfall, the Rancheria could likely have the capacity to accommodate wastewater flows from many types of future development projects.

The use of an ocean outfall is discussed further under the alternative development chapter of this report.

INTRODUCTION

The Rancheria uses several wastewater treatment methods. At the Cher-Ae Heights property there are two types of systems. Septic tanks are used for treating wastewater prior to discharge to individual leachfields for homes. However, a number of these individual systems have problems and should be replaced. A Zenon membrane treatment plant is used to treat wastewater from the Casino/Restaurant, where the treated wastewater is reused for toiled flushing, and excess treated effluent is discharged to a large community leachfield.

SELECTION OF MOST APPROPRIATE TYPE OF TREATMENT

As was discussed under the previous section, expansion of centralized leachfield systems for disposal of treated effluent from additional developments is one of the most viable options from a permitting perspective. Although, leachfields can be operated with effluent from simple septic tanks, operating a leachfield with highly treated effluent from the Zenon plant greatly increases the potential life of the leachfield, reduces the necessary size of the disposal area, and enhances groundwater quality protection. With so little land available at Cher-Ae Heights it is logical to maximize the value of the land and the potential operating life of a leachfield system through high level treatment of wastewater prior to discharge. Discharge to an ocean outfall is also technically possible and would require a high level of treatment to secondary or tertiary such as provided through the existing Zenon plant.

Given the logic of developing a system to provide good long term performance, continued use and expansion of the Zenon plant to produce high quality effluent makes the most practical sense for Cher-Ae Heights. This system will provide effluent for an expanded community leachfield or ocean outfall discharge. Thus, it is recommended that all development connected to a community wide system be treated prior to discharge.

The needed capacity of the wastewater treatment system depends on the amount of development the Rancheria decides to proceed with and the number of homes they would like to connect to a community system. The tradeoffs between treatment plant expansion options and development served are discussed below.

TREATMENT PLANT CAPACITY AND EXPANSION OPTIONS

The capacity of the existing treatment plant is 15,000 gpd average daily flow, but was designed to be expanded to 30,000 gpd average daily flow without requiring extensive retrofitting or building a parallel treatment train. The Zenon, ZenoGem system is a combination of biological treatment and membrane separation. In the existing system, the wastewater from the Casino is pumped to a 15,000 gallon holding tank. It is then pumped into a concrete bioreactor where it is aerated and bacteria breaks down the wastewater. The wastewater is then filtered through the ZeeWeed membranes. It is then polished with activated carbon and disinfected with a UV system and recycled back to the Casino toilets, with excess flow disposed of in the existing leachfield. There are currently three ZeeWeed membrane "cartridges" in the bioreactor. The bioreactor

basin was designed to allow for the addition of three more cartridges without having to resize the basin. This would effectively double the size of the treatment system, giving it a capacity to handle 30,000 gpd.

Additional pumps, blowers, and piping would have to be added to handle 30,000 gpd and a parallel carbon polishing system would have to be added. Upgrades of the electrical system would also be required. The UV disinfection systems would also required a larger impeller on the existing pump, but the system itself is sufficiently sized to handle the new flow. This can all be accommodated in the existing building. The existing treatment system has also been experiencing flows close to the peak flow capacity of the treatment plant, and additional tankage may be required at the headworks to allow the peak flows to be equalized if additional flows are added in the future. For treatment capacity beyond 30,000 gpd average flow (60,000 gpd peak flow), extensive modifications would be required to potentially create a parallel treatment train to provide the needed capacity. How the treatment plant would be expanded should be assessed further when a final design of the proposed facilities is performed based on the Rancheria's specific development plan.

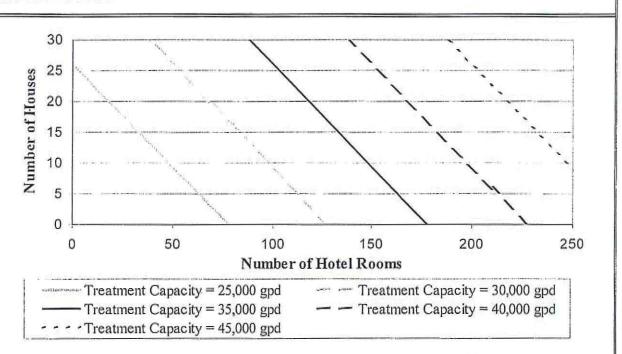
INTRODUCTION

Previous chapters developed the potential wastewater treatment flow, and disposal flow based on the relationship between how many homes may be connected to a centralized treatment system, and how many hotel rooms may be developed. Treatment regulations were also considered along with potential disposal options, and it was concluded that use and expansion of existing leachfields, or an ocean outfall are potentially feasible disposal options. Treatment options were considered as well and it was concluded that use and expansion of the existing Zenon plant could meet potential flow requirements as well as treatment requirements for the potential disposal options. In this chapter, the overall development conditions are summarized in one place to lead into the development of costs in the following chapter and the comparison of alternatives in the final chapter.

WASTEWATER FLOW CAPACITY SUMMARY

The projected wastewater flows were developed in Chapter 3 and a summary of the relationships is presented in Figure 7.1.

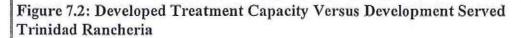
Figure 7.1: Treatment Capacity Relationship Between Number of Cher-Ae Heights Houses Served and Proposed New Hotel Rooms Trinidad Rancheria

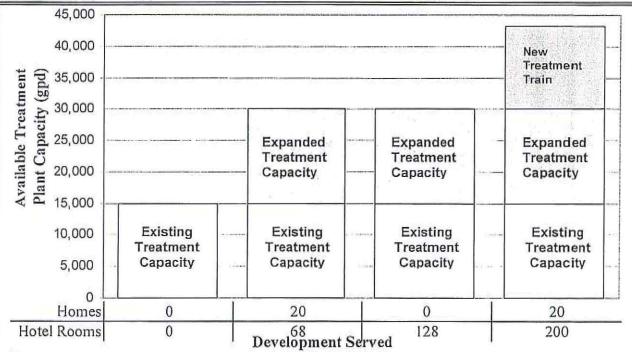


Note: Assumes flows from the future Casino (15,000 gpd average) plus the Tribal Office, clinic complex, two homes currently connected to the community leachfield, and gas station/mini-mart are served (for a total required treatment capacity of 17,200) in addition to the combination of homes served and hotel rooms developed.

WASTEWATER TREATMENT CAPACITY SUMMARY AND ANALYSIS

Figure 7.1 is used to determine projected future flows that will requirement treatment at the Zenon plant. Different combinations of development can lead to different projected flows. The expansion requirements of the treatment plant were also examined relative to different combinations of development. Figure 7.2 shows a relationship between the stages in treatment plant capacity and what combinations of developments may be served at the various stages. For example, if the existing treatment plant was expanded to its maximum size of 30,000 gpd, it could serve existing development plus the gas station/mini-mart and either a 134-room hotel and no homes, or a 74 room hotel and all 20 Cher-Ae Heights homes. The projected flow for Cher-Ae Heights including the Casino/Restaurant, Tribal Office, former clinic building, existing homes, a 200 room hotel, and a gas station/mini-mart is approximately 42,600 gpd. Thus to treat all wastewater, significant expansion of the existing treatment plant would be needed.





Notes:

The capacity of the existing treatment plant is 15,000 gpd, which is all reserved for the Casino at Master Plan build out flows. At an expanded capacity of 30,000 gpd, assuming the Tribal Office, clinic complex, and two homes currently connected to the community leachfield, the Casino at build out flows, and a gas station/mini-mart are served, there are many different possible combinations of number of Cher-Ae Heights homes served or hotel room developed. To serve all 20 homes and a 200 room hotel, as well as the other development mentioned above, a treatment capacity of 43,200 gpd would be needed, which would require the construction of a new treatment train.

DEVELOPMENT WITHIN EXISTING WASTEWATER TREATMENT CAPACITY

This section evaluates what types of new and existing development could be served with the existing treatment plant or the plant at it maximum expanded capacity without the assumption that capacity must be reserved for the Casino master plan build out flows. This is in contrast to the previous section where it was assume that capacity must be reserved for Casino master plan build out flows.

Figure 7.3 shows the available treatment capacity with increasing amounts of capacity reserved for existing community flows, which include the Casino, Tribal Office, clinic complex, and two homes currently connected to the community leachfield. Figure 7.3 shows the available capacity for the existing plant and for the plant expanded to its maximum capacity of 30,000 gpd.

Figure 7.3: Treatment Capacity Relationship Between Reserved Capacity and Available Capacity Trinidad Rancheria 25,000 20,000 Available Treatment Capacity (gpd) 0000'01 0000'02 Existing Community Flows Capacity based on 5,000 Previous Master Planned Casino Flows 7,500 10,000 12,500 15,000 17,500 Capacity Reserved for Existing Community Flows (gpd) ---- Existing Plant with Expansion (30,000 gpd) Existing Plant without Expansion (15,000 gpd)

Note: Existing community flows include the Casino, Tribal Office, clinic complex, and two homes currently connected to the community leachfield. The increase in reserve capacity is attributable to the master planned Casino

flows. No growth is assumed for the other community flows.

Figure 7.3 shows that both as reserve capacity is reduced and as the treatment plant are expanded, the available treatment capacity increases. The options for using the available treatment capacity include serving either the 20 existing homes not currently on the community leachfield or devoting capacity to new development for a hotel and gas station/mini-mart, or both. Table 7.1 presents the potential treatment options under four scenarios that are part of Figure 7.3. Two options are presented for the existing treatment plant at minimum reserve capacity and maximum reserve capacity. The same two options are presented for an expanded treatment plant.

Table 7.1: Potential Treatment	Options for Proposed and	I Existing Development
Trinidad Rancheria		

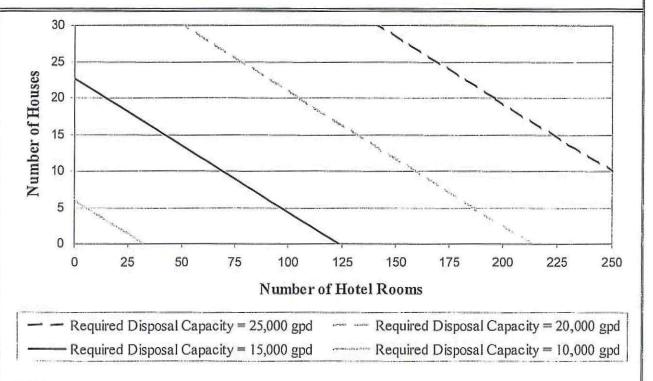
	Existing Treatment Plant Capacity (15,000 gpd)		Expanded Treatment Capacit (30,000 gpd)	
	Focus on Existing Homes Served	Focus on Development	Focus on Existing Homes Served	Focus on Development
Maximum Reserve Capacity (Casino at master planned flows)	Casino only, no other existing development	No new development	20 Homes and 68 Hotel Rooms plus a Gas Station/ Mini-mart	128 Hotel Rooms plus a Gas Station/ Mini-mart
Minimum Reserve Capacity (Reserve Capacity for Existing Community Flows only)	20 homes and no Hotel or Gas Station/ Mini-mart	56 Hotel Rooms plus Gas Station/ Mini-mart	20 Homes and 146 Hotel Rooms plus a Gas Station/ Mini-mart	200 Hotel Rooms plus a Gas Station/ Mini-mart and 2 Homes

Note: Existing community flows are assumed to be served in all scenarios and include the Casino, Tribal Office, clinic complex, and two homes currently connected to the community leachfield (8,400 gpd).

WASTEWATER DISPOSAL CAPACITY SUMMARY

The previous section addressed how required treatment capacity would be provided. This section addresses how disposal capacity is to be provided. The projected wastewater disposal flows were developed in Chapter 3 and a summary of the relationships is presented in Figure 7.4. Figure 7.4 is based on disposal of flows from the Casino at build out conditions plus the Tribal Office, clinic complex, two homes that are currently connected to the community leachfield, and gas station/mini-mart.

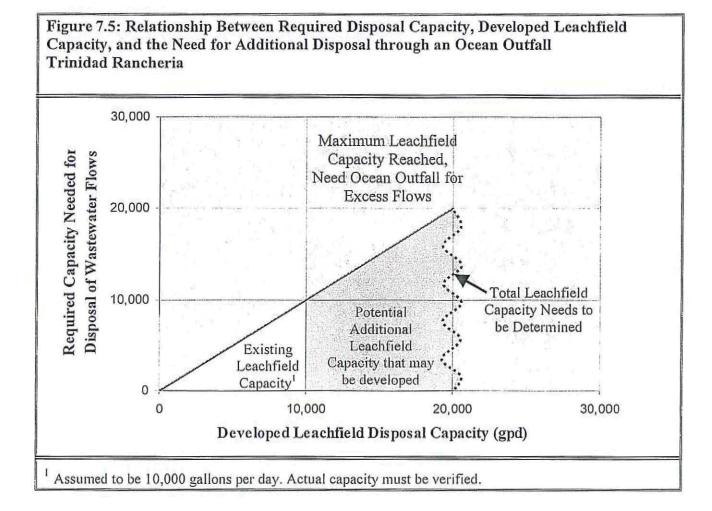
Figure 7.4: Disposal Capacity Relationship Between Number of Cher-Ae Heights Houses Served and Proposed New Hotel Rooms Trinidad Rancheria



Notes:

This graph assumes that 6,000 gpd of disposal capacity is reserved for the Casino at Master Plan build out flows (15,000 gpd with 60% of the water recycled). This graph also assumes that the Tribal Office, clinic complex, and two homes currently connected to the community leachfield, and the gas station/mini-mart are served with a combined disposal flow of 2,200 gpd (assumes no water recycling). This equates to a base disposal flow of 8,200 gpd. The remaining flow is distributed between homes served and hotel rooms developed. To serve the remaining 20 homes and a 200 room hotel, a disposal capacity of 25,200 gpd would be needed.

Use and expansion of the community leachfield system and ocean outfall disposal were the two viable options developed. As will be seen in the following chapter, development of leachfield capacity is less expensive than an ocean outfall. However, leachfield capacity can be a limiting factor in Rancheria development and ocean outfall capacity may be needed. Ocean outfall capacity is needed when leachfield capacity is exceeded and this relationship is shown in Figure 7.5



DEVELOPMENT WITHIN EXISTING AND POTENTIALLY EXPANDED LEACHFIELD DISPOSAL CAPACITY

The previous section looked at what combinations of new and existing development could be served within existing and expanded leachfield disposal capacities. The analysis assumed that capacity was always reserved for Casino at master plan build out flows. This section evaluates what types of new and existing development could be served with the existing leachfield with an assumed disposal capacity of 10,000 gpd and a potentially expanded leachfield system with an assumed capacity of 20,000 gpd without the assumption that capacity is reserved for the Casino master plan build out flows.

Figure 7.6 shows the available disposal capacity with increasing amounts of capacity reserved for existing community flows, which include the Casino, Tribal Office, clinic complex, and two homes currently connected to the community leachfield.

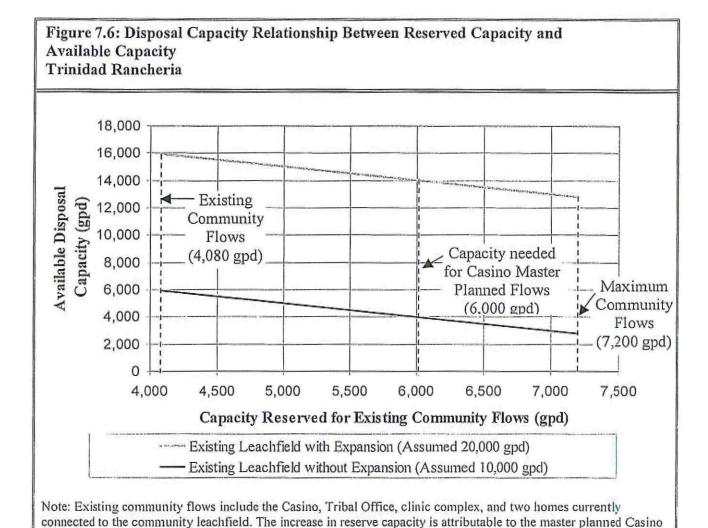


Figure 7.6 shows that both as reserve capacity is reduced and as the potential leachfield capacity is expanded the additional disposal capacity increases. The options for using the available disposal capacity include serving either the 20 existing homes not currently on the community leachfield or devoting capacity to new development for a hotel and gas station/mini-mart, or both. Table 7.2 presents the potential treatment options under four scenarios that are part of Figure 7.6. Two capacity options are presented for disposal, the existing capacity assumed to be 10,000 gpd and a potential assumed capacity of 20,000 gpd. The development potential for both these options for minimum and maximum Casino reserve disposal capacity is also included.

flows. At the maximum community flows, the Casino is assumed to be at its master planned design flow. No growth

is assumed for the other community flows.

Table 7.2: Potential Disposal Options for Proposed and Existing Development Trinidad Rancheria

	Assumed Existing Disposal Capacity (10,000 gpd)		Potential Assumed Disposal (20,000 gpd)	
	Focus on Existing Homes Served	Focus on Development	Focus on Existing Homes Served	Focus on Development
Maximum Reserve Capacity (Casino at master planned flows)	9 homes and no Hotel or Gas Station Mini-mart	33 Hotel Rooms plus a Gas Station/ Mini-mart	20 Homes and 105 Hotel Rooms plus a Gas Station/ Mini-mart	200 Hotel Rooms plus a Gas Station/ Mini-mart and 3 Homes
Minimum Reserve Capacity (Reserve Capacity for Existing Community Flows only)	20 homes and no Hotel or Gas Station/ Mini-mart	89 Hotel Rooms plus a Gas Station/ Mini-mart	20 Homes and 162 Hotel Rooms plus a Gas Station/ Mini-mart	200 Hotel Rooms plus a Gas Station/ Mini-mart and 13 Homes

Note: Existing community flows are assumed to be served in all scenarios and include the Casino, Tribal Office, clinic complex, and two homes currently connected to the community leachfield (4,080 gpd).

STAGED DEVELOPMENT WITHIN EXISTING TREATMENT PLANT AND LEACHFIELD CAPACITIES

The Trinidad Rancheria has several options for connecting new and existing development to their community treatment and disposal systems, depending on how much capacity is reserved for the Casino at master planned flows and which parts of their system are expanded. Figures 7.3 and 7.6 showed the variations in available treatment and disposal capacity depending on the amount of capacity that was reserved for the Casino. Tables 7.1 and 7.2 took that information and added figures on the types of existing and new development that could be served with the available capacities, with a focus on either connecting existing homes or developing a new hotel and gas station/mini-mart.

The information from the previous tables was combined in Table 7.3. Table 7.3 shows 3 different scenarios for the use of existing and expanded treatment and disposal facilities at the Casino. The first scenario assumes that the treatment plant and leachfield are not expanded. In this case the amount of new and existing development that can be served is limited by the treatment capacity. The second scenario assumes that the treatment plant is expanded, but the leachfield is not. In this case the amount of new and existing development that can be served is limited by the disposal capacity of the existing leachfield. In the final scenario, it is assumed that the treatment plant and leachfield are expanded. Assuming that leachfield disposal capacity could eventually be expanded to handle a total flow of 20,000 gpd, it is the expanded treatment plant of capacity of 30,000 gpd that limits the new and existing development served. For more specific information on the development options under these scenarios, see Table 7.3.

Table 7.3: Potential Treatment and Disposal Options for Proposed and Existing Development Trinidad Rancheria

	TREAT		100.000.000	HFIELD		IMENT
	PLANT L		27,110,000,000	TING		IMITING
	Existing T			anded		Treatment
	Plant (15		STREET HOLESTICATE	ent Plant		,000 gpd)
	Assumed		The state of the s	00 gpd)	The state of the s	d Disposal
	Disposal	the state of the s		Existing		(15,000 gpd
	(10,000	o gpa)		Capacity 0 gpd)	to 19,0	00 gpd)
	Focus on Existing Homes Served	Focus on Develop- ment	Focus on Existing Homes Served	Focus on Develop- ment	Focus on Existing Homes Served	Focus on Develop- ment
Maximum Reserve Capacity (Casino at master planned flows)	Casino only, no other existing develop- ment	No new develop ment	9 homes and no Hotel or Gas Station Mini- mart	33 Hotel Rooms plus a Gas Station/ Mini-mart	20 Homes and 68 Hotel Rooms plus a Gas Station/ Mini-mart	128 Hotel Rooms plus a Gas Station/ Mini-mart
Minimum Reserve Capacity (Reserve Capacity for Existing Community Flows only)	20 homes and no Hotel or Gas Station/ Mini-mart	56 Hotel Rooms plus Gas Station/ Mini- mart	20 homes and no Hotel or Gas Station Mini- mart	89 Hotel Rooms plus a Gas Station/ Mini-mart	20 Homes and 146 Hotel Rooms plus a Gas Station/ Mini-mart	200 Hotel Rooms plus a Gas Station/ Mini-mart and 2 Homes

Note: Existing community flows are assumed to be served in all scenarios and include the Casino, Tribal Office, clinic complex, and two homes currently connected to the community leachfield (4,080 gpd).

INTRODUCTION

Potential development conditions were summarized in the previous chapter. Costs for various levels of expansion are considered in this chapter and alternative scenarios are considered in the following chapter.

Probable costs for the following treatment and disposal options are develop in this chapter.

Treatment Options

- Utilize Existing Treatment Plant
- Expand Treatment Plant
- Construct a Parallel Treatment Train

Disposal Options

- Construction of a Community Leachfield
- Construction of an Ocean Outfall

In addition to treatment and disposal costs, an estimate of the collection system costs for conveying wastewater from a new hotel and gas station/mini-mart and from the Cher-Ae Heights homes is presented. In addition to collection system costs, there would be a cost associated with the installation of a dual plumbing system in the hotel to recycle wastewater flows, which should be considered when evaluating potential hotel costs. In addition, if the existing homes are not connected to a new treatment system, there would be costs associated with repair and replacement of the existing septic and leachfield systems over time as they fail.

Each of these major cost areas is considered in the following sections.

TREATMENT OPTIONS

The treatment options are relatively straightforward. The first is just to utilize the existing capacity at the Zenon treatment plant. The second would be to expand the plant to double its capacity using the built-infrastructure that was included in the original design.

Utilize Existing Treatment Plant

The existing treatment system should be able to accommodate 15,000 gpd for the proposed facilities without any additional costs. Thus, there are no additional capital costs for utilizing the full capacity of the existing treatment plant. There would be minor increases in operations and maintenance costs, which are not included here.

Expand Existing Treatment Plant

The expansion to a 30,000 gpd plant would require relatively minor capital costs when compared to the construction of a new plant. Our estimate of probable costs for expansion of the existing treatment plant is presented in Table 8.1. Additional operating costs would be associated with additional electrical consumption, sludge disposal, and carbon usage, however these costs would be incremental, and are not included here.

Description	Quantity	Unit	Unit Cost	Total Cost
ZeeWeed Cartridges	3	Each	\$10,000	\$30,000
Blower	1	Each	\$32,000	\$32,000
UV Pump Impeller Replace	1	Lump Sum	\$2,000	\$2,000
Recirculation Pump	1	Each	\$5,000	\$5,000
Carbon System	1	Lump Sum	\$5,000	\$5,000
			Subtotal	\$74,000
		15%	Contingency	\$11,100
		25%	Engineering	\$18,500
			TOTAL	\$103,600
			Rounded to	\$110,000

Construct a Parallel Treatment Train

If the Rancheria wanted to treat the wastewater from all 20 existing homes and from a 200 room hotel, they would need a treatment capacity of 42,600 gpd. This would, exceed the capacity of the existing treatment plant, even with the incremental expansion capabilities. A parallel treatment train would need to be constructed, which would require new tankage, pumps, treatment units, and support facilities. The cost of such an expansion would depend on how large the Rancheria would like to expand the plant. There would be some shared facilities with the existing plant so there would be some economies of scale relative to the cost for the existing plant. The potential need to expand the treatment plant and associated costs should be determined after the Rancheria has considered development scenarios further.

DISPOSAL COSTS

Two disposal methods were investigated in this assessment. The costs for construction of a community leachfield and the construction of an ocean outfall are presented in this section.

Costs for Construction of a Community Leachfield

The costs for developing a community leachfield were estimated based on doubling the existing capacity. As previously discussed, the amount of capacity that can be developed depends on the areas that are available for development and their characteristics. The areas available for development depend on land use decisions. For this cost analysis it is assumed that an additional 10,000 gallons per day of leachfield capacity is developed. Based on the design of the original community leachfield, it is assumed that a new leachfield can percolate approximately 5 gpd per linear foot. This means that 2,000 feet of leach trench will be required. It is estimated that this will require 25,000 square feet plus additional areas for setbacks or other site constraints. Our opinion of the probable capital costs for constructing expanded community leachfields and

piping to them is provided in Table 8.2. The actual cost of leachfield construction will depend on where the leachfields are located with respect to the new facilities, actual soil and groundwater conditions, and other site development issues.

The existing Casino leachfield has also experienced some performance problems from plugging, due to untreated effluent and grease that were discharged to the new leachfield for several months before the treatment plant was completed. The existing leachfield should be cleaned and then the capacity should be evaluated to determine the actual operational capacity. The costs for cleaning and evaluating the existing leachfield are not included in the cost estimate in Table 8.2.

Table 8.2: Estimated Capital Costs for the Construction of Community Leachfields
(Capable of Handling Flows from 200-room Hotel & Gas Station)
Trinidad Rancheria

Description	Quantity	Unit	Unit Cost	Total Cost
Force Mains	1,000	LF	\$40	\$40,000
Leachfield Lines	2,000	LF	\$20	\$40,000
Land Preparation and Cleanup	1	LS	\$25,000	\$25,000
			Subtotal	\$105,000
		1	5% Contingency	\$16,000
	25% Soil Science	es, Field Resea	arch, Engineering	\$26,000
			TOTAL	\$147,000
			Rounded to	\$150,000

Costs for Construction of an Ocean Outfall

Costs do not include demolition or relocation of existing improvements.

An ocean outfall disposal option is not constrained by capacity like the community leachfield system would be. The costs developed for an ocean outfall could handle flows from all existing and proposed development including all homes at Cher-Ae Heights and a 200 room hotel or potentially even more if the Rancheria wished. The major cost involved with the construction of an ocean outfall is the development of a pipeline from Cher-Ae Heights to the ocean discharge point and then a pump station.

The NCRWQCB often requires that outfalls be extended from the shore to a point where the ocean depth is 60 feet below mean sea level or more. Near Cher-Ae Heights the pipeline would have to be approximately 7,600 feet long to reach an ocean depth of 60 feet. It is possible that the Rancheria could reduce the cost of this option by obtaining approval to terminate the outfall at a shallower depth. This would require a study to demonstrate that the rate of mixing and dilution required by the NCRWQCB was met.

Our opinion of probable costs for an ocean outfall are presented in Tables 8.3 and 8.4. Table 8.3 assumes a discharge pipe 2,000 feet long could be permitted. Table 8.4 assumes that the discharge pipe would have to be 7,600 feet long. As can be seen from these two tables, the cost dramatically increases for the longer pipe length.

Table 8.3: Estimated Capital Costs for the Construction of Ocean Outfall with 2,000 Ft Discharge Pipe
Trinidad Rancheria

Description	Quantity	Unit	Unit Cost	Total Cost
Pump Stations	1	Each	\$150,000	\$150,000
Force Mains	1,000	LF	\$35	\$35,000
Outfall Piping	2,000	LF	\$40	\$80,000
Directional Drilling	2,000	LF	\$200	\$400,000
			Subtotal	\$665,000
			15% Contingency	\$100,000
			25% Engineering	\$165,000
			25% Permitting	\$165,000
	15%	Special Ocea	nographic Studies	\$100,000
			TOTAL	\$1,195,000
			Rounded to	\$1,200,000

Table 8.4: Estimated Capital Costs for the Construction of Ocean Outfall with 7,600 Ft Discharge Pipe
Trinidad Rancheria

Description	Quantity	Unit	Unit Cost	Total Cost
Pump Stations	1	Each	\$150,000	\$150,000
Force Mains	1,000	LF	\$35	\$35,000
Outfall Piping	7,600	LF	\$40	\$304,000
Directional Drilling	7,600	LF	\$200	\$1,520,000
			Subtotal	\$2,009,000
			15% Contingency	\$301,000
			15% Engineering	\$301,000
			10% Permitting	\$200,000
	5%	Special Ocea	nographic Studies	\$100,000
	3000	•	TOTAL	\$2,911,000
			Rounded to	\$3,000,000

The cost of an ocean outfall with a 2,000 ft pipe is considerably higher than the cost of a community leachfield. The gap between the leachfield cost and the outfall cost for a 7,600 ft pipe is even greater. Although an outfall could provide ample disposal capacity, it is potentially very costly, could be difficult to permit, and may generate public controversy and opposition.

COLLECTION SYSTEM COSTS

The cost for transporting the wastewater from the gas station and hotel or from Cher-Ae Heights residences to a central treatment system would depend on their location and whether the flow can be conveyed by gravity or whether it would have to be pumped. There are some low areas at the Rancheria and for the purposes of this conceptual analysis it is assumed that the two pump stations would be needed. Our opinion of the probable cost for collection and transport of wastewater from the hotel and gas station/mini-mart to the treatment plant are present in Table 8.5. These costs assume that the flows would have to be pumped to the treatment plant.

Description	Quantity	Unit	Unit Cost	Total Cost
Pump Station at Hotel & Gas Station	2	Each	\$75,000	\$150,000
Forcemain	2,000	LF	\$40	\$80,000
			Subtotal	\$230,000
		159	% Contingency	\$35,000
		15	% Engineering	\$35,000
The state of the s			TOTAL	\$300,000
			Rounded to	\$300,000

Our opinion of the probable cost for collection and transport of wastewater from the Cher-Ae Heights homes to the treatment plant are present in Table 8.6. These costs assume that the flows would have to be pumped to the treatment plant from two new pump stations.

Description	Quantity	Unit	Unit Cost	Total Cost
Pump Station	2	Each	\$75,000	\$150,000
Forcemains	1,000	LF	\$40	\$40,000
Gravity Mains	2,000	LF	\$50	\$100,000
			Subtotal	\$290,000
		159	% Contingency	\$43,500
		15	% Engineering	\$43,500
			TOTAL	\$377,000
			Rounded to	\$400,000

The following chapter provides a summary of alternatives and overall recommendations.

INTRODUCTION

This report is intended as a planning study to provide the Rancheria with information and planning tools to make informed decisions concerning wastewater treatment and disposal options for existing and potential future facilities. As a planning document, this work includes conceptual level analysis of the relationships that affect the decision making process. The Rancheria should utilize the findings of this report to focus their efforts on the preferred development strategy and the steps necessary to further the implementation process. Site and project specific configuration and cost information along with potential permitting requirements should be evaluated based on the Rancheria's specific development plan.

ALTERNATIVE SUMMARY AND RECOMMENDATIONS

The Trinidad Rancheria is considering the addition of a new hotel as well as a new gas station/min-mart. Existing homes on septic systems could also be served from an alternative system. The addition of these facilities requires that the Rancheria plan for the treatment and disposal of the wastewater generated at these facilities. The Rancheria has a number of options available to treat and dispose of their wastewater. For planning purposes, we have created a number of alternatives for comparison purposes that are summarized in Table 9.1.

IMPLEMENTATION STRATEGY

The construction of a hotel or other development, will require advanced planning to deal with the wastewater infrastructure requirements. To further the implementation process, we recommend the following steps in this order of priority:

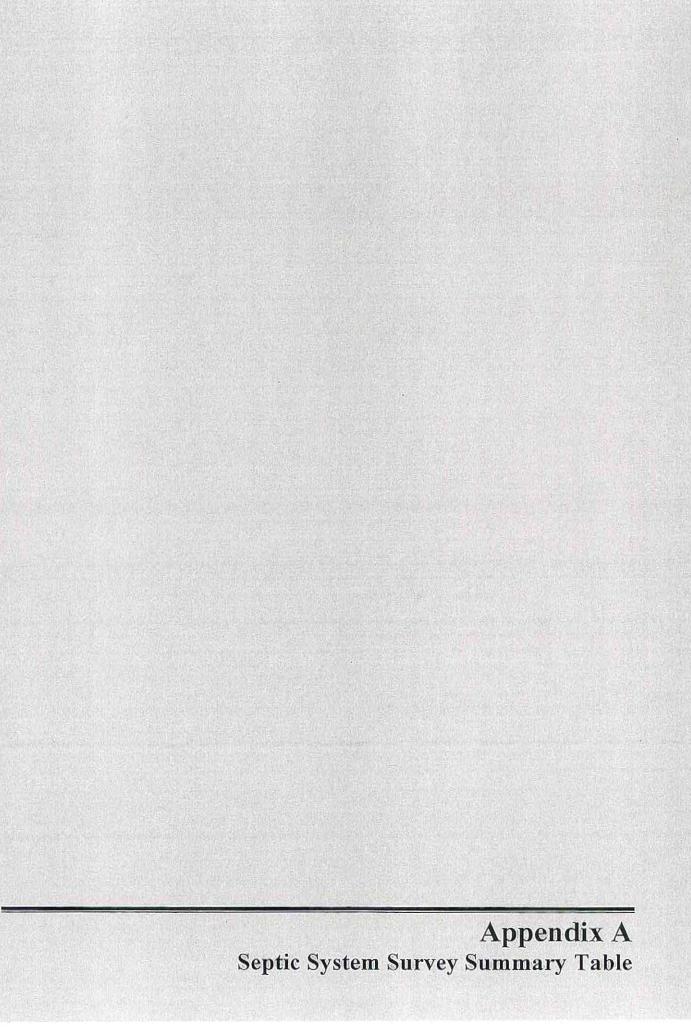
- Clean existing leach lines at the Casino leachfield
- Perform a study to evaluate the capacity of the existing Casino leachfield
- Evaluate all property at Cher-Ae Heights for leachfield potential
- Complete strategic development planning in part based on the findings of this study and the result of evaluation of leachfield potential
- Create Development strategy that may include phasing of connections to the wastewater system and expansion of treatment and disposal capacity
- Design, and permit as needed, infrastructure improvements
- Construct infrastructure improvements prior to completion of the new developments

Winzler & Kelly Consulting Engineers

Trinidad Rancheria
Phase 2 Community Wastewater Investigation
CHAPTER 9 – ALTERNATIVES AND RECOMMENDATIONS

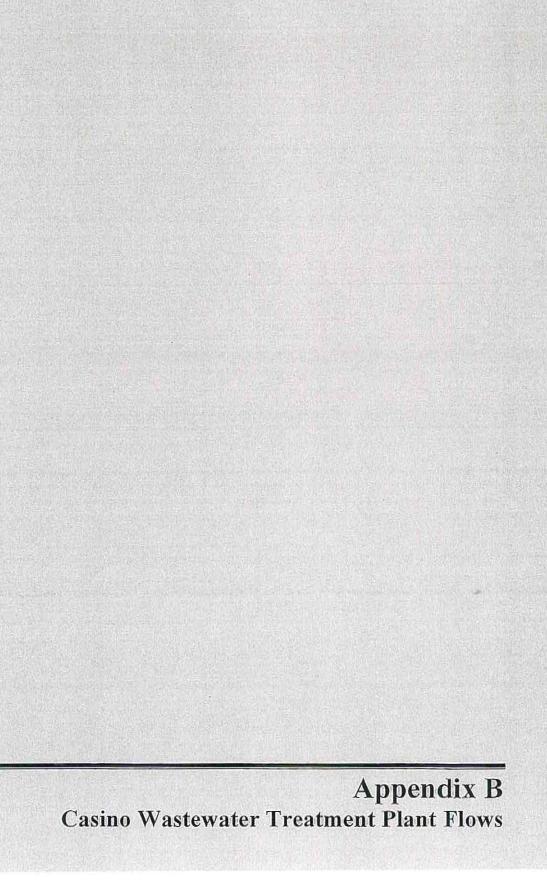
Trinid	Trinidad Rancheria					
Alt#	Development Served	Treatment Option	Disposal Option	Capital Cost for Treatment and Disposal	Degree of Permitting	Comments
Н	Casino, Tribal Office, clinic complex, two houses	Existing treatment Discharge to capacity at existing Ca 15,000 gpd Leachfield	Discharge to existing Casino Leachfield	0\$	None (no change)	The master planned future average flow for the Casino plus the other existing developments use existing capacity.
2	Casino, Tribal Office, clinic complex, two houses, plus gas station/m-m, and a 44 room hotel (or 8 Cher-Ae Heights homes)	Upgrade existing treatment capacity to 30,000 gpd	Discharge to existing Casino Leachfield	\$110,000	None (Assumes no Federal Oversight required)	For this alternative the number of hotel rooms or homes served is limited by the Casino leachfield disposal capacity.
m	Casino, Tribal Office, clinic complex, two houses, plus gas station/m-m, and a 134 room (or 74 room hotel and 20 Cher-Ae Heights homes)	Upgrade existing treatment capacity to 30,000 gpd	Increase Discharge Capacity by adding new leachfield for 5,000 gpd	\$460,000	None (Assumes no Federal Oversight required)	This alternative is limited by treatment capacity. In addition, it may be difficult to find sufficient leachfield area. If not enough area can be found, development needs to be reduced or an ocean outfall considered.
4	Casino, Tribal Office, clinic complex, two houses, plus gas station/m-m, and a 200 room and 5 Cher-Ae Heights homes (or 116 room hotel and 20 Cher-Ae Heights homes)	Upgrade existing treatment capacity to 30,000 gpd, and build a new treatment train	Increase Discharge Capacity by adding new leachfield for 10,000 gpd	\$460,000 + cost of additional treatment facilities	None (Assumes no Federal Oversight required)	It may be difficult to find sufficient leachfield area. If not enough area can be found, development needs to be reduced or an ocean outfall considered.
S	Casino, Tribal Office, clinic complex, two houses, plus gas station/m-m, and a 200 room and 20 Cher-Ae Heights homes	Upgrade existing treatment capacity to 30,000 gpd, and build a new treatment train	Ocean outfall Discharge	\$1,460,000 to \$3,460,000 + cost of additional treatment facilities	Difficult (Assumes state and local involvement)	This option has ample disposal capacity for currently proposed development. However, the cost is much higher than the other alternatives, and treatment plant expansion would be required to treat the higher flows.

03-1290-02001 March 2004



	7	-		SITE DESC	RMATION					
#	Address	Street	Area	of Assign d	Leach Field Map?	Slope of Leach Field (%)	Reserve Area Available?	Soil Class	Depth to Limiting Condition (feet)	Type of Limiting Condition
1	1901	Pishka Ct	A	David Wea	yes	3	yes	2	4	groundwate
2	1902	Pishka Ct	A		yes	3	yes	2	5	groundwate
3	1903	Pishka Ct	Α		yes	0-1	yes	2	4	groundwate
4	1904	Pishka Ct	Α	Dwayne Du	yes	1	yes	2	5	groundwate
5	1905	Pishka Ct	A	Andrew Lan	yes	8	yes	2	6	groundwate
7	1906	Pishka Ct Pishka Ct	. A	Deborah He	yes	0-1	yes	2	6	groundwate
8	THE RESIDENCE OF THE PERSON NAMED IN	Twe-Goh Ct	A	Vivian Lewi 0	yes	3	yes	2	6	groundwate
9	109	Twe-Goh Ct	A	David Silva	yes	2	yes	2	8.5	groundwate
10	115	Twe-Goh Ct	A		n/a	n/a	n/a	2	9	groundwate
11	116	Twe-Goh Ct	A	Michael Ber	yes	0-2	yes	2	8.5	groundwate
12	119	Twe-Goh Ct	A	Jessie Quin	yes	3	yes	2	>9	groundwate
13	122	Twe-Goh Ct	A	Costh Sund CO	yes	5	yes	2	8.5	groundwate
14	1			Deanna Chi	yes	#	#	2	#	
15		Cher-Ae Ln	R	Tribal Office	по	2-4	no			
16	15	Cher-Ae Ln	R	Cathy Silva	yes	5-10	по	2		
17	101	Cher-Ae Ln	R	Marian Seid	yes	3	no	2	1.5	groundwate
18	9 28	Ma-We-Mor-View Ln Ma-We-Mor-View Ln	R	UIHS	no	2-4	no			1
19	71	Ma-We-Mor-View Ln	R	David Letso	yes	2	no	2	5	groundwate
20	131	Ma-We-Mor-View Ln	R	Louis E. Dui	no	2-4	по			
21	131-C	Ma-We-Mor-View Ln	R	Louis G. Dul	no	n/a	yes	3	3	groundwate
22	25	Pa-Pah Ln	R	Nicole Van	no	n/a	yes	3	3	groundwate
23	29	Pa-Pah Ln	R	Juanita Sant	yes	6	no	2	4	bedroc
24	33	Pa-Pah Ln	R	Larry Letson	yes	4	no	3	2	groundwate
25	67	Pa-Pah Ln	R	Sonya Rhod	yes	5	no	2	2	groundwate
26	72	Pa-Pah Ln	R	Carol & Keit	yes	4	yes	2	9	bedroc
27	73	Pa-Pah Ln	R	Vera Weath	no	4	no	2 to 1	4	groundwate
28	78	Pa-Pah Ln	R	Kim Martine	no	3	no	2	2.5	groundwate
29	821	Scenic	R	Lisa Sundbe	yes	2	yes	2 to 1	4	groundwate
30	824	Scenic	R	Rose Joy Su	yes	8	yes	2	3	groundwate
31	888	Scenic	R	Mark Sundb	по	unk.	no	2	2	groundwate
32	930	Scenic	R	Joannie Ber	no		no	2	2.5	groundwate
33	950	Scenic	R	Lilian M. Qu	yes	n/a	по	n/a	n/a	n/
34		Ter-Ker-Coo Ln	R	Shirley Laos	yes	4	no	2	5.5	groundwate
35	85	Ter-Ker-Coo Ln	R	Ruby Rolling60	yes	4	yes -	3	2.5	groundwate
36	110	Wa-Ray Rd	R	Myra Lowe	* A TOTAL					
37	118	Wa-Ray Rd	R	Fred Lamber	yes	4	no	2	2	groundwate
38	120	Wa-Ray Rd	R	Wendy Lami-	yes	2	no	3	2	groundwate
39		Kay-Win Rd		Ken King Sr	по	8	no	3	2	groundwate
40	The second second	Kay-Win Rd	W	Gary Quinn	100250	me.	0.030.61	2	>12	groundwate
41		Kay-Win Rd	W	William C. C	yes	5%	yes		-	
42		N. Westhaven		Louise Dung-						
43		Teh-Pah Ln		Sandra Dunc-	yes	3%	yes	2	2	groundwate
44		Teh-Pah Ln	_	Glenn Quinn						
45		Teh-Pah Ln		Frad Lambai	view.					
46		Teh-Pah Ln	The second secon	Virginia McK	yes	0-3	yes			
47		Teh-Pah Ln	-	John E. Wall		1				

# County Setbacks Met? 1		
2 yes 3 yes 4 yes 5 yes 6 yes 7 yes 8 yes 9 n/a 10 yes 11 yes 12 no - break in slope 13 # 14 no - break in slope 15 no - break in slope 16 yes 17 no - break in slope 18 no - break in slope 19 no - break in slope 20 no - break in slope 21 no - break in slope 22 no - ephemeral stream 23 no - ephemeral stream 24 yes 25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 no-unstable & slope break 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40	Ponding . on eachfield ?	Recommendations
3	no	ediate action
4 yes 5 yes 6 yes 7 yes 8 yes 9 n/a 10 yes 11 yes 11 yes 12 no - break in slope 13 # 14 no - break in slope 15 no - break in slope 16 yes 17 no - break in slope 18 no - break in slope 19 no - break in slope 20 no - break in slope 21 no - break in slope 22 no - ephemeral stream 23 no - ephemeral stream 24 yes 25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 no-unstable & slope break 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40	no	ediate action
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7	no	Hediate action
8	no	Rence of smell problem
9	по	rediate action
10	no	h Basin Plan
11	n/a	th Basin Plan
12	no I	th Basin Plan
13 # 14 no - break in slope 15 no - break in slope 16 yes 17 no - break in slope 18 no - break in slope 19 20 no - break in slope 21 no - break in slope 22 no - ephemeral stream 23 no - ephemeral stream 24 yes 25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 no-break in slope 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41	no I	th Basin Plan
14 no - break in slope 15 no - break in slope 16 yes 17 no - break in slope 18 no - break in slope 19 20 no - break in slope 21 no - break in slope 22 no - ephemeral stream 23 no - ephemeral stream 24 yes 25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes	no	erliate action
15 no - break in slope 16 yes 17 no - break in slope 18 no - break in slope 19 20 no - break in slope 21 no - break in slope 22 no - ephemeral stream 23 no - ephemeral stream 24 yes 25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 no-break in slope 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40	22	ediate action
16 yes 17 no - break in slope 18 no - break in slope 19 20 no - break in slope 21 no - break in slope 22 no - ephemeral stream 23 no - ephemeral stream 24 yes 25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 no-break in slope 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40	1100	; being reviewed by Winzler & Kelly
17 no - break in slope 18 no - break in slope 19 20 no - break in slope 21 no - break in slope 22 no - ephemeral stream 23 no - ephemeral stream 24 yes 25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41		ediate action
18 no - break in slope 19 20 no - break in slope 21 no - break in slope 22 no - ephemeral stream 23 no - ephemeral stream 24 yes 25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 no - break in slope 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40		hk, take no other immediate action.
19 20 no - break in slope 21 no - break in slope 22 no - ephemeral stream 23 no - ephemeral stream 24 yes 25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 no-break in slope 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40		
20 no - break in slope 21 no - break in slope 22 no - ephemeral stream 23 no - ephemeral stream 24 yes 25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 no-break in slope 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40		helng reviewed by Winzler & Kelly
no - break in slope no - ephemeral stream no - ephemeral stream no - ephemeral stream yes yes yes yes yes yes yes yes no-unstable & slope break no-unstable & slope break slope break slope break no-unstable & slope break yes no-break in slope no - break in slope no - break in slope yes yes		h Basin Plan
22 no - ephemeral stream 23 no - ephemeral stream 24 yes 25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 no - break in slope 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40	00	h Basin Plan
23 no - ephemeral stream 24 yes 25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 no - break in slope 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41	no	ail new leach field
24 yes 25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40	no	ail new leach field ediate action
25 yes 26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41	yes	
26 yes 27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41	no	eriiate action
27 yes 28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41		alion is necessary h Basin Plan
28 yes 29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41	no I	all new leach field
29 no-unstable & slope break 30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41	DO I	ediate action
30 no - break in slope 31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41	Mee	ediate action
31 no-unstable & slope break 32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41	no	ediate action
.32 no-unstable & slope break 33 no-unstable & slope break 34 yes 35 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41	no	ediate action
33 no-unstable & slope break 34 yes 35 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41	VAS	alion is necessary
34 yes 35 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41		sibly relocate septic tank, analyze wetland system
35 36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41	no	ediate action
36 no - break in slope 37 no - break in slope 38 no - break in slope 39 yes 40 41	no	s, switch fields regularly
37 no - break in slope 38 no - break in slope 39 yes 40		s, switch helds regularly smell problem
38 no - break in slope 39 yes 40	no	ediate action
39 yes 40 41		all new leach field
40 41		ediate action
41		h Basin Plan
40	100	h Basin Plan
42 yes	no I	h Basin Plan
43		adiate action
44	100	h Basin Plan
45		h Basin Plan
46		h Basin Plan
47		1 Basin Plan 1 Basin Plan



TRINIDAD RANCHERIA WASTE WATER TREATMENT PLANT DAILY TOTALS - June 2002

	PREVIOUS DAYE DATE	TOTAL	MAX	THIN.
WATER TO 81A GAI		7		
WATER TANKS 81A TOTAL	7930 79 9900 18 9900 18 11700 2 11910 2 11910 1 11910 1 11910 1 11910 1 11910 1 11910 1 11910 1 1	212	7	
818	22 8870 28 8870 28 8870 28 8870 28 8870 28 8870 28 870 870 870 870 870 870 870 870 870 87	21680	7930	2
TOTAL	22120 221 22120 221 31670 47 31670 48 32670 8 32700 44 40810 22 45000 22 55500 25	3	22	
	22120 4740 4740 120 120 120 1400 1400 1400 1400 1400	54350	22120	-
PROCESS PUMPS P354 TOTAL	1070 1070 1070 1070 1070 1070 1070 1070	Ŧ	-	
P35B	1000 1723 173 173 173 173 173 173 173 173 173 17	1070	1070	2
TOTAL	129750 1297 142000 122 165420 8 127 173300 177 180300 173300 114 191700 114 19170 10 22430 10	245	129	-
Total	129750 130 12250 12 14650 14 6580 8 6580 8 1350 14 1150 11 11420 10	2	129750 14	
	130820 144 12250 157 14850 177 14850 177 14850 1820 19 1450 123 1450 214 10500 24 10500 277	246190	14850	1000
MEMBRANE BANK D TRANSFER PUMP TOTAL	1400.2 1400.2 1400.2 1400.2 1400.2 1400.2 1400.8 11707.8 11707.8 11707.8 11707.8 11801.2 11801	27	4	
-	1400.2 171.4 171.4 1103.4 1103.4 1103.4 111.5 131.8 131.8 131.8	2789.2	1400.2	13.0
PROCESS PUMP	6.6 6.7 72.7.2.2 78.1.1 79.2.3 79.2.3 73.5.9 33.5.9	**		
MEMBE	6.6 1904.2 0.1 2040.4 5.5 2159.3 5.5 227.4 5.5 2327.4 5.6 2352.7 0.6 2244.5 0.6 226.7 1.1 2587.7 0.1 2887.7 0.1 2887.7	34.6	9.1	,
MEMBRANE BANK #: TRANSFER PUMP TOTAL	2	3066.3	1904.2	
PROCESS PUMP	904.2 49.8 136.2 49.9 118.9 50.6 16.1 50.6 16.1 50.6 11.2 76.5 17.5 86.4 17.5 86.4 17.5 105.6 17.5 105.6 17.5 105.6 17.5 105.6 17.5 105.6 17.5 105.6	6.3	7.2	2.5
SS PUMP	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	124.9	49.8	
PUMP #1 HOURS TOT	153.5 1 156.6 1 157.9 1 158.2 1 158.2 1 158.2 1 164.3 1 161.2 1 168.4 1 170.9	ch:	9 +	
-	8.2.5 8.2.5	170.9	153.5	9
PUMP #2	4499.4 4500.9 4501.7 4501.2 4519.2 4519.2 4519.2 4519.2 4519.2 4519.2 4519.2			
TOTAL	44994 1.5 1.5 2.0 12.7 12.7 0 0 0 0	4519.2	4459.4	
U.V.	158.19 180.94 2206.72 229.58 253.68 253.87 301.79 302.50 306.50 416.62 416.62			
TOTAL	158.19 22.75 25.78 22.88 23.88 24.92 24.92 24.41 24.41 24.41 24.41 24.41 24.41 24.41 24.41 26.12 26.12	465,54	158.19	20.00

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TRINIDAD RANCHERIA WASTE WATER TREATMENT PLANT DAILY TOTALS - JULY 2002 WATER METERS WATER TANKS

WATE	WALER MEIERS	-		The second secon	The second name of the last of																
	WATER TANKS	(S		PROC	PROCESS PUMPS			Total	MEMI	MEMBRANE BANK#		_	MEMBRANE BANK #2	BANK #2			FLYGT PUMPS			U.V.	
	81A GAI	_	818 GAI TOTAL	PUSA	TOTAL	P358	TOTAL	Flows	TRAN	TRANSFER PUMP	PROCESS PUMP HOURS TOTAL		TRANSFER PUMP		PROCESS PUMP HOURS TOTAL	07 - 18	PUMP #1	PUMP#2	TOTAL	NG SCH	TOTAL
PREVIOUS DAY	21680		54350		1170	245120			27	2759.2	34,6		066,3		ll CO		9	4519.2	11	465,54	
	1 28910	7230	_		1170	0 271990	100		100	2834.5 35.3		0	3456.2	389.9		24.8			2	492.12	26.
	2 29950	1040	_	2930	1170	0 278870					35.1	0.5	3535.8	79.6	156.1	6.4	172.5 12	4519.2	2	515,95	23
	3 29950	0			1170	0 282720	20 3850		3850 33	1303.2 170.1		7	3570.4	34.6		3.3	172.5 0		2	540.04	24.09
	4 30210	280	74290 23		1170	0 289440						0.1	3636.7	66.3		6.2		•	N	561.58	21.
_	5 35760	5650			1170	0 312490						0.1	3936.4	299.7	185.5	20.9		9 4519.2	2	584	22
	6 35760	0	84120		1170	0 323630				100		0.4	4075.1	138.7		10		*	N	611.8	23
	7 36900	1170		2710	1170	0 324750				3839.4 31.8	37.9	7	4106.7	31.6		-	175.8 0.2	4	2	635.90	24.
	8 40870	3940	_		1170	0 341480						02	4388,3	281.6		15.4		2 4519.2	N	1 660.11	24.
	9 40670	0	_	3	1170	0 346590					202	179.5	4385.1	-3.2		4.6		4	2	1 683.74	
	10 41420	250		1660	1170	0 351170						2	4401.9	16.8	221.7	+		-4	2	606.83	
	11 41980	260		100	1170	0 361100				211	-	92	4540.1	138.2	230.9	92			.3	727.06	
	12 41980	0		No.	1170	0 367310					e.a.	26	4589.9	49.8	236.5	5.6			6.	746.43	
	13 42440	460	100270 19	Ā	1170	0 378580					1715	13.3	4726.8	136.9	246.8	10,3	181.4 0.6	-	E.	773.2	
eni	14 46610	4170	-		1170	0 404750		14			Trans.	21	5114.3	387.5	270.8	ž	181.4		6	799.85	
	15 47690	1080	_		1170	0 414020			_		949	8.6	5211.6	87.3	279.4	8.6	183.2 1.8	•	65	822.3	
	16 47710	20	_		1170	0 418950					17000	4.4	5269,4	57.8	283.8	4.4		•	es.	945.2	
	17 47970	260			1170		90 1630		1630 50	5021.4 22.5	VIII.	1.7	5292.2	22.8	285,5	1.7		-	e	969.5	
	18 49290	1320			1170	27						11.8	5405.9	137	297.3	11.8		•	es.	893,4	
	19 50100	810	_		1170							6.2	5478.8	72.9	305.5	8.2	23	3 4519,3	ď	916.	
- or fill	233	8			1170	0 447890					C.L.	מא	5673.9	195.1	310,5	w			୯	941.	
and i	22	930			1170	1					700	11.1	6091.4	417.5	321.6	10 mm	187.5 1.2	•	e3	957.2	
- erfel		390				101			_		100	4.4	6254.6	163.2	326,3	4.7			e	2903	
.cosini)	23 52040	290	_									5.6	6434.3	179.7	331.9	5,6		4519.3	e	1015.04	
		310										5.7	6634.1	199.8	337.6	5.7	169.4 0.7		e	1038.3	
		240			0000	3			7270 53	5310,3 12	341.6	4	6854.7	220.6	341.6	ष	189.8 0.4	_	e,	1060.91	22.53
		450	_		25:0							3.6	7048.1	193.4	3452	3.6		-	t.	1080.19	
		9	.96								500	3.9	7272,5	224.4	349.1	3.9		_	e.	1069.10	
		8						c	-	5343.9 12.5	1676	2	7666	393.5	353.4	4,3	_		9	1131.5	
		8			220						N168	e.	7.891.7	225.7	355.3	1,9	192.9 0.	0.7 4519	6	1157.0	25.5
	30 55540	310		1030			80 2510		4580 53		49/30	23	8063.8	172.1	357.6	2,3	193.2 0.	3 4519.3		1186.3	
	31 56200	8	141190 17		25920 2020	502820				5360.3 5.5		4	8274.3	210.5	361.6	4	194 0.	8 4519	63	1206.7	19.43
TOTAL		34520	998	95840	24750	0.	257730		282480	2561.1		327		5208	2	236.7	23.1	-	0.1		740.19
MAX		7230	145	14570	7120	0.	26870		26870	387.4	1	179.5		417.5		24.8	23	3	0.3	-	120.26
MIN.		ō		0		0	1120		1120	4.2		-		00		++		0			30.05
										-		•		2.5.		-		5		5	2

TOTAL GAL. ITOTAL GAL.	TOTAL	P35A P35B P35B TOTAL GAL. ITOTAL	GAL. TOTAL
502850	502850	502850	502850
5580	31500 5580 506560	31500 5580 506560	1830 31500 5580 506560
2880 509480	34380 2880 509480	2880 509480	1050 34390 2880 509480
3720 511950	38100 3720 511950	38100 3720 511950	340 38100 3720 511950
5540 518590	43740 5640 518580	43740 5640 518580	1830 43740 5540 518580
3180 524660	50100 3180 524560	3180 524660	1520 50100 3180 524560
5151 526430	55251 5151 526430	55251 5151 526430	1600 55251 5151 526430
3289 530010	58540 3289 530010	58540 3289 530010	1590 58540 3289 530010
3890 533570	62430 3890 533570	62430 3890 533570	1430 62430 3890 533570
5290 535570	67720 5290 535570	67720 5290 535570	67720 5290 535570
11190 549600	78910 11190 548600	78910 11190 548600	8300 78910 11190 549500
3190 553360	82100 3190 553360	82100 3190 553360	2280 82100 3190 553360
OSCIOCA OSCIOCA	000000 00000 00000	000000 00000 00000	000000 00000 00000
4000 5608201	93320 4000 5608201	4000 5608201	20 93320 4000 560820
2030 563840	95350 2030 563840	95350 2030 563840	980 95350 2030 563840
11060 573420	106410 11060 573420	106410 11060 573420	106410 11060 573420
13360 588210	119770 13360 5882101	119770 13360 5882101	11780 119770 13360 5882101
2820 591530	122590 2820 591530	122590 2820 591530	2430 122590 2820 591530
2960 594120	125550 2960 594120	125550 2960 594120	125550 2960 594120
326 597280	125876 326 32607	326 597280	1250 125876 326 326 001
5190	141760 5190 602700	141760 5190 602700	141760 5190 602700
5270 605750	147030 5270 605750	147030 5270 605750	147030 5270 605750
6510 611260	153540 6510 611260	2130 153540 6510 611260	2130 153540 6510 611260
2950 615390	155490 2950 615390	1800 156490 2950 615390	1800 156490 2950 615390
2330 618930	158820 2330 618930	1740 158820 2330 618930	1740 158820 2330 618930
2230 621250	161050 2230 621250	1110 161050 2230 621250	1110 161050 2230 621250
4290 625060	165340 4290 625060	4290 625060	1410 165340 4280 625060
2660 627940	169000 2660 627940	169000 2660 627940	169000 2660 627940
4890 631650	172890 4890 631650	4890 631650	790 172890 4890 631650
146970 128800	146970		146970
	13360		13360
326 300	326	326	326
4741.0 4741.0	4741.0		4741.0

31.5 14.97 24.0 720.28 TOTAL HOURS 1946.33 9.6 96.8 TOTAL 2.1 4521.7 2.1 4521.7 2.1 4521.3 1.4 4523.8 1.4 4523.8 1.4 4537.9 2.1 4543.7 1.1 4543.7 1.1 4543.7 1.1 4543.7 1.1 4543.7 1.1 4543.8 0.6 4550.8 0.6 4550.8 0.6 4550.8 0.6 4550.8 0.6 4550.8 0.6 4550.8 0.6 4550.8 0.6 4550.8 0.6 4550.8 0.6 4550.8 0.6 4550.8 0.7 4565.8 0.8 4560.8 0.8 4560.8 0.9 4660.8 0.9 4660.8 PUMP fi2 HOURS 4521.7 0.00 0. 3.7 26.8 FLYGT PUMPS PUMP #1 HOURS TOTA 227.5 231.2 225.3 235.6 237.4 236.8 241.9 244.4 245.4 245.4 247.4 247.4 247.4 247.4 247.4 247.4 247.4 247.4 247.4 247.4 247.6 7.3 105.6 PROCESS PUMP HOURS TOTAL 481.9 489.2 494.3 497.3 497.3 497.3 497.3 500.1 512.6 512.6 512.6 520.8 530.4 530.4 530.4 530.4 530.6 500.6 500.6 500.6 500.6 500.6 500.6 500.6 500.6 500.6 500.6 500.6 MEMBRANE BANK #2 TRANSFER PUMP P MIN. TOTAL H 16975.6 196.3 121 121 226.3 6787.9 17387.8 17576.1 17576.1 17576.1 17576.1 18143.3 18143.3 18143.3 18143.3 1816.9 19267.6 20125.3 20429.1 20429.1 20667.4 92.3 3.1 PROCESS PUMP HOURS TOTAL 242.5 2250.1 2250.1 2250.1 2250.1 2250.2 2250.5 2250.5 2250.3 22 E.T. METERS
MEMBRANE BANK #1
TRANSFER PUMP | P
MIN. TOTAL | H
5667.3 3.9 13480 6500 3900 211410 Total Flows GAL. 7830 1180 3764.7 TOTAL 639480 642470 642510 642510 65210 65210 66510 66510 66510 66510 67100 67100 67100 67100 67100 67100 67100 67100 67100 67100 67100 67100 67100 67100 771010 771010 771010 772320 7 P358 GAL. 5660 1170 3282.3 98470 PROCESS PUMPS P35A GAL TOTAL 2580 820 1529.7 TOTAL 234630 238730 240720 241710 TRINIDAD RANCHERIA
WASTE WATER TREATMENT PLANT
DAILY TOTALS - SEPTEMBER 2002 210 220 5210 TOTAL WATER TANKS
81A TOTAL 82810 85310 85370 85370 85370 87450 87450 87450 87450 87450 87550 87550 87550 87550 87550 87550 8 2 1 2 2 1 2 8 WATER PREVIOUS DAY TIME: DATE TOTAL AWE AVE

TRINID,	TRINIDAD RANCHERIA	ERIA					The state of the s		CANADA SANCES		1									The second second	-	
WASTE	WATER T	WASTE WATER TREATMENT PLANT	ANT									_										
DAILY	TOTALS - C	DAILY TOTALS - OCTOBER 2002	2														-					
	WATER METERS	METERS					_			E.T. METERS	ERS	_				1000						
		WATER TANKS			PROCESS PUMPS			_	otal	MEMBRANE BANK #1				MEMBRANE BANK #2	BANK #2			FLYGT PUMPS			U.V.	
		BIA	818	TOTAL	P35A	TOTOT	P358	FOTAL	Flows	TRANSFER PUMP	-1	PROCESS PUMP	T	TRANSFER PUMP		PROCESS PUMP		PUMP#1	PUMP#2	TOTAL	HOLIDE	TOTAL
91300	VAC OLUMBOR	003	7	200	500	2	002		-	F 030	1	in sec	T	2020	T	114	T	P	2010		11+	4
TIME	DATE	91360	70101		211300		020447		-	2000.4	Ī	0.500	1	50/00.0	T	200.		2.4.2	4010.0		100000	
	1				273780	2420	746990	2400	4820	5964	4.6	337.1	2.3	23929.6	166.1	589.7	2.2			3.7	2690.1	23.49
	2	98330		1320			748550	1560	5140	40	5.2	340.5	3.4	24090	160.4	591.2	1,5	255.2	0.4 4622.8		2714.82	24.72
	e	98770					752180	3630	6540		10.6	343.2	2.7	24298	208	594.5	3.3			Ī	2737.85	23.03
	4		590 257730				755180	3000	7660		8.1	347.5	4.3	24543.4	245.4	597.4	2.9		0.5 4639.6		2762.78	24.93
	5		560 259540				760580	2400	9020		7.3	351	.)	24840.5	297.1	602.5	5.1				2789.03	26.25
	9			1235	290935	2385	765100	4520	6905		6.5	353.3	2.3	25067	226.5	606.7	4.2	256.4	0.4 4644.4	1.2	2811.8	22.77
	7						769620	4520	6905		6.5	355.5		25293.5	226.5	611	4.3				2834,8	23
	8							1990	4290		15.5	357.7	2.2	25414.2	120.7	612.9	6	256.7			2858.19	23.39
	6	101160			299090		773830	2220	5690		3.7	359.6	CD.	25556.4	142.2	614.9	2		0.1 4646.3		2881.11	22.92
	10	101740	580 265270					3370	6840		20	364.2	4.6	25818.7	262.3	618.2	3.3	257 (2906.62	25,51
	111	101960			83	4420		3310	7730		14	368.4	4.2	26039.7	221	621.3	3.1				2930.44	23.82
	12	102630			34			4190	9420	ω		373.3	4.9	28340.9	301.2	625.3	4				2956.91	26.47
	Ç	103010					789370	4670	726(9.1	375.7	2.4	26579.7	238.8	629.6	4.3	257.3	4	0.3	2978.42	21.51
	14	103380						450	4220		6.7	379.4	3.7	26718.6	138.9	630.1	0.5				3000.62	22.2
	15	103840				1530		4030	5560	٥	17.9	383.3	3.9	26853	134.4	635.4	53				3025.68	25.06
	16	104170						3570	4900		3.4	384.6	1.3	26996.4	143.4	638.9	3.5				3049.57	23.89
	171	104520	350 273540			3550	800600	3180	6730		10.4	388.9	4.3	27238.9	242.5	641.8	2.9		0.1 4649.7	0.2	3074.8	25.23
	181	104910		1290	329280			1830	613	9	9.3	393	4.1	27431.3	192.4	643.7	1.9				3098.97	24.17
	19	105290	380 275850					3260	6770			395.3	3.3	27642.3	211	646.8	3.1		1.1 4650.2		3121.48	22.51
	20	105670						3360	717			399.9	3.6	27865.1	222.8	649.9	3.1				3145.92	24.44
	21	106050		1100				3360	717			403.5	3.6	28087.9	222.8	653.1	3.2				3170.37	24.45
	22	106340					!	2920	458			405.1	1.6	28230.1	142.2	6229	2.8				3193.5	23.13
	23	107040	700 280710					5580	11200		22.4	410.2	5.1	28580.6	350,5	661.2	5.3	259	0.3 4651.4		3219.11	25.61
	24	107340					823760	2850	4730			412.3	2.1	28720.6	140	663.9	2.7			0.4	3240.45	21.34
	25	107760		9				2860	7140			416.3	4	28935.9	215.3	666.7	2.8				3265.84	25.39
	28	108340	580 284630	1860			830190	3570	1068	6282.6	18.8	423.1	6.8	29260.3	324.4	670	3.3	259.5	0.3 4652.6		3294.73	28.89
	27	108586						2540	545			425.7	2.6	29439.4	179.1	672.6	2.6				3319.24	24.51
	28	108790	224 286070		366800		835280	2550	5500			428.7		29619.1	179.7	674.8	2.2		0.1 4653.2	0.4	3338.21	18.97
	29	109290	500 287530			5480	835850	580	909	6313.6		434	5.3	29799.5	180.4	677.6	2.8		0.2 4653.5		3362.08	23.85
	30	109630		0 1740			840410	4550	825			437.4		30041.5	242	681.8	4.2				3392.27	30.21
	31	109950	120 289590		377560	1580	841100	089	227	6337	12.8	438	1.6	30101.5	09	682.5	0.7	260	0 4654.2	0	3408.25	15.98
	TOTAL	15	12430	37620		106200	T	08510	017505	-	377.6	1	104.0		8238		95		5.7	35.7		741 64
						-			2000					-			3					
	MAX.		700	1910		7110		5580	11200	0	28.9		6.8		350.5	-	5.3		0.5	11.1		30.21
	MIN.		120	320	-	1330		450	2270	0	3.4		1.3		9	-	0.5		0	0		15.98
	AVE	4	10.1	1213.5	15	3425.8		3113.2	6539	0	12.2	_	3.4	-	204.5		3.1		0.2	1.2		23.9

IRINIDA	TRINIDAD RANCHERIA	EKIA			-	1									1		1	1			-			
WASTE	WATER T	WASTE WATER TREATMENT PLANT	T PLAN	_									-		-						1			
DAILYT	OTALS - I	DAILY TOTALS - NOVEMBER 2002	R 2002										_				-					_		
	WATER METERS	METERS			-						E.T. METERS	RS		-	_	-	_		-		_	-	_	
9		WATER TAI			PF	OCESS P		-	F		MEMBRANE	BANK#1		100	MEMBRANE BANK #2	BANK #2			YGT PUMP			U.V.		
		B1A		818	ш	P35A	-	P35B		Flows	TRANSFER PUMP P	PUMP	ROCESS		PANSFER P	UMP PF			PUMP#1		al			
	- 11	GAL.			TOTAL GA	AL.			TOTAL G		MIN.	TOTAL	OURS	M	MIN. ITC	TOTAL H	HOURS TO	TOTAL H	NRS TO	L HC	HOURS TOTAL	Ĭ	HOURS TOTAL	AL
PREVIC	PREVIOUS DAY	109950		289590		377560		841100			6337		439		30101.5		682.5		260	2	4654.2	6,5	3408.25	The second
TIME	DATE							-																
	-	110000	20	289770	180	379410	1850	841350	250	2100		16	440.7	1.7	30155.7	54.2	682.7	0.2	260.2	0.2	4654.2	0 3	3431.05	22.8
	2	110000	0	289770	0	383600	4190	845010	3660	7850		12.5	444.7	**	30436.2	280.5	686.2	3.5	260.2	0	4654.2		3459.32	28.27
	9	110000	0	289770		387870	4270	848770	3760	8030	9	7.7	448.8	4.1	30703.5	267.3	689.8	3.6	260.2	0	4654.4	0.2	3484,15	24.83
	7		100	290120	350	390360	2490	852000	3230	5720		4.8	451.2	2.4	30889.3	195.8	692.9	3.1	260.3		4654.4		3507.16	23.01
	5		260	290970		391920	1560	854710	2710	4270		4.1	452.6	1.4	31052.3	153	695.4	2.5	260.5	0.2	4654.7		531.45	24.29
	9	110620	260	291910		393980	2060	857000;	2290	4350	6385.8	3.7	454.6		31201.4	149.1	697.6	2.2	260.5		4655		3554.98	23,53
	7	111020	400	293160		397460	3480	860450	3450	0069	6409.1	23.3	457.9	3.3	31402.5	201.1	701	3.4	260.7	0.2	4655.3	L	3579.76	24.78
	60	111430	410	294470		400430	2970	863850	3400	6370	6416.1	7	460.8	2.9	31628.1	223.6	704.2	3.2	260.7		4656.1		3602,79	23.03
	G	111630	200	295200		404000	3570	867190	3340	0169	6422.8	6.7	484.2	3.4	31892.1	266	707.4	3.2	260.8	0.1	4656.2		3625.81	23.02
	101	112510	880	297670		411000	7000	874090	0069	13900	6437.7	14.9	470.9		32367.4	475.3	7141	9.9	261.2	0.4	4856.7		3655.2	29,39
	11		320	298660		413400	2400	876540	2450	7587	6441.2	3.5	473.2		32520.9	153.5	716.3	2.3	261.2		4657.5		574.97	19.77
	12	113230	400	300430		416130	2730	878910	2370	5100	6449.4	8.2	475.9		32704.3	183.4	719	2.7	261.5	0.3	4657.8		700.29	25.32
	13		350	301420	086	418980	2850	890510	1600	4450		14	478.6	2.7	32845.6	141.3	720.6	1.6	261.5		4658.1		3722,89	22.6
	14	113920	340	302530		420460	1480	885030	4520	9000	6469.5	6.1	480	1.4	33061.8	216.2	724.9	4.3	261.7		4658.4		3745,33	22.44
	15		270	303460	13	422390	1930	888130	3100	5030	6480.9	11.4	481.9		33248.8	187	728.4	3.0	261.8		4658.7		3769.82	24.49
	16	114650	460	304800		425620	3230	893300	5170	8400	6495	14.1	485		33527.9	279.1	732.8	4.4	262		4659.1		794.77	24,95
	17		630	306670		429790	4170	900270	6970	11140	6508.4	13.4	488.9	3.9	33915	387.1	739.5	6.7	262.3		4659.5	70	3823.54	28.77
	18		1340	307630	960	432740	2950	901540	1270	4220	6512.9	4.5	491.8	2.9	34061.3	146.3	740.7	1.2	262.5	0.2	4659.9	0.4	3845.21	21.67
	19		-740	308520		434000	1260	903810	2270	3530	6516.4	3.5	493.1	1.3	34188.2	126.9	743	2.3	262.5		4660.3		3864.47	19.26
	20		410	309930	1410	436710	2710	905820	2010	472C		4.2	495.6	2.5	34280.4	92.2	744.8	1.8	262.5		4660.6		3880.68	26.21
1	21		430	311180	1250	441540	4830	907160	1340	5170	Ш	26.5	500.3	4.7	34483	202.6	746.1	1.3	262.8	0.3	4661		3913,45	22.77
	22		290	312920	1740	446360	4820	910410	3250	2020		7.5	504,9	4.6	34770.1	287.1	749.2	3.1	262.9	0.1	4661.3		941.17	27.72
	23		380	314090	1170	448750	2390	913960	3550	5940	6551.3	5.1	507.2	2.3	34976.4	206.3	752.6	3.4	263.1	0.2	4661.7		961.59	20.42
	24		1090	317160	3070	453590	4840	921720	7760	12600		14.2	511.8	4.6	35417.7	441.3	760	7.4	263.4	0.3	4662.7		3992.06	30.47
	25	118870	90	317550		454770	1180	922480	760	1940		1.6	513	12	35505.8	88.1	760.8	0.8	263.4	0	4662.7	0	4007,67	15,61
	26		640	319390	1840	457640	2870	925890;	3410	6281	0572.3	5.2	515.8	2.8	35690.3	184.5	765.3	4.5	263.8	0.4	4663.1		4035.99	28.32
	27		240	320180	790	461850	422D	925890	0	4220	6574.5	22	519.8	4	35755.4	65.1	768.4	3.1	263.8	0	4663.8	0.7	4057.88	21.89
	28		510	321590	1410	474570	12710	925890	0	12710		7.6	532.2	12.4	35952.3	196.9	778.9	10.5	264	0.2	4664,6		4087.6	29.72
	29		450	322810	1220	478700	4130	925890	0	4130	6588.2	6.1	536.2	4	35993.1	40.8	783.3	4.4	264.2	0.2	4664.6	100	100,47	12.87
	30	121410	700	324680	1870	495240	16540	925890	0	16540	0099	11.8	552.2	16	36277.4	284.3	793.9	10.6	264.3	0.1	4666		4132.1	31.63
																							The state of	
	TOTAL		11460		35090		117680		84790	202470		263		113.2		6175.9		111.4		4.3		11.8		723.65
	MAN		1340	1	2070		18540		7780	18540	1	2 20	-	100		475.9	1	10.6	1	100	1	-	+	2
	1 100.00		240	-	3	1	1400	-	0	2000		200	-	2 0		000	-	200		15	1	100	+	3
	Mally.		2017	1	0 1000	1	1180	1	0	1840		7.7		7.7		40.6	1	0.2		5	+	0		12.87
	AVE.		382.0		1169.7		3922.7		2826.3	D/49.1		8.8	-	3.6	-	205.91		3.7		0.1		0.4		24.1

RINID	TRINIDAD RANCHERIA	FRIA			AND THE PERSON		1	The second second	The second second			The second second	The second second									A Constitution of the
VASTE	WATER 1	WASTE WATER TREATMENT PLANT	T PLANT												1							
MILY	TOTALS -	DAILY TOTALS - DECEMBER 2002	R 2002													_						
	WATER	WATER METERS								E.T. METERS	ERS									_		
		WATER TANKS			PROC	PROCESS PUMPS			Total	MEMBRANE BANK#1	E BANK#1		П	MBRANE B	NANK #2		П	FLYGT PUMPS			U.V.	
		81A	TOTAL CAL	TOTAL	355	TOTAL	P358	TOTAL	Flows	TRANSFER	R PUMP P	PROCESS PUMP		TRANSFER PUMP P	TAT PRI	PROCESS PUMP	T	PUMP#1	PUMP#2	#2 TOTAL	ogi ion	TOTAL
PREVI	PREVIOUS DAY	1410	3	24680			5890	2	- Contract	6600	2	552.2		36277.4	5	6		6.5	3	19		**
TIME	DATE													-								
	1				1520 509490	490 14250		0	14250		8.2	565.9	13.7	36473.6	196.2	808.1	14.2	264.5		4667	1 4157	25.34
	2	122450	430		1080 513650	650 4160			4160	6610.1	1.9	569.9	4 3	36525.7	52.1	811.4	3,3	264.7	0.2	4667	0 4175.59	
	3	122850		328610 1			0 925800		6570		3.1	576.2		36602.1	76.4	816.9	5.4	284.8	0	4669.1	1.1 4201.6	.6 26.0
	77	-						0	5240		3.1	581.3		36679.8	77.7	819.9	3.1	265	0.2 46			
	5			331420 1	9				9050		6.6	590.1	8.8	36818.1	138.3	824	4.1	285.3				16 28.65
	9								6460		3.6	596.3		36892.4	74.3	831.5	7.5	265.5				
	7		009			•			14060	8	8.7	609.9		37096,1	203.7	845.1	13.6	265.8				
	8	200				34	S		6910		3.8	616.6		37189.4	93.3	852.1	7	266.1		4668.1		
	6				1610 570750		200		8810		3.4	625.3		37276.8	87.4	867.6	15.5	266.3				
	10	125830	120		530 5744	500			3690		8	629.4	4.1 3	37333.3	56.5	870.6	3	265.4			0 4370.21	23,13
	11					100			2990		9.7	635.3		37406	72.7	874.4	3.8	266.7				
	12						0 925890		6120		3.4	641.4	6.1 3	37492.7	86.7	879	4.6	286.7			0.6 4417.51	
	13	126750			1030 586940				7950		18	647.7		37582.4	7.68	886.2	7.2	266.9				
	14								9470		18.8	655.2		37717.1	134.7	894.7	8.5	267.1	0.2 46			
	15								7990		4.6	629.9		37853	135.9	006	5.3	267.2				
	16						0 948940		5430		4	661.9	1000	37944.2	91.2	902.2	2.2	267.5	0.3 46	4684.4		
	17								4490		2.8	664.3	2.4 3	38025.3	51.2	904	89	267.5			1.1 4534.14	
	18								4560		5.7	665.7		38105.6	80.3	200	0	267.6				
	19		410						4980		6	668.5	200	38186.2	90.6	606	2	267.7	0.1 46	4687.8	0.6 4578.06	
	20						0 959450		5170	Ö	6.2	670.2	1	38273.7	87.5	912.2	3.2	267.7		4669.8	2 4601.51	51 23.45
	21				100				6680	200	5.4	674.1		38384.3	120.6	914.6	2.4	268.1		4692.8		
	22	131220				100			7010		w	677		38510.3	116	918.5	60	268.1		4695.1	_	20.99
	23		670		1760 613400				5990		4.0	680.1	- 1	38614.1	103.8	921	2.5	268.4		4697	1.9 4674.39	
	24				-	-	0 971770		4950		9.3	682		38697.2	83.1	923.8	2.8	268.5	0.1 46	4697.8	- 1	59 24.2
	25								2696		· ·	685.5		38792.9	85.7	925.7	1.9	268.8		4699.1	1.3 4722.91	
	26								7390		4.1	697.8		38928.4	135.5	830.8	5.1	269				
	27								10590		19.4	692.1		38092.3	163.9	936.4	5.6	269.2				
	28								6550		7,5	695.2	3.1	39204.6	112.3	939.7	3.3	269.4		4719.3		
	29								5200		10.6	697.2		39289.2	84.6	942.6	2.9	269.4	60	4721.1		
	30		220						5580		4.2	699.4	22 3	39381.8	92.6	945.7	3.1	269.6	0.2 47	4722.4	1.3 4845.06	
	34	136470	470	367370	1300 635850	850 2540	997040		4810	6819.1	12.5	701.9		39456.6	74.8	948.1	2.4	269.8		4723.4	1 4855.64	84 21.58
	TOTAL		15060	P. P.	42690	120610	100	71150	211780		2101		1407		2470.2		154.2	1	r.		27.4	724.64
													-	-	400	-		-	200	-		
	MAX.		1230		3700	14250	0	8910	14250		19.4		13.7	3	203.7		15.5		0.4		13.7	31.17
	MIN.	_	0		530	390	0	0	3690		1.9		1.4		52.1		1.8		0	_	0	17,95
	ALA		10 207	4.0	100			- LOUG	-													

RIND	KINIDAD KANCHEKIA	HEKIA																					1
WASTE	WATER	WASTE WATER TREATMENT PLANT	T PLANT																				
DAILY	TOTALS -	DAILY TOTALS - JANUARY 2003	2003	_																	L		_
	WATER	WATER METERS	_	-	_			-			E.T. METERS	TERS			-		-						_
		WATER TANKS			Ы	PROCESS PUMPS	UMPS			Total	MEMBRA	VE BANK#			WEMBRANE	BANK #2	_	П	YGT PUMP.			U.Y.	
		Gal	TOTAL GAL		TOTAL	P3SA	TOTAL	P358	STAL	Flows	TRANSFER PUMP	R PUMP	ROCESS		TRANSFER PUMP P	PUMP	PROCESS PUMP		PUMP#1		PUMP #2	HOURS	TOTAL
PREVI	PREVIOUS DAY	5470	-	67370		850		9970401			6819.1		701.9		39456.6		948.1		269.8		47	-	ll 🐯
TIME	DATE				-			-	Ĺ								-					7	4891,6
		137360	068	369540	2170	644670	8820	10045001	7460	16280	6838	19.9		8.6	39734.2	277.6	955.3	7.2	270.2	0.4	4725	1.6	
	2		550	371660	2120	648260	3590	10071001	2600	619	9			5.7	39853.3	119.1	961.5	6.2	270.3	0.1	4726	1 49	4918.28 26.68
	3	138420	510	372330	670	099059	2400	1010910	3810					2.4	39943.6	90.3	965.2	3.7	270.4		4727.7		
	4		720	374300	1970	655580	4920	1015900	4990	9910		10.7	723.2	4.6	40113.5	169.9	869.9	4.7	270.7	0.3	4728.9	1.2 496	4967.56
	5			375880	1580	660340	4760	1019630	3730	100000000000000000000000000000000000000				2	40253.2	139.7	973.4	3.5	270.9		4729.8		
	9	140140	410	376830	950	661700		1020910	1280		6877.2				40285.3	33.1	974.6	1.2	271.1		730.9		
	7			377440	610	663440	_	10224201	1510						40339.4	53.1	976.1	1.5	271.1		4730.9		
	8	140610		378330	890	665680	2240	1024400	1980	2000					40404.7	65.3	978.3	2.2	271.3	0.2	4731.7		8.96
	6		320	379330	1000	668270		1026680	2280			3.8	736		40492.6	87.9	980.5	2.2	271.4		4733.5		5081.52
	10	141400		380660	1330	670610	2340	1031650	4970						40609	116.4	985.2	4.7	271.4		735.7		7.18
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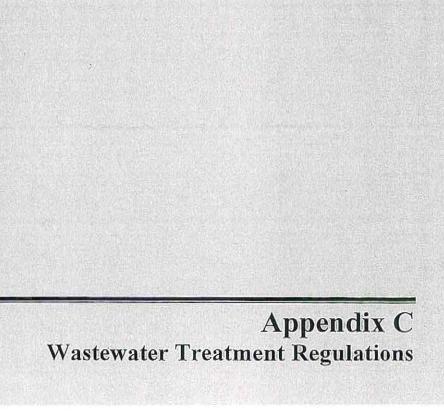
Cher-Ae Heights Casino Wastewater Treatment Plant BOD

2002

Influent

Effluent

January	Off line	
February	Off line	
March	Off line	
April	Off line	
May	Off line	
June	550 ppm	0 ppm
July	540 ppm	0 ppm
August	400 ppm	0 ppm
September	540 ppm	0 ppm
October	560 ppm	0 ppm
November	700 ppm	0 ppm
December	630 ppm	0 ppm



Title 22 Code of Regulations

DIVISION 4. ENVIRONMENTAL HEALTH CHAPTER 1. INTRODUCTION

ARTICLE 1. DEFINITIONS

60001. Department

Whenever the term "department" is used in this division, it means the State Department of Health Services, unless otherwise specified.

60003. Director

Whenever the term "director" is used in this division, it means the Director, State Department of Health Services, unless otherwise specified.

CHAPTER 2. REGULATIONS FOR THE IMPLEMENTATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

ARTICLE 1. GENERAL REQUIREMENTS AND CATEGORICAL EXEMPTIONS

60100. General requirements

The Department of Health Services incorporates by reference the objectives, criteria, and procedures as delineated in Chapters 1, 2, 2.5, 2.6, 3, 4, 5, and 6, Division 13, Public Resources Code, Sections 21000 et seq., and the Guidelines for the Implementation of the California Environmental Quality Act, Title 14, Division 6, Chapter 3, California Administrative Code, Sections 15000 et seq.

60101. Specific activities within categorical exempt classes

The following specific activities are determined by the Department to fall within the classes of categorical exemptions set forth in Sections 15300 et seq. of Title 14 of the California Administrative Code:

(a) Class 1: Existing Facilities.

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California Health Laws Related to Recycled Water Title 22

CHAPTER 3 WATER RECYCLING CRITERIA ARTICLE 1 DEFINITIONS

60301. Definitions

60301.100. Approved laboratory

"Approved laboratory" means a laboratory that has been certified by the Department to perform microbiological analyses pursuant to section 116390, Health and Safety Code.

60301.160. Coagulated wastewater

"Coagulated wastewater" means oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated upstream from a filter by the addition of suitable floc-forming chemicals.

60301.170. Conventional treatment

"Conventional treatment" means a treatment chain that utilizes a sedimentation unit process between the coagulation and filtration processes and produces an effluent that meets the definition for disinfected tertiary recycled water.

60301.200. Direct beneficial use

"Direct beneficial use" means the use of recycled water that has been transported from the point of treatment or production to the point of use without an intervening discharge to waters of the State.

60301.220. Disinfected secondary-2.2 recycled water

"Disinfected secondary-2.2 recycled water" means recycled water that has been oxidized and disinfected so that the median concentration of total coliform bacteria in the disinfected effluent does not exceed a most probable number (MPN) of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed, and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period.

60301.225. Disinfected secondary-23 recycled water

"Disinfected secondary-23 recycled water" means recycled water that has been oxidized and disinfected so that the median concentration of total coliform bacteria in the disinfected effluent does not exceed a most probable number (MPN) of 23 per 100

60301.250. Dual plumbed system

"Dual plumbed system" or "dual plumbed" means a system that utilizes separate piping systems for recycled water and potable water within a facility and where the recycled water is used for either of the following purposes:

- (a) To serve plumbing outlets (excluding fire suppression systems) within a building or
- (b) Outdoor landscape irrigation at individual residences.

60301.300. F-Specific bacteriophage MS-2

"F-specific bacteriophage MS-2" means a strain of a specific type of virus that infects coliform bacteria that is traceable to the American Type Culture Collection (ATCC 15597B1) and is grown on lawns of E. coli (ATCC 15597).

60301.310. Facility

"Facility" means any type of building or structure, or a defined area of specific use that receives water for domestic use from a public water system as defined in section 116275 of the Health and Safety Code.

60301.320. Filtered wastewater

"Filtered wastewater" means an oxidized wastewater that meets the criteria in subsection (a) or (b):

- (a) Has been coagulated and passed through natural undisturbed soils or a bed of filter media pursuant to the following:
 - (1) At a rate that does not exceed 5 gallons per minute per square foot of surface area in mono, dual or mixed media gravity, upflow or pressure filtration systems, or does not exceed 2 gallons per minute per square foot of surface area in traveling bridge automatic backwash filters; and
 - (2) So that the turbidity of the filtered wastewater does not exceed any of the following:
 - (A) An average of 2 NTU within a 24-hour period;
 - (B) 5 NTU more than 5 percent of the time within a 24-hour period; and

60301.630. NTU

"NTU" (Nephelometric turbidity unit) means a measurement of turbidity as determined by the ratio of the intensity of light scattered by the sample to the intensity of incident light as measured by method 2130 B. in Standard Methods for the Examination of Water and Wastewater, 20th ed.; Eaton, A. D., Clesceri, L. S., and Greenberg, A. E., Eds; American Public Health Association: Washington, DC, 1995; p. 2-8.

60301.650. Oxidized wastewater.

"Oxidized wastewater" means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

60301.660. Peak dry weather design flow

"Peak Dry Weather Design Flow" means the arithmetic mean of the maximum peak flow rates sustained over some period of time (for example three hours) during the maximum 24-hour dry weather period. Dry weather period is defined as periods of little or no rainfall.

60301.700. Recycled wateragency.

"Recycled water agency" means the public water system, or a publicly or privately owned or operated recycled water system, that delivers or proposes to deliver recycled water to a facility.

60301.710. Recycling plant

"Recycling plant" means an arrangement of devices, structures, equipment, processes and controls which produce recycled water.

60301.740. Regulatory Agency

"Regulatory agency" means the California Regional Water Quality Control Board(s) that have jurisdiction over the recycling plant and use areas.

60301.750. Restricted access golf course

"Restricted access golf course" means a golf course where public access is controlled so that areas irrigated with recycled water cannot be used as if they were part of a park, playground, or school yard and where irrigation is conducted only in areas and during periods when the golf course is not being used by golfers.

California Health Laws Related to Recycled Water Title 22 June 2001 Edition

ARTICLE 3. USES OF RECYCLED WATER.

60303. Exceptions

The requirements set forth in this chapter shall not apply to the use of recycled water onsite at a water recycling plant, or wastewater treatment plant, provided access by the public to the area of onsite recycled water use is restricted.

60304. Use of recycled water for irrigation

- (a) Recycled water used for the surface irrigation of the following shall be a disinfected tertiary recycled water, except that for filtration pursuant to Section 60301.320(a) coagulation need not be used as part of the treatment process provided that the filter effluent turbidity does not exceed 2 NTU, the turbidity of the influent to the filters is continuously measured, the influent turbidity does not exceed 5 NTU for more than 15 minutes and never exceeds 10 NTU, and that there is the capability to automatically activate chemical addition or divert the wastewater should the filter influent turbidity exceed 5 NTU for more than 15 minutes:
 - (1) Food crops, including all edible root crops, where the recycled water comes into contact with the edible portion of the crop,
 - (2) Parks and playgrounds,
 - (3) School yards,
 - (4) Residential landscaping,
 - (5) Unrestricted access golf courses, and
 - (6) Any other irrigation use not specified in this section and not prohibited by other sections of the California Code of Regulations.
- (b) Recycled water used for the surface irrigation of food crops where the edible portion is produced above ground and not contacted by the recycled water shall be at least disinfected secondary-2.2 recycled water.
- (c) Recycled water used for the surface irrigation of the following shall be at least disinfected secondary-23 recycled water:
 - (1) Cemeteries,

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California Health Laws Related to Recycled Water Title 22

60305. Use of recycled water for impoundments.

- (a) Except as provided in subsection (b), recycled water used as a source of water supply for nonrestricted recreational impoundments shall be disinfected tertiary recycled water that has been subjected to conventional treatment.
- (b) Disinfected tertiary recycled water that has not received conventional treatment may be used for nonrestricted recreational impoundments provided the recycled water is monitored for the presence of pathogenic organisms in accordance with the following:
 - (1) During the first 12 months of operation and use the recycled water shall be sampled and analyzed monthly for *Giardia*, enteric viruses, and *Cryptosporidium*. Following the first 12 months of use, the recycled water shall be sampled and analyzed quarterly for *Giardia*, enteric viruses, and *Cryptosporidium*. The ongoing monitoring may be discontinued after the first two years of operation with the approval of the department. This monitoring shall be in addition to the monitoring set forth in section 60321.
 - (2) The samples shall be taken at a point following disinfection and prior to the point where the recycled water enters the use impoundment. The samples shall be analyzed by an approved laboratory and the results submitted quarterly to the regulatory agency.
- (c) The total coliform bacteria concentrations in recycled water used for nonrestricted recreational impoundments, measured at a point between the disinfection process and the point of entry to the use impoundment, shall comply with the criteria specified in section 60301.230 (b) for disinfected tertiary recycled water.
- (d) Recycled water used as a source of supply for restricted recreational impoundments and for any publicly accessible impoundments at fish hatcheries shall be at least disinfected secondary-2.2 recycled water.
- (e) Recycled water used as a source of supply for landscape impoundments that do not utilize decorative fountains shall be at least disinfected secondary-23 recycled water.

60306. Use of recycled water for cooling

(a) Recycled water used for industrial or commercial cooling or air conditioning that involves the use of a cooling tower, evaporative condenser, spraying or any mechanism that creates a mist shall be a disinfected tertiary recycled water.

- (9) Commercial car washes, including hand washes if the recycled water is not heated, where the general public is excluded from the washing process.
- (b) Recycled water used for the following uses shall be at least disinfected secondary-23 recycled water:
 - (1) Industrial boiler feed,
 - (2) Nonstructural fire fighting,
 - (3) Backfill consolidation around nonpotable piping,
 - (4) Soil compaction,
 - (5) Mixing concrete,
 - (6) Dust control on roads and streets,
 - (7) Cleaning roads, sidewalks and outdoor work areas and
 - (8) Industrial process water that will not come into contact with workers.
- (c) Recycled water used for flushing sanitary sewers shall be at least undisinfected secondary recycled water.

ARTICLE 4. USE AREA REQUIREMENTS.

60310. Use area requirements

- (a) No irrigation with disinfected tertiary recycled water shall take place within 50 feet of any domestic water supply well unless all of the following conditions have been met:
 - (1) A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from and the ground surface.
 - (2) The well contains an annular seal that extends from the surface into the aquitard.
 - (3) The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities.

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- (h) Except as allowed under section 7604 of title 17, California Code of Regulations, no physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water.
- (i) The portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibbs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the recycled water piping system in areas subject to public access.

ARTICLE 5. DUAL PLUMBED RECYCLED WATER SYSTEMS.

60313. General requirements.

- (a) No person other than a recycled water agency shall deliver recycled water to a dualplumbed facility.
- (b) No recycled water agency shall deliver recycled water for any internal use to any individually-owned residential units including free-standing structures, multiplexes, or condominiums.
- (c) No recycled water agency shall deliver recycled water for internal use except for fire suppression systems, to any facility that produces or processes food products or beverages. For purposes of this Subsection, cafeterias or snack bars in a facility whose primary function does not involve the production or processing of foods or beverages are not considered facilities that produce or process foods or beverages.
- (d) No recycled water agency shall deliver recycled water to a facility using a dual plumbed system unless the report required pursuant to section 13522.5 of the Water Code, and which meets the requirements set forth in section 60314, has been submitted to, and approved by, the regulatory agency.

60314. Report submittal

- (a) For dual-plumbed recycled water systems, the report submitted pursuant to section 13522.5 of the Water Code shall contain the following information in addition to the information required by section 60323:
 - (1) A detailed description of the intended use area identifying the following:
 - (A) The number, location, and type of facilities within the use area proposing to use dual plumbed systems,
 - (B) The average number of persons estimated to be served by each facility on a daily basis,
 - (C) The specific boundaries of the proposed use area including a map showing the location of each facility to be served,
 - (D) The person or persons responsible for operation of the dual plumbed system at each facility, and

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control specialist certified by the California-Nevada section of the American Water Works Association or an organization with equivalent certification requirements. A written report documenting the result of the inspection or testing for the prior year shall be submitted to the department within 30 days following completion of the inspection or testing.

- (b) The recycled water agency shall notify the department of any incidence of backflow from the dual-plumbed recycled water system into the potable water system within 24 hours of the discovery of the incident.
- (c) Any backflow prevention device installed to protect the public water system serving the dual-plumbed recycled water system shall be inspected and maintained in accordance with section 7605 of Title 17, California Code of Regulations.

ARTICLE 5.1. GROUNDWATER RECHARGE

60320. Groundwater recharge

- (a) Reclaimed water used for groundwater recharge of domestic water supply aquifers by surface spreading shall be at all times of a quality that fully protects public health. The State Department of Health Services' recommendations to the Regional Water Quality Control Boards for proposed groundwater recharge projects and for expansion of existing projects will be made on an individual case basis where the use of reclaimed water involves a potential risk to public health.
- (b) The State Department of Health Services' recommendations will be based on all relevant aspects of each project, including the following factors: treatment provided; effluent quality and quantity; spreading area operations; soil characteristics; hydrogeology; residence time; and distance to withdrawal.
- (c) The State Department of Health Services will hold a public hearing prior to making the final determination regarding the public health aspects of each groundwater recharge project. Final recommendations will be submitted to the Regional Water Quality Control Board in an expeditious manner.

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- (b) The report shall be prepared by a properly qualified engineer registered in California and experienced in the field of wastewater treatment, and shall contain a description of the design of the proposed reclamation system. The report shall clearly indicate the means for compliance with these regulations and any other features specified by the regulatory agency.
- (c) The report shall contain a contingency plan which will assure that no untreated or inadequately treated wastewater will be delivered to the use area.

60325. Personnel

- (a) Each reclamation plant shall be provided with a sufficient number of qualified personnel to operate the facility effectively so as to achieve the required level of treatment at all times.
- (b) Qualified personnel shall be those meeting requirements established pursuant to Chapter 9 (commencing with Section 13625) of the Water Code.

60327. Maintenance

A preventive maintenance program shall be provided at each reclamation plant to ensure that all equipment is kept in a reliable operating condition.

60329. Operating records and reports

- (a) Operating records shall be maintained at the reclamation plant or a central depository within the operating agency. These shall include: all analyses specified in the reclamation criteria; records of operational problems, plant and equipment breakdowns, and diversions to emergency storage or disposal; all corrective or preventive action taken.
- (b) Process or equipment failures triggering an alarm shall be recorded and maintained as a separate record file. The recorded information shall include the time and cause of failure and corrective action taken.
- (c) A monthly summary of operating records as specified under (a) of this section shall be filed monthly with the regulatory agency.
- (d) Any discharge of untreated or partially treated wastewater to the use area, and the cessation of same, shall be reported immediately by telephone to the regulatory agency, the State Department of Health, and the local health officer.

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not attended full time, the alarm(s) shall be connected to sound at a police station, fire station or other full time service unit with which arrangements have been made to alert the person in charge at times that the reclamation plant is unattended.

60337. Power supply

The power supply shall be provided with one of the following reliability features:

- (a) Alarm and standby power source.
- (b) Alarm and automatically actuated short-term retention or disposal provisions as specified in Section 60341.
- (c) Automatically actuated long-term storage or disposal provisions as specified in Section 60341.

ARTICLE 9. RELIABILITY REQUIREMENTS FOR PRIMARY EFFLUENT

60339. Primary treatment

Reclamation plants producing reclaimed water exclusively for uses for which primary effluent is permitted shall be provided with one of the following reliability features:

- (a) Multiple primary treatment units capable of producing primary effluent with one unit not in operation.
- (b) Long-term storage or disposal provisions as specified in Section 60341.

Note: Use of primary effluent for recycled water is no longer allowed. [repeal of Section 60309, effective December 2000]

ARTICLE 10. RELIABILITY REQUIREMENTS FOR FULL TREATMENT

60341. Emergency storage or disposal

(a) Where short-term retention or disposal provisions are used as a reliability feature, these shall consist of facilities reserved for the purpose of storing or disposing of untreated or partially treated wastewater for at least a 24-hour period. The facilities shall include all the necessary diversion devices, provisions for odor control, conduits, and pumping and pump back equipment. All of the equipment other than the pump back

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California Health Laws Related to Recycled Water Title 22

60345. Biological treatment

All biological treatment unit processes shall be provided with one of the following reliability features:

- (a) Alarm and multiple biological treatment units capable of producing oxidized wastewater with one unit not in operation.
- (b) Alarm, short-term retention or disposal provisions, and standby replacement equipment.
- (c) Alarm and long-term storage or disposal provisions.
- (d) Automatically actuated long-term storage or disposal provisions.

60347. Secondary sedimentation

All secondary sedimentation unit processes shall be provided with one of the following reliability features:

- (a) Multiple sedimentation units capable of treating the entire flow with one unit not in operation.
- (b) Standby sedimentation unit process.
- (c) Long-term storage or disposal provisions.

60349. Coagulation

- (a) All coagulation unit processes shall be provided with the following mandatory features for uninterrupted coagulant feed:
 - (1) Standby feeders,
 - (2) Adequate chemical stowage and conveyance facilities,
 - (3) Adequate reserve chemical supply, and
 - (4) Automatic dosage control.

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- (3) Chlorine scales, and
- (4) Automatic devices for switching to full chlorine cylinders.

Automatic residual control of chlorine dosage, automatic measuring and recording of chlorine residual, and hydraulic performance studies may also be required.

- (b) All disinfection unit processes where chlorine is used as the disinfectant shall be provided with one of the following reliability features:
 - Alarm and standby chlorinator;
 - (2) Alarm, short-term retention or disposal provisions, and standby replacement equipment;
 - Alarm and long-term storage or disposal provisions;
 - (4) Automatically actuated long-term storage or disposal provisions; or
 - (5) Alarm and multiple point chlorination, each with independent power source, separate chlorinator, and separate chlorine supply.

60355. Other alternatives to reliability requirements

Other alternatives to reliability requirements set forth in Articles 8 to 10 may be accepted if the applicant demonstrates to the satisfaction of the State Department of Health that the proposed alternative will assure an equal degree of reliability.

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- (i) "Reclaimed Water" is a wastewater which as a result of treatment is suitable for uses other than potable use.
- (j) "Reduced Pressure Principle Backflow Prevention Device (RP)" is a backflow preventer incorporating not less than two check valves, an automatically operated differential relief valve located between the two check valves, a tightly closing shut-off valve on each side of the check valve assembly, and equipped with necessary test cocks for testing.
- (k) "User Connection" is the point of connection of a user's piping to the water supplier's facilities.
- (I) "Water Supplier" is the person who owns or operates the public water system.
- (m) "Water User" is any person obtaining water from a public water supply.

7584. Responsibility and scope of program

The water supplier shall protect the public water supply from contamination by implementation of a cross-connection control program. The program, or any portion thereof, may be implemented directly by the water supplier or by means of a contract with the local health agency, or with another agency approved by the health agency. The water supplier's cross-connection control program shall for the purpose of addressing the requirements of Sections 7585 through 7605 include, but not be limited to, the following elements:

- (a) The adoption of operating rules or ordinances to implement the cross-connection program.
- (b) The conducting of surveys to identify water user premises where cross-connections are likely to occur,
- (c) The provisions of backflow protection by the water user at the user's connection or within the user's premises or both,
- (d) The provision of at least one person trained in cross-connection control to carry out the cross-connection program,
- (e) The establishment of a procedure or system for testing backflow preventers, and
- (f) The maintenance of records of locations, tests, and repairs of backflow preventers.

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ARTICLE 2. PROTECTION OF WATER SYSTEM

7601. Approval of backflow preventers

Backflow preventers required by this Chapter shall have passed laboratory and field evaluation tests performed by a recognized testing organization which has demonstrated their competency to perform such tests to the Department.

7602. Construction of backflow preventers

- (a) Air-gap Separation. An Air-gap separation (AG) shall be at least double the diameter of the supply pipe, measured vertically from the flood rim of the receiving vessel to the supply pipe; however, in no case shall this separation be less than one inch.
- (b) Double Check Valve Assembly. A required double check valve assembly (DC) shall, as a minimum, conform to the AWWA Standard C506-78 (R83) adopted on January 28, 1978 for Double Check Valve Type Backflow Preventive Devices which is herein incorporated by reference.
- (c) Reduced Pressure Principle Backflow Prevention Device. A required reduced pressure principle backflow prevention device (RP) shall, as a minimum, conform to the AWWA Standard C506-78 (R83) adopted on January 28, 1978 for Reduced Pressure Principle Type Backflow Prevention Devices which is herein incorporated by reference.

7603. Location of backflow preventers

- (a) Air-gap Separation. An air-gap separation shall be located as close as practical to the user's connection and all piping between the user's connection and the receiving tank shall be entirely visible unless otherwise approved in writing by the water supplier and the health agency.
- (b) Double Check Valve Assembly. A double check valve assembly shall be located as close as practical to the user's connection and shall be installed above grade, if possible, and in a manner where it is readily accessible for testing and maintenance.
- (c) Reduced Pressure Principle Backflow Prevention Device. A reduced pressure principle backflow prevention device shall be located as close as practical to the user's connection and shall be installed a minimum of twelve inches (12") above grade and not more than thirty-six inches (36") above grade measured from the bottom of the device and with a minimum of twelve inches (12") side clearance.

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TABLE 1 TYPE OF BACKFLOW PROTECTION REQUIRED

	Degree of Hazard	Minimum Type of Backflow Prevention
(a)	Sewage and Hazardous Substances	
	(1) Premises where there are waste water pumping and/or treatment plants and there is no interconnection with the potable water system. This does not include a single-family residence that has a sewage lift pump. A RP be provided in lieu of an AG if approved by the health agency and water supplier.	AG
	(2) Premises where hazardous substances are handled in any manner in which the substances may enter the potable water system. This does not include a single-family residence that has a sewage lift pump. A RP may be provided in lieu of an AG if approved by the health agency and water supplier.	AG
	(3) Premises where there are irrigation systems into which fertilizers, herbicides, or pesticides are, or can be, injected.	RP
(b)	Auxiliary Water Supplies	
	(1) Premises where there is an unapproved auxiliary water supply which is interconnected with the public water system. A RP or DC may be provided in lieu of an AG if approved by the health agency and water supplier.	AG
	(2) Premises where there is an unapproved auxiliary RP water supply and there are no interconnections with the public water system. A DC may be provided in lieu of a RP if approved by the health agency and water supplier.	RP

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- (e) Dockside Watering Points and Marine Facilities
 - (1) Pier hydrants for supplying water to vessels for any purpose.

RP

(2) Premises where there are marine facilities.

RP

(f) Premises where entry is restricted so that inspections for cross-connections cannot be made with sufficient frequency or at sufficiently short notice to assure that do not exist.

RP

(g) Premises where there is a repeated history of crossconnections being established or re-established. RP

Section 7605. Testing and maintenance of backflow preventers

- (a) The water supplier shall assure that adequate maintenance and periodic testing are provided by the water user to ensure their proper operation.
- (b) Backflow preventers shall be tested by persons who have demonstrated their competency in testing of these devices to the water supplier or health agency.
- (c) Backflow preventers shall be tested at least annually or more frequently if determined to be necessary by the health agency or water supplier. When devices are found to be defective, they shall be repaired or replaced in accordance with the provisions of this Chapter.
- (d) Backflow preventers shall be tested immediately after they are installed, relocated or repaired and not placed in service unless they are functioning as required.
- (e) The water supplier shall notify the water user when testing of backflow preventers is needed. The notice shall contain the date when the test must be completed.
- (f) Reports of testing and maintenance shall be maintained by the water supplier for a minimum of three years.

* * * * *

APPENDIX B

DRAFT GEOTECHNICAL FEASIBILITY AND PRELIMINARY
DESIGN REPORT

TRINIDAD RANCHERIA CHER-AE HEIGHTS HOTEL

Trinidad, California





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November 8, 2016 CAInc File No. 16-319.1

Mr. David Tyson Trinidad Rancheria Economic Development Corporation P.O. Box 630 Trinidad, CA 95570

Subject: DRAFT GEOTECHNICAL FEASIBILITY AND PRELIMINARY DESIGN REPORT

Trinidad Rancheria Cher-Ae Heights Hotel

Trinidad, California

Dear Mr. Tyson,

Attached is our **DRAFT** Geotechnical Feasibility and Preliminary Design Report for the Trinidad Rancheria Cher-Ae Heights Hotel. Crawford & Associates, Inc. (CAInc) completed this report in accordance with our agreement with Trinidad Rancheria Economic Development Corporation (TREDC) dated August 26, 2016.

This report provides geotechnical data, geological hazards assessment, and preliminary geotechnical recommendations for the proposed hotel project. We will issue a final report upon receiving comments from you on this draft.

Please call if you have questions or require additional information.

Sincerely,

Crawford & Associates, Inc.,

Adam J. Killinger, PE, GE Project Manager

Rick Sowers, PE, CEG Principal Engineering Geologist

Nick Anderson, EIT Project Engineer





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Select References

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Detail 1: Piezometer Logs

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Boring Log Legend Boring Logs

APPENDIX B

Laboratory Test Results

APPENDIX C

LPile Outputs

APPENDIX D

SHN Proposed Expansion Cher-Ae Heights Gaming Building Boring Logs **Taber Geotechnical Report – Trinidad Rancheria Expansion Project Test Pits**

APPENDIX E

Site Photos



Trinidad Rancheria Cher-Ae Heights Hotel Trinidad, California CAInc

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1 INTRODUCTION

1.1 PURPOSE

Crawford & Associates, Inc. (CAInc) prepared this Draft Geotechnical Feasibility and Preliminary Design Report for the Trinidad Rancheria Cher-Ae Heights Hotel project in Trinidad, California. This report provides our geotechnical data, geologic hazards evaluation, feasibility assessment and preliminary geotechnical recommendations for planning and preliminary design/costing. CAInc will prepare a final Geotechnical Design Report for the project based on further definition of project details, including final structure layouts, building loads, retaining walls, site grading and drainage/subdrainage elements.

1.2 SCOPE OF SERVICES

To prepare this report, CAInc:

- Reviewed published geologic, soils, groundwater and seismic maps pertaining to the site;
- Reviewed previous geotechnical studies at the casino and along nearby sections of Scenic Drive;
- Conducted geologic reconnaissance of the site and immediate area;
- Discussed the project elements with the design team;
- Drilled, logged, and sampled 6 exploratory borings to a maximum depth of 81.4 ft below ground surface (bgs);
- Performed laboratory testing on soil samples recovered from the borings;
- Conducted engineering analysis for preliminary foundation design; and
- Developed preliminary geotechnical recommendations based on the data and test results.

2 SITE & PROJECT DESCRIPTION

The site is located near the top of a 230±ft high bluff overlooking Trinidad Bay. Scenic Drive traverses the slope between the site and the ocean, approximately 65ft below the top of bluff. The overall slope between the casino and the ocean is about 2:1 (H:V) and is heavily vegetated, including numerous water-loving plants suggestive of shallow groundwater/springs. Scenic Drive is a county-owned road that has experienced numerous slip-outs and slides due to wave attach undercutting the ocean bluff. Several structures are present along the slope below the casino, including a residence about half-way along the slope between the casino and Scenic Drive.

The project includes a proposed 6-story hotel and complementary facilities (e.g. pool, fitness center, mechanical building, offices, etc.) located along the southwest side of the existing casino building. The hotel will be a steel-frame, stand-alone structure. The base level is expected to be near existing grade, which is generally flat within the building footprint. Some retaining walls may be incorporated into the final design to account for sloping ground to the southwest of the building.

Public access to the hotel is expected to be from a porte cochere with entrance from an existing paved roadway along the east side of the casino property; no additional grading is required for this access. Truck/delivery access is expected to be via a new road constructed from near the existing exit road at Scenic Drive with a "hairpin" turn near the existing residence and end near the northwest corner of the casino near the existing kitchen/restaurant. The road grade will be on the order of 7-12% and require





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new cut/fills to about 10-15 feet high. New cuts may require retaining walls to about 10 ft high. We understand the existing residence will be acquired by the tribe and removed as part of this project.

We show the tentative layout on Figure 1.

3 GEOLOGY

The site is underlain by Pleistocene marine terrace sediments deposited on a wave-cut bench in rock of the Jura-Cretaceous Franciscan Complex. The marine terrace sediments are generally comprised of pebbly sand, silt and clay. The underlying Franciscan Complex is comprised of weathered/sheared shale. We show the site geology on Figure 6.

Rock consistent with the Franciscan Complex is exposed near beach-level and locally in the site vicinity near the intersection of Scenic Drive and the casino exit road. This rock is observed to be variably-weathered shale and greywacke sandstone, with layering dipping typically to the northeast. Some rock is very hard while some is soft (mostly within sheared shale layers). The hard rock is generally resistant to erosion, as evidenced by the "sea stacks" left standing in the bay and along the shore.

We observed marine terrace deposits exposed along the road cuts of Scenic Drive and along the slopes below the casino. These soils are partly-cemented, pebbly sand and silt.

The slopes adjacent west of the site are moderately steep with localized areas of instability. An active slide is located along at the south end of the site and extends from the top of bluff to ocean level 200+ft below. The existing casino is not affected by this feature, although the existing parking area near the mechanical building is at the head of this slide and the outer edge of the pavement has broken and dropped about 6-inches vertically. Scenic Drive crosses this slide and has experienced distress from this movement. This slope contains evidence of shallow groundwater and springs that likely contribute to the slope instability in this area.

The active Trinidad Fault is mapped near the ocean and trending about parallel to the shoreline. The proposed hotel project is located approximately 500 feet northeast of this fault. Further discussion of fault rupture hazard and seismic ground motions are presented in Sections 8 and 9 below.

4 PREVIOUS EXPLORATION

4.1 CASINO EXPANSION EXPLORATIONS

The original casino building was expanded in 2000 from 21,000±sf to 50,000±sf, including expansions to the north and south. SHN Consulting Engineers & Geologists (SHN) performed three machine-drilled borings and one hand boring for the northern expansion to a maximum depth of 27ft bgs (report dated October 1998). Taber Consultants (Taber) excavated six test pits for the southern expansion, including a retaining wall and water tank, to a maximum depth of 12ft bgs (reports dated January 1999 and May 1999). These studies show that the existing casino, retaining wall and water tank are founded on strip/ring footings established in the weathered shale bedrock. We include pertinent data from the existing casino expansions in Appendix D.





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4.2 SCENIC DRIVE SLOPE STABILITY EXPLORATIONS

Reviewed nearby geotechnical studies along Scenic Drive include three investigations performed by Taber (at PM 2.45, PM 2.20 and PM 1.25) and one investigation performed by SHN Consulting Engineers & Geologists (at PM 2.05). These studies show that groundwater is a primary initiator of landslides in the area. Terrace deposit and slide debris thicknesses varied from 0 to up to 40ft (generally 10-20ft), which lie on top of the weathered bedrock.

Slope stability measures to support the road have included drained, reconstructed embankments, soldier-pile retaining walls and welded-wire retaining walls.

5 CURRENT EXPLORATION

For this project, CAInc retained Geo-Ex Subsurface Exploration (Geo-Ex) to perform six (6) exploratory test borings between September 13, 2016 and September 16, 2016 ranging in depth from 31½ to 81½ ft below ground surface (bgs). Geo-Ex used a truck-mounted CME 75 drill rig equipped with flight augers or rotary wash techniques to perform this work.

During the drilling operations, penetration tests (blow counts) were performed at regular intervals using a Modified California Sampler (2.4" ID) or Standard Penetration Test Sampler (1.4" ID) to evaluate the relative density of coarse-grained (cohesionless) soil and to retain soil samples for laboratory testing. The penetration tests were performed by using a 140-pound automatic trip-hammer falling 30 inches. The recorded blow counts are shown on our boring logs and on the cross sections (Figures 3 and 4). The consistency of fine-grained (cohesive) soil was determined in accordance with ASTM D2488.

Our project engineer, Mr. Nick Anderson, logged the borings and visually classified the soils encountered according to the Unified Soil Classification System (USCS). Soil samples obtained from the borings were packaged and sealed in the field to reduce moisture loss and disturbance and delivered to laboratories for testing.

CAInc made ground water observations during drilling operations. One-inch diameter piezometers were installed in B3 and B5 to monitor future groundwater fluctuations. The remaining borings were backfilled with soil cuttings or neat cement grout. Details of the piezometer construction are shown on Detail 1.

6 SURFACE AND SUBSURFACE CONDITIONS

6.1 SOIL UNITS

We divide the soils overlying the bedrock into two general units. The uppermost unit is fill comprised of mostly stiff sandy lean clay and medium dense silty gravel. This unit is present across the majority of the hotel site and generally less than about 5 feet in depth.

The fill is underlain by marine terrace deposits within the northern half of the hotel footprint. These deposits are generally orange-tan, medium dense to very dense, silty and clayey sand with variable amounts of gravel and cementation. We encountered these soils to a depth of about 8 feet in B3 (near center of hotel footprint); the thickness then increases rapidly to a depth of 43 feet at B2 (north end of hotel





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footprint). The sharp drop in the bedrock surface toward the north likely represents deposition over an eroded, wave-cut bedrock surface.

6.2 BEDROCK

We encountered bedrock consistent with the Franciscan Complex as described above in each of the borings below the fill and/or terrace soils. The rock is predominately decomposed to moderately weathered shale with lesser sandstone and mudstone layers. Where decomposed, the rock is mostly angular rock fragments within a sheared clay matrix. The rock unit was drillable to the full depth of our test borings (maximum 81.4 ft, B3) with power auger and rotary wash methods; rock coring was not required for drill penetration. Table 1 summarizes the bedrock depth/elevation and description at the exploration locations completed by this office and those of SHN (1998) and Taber (1998) for the casino expansion work.

Table 1: Bedrock Summary

Table 1. Bedrock Summary							
Exploration	Boring/Test Pit Number	Depth (ft)	Approximate Elevation (ft)	Description			
	B1	6.0	210	Sandstone/Mudstone, fractured			
	B2	Unknown	Unknown	Unknown			
SHN (1998)	В3	6.0	213	Sandstone/Mudstone, fracture, highly weathered			
	HB1	Unknown	Unknown	Unknown			
	TP1	6.5	227.5	Shale, completely weathered and fractured			
	TP2	8.5	230.0	Shale, weathered and completely fractured			
	TP3	6.5	229.0	Shale, completely weathered and fractured/sheared			
Taber (1998)	TP4	10.0	228.0	Shale, completely weathered and fractured/sheared			
	TP5	4.0	227.0	Shale, completely weathered and fractured/sheared			
	TP6	1.0	234.0	Shale, highly weathered and completely fractured			
	B1	>31	<184	Not encountered			
	B2	43.2	181.8	Shale, soft			
CAInc	В3	8.0	222.0	Shale, decomposed to moderately weathered			
(2016)	B4	4.0	226.0	Shale, decomposed to moderately weathered			
	B5	3.5	226.5	Shale, intensely to moderately weathered			
	В6	4.0	226.0	Shale, very intensely to moderately weathered			

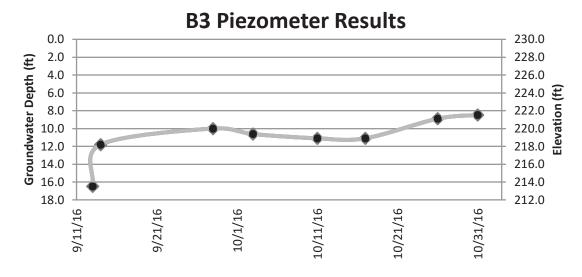
We present detailed logs of our test borings in Appendix A. Data from the SHN and Taber studies are included in Appendix D.

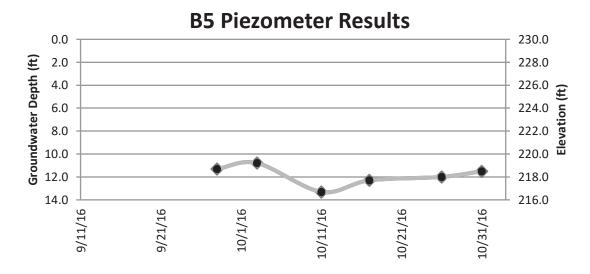




6.3 GROUNDWATER

We encountered free groundwater during drilling in boring B3 at a depth of about 16.5 ft; this level rose to about depth 12 ft within 24 hours after drilling. The remaining borings were dry to full auger depth. Piezometers were installed in B3 and B5 to monitor seasonal groundwater fluctuations. The casino's Facilities Manager, Butch Rindels, is collecting groundwater readings using an electronic water level meter on a weekly basis. Through October, groundwater in both B3 and B5 has been measured at about depth 8-12 ft, as shown below. Groundwater rises significantly shortly after heavy rains.





In general, we interpret groundwater to be seasonally present within the terrace soils near the bedrock contact. The groundwater is likely "perched" over the less-permeable bedrock and daylights onto the subjacent slope as springs/seeps, as evidenced by extensive water-loving plants along the slopes below the casino. Groundwater within the bedrock unit appears to be intermittent and restricted to the decomposed/sheared zones.





Trinidad Rancheria Cher-Ae Heights Hotel File: 16-319.1 Trinidad, California November 8, 2016

LABORATORY TESTING

CAInc completed the following laboratory tests on representative soil samples obtained from our exploratory borings:

- Moisture Content / Dry Density (ASTM D2216 / D2937)
- Particle Size Analysis (ASTM D422)
- No. 200 Sieve Wash (ASTM D1140)
- Atterberg Limits (ASTM D4318)
- Expansion Index Test (ASTM D4829)
- Unconsolidated-Undrained Triaxial Shear Strength Test (ASTM D2850)
- Unconfined Compressive Strength (ASTM D2166)
- Direct Shear Strength (ASTM D3080)
- R-value (CTM 301)
- Sulfate/Chloride Content (CTM 417/422)
- pH/Minimum Resistivity (CTM 643)

We present the complete laboratory test results in Appendix B.







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Trinidad Rancheria Cher-Ae Heights Hotel Trinidad, California File: 16-319.1 November 8, 2016

7.1 CLASSIFICATION AND STRENGTH TESTS

Table 2 summarizes the results of classification and strength tests on representative samples from the terrace soils and weathered bedrock.

Table 2: Classification and Strength Tests

Sub-	Sample		Classification Tests					Strength Tests	
surface Unit	Boring - Sample Number	Depth (ft)	Moisture Content (%)	Dry Density (pcf)	% Passing 200	Liquid Limit	Plastic Limit	Cohesion (psf)	Friction Angle (°)
	B1-1	6.0	18.3	105.3	24	NP	NP	-	-
	B1-2	11.0	9.2	123.4	16		-	-	-
	B1-3	16.0	12.7	103.1	15	-	-	-	-
	B1-4	21.0	13.4	94.5	-	-	-	85	34.4
	B1-5	25.0	-	-	22	-	-	-	-
	B1-6	31.0	6.3	124.3	-	-	-	-	-
Terrace Deposits	B2-2	8.0	6.9	114.9	-		-	-	-
Deposits	B2-3	13.0	14.6	113.0	18	-	_	-	-
	B2-4	18.0	13.0	116.3	22	-	-	-	-
	B2-5	23.0	8.5	109.9	15	—	-	-	-
	B2-6	28.0	13.7	95.0	-	-	-	50	34.3
	B2-7	33.0		-	23	-	-	-	-
	B3-1	5.3	15.5	100.9	-	-	-	-	-
	B3-2	11.0	8.5	133.0	-	-	-	3,051	-
	B3-3	16.0	4.9	138.2	-	-	-	2,387	-
	B3-4	21.0	-	-	-	27	14	-	-
	B3-6	31.0	8.1	127.7	-	-	-	-	-
	B3-10	51.0	7.0	142.3	-	-	-	-	-
	B4-1	6.0	8.8	129.6	-	-	-	1,272	-
	B4-2	11.0	8.5	137.1	-	-	-	-	-
Bedrock	B4-4	21.0	-	-	-	33	17	-	-
	B4-7	36.0	6.2	143.0	-	-	-	1,400	21.8
	B5-1	6.0	4.1	137.3	-	-	-	-	-
	B5-3	16.0	-	-	-	24	13	-	-
	B5-4	21.0	5.8	148.7	-	-	-	-	-
	B5-7	36.0	-	-	-	29	14	-	-
	B5-8	41.0	6.2	141.0	-	-	-	1,225	27.5
	B6-2	11.0	6.6	123.6	-	-	-	3,783	-





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Based on these results, we assign an average angle of internal friction value of 32 degrees to the terrace soils and modeled the weak bedrock with an undrained shear strength of 3,750 psf (represented as a very stiff to hard clay). The rock specimens tested were of the sheared matrix material that is weak relative to the rock mass as a whole; overall we consider the rock unit to be classed as "soft" and "highly weathered", with typical allowable bearing pressures on the order of 4-8 tsf (8,000-16,000 psf).

7.2 CORROSION TESTS

Table 3 summarizes the results of soil corrosivity tests on samples from various levels within the bedrock unit.

Minimum **Boring - Sample** Chloride Sulfate Depth (ft) pН Resistivity Number Content (ppm) Content (ppm) (ohm-cm) B3-7 36.0 8.57 1,070 12.1 225.9 21.0 B4-4 8.18 1,150 12.0 175.2 B4-8 40.0 8.54 1,850 3.7 19.4 B5-9 46.0 8.55 800 12.9 131.8 B6-1 6.0 7.72 1,720 6.9 100.4

Table 3: Soil Corrosion Test Summary

According to Caltrans Corrosion Guidelines, a site is considered corrosive to foundation elements if one or more of the following conditions exist: Chloride concentration is greater than or equal to 500 ppm, sulfate concentration is greater than or equal to 2000 ppm, minimal resistivity of 1000 ohm-cm or less, or the pH is 5.5 or less.

Based on Caltrans guidelines, the site soils are non-corrosive to cementitious materials but may be corrosive to ferrous material. We recommend consulting a corrosion engineer to develop possible corrosion mitigation measures, as needed.

7.3 EXPANSION INDEX TESTS

Results of Expansion Index (EI) tests conducted on both the terrace soils and the bedrock show EI = 3 and 54, respectively. Table 4 summarizes these results and those previously performed for the casino expansion in 2000 by Taber Consultants.

Table 4: Expansion Index Test Summary

Exploration	Boring - Sample Number	Description	EI	Expansion Potential
Crawford (2016)	Bulk 1	Terrace Deposits	3	Very Low
	Bulk 2	Bedrock	54	Medium
Taber (1998)	TP1@4'	Terrace Deposits	14	Very Low
Tabel (1996)	TP3@8'	Bedrock	30	Low





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These results indicate that some portions of the bedrock (likely the decomposed, clay-rich matrix) may be at least moderately expansive and require consideration in design of some project elements (e.g., slab-on-grade floors, flatwork, etc).

8 SEISMIC DESIGN PARAMETERS

The USGS Interactive Deaggregation Page¹ indicates a maximum peak horizontal ground acceleration (PGA) of 0.52g for a seismic event with a 10% probability of exceedance in 50 years.

Based on our exploratory borings and the previous site investigations, we provide the California Building Code (CBC) seismic parameters as shown in Table 5. We determined these values using a site latitude of 41.0530°N and longitude of 124.1293°W.

Table 5: Seismic Parameters

Site Class	С
Risk Category	I/II/III/IV
Ss – Acceleration Parameter	2.440 g
S1 – Acceleration Parameter	1.001 g
Fa – Site Coefficient	1.000
Fv – Site Coefficient	1.300
SMS – Adjusted MCE* Spectral Response Acceleration Parameter	2.440 g
SM1 – Adjusted MCE* Spectral Response Acceleration Parameter	1.301 g
SDS – Design Spectral Acceleration Parameter	1.627 g
SD1 – Design Spectral Acceleration Parameter	0.868 g
TI – Long-Period Transition Period**	12

^{*} Maximum Considered Earthquake ** Figure 22-12, ASCE 7-10

9 PRELIMINARY CONCLUSIONS AND RECOMMENDATIONS

Based on the data presented above, we consider the site is suitable for construction of the proposed hotel and complementary facilities provided that appropriate mitigation of the geologic hazards is incorporated into project design. Below, we provide a discussion of the geologic hazards, mitigation alternatives, and preliminary geotechnical recommendations for the structure foundations, retaining walls, pavement structural sections and site grading.

We anticipate that the project will be somewhat modified based on these conclusions. Further geotechnical study by this office will be completed for final design, based on the final structure layout, retaining walls and site grading.

¹ http://geohazards.usgs.gov/deaggint/2008/ accessed June 8, 2016



Taber

9.1 GEOLOGIC HAZARDS

9.1.1 FAULT RUPTURE

The active Trinidad Fault is mapped near the shoreline approximately 500±ft to the southwest of the proposed hotel. The California Geologic Survey (CGS) considers a fault to be active if it has shown evidence of ground displacement during the Holocene period, defined as about the last 11,000 years. The hotel lies at the eastern edge of an Alquist–Priolo Earthquake Fault Zone (EFZ) as defined by CGS.



The Earthquake Fault Zone Act requires structures for human occupancy to be set-back a minimum of 50 ft from an active fault. EFZ boundaries are commonly set at 500 feet from major active faults to accommodate imprecise fault locations and possible branches of active faults. The basis for establishing the Trinidad EFZ is a Fault Evaluation Report (FER-138, California Division of Mines and Geology, 1982); this report concludes that the fault scarp can be traced with confidence north of the site but is less distinct along the coast to the south. The relatively wide zone in this area reflects the imprecise location of the Trinidad Fault and potential for other branches of this fault to exist.

Except for the northwest corner, the proposed hotel footprint is positioned outside of the mapped EFZ. While we cannot say conclusively that an active fault is not present within this footprint, we consider the likelihood of an active fault through the site to be low and that the risk of fault rupture does not represent a "fatal flaw" to the project. Further investigation would be necessary to confirm this assessment, if required.

9.1.2 LANDSLIDES

Landslides are common along the slopes below the site, particularly at and below Scenic Drive. These slides are typically initiated at the beach level by wave erosion that undercuts the toe of slope preferentially within the "weak rock" areas of the shale bedrock. This erosion leads to block failures within the bedrock that translate upslope as individual translational/rotational slides. Several of these slides have affected Scenic Drive in this vicinity and have been the subject of past site investigations;





roadway slope stabilization measures taken by Humboldt County have included retaining walls systems, slope reconstruction and subdrainage elements.

An active slide extends upslope of Scenic Drive to near the southwest corner of the proposed hotel. This slide appears to be relatively shallow (perhaps on the order of 10-15 feet deep). The head of the slide is near the edge of the existing casino parking area. We show the approximate limits of this slide on Figure 1.

The active slide appears to involve primarily the terrace deposits overlying the bedrock. Groundwater is a major contributor to slope instability and appears to move within and through the terrace materials, "daylighting" out-of-slope where the rock is exposed. Areas of surface seepage, springs and water-loving vegetation are evidence of seasonal, shallow groundwater within the slope.

Based on preliminary discussions with the design team, we expect the hotel footprint will be modified to avoid the slide feature. Depending on the final hotel layout, some level of slope stabilization should be considered to limit headward encroachment of the slide. Appropriate stabilization work may include such options as a soil nail wall, welded wire wall or cantilevered soldier pile wall, with wall height likely on the order of 10-15 feet. If the hotel footprint cannot be modified to avoid the slide, then more extensive slope stabilization will be required, such as a drained, reconstructed embankment, regraded slope, tie-back soldier pile wall(s) or a tiered wall system. Table 6, below, summarizes a few of these options. Figure 5 shows some conceptual design elements.

Table 6: Slope Stabilization Options

Stabilization Technique/System	Advantages	Disadvantages
Soil Nail Wall	 Minor grading required to install "nails" (comprised of steel bars placed in pre-drilled holes, grouted in place) "Top-down" construction minimizes ground disturbance Cost-effective 	Requires drain elements against the excavation face and permanent facing connected to the nail heads
Drained, Reconstructed Embankment	 Provides secure slope stabilization if slope geometry and slide depth is confirmed Utilizes on-site soils for reconstruction 	 Requires significant grading and subdrainage Requires keyway at toe into intact material Likely requires work beyond property limits
Lightweight Fill Slope	 Unloads the slope and creates usable fill Free draining material Possibly qualifies for state grant funds 	 Requires significant grading and off-haul of native soils Costly (without the use of State grant) Limited contractors have experience
Soldier Pile and Lagging Wall	Stabilizes the upper portion of the slopeMay provide additional usable area	 Requires moderate grading Requires tie-backs for systems typically greater than 8-10 ft high
Tensar Geopier SRT System	Suitable for shallow unstable soilLow impactCost-effective	 Proprietary design Loud installation Slide plane may be too deep (>15ft limit)
Welded Wire (e.g., Hilfiker) Wall	 Flexible and cost-effective Local product (based in Eureka, CA) Commonly used in the area 	Requires secure support at toe of wall Requires backslope excavation into the slope





9.1.3 LIQUEFACTION POTENTIAL

Liquefaction can occur when saturated, loose to medium dense, granular soils (generally within 50 ft of the surface), or specifically defined cohesive soils, are subjected to ground shaking. Based on the soil, rock, and groundwater conditions encountered during our exploration and current industry accepted liquefaction evaluation methods, liquefaction is not generally expected to occur, unless sustained high groundwater levels are identified within the granular terrace soils. Liquefaction potential is considered low within the underlying bedrock.

9.1.4 TSUNAMI

The coastal area is mapped within a tsunami inundation hazard to an elevation of less than 50ft as shown on Figure 7. The casino site is at an elevation approximately 230 feet above the ocean level and is therefore outside of the hazard mapping.

9.2 PRELIMINARY RECOMMENDATIONS

9.2.1 HOTEL SUPPORT

The site is considered stable for hotel foundations established within undisturbed terrace deposits and/or bedrock. Due to the potential for landsliding along the subjacent slope and the variable materials across the longitudinal footprint (involving both weak bedrock and terrace soils), we do not recommend spread footings or other shallow foundation systems for the hotel structure. Pile foundations, achieving penetration into the bedrock unit, are therefore recommended. Driven piles (e.g., pre-cast concrete, cast-in-steel-shell (CISS), pipe piles, and H-piles) may be feasible, however, are not considered as appropriate as drilled piles due to vibrations/noise from the pile-driving equipment and variable driving conditions into the rock unit.

We consider cast-in-drilled-hole (CIDH) piles to be most appropriate; these piles require smaller equipment for installation than for driven piles and minimize noise/vibrations. The potential for groundwater and caving soils will require casing and minimum 24-inch diameter piles. For use in preliminary design, we recommend using skin friction only due to the "wet" method installation. Based on the strength data obtained from the field and laboratory tests, we recommend preliminary axial pile capacities be based on factored (allowable) adhesion value in bedrock of 1.5 kips/ft² and frictional capacity of 0.5 kips/ft² in the terrace deposits. Piles should be embedded a minimum of 10ft into bedrock. See Figure 4 for our interpreted bedrock profile along the longitudinal axis of the hotel.

We performed preliminary lateral pile analysis for both 24-inch and 36-inch diameter CIDH piles with 1% steel and a fixed-head condition (as requested by Steve Vasquez, PE) for ½-inch of deflection at the top of the pile. We performed two models — one model assuming terrace deposits and one model assuming bedrock to the surface. We summarize these results in Table 7. We will perform additional analysis to develop axial and lateral pile capacities for final design.

Table 7: Lateral Pile Analysis (Shear Resistance, ½-in deflection)

Soil/Rock Deposit	24-inch CIDH	36-inch CIDH	
Terrace Deposits	75 kips	150 kips	
Bedrock	127 kips	235 kips	





Trinidad Rancheria Cher-Ae Heights Hotel

File: 16-319.1 Trinidad, California November 8, 2016

We include deflection vs depth, bending moment vs depth, and shear resistance vs depth graphs in Appendix C.

9.2.2 COMPLEMENTARY FACILITIES SUPPORT

Soil support for the complementary facilities (e.g. fitness center, mechanical building, offices, etc.) are available by means of shallow spread or isolated footings bearing in compacted fill, undisturbed terrace deposits, or bedrock at least 2ft below nearest adjacent grade and at least 2ft wide. Allowable bearing pressure on the order of 2,000 psf in compacted fill or terrace deposits and 4,000 psf in bedrock is available for support. Maintain a minimum 5ft horizontal clearance from the top of slope.

Support for the pool (currently shown at the south end of the hotel, near the slide) may require drilled piers into bedrock depending on final layouts. Use similar adhesion values as for the hotel support. The pool should be set back a minimum of 10ft from the top of slope and the slope adequately stabilized to prevent headward encroachment of the slide.

9.2.3 RETAINING WALL SUPPORT & LATERAL PRESSURES

Depending on final structure layouts, retaining walls up to 10ft in height (e.g., concrete cantilever walls or similar) may be required for this project. On level ground, adequate soil support for the retaining wall foundations are available by means of shallow spread footings bearing in newly compacted fill, undisturbed terrace deposits, or bedrock at least 2ft below nearest adjacent grade and 2ft wide. Allowable bearing pressure on the order of 2,000 psf in compacted fill or terrace deposits and 4,000 psf in bedrock is available for support.

On sloped ground, soil support may be available on spread footings with reduced bearing pressure. However, drilled piers into bedrock may be recommended depending on the location and proximity to slide features.

Retaining walls should be drained with a minimum of 1ft thick permeable rock with filter fabric backing, or an appropriate geocomposite drain (e.g., Mirafi G-series or equivalent).

For preliminary design, use the equivalent fluid weights (EFWs) shown in Table 8 below to design assuming level backfill conditions. These values are based on a soil friction of 32 degrees and assume the use of native granular terrace soils or granular import for backfill. These use of native soils will be verified as part of the final design study.

Static EFW Seismic EFW Condition (pcf) (pcf) 39 45 Active Passive 203 152

Table 8: Equivalent Fluid Weights

For static design, apply the resultant of the static at-rest earth pressure at a depth of 0.33H from the base of the wall where H equals the wall height.

For seismic design, apply the additional resultant force of the seismic at-rest earth pressure at a depth of 0.66H from the base of the wall where H equals the wall height.





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9.2.4 PAVEMENT

We completed one R-Value test (CTM 301) on a bulk sample of near surface (granular fill) soil. Test results indicate an R-value of 74 by stabilometer. Using a maximum Caltrans allowable R-Value of 50 and Chapter 600 of the Caltrans Highway Design Manual (CHDM), 6th Edition, and assuming similar native (granular) soils at pavement subgrade, we recommend the sections shown in Table 9 below for design of entrance and parking lot pavement.

Table 9: Pavement Design

Traffic Index (TI)	5.0	6.0	7.0	8.0	9.0
Hot Mix Asphalt (feet)	0.20	0.25	0.30	0.40	0.45
Class 2 Aggregate Base (feet)	0.30	0.35	0.45	0.45	0.55

^{*}The upper 0.2 feet of HMA may be replaced with rubberized hot mix asphalt.

If select import fill is used for pavement subgrade, we recommend the R-value of import fill to be greater than 50.

9.3 GRADING

For preliminary design of the truck/delivery access road, use fill slopes of 2:1 (H:V) or flatter and cut slopes of 1½:1 or flatter. Fill slopes constructed at 1½:1 may be acceptable depending on the quality of the embankment fill.

General grading recommendations typically include clearing the site to remove vegetation, tree roots, debris, abandoned utilities, soft or unstable areas, and other deleterious materials. For this site, we estimate an average sub-excavation average of about 2 feet to expose undisturbed, native ground. This exposed surface should then be scarified to a minimum depth of 6 inches, moisture-conditioned, and compacted to at least 90% relative compaction per ASTM D1557. Local swale and/or spring areas may create wet ground conditions that would require drainage and/or drying of soil to achieve the required compaction.

Due to the presence of springs and possible "perched" groundwater throughout the slopes, we recommend subdrainage at the base of new fills. Depending on the final alignment and fill prism, a trenched underdrain or blanket drains may be suitable along the upslope side of the fill sections. Final subdrain details will depend on the selected alignment and fill dimensions and be addressed in the geotechnical design report.

Site soils are erodible (especially the granular terrace soils) and surface drainage will require control by directing runoff to suitable discharge points with erosion dissipaters, as necessary.

10 LIMITATIONS

CAInc performed these services in accordance with generally accepted geotechnical engineering principles and practices currently used in this area. This report is intended to provide assistance to the design team for project feasibility, planning and preliminary design/costing. CAInc will complete a Geotechnical Report for final design based on specific structure layout, grades, loading conditions and other details. Do not use this report for different locations and/or projects without the written consent of CAInc. Where referenced, we used ASTM or Caltrans standards as a general (not strict) guideline only.





CAInc based this report on the current site conditions. We assumed the soil/rock and groundwater conditions are representative of the subsurface conditions on the site. Actual conditions between explorations will vary.

Our scope did not include evaluation of on-site hazardous materials.

Logs of our explorations are presented in Appendix A. The lines designating the interface between soil types are approximate. The transition between soil types may be abrupt or gradual. Our recommendations are based on the final logs, which represent our interpretation of the field logs and general knowledge of the site and geological conditions.







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<u>Tsunami Inundation Map for Emergency Planning: Trinidad Quadrangle, Crannell Quadrangle</u>, California Geological Survey, 2009.





Trinidad Rancheria Cher-Ae Heights Hotel <u>Trinidad, California</u> **CAInc** File: 16-319.1 November 8, 2016

FIGURES

Exploration Location Map Figure 1 Cross Section AA' Figure 2

Cross Section BB' Figure 3

Cross Section CC' Figure 4

Slope Remediation Examples Figure 5
Geology Map Figure 6

landation Zama Figure 7

Tsunami Indundation Zone Figure 7

Fault Activity Map Figure 8

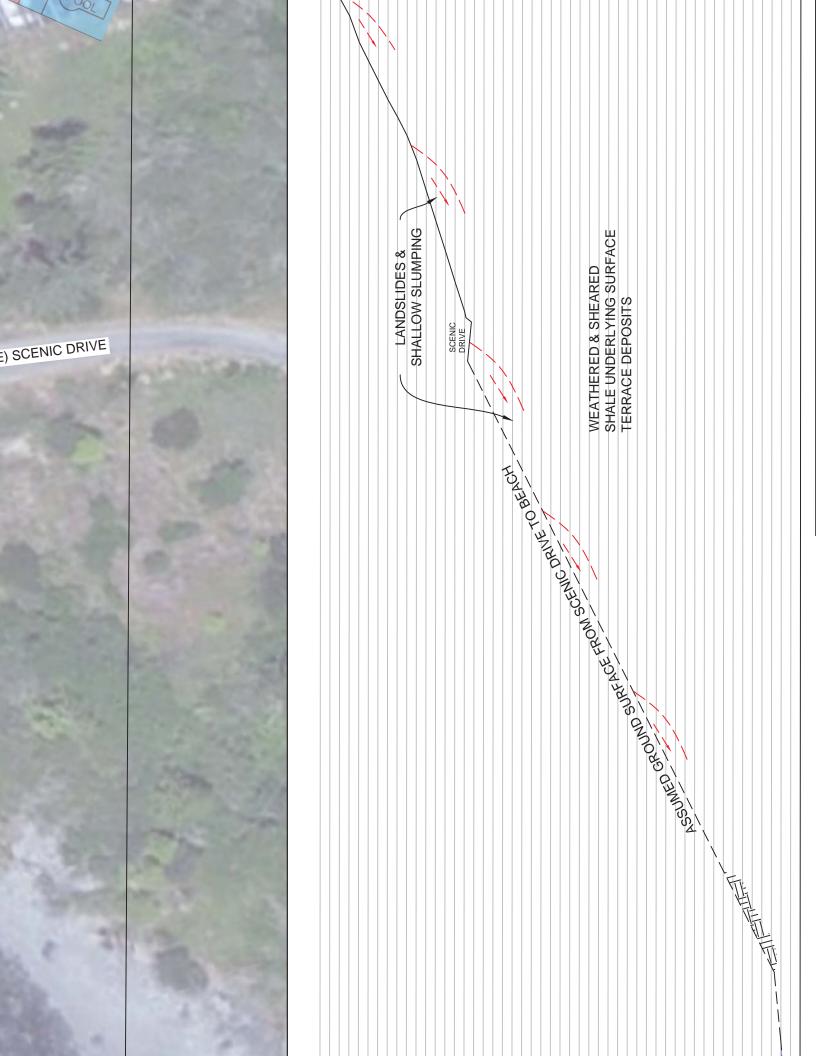
Earthquake Fault Zone Map Figure 9

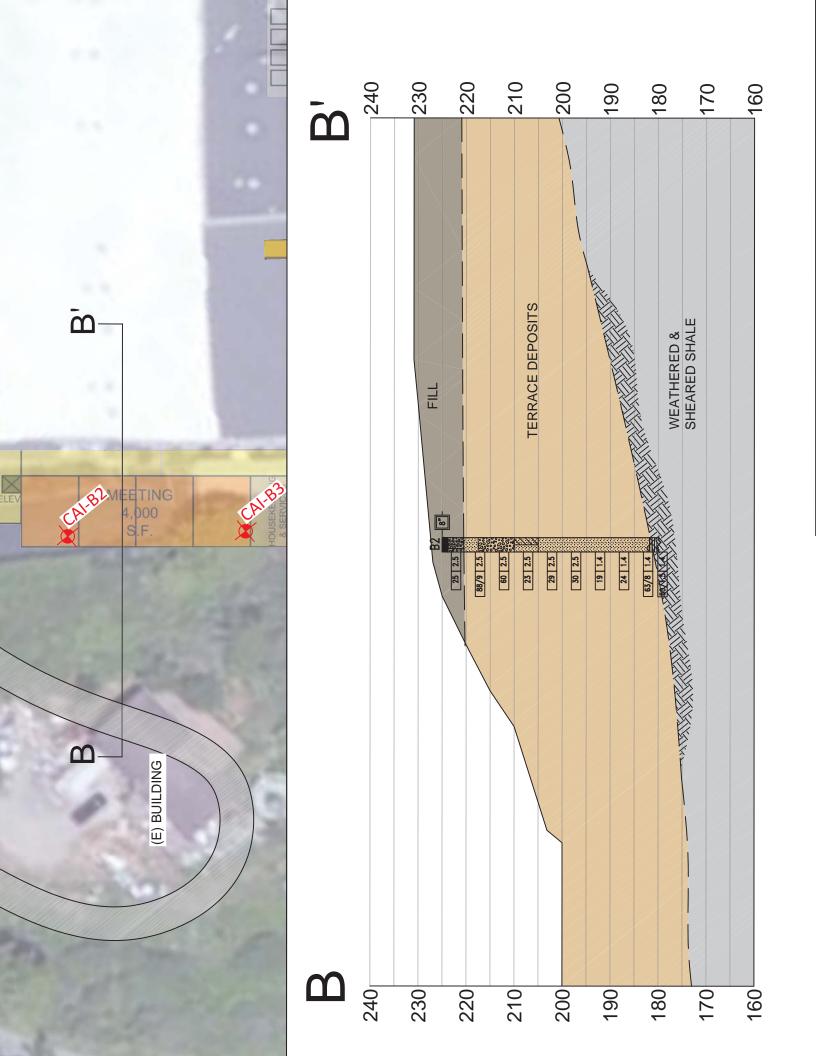
Piezometer Logs Detail 1



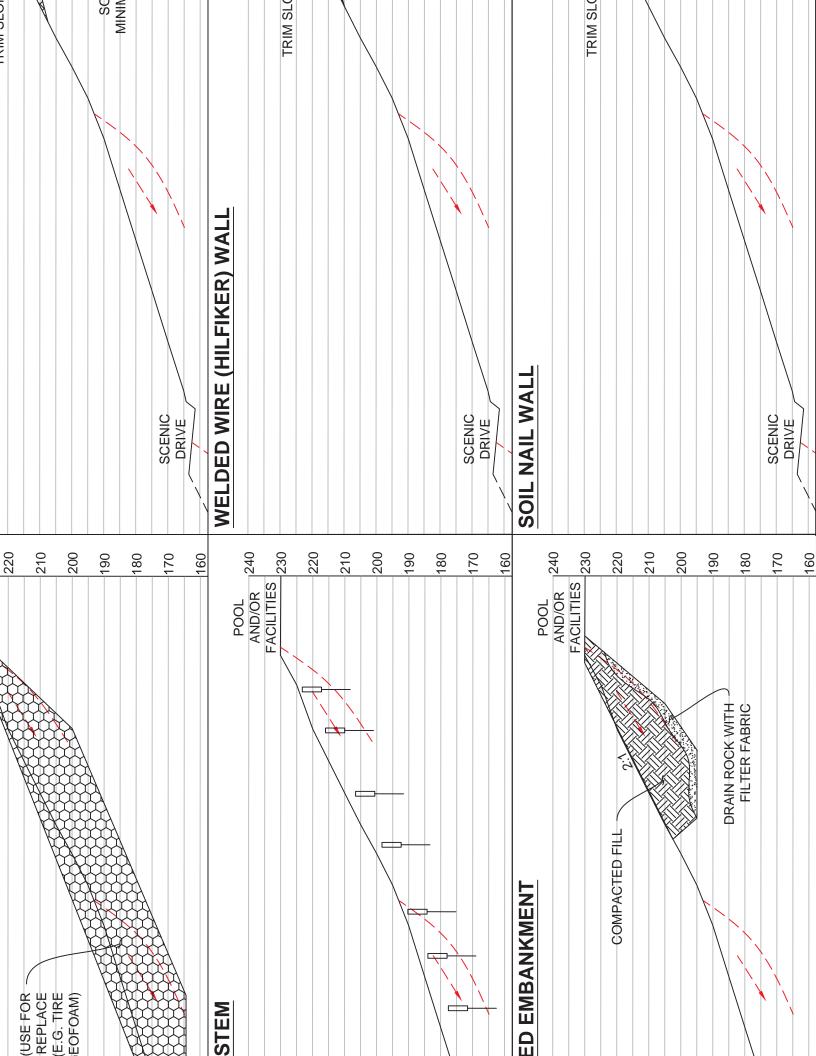


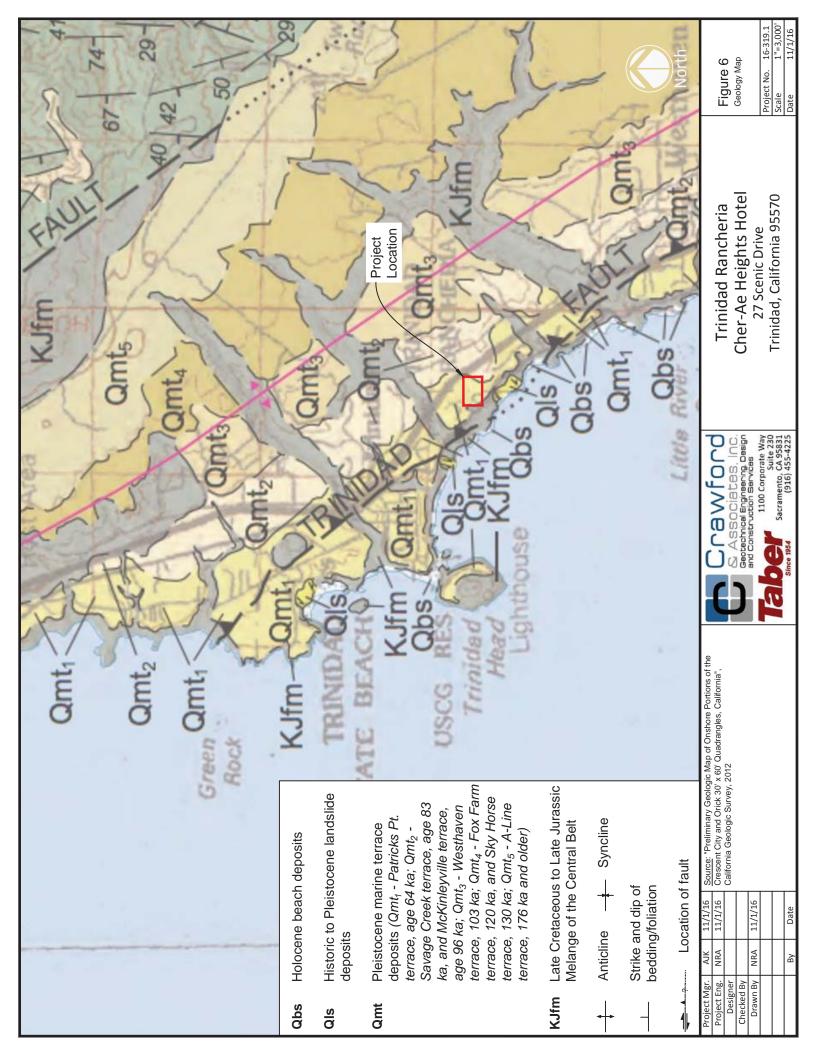


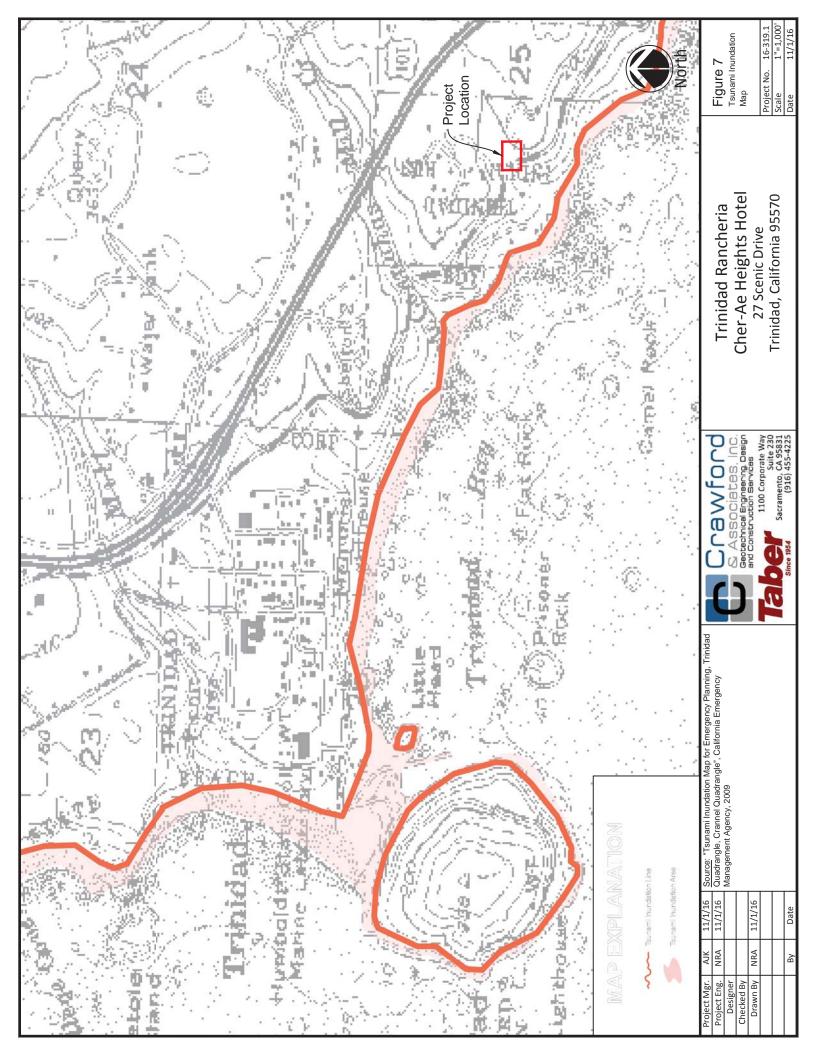


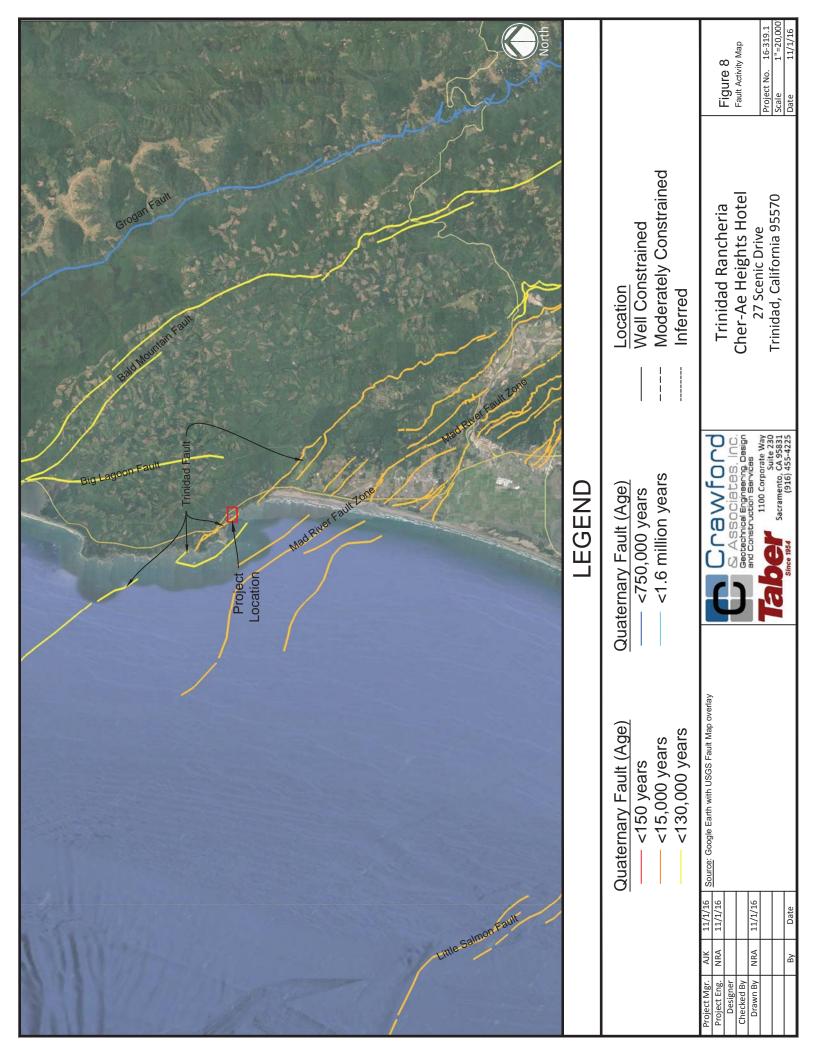


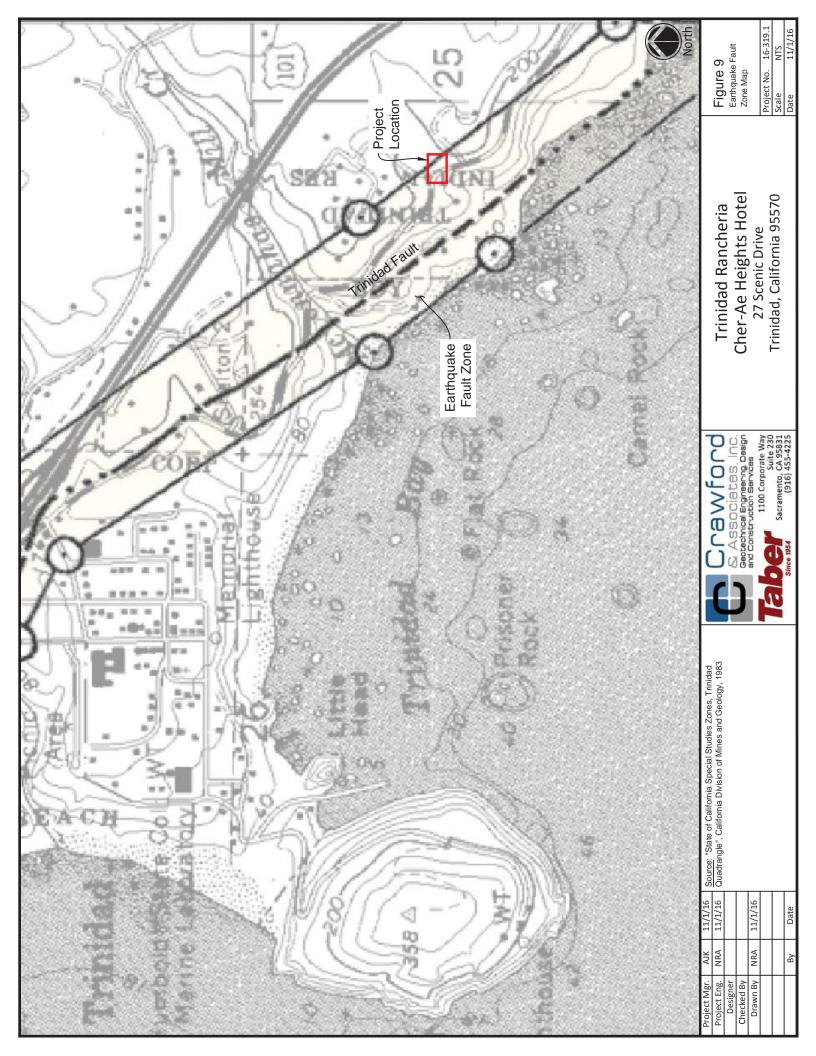




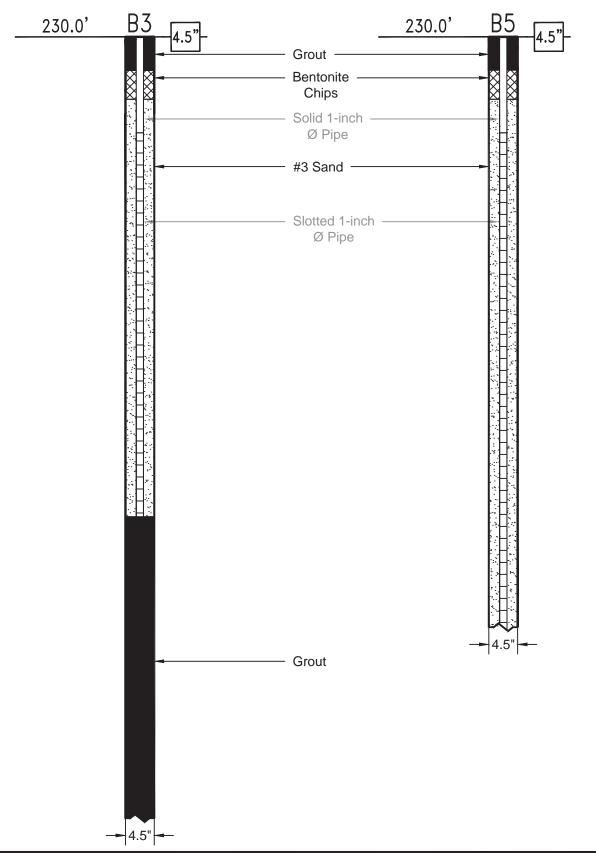








Piezometer Logs



Project Mgr.	AJK	11/1/16
Project Eng.	NRA	11/1/16
Designer		
Checked By		
Drawn By	NRA	11/1/16
·		
	Ву	Date



Trinidad Rancheria Cher-Ae Heights Hotel 27 Scenic Drive Trinidad, California 95570

Detail 1
Piezometer Logs

Project No. 16-319.1 Scale 1"=10' Date 11/1/16

CAInc

File: 16-319.1 November 8, 2016

APPENDIX A

Boring Log Legend Boring Logs





	UNIFIED	SOIL CL	ASSIFICATION (AS	TM D 2	2487-	06)	
MATERIAL TYPES	CRITERIA FOR	ASSIGNING SO	IL GROUP NAMES	GRAPHIC SYMBOL	GROUP SYMBOL	SOIL GROUP NAMES	
	GRAVELS	CLEAN GRAVELS	Cu ≥ 4 AND 1 ≤ Cc ≤ 3		GW	WELL-GRADED GRAVEL	
COARSE-	> F00/ OF COADCE	<5% FINES	Cu < 4 AND/OR 1 > Cc > 3		GP	POORLY-GRADED GRAVEL	
GRAINED	>50% OF COARSE FRACTION RETAINED	GRAVELS WITH FINES	FINES CLASSIFY AS ML OR MH		GM	SILTY GRAVEL	
SOILS	ON NO. 4 SIEVE	>12% FINES	FINES CLASSIFY AS CL OR CH		GC	CLAYEY GRAVEL	
>50% RETAINED ON SANDS NO. 200	SANDS	CLEAN SANDS	Cu ≥ 6 AND 1 ≤ Cc ≤ 3		sw	WELL-GRADED SAND	
	<50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	<5% FINES	Cu < 6 AND/OR 1 > Cc > 3		SP	POORLY-GRADED SAND	
SIEVE		SANDS WITH FINES >12% FINES	FINES CLASSIFY AS ML OR MH		SM	SILTY SAND	
			FINES CLASSIFY AS CL OR CH		sc	CLAYEY SAND	
FINE-	SILTS AND CLAYS	INODCANIC	PI>7 AND PLOTS ON OR ABOVE "A" LINE		CL	LEAN CLAY	
GRAINED		INORGANIC	PI>4 AND PLOTS BELOW "A" LINE		ML	SILT	
SOILS	LIQUID LIMIT <50	ORGANIC	LL (oven dried)<0.75/LL (not dried)		OL	ORGANIC CLAY OR SILT	
>50% PASSING	SILTS AND CLAYS	INORGANIC	PI PLOTS ON OR ABOVE "A" LINE		СН	FAT CLAY	
NO. 200		INORGANIC	PI PLOTS BELOW "A" LINE		МН	ELASTIC SILT	
SIEVE	LIQUID LIMIT >50	ORGANIC	LL (oven dried)<0.75/LL (not dried)		ОН	ORGANIC CLAY OR SILT	
HIGHLY ORGANIC SOILS PRIMARILY ORGANIC MATTER, DARK COLOR, ORGANIC ODOR					PT	PEAT	
NOTE:	NOTE: Cu=D co/D40 SAMPLE TYPES						

NOTE: $Cu=D_{60}/D_{10}$ $Cc=(D_{30})^2/D_{10} \times D_{60}$

BLOW COUNT

The number of blows of a 140-lb. hammer falling 30-inches required to drive the sampler the last 12-inches of an 18-inch drive. The notation 50/0.4 indicates 4-inches of penetration achieved in 50 blows.

PLASTICITY CHART 60 For classification of fine-grained soils and fine-grained fraction of coarse-grained 50 Equation of "A"-line (PI) Horizontal at PI=4 to LL=25.5, then PI=0.73 (LL - 20) PLASTICITY INDEX 40 Equation of "U"-line Vertical at LL=16 to PI=7 then PI=0.9 (LL - 8) 0/ C/COV 20 MH or OH 10 ML or OL 16 20 40 50 60 70 80 90 100 LIQUID LIMIT (LL)

SAMPLE TYPES Auger or backhoe cuttings

С

Shelby tube

Bulk Sample

Standard Penetration (SPT)

Rock core

ADDITIONAL TESTS

- Consolidation
- CP Compaction Curve
- CR Corrosivity Testing
- CU Consolidated Undrained Triaxial

Modified California 2"

California Standard 2.5"

- DS Direct Shear
- Expansion Index
- Ρ - Permeability
- Partical Size Analysis PA
- Plasticity Index
- PP - Pocket Penetrometer
- R - R-Value
- SE Sand Equivalent
- SG Specific Gravity
 - Shrinkage Limit
- SW Swell Potential
- Pocket Torvane Shear Test
- Unconfined Compression
- Unconsolidated Undrained Triaxial

GROUND WATER LEVELS

Later water level after drilling



Water level at time of drilling



BORING LOG / TEST PIT LEGEND AND SOIL DESCRIPTIONS

PROJECT NO: 16-319.1

PROJECT: Trinidad Rancheria Hotel

LOCATION: Trinidad, CA

CLIENT: TREDC LOGGED BY: NRA

DEPTH OF BORING: 31.5 (ft)

BEGIN DATE: 9/13/2016

COMPLETION DATE: 9/13/2016 SURFACE ELEVATION: 215 (ft)

SURFACE CONDITION: Asphalt WATER DEPTH: Not encountered

READING TAKEN: 9/13/2016 HAMMER EFFICIENCY: 70% DRILLING CONTRACTOR: Geo-Ex Subsurface

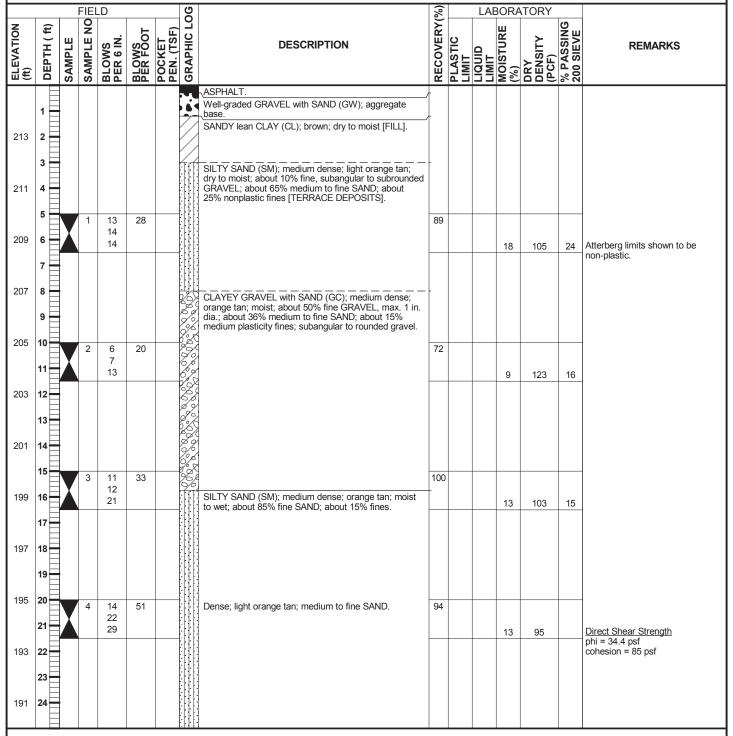
DRILLING METHOD: Solid-Stem Auger

DRILL RIG: CME 75

HAMMER TYPE: Auto 140lb, 30" drop

SAMPLER TYPE & SIZE: MCAL (2.5"ID), SPT (1.4"ID)

BOREHOLE DIAMETER: 4.5 (in) BACKFILL METHOD: Soil cuttings

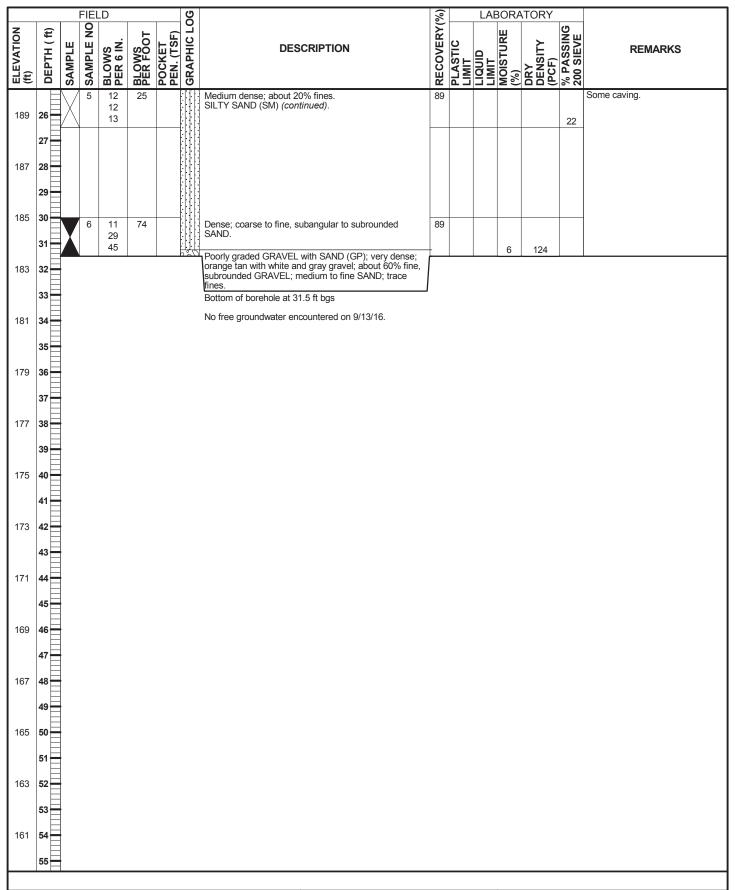




Crawford & Associates, Inc. 1100 Corporate Way, Suite 230 Sacramento, CA 95831 (916) 455-4225

PROJECT NUMBER: 16-319.1
PROJECT: Trinidad Rancheria Hotel

BORING: B1 ENTRY BY: NRA





PROJECT NUMBER: 16-319.1
PROJECT: Trinidad Rancheria Hotel

BORING: B1 ENTRY BY: NRA

PROJECT NO: 16-319.1

PROJECT: Trinidad Rancheria Hotel

LOCATION: Trinidad, CA

CLIENT: TREDC LOGGED BY: NRA

DEPTH OF BORING: 45.1 (ft)

BEGIN DATE: 9/13/2016

COMPLETION DATE: 9/13/2016 SURFACE ELEVATION: 225 (ft)

SURFACE CONDITION: Asphalt WATER DEPTH: Not encountered

READING TAKEN: 9/13/2016 HAMMER EFFICIENCY: 70% DRILLING CONTRACTOR: Geo-Ex Subsurface

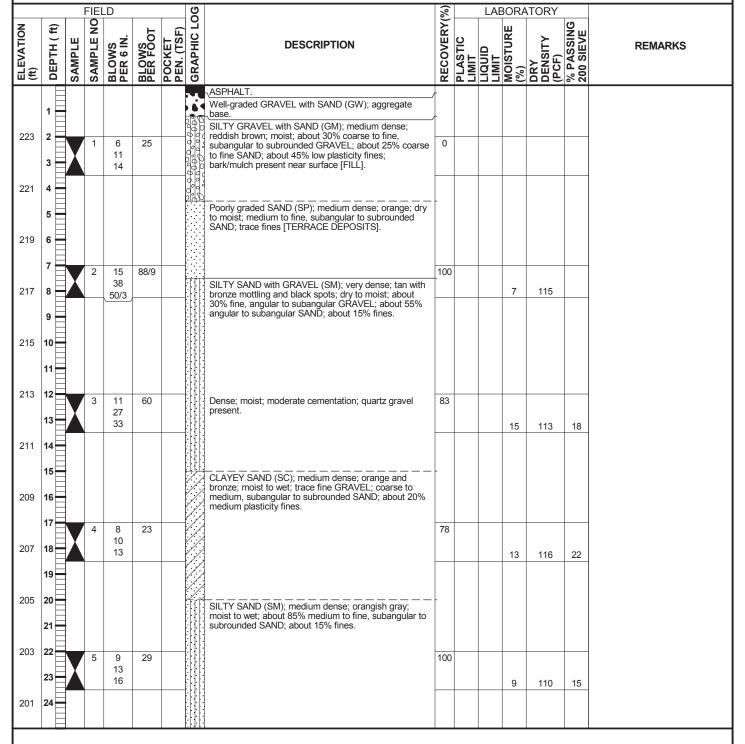
DRILLING METHOD: Hollow-Stem Auger

DRILL RIG: CME 75

HAMMER TYPE: Auto 140lb, 30" drop

SAMPLER TYPE & SIZE: MCAL (2.5"ID), SPT (1.4"ID)

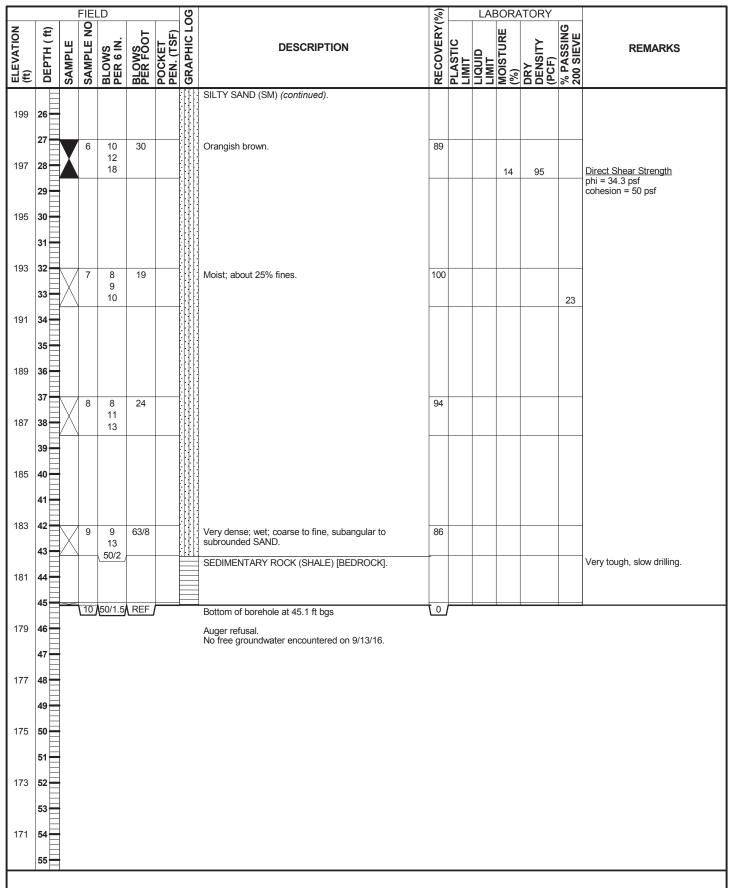
BOREHOLE DIAMETER: 8 (in)
BACKFILL METHOD: Soil cuttings





Crawford & Associates, Inc. 1100 Corporate Way, Suite 230 Sacramento, CA 95831 (916) 455-4225 PROJECT NUMBER: 16-319.1
PROJECT: Trinidad Rancheria Hotel

BORING: B2 ENTRY BY: NRA





PROJECT NUMBER: 16-319.1 PROJECT: Trinidad Rancheria Hotel

BORING: B2 ENTRY BY: NRA

PROJECT NO: 16-319.1

PROJECT: Trinidad Rancheria Hotel

LOCATION: Trinidad, CA

CLIENT: TREDC LOGGED BY: NRA

DEPTH OF BORING: 81.4 (ft)

BEGIN DATE: 9/13/2016

COMPLETION DATE: 9/14/2016 SURFACE ELEVATION: 230 (ft)

SURFACE ELEVATION: 230 (ft) SURFACE CONDITION: Asphalt

WATER DEPTH: 16.5

READING TAKEN: 9/14/2016 HAMMER EFFICIENCY: 70% DRILLING CONTRACTOR: Geo-Ex Subsurface

DRILLING METHOD: Rotary Wash

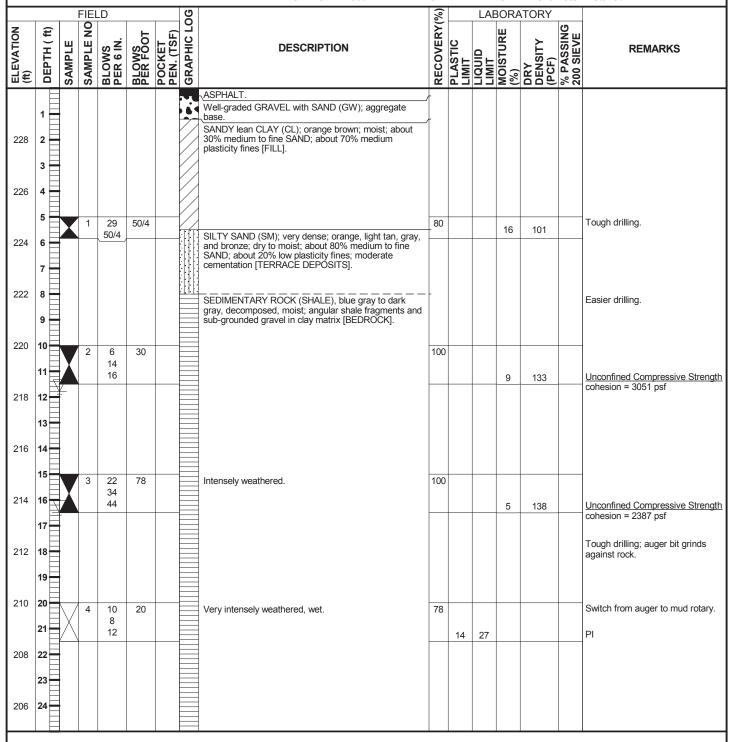
DRILL RIG: CME 75

HAMMER TYPE: Auto 140lb, 30" drop

SAMPLER TYPE & SIZE: MCAL (2.5"ID), SPT (1.4"ID)

BOREHOLE DIAMETER: 4.5 (in)

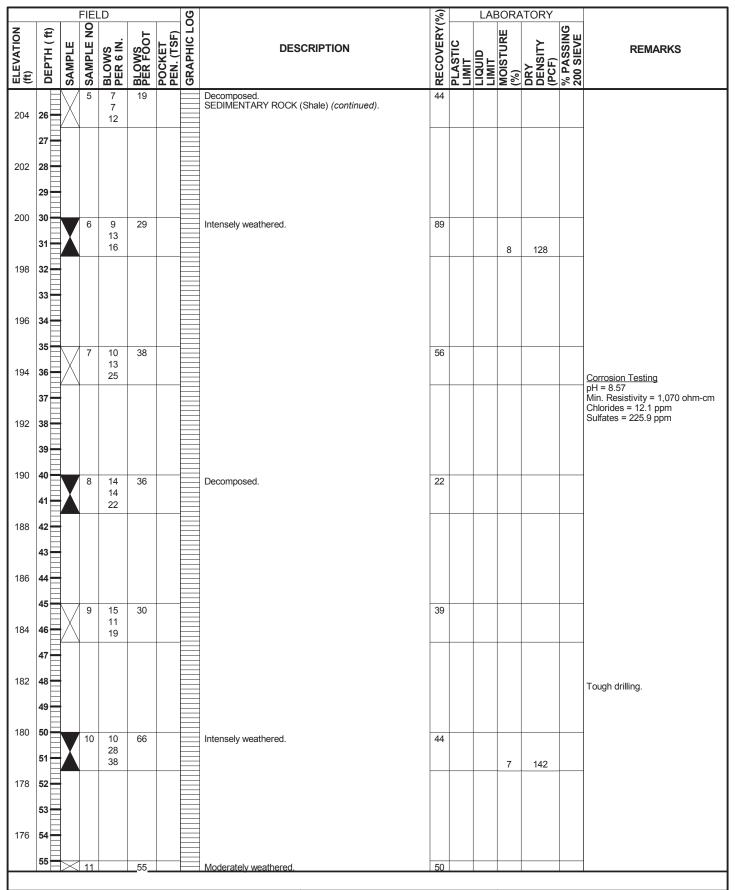
BACKFILL METHOD: Piezometer Installed





Crawford & Associates, Inc. 1100 Corporate Way, Suite 230 Sacramento, CA 95831 (916) 455-4225 PROJECT NUMBER: 16-319.1
PROJECT: Trinidad Rancheria Hotel

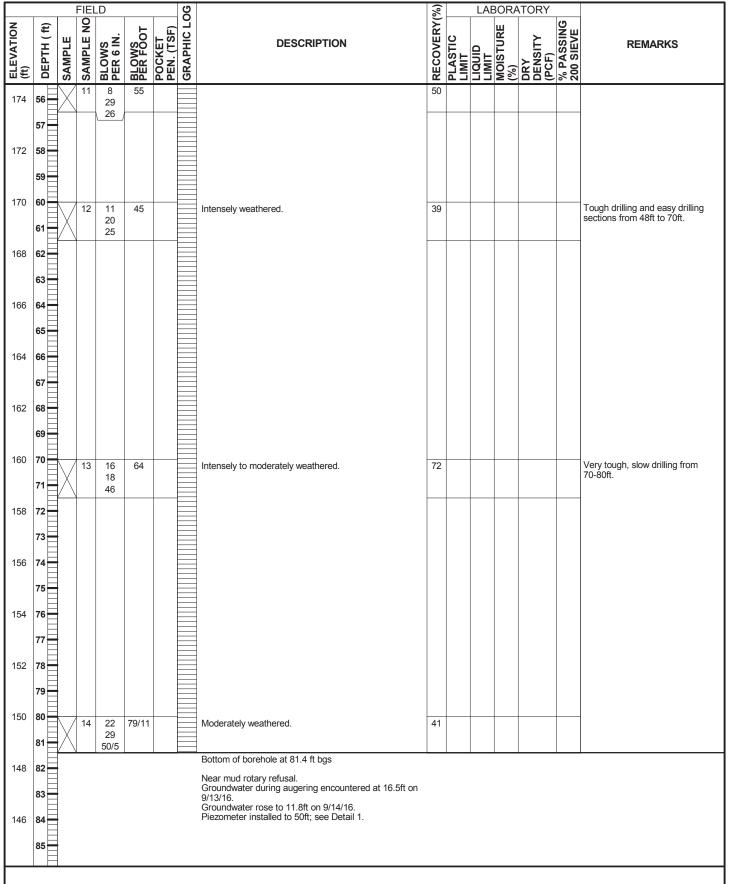
BORING: B3 ENTRY BY: NRA





PROJECT NUMBER: 16-319.1
PROJECT: Trinidad Rancheria Hotel

BORING: B3 ENTRY BY: NRA





PROJECT NUMBER: 16-319.1
PROJECT: Trinidad Rancheria Hotel

BORING: B3 ENTRY BY: NRA

PROJECT NO: 16-319.1

PROJECT: Trinidad Rancheria Hotel

LOCATION: Trinidad, CA

CLIENT: TREDC LOGGED BY: NRA

DEPTH OF BORING: 61 (ft)

BEGIN DATE: 9/15/2016

COMPLETION DATE: 9/15/2016 SURFACE ELEVATION: 230 (ft)

SURFACE ELEVATION: 230 (ft)
SURFACE CONDITION: Asphalt

WATER DEPTH: Not encountered READING TAKEN: 9/15/2016

READING TAKEN: 9/15/2016 HAMMER EFFICIENCY: 70% DRILLING CONTRACTOR: Geo-Ex Subsurface

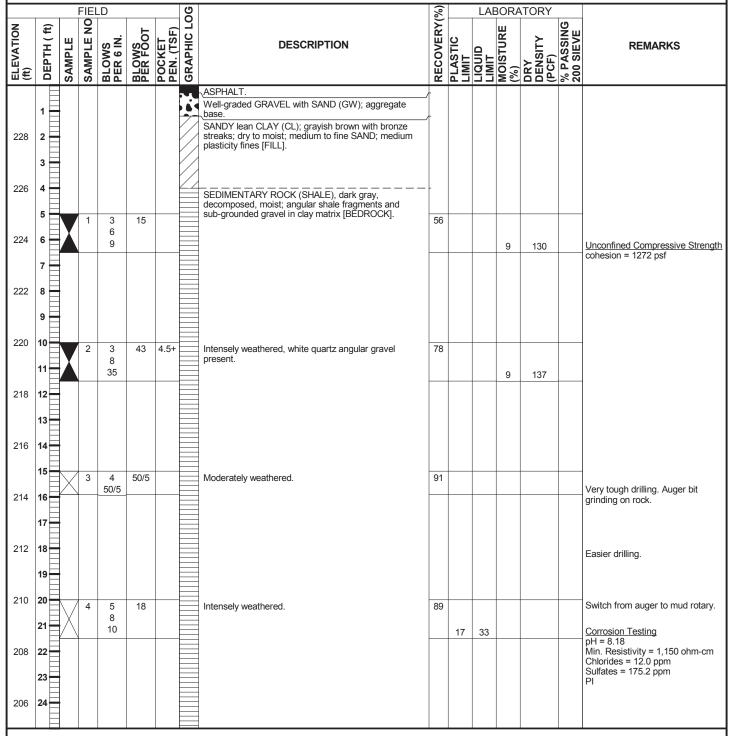
DRILLING METHOD: Rotary Wash

DRILL RIG: CME 75

HAMMER TYPE: Auto 140lb, 30" drop

SAMPLER TYPE & SIZE: MCAL (2.5"ID), SPT (1.4"ID)

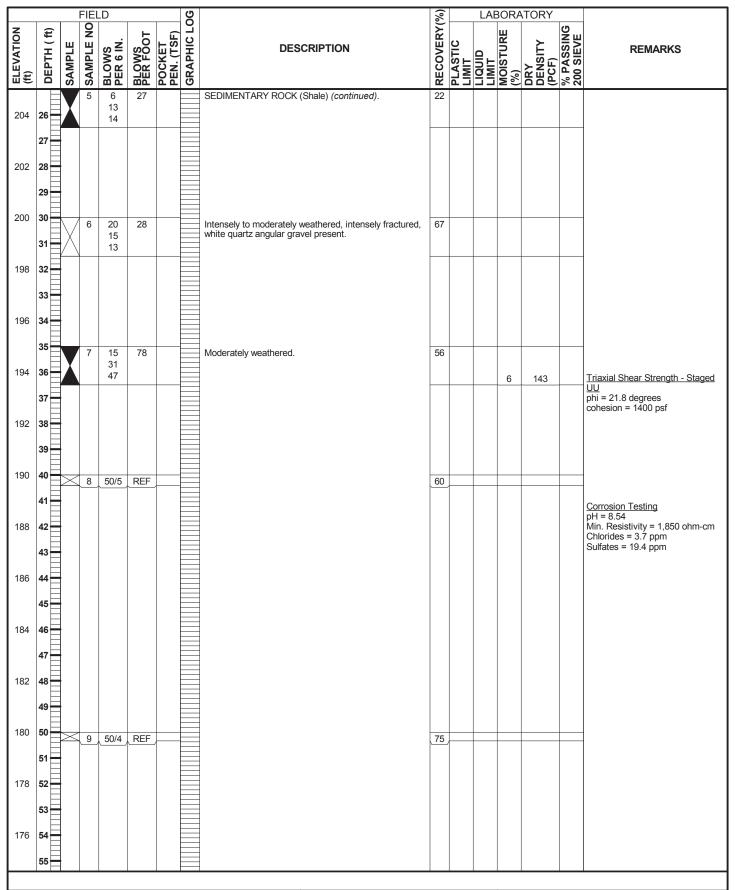
BOREHOLE DIAMETER: 4.5 (in)
BACKFILL METHOD: Cement grout





Crawford & Associates, Inc. 1100 Corporate Way, Suite 230 Sacramento, CA 95831 (916) 455-4225 PROJECT NUMBER: 16-319.1
PROJECT: Trinidad Rancheria Hotel

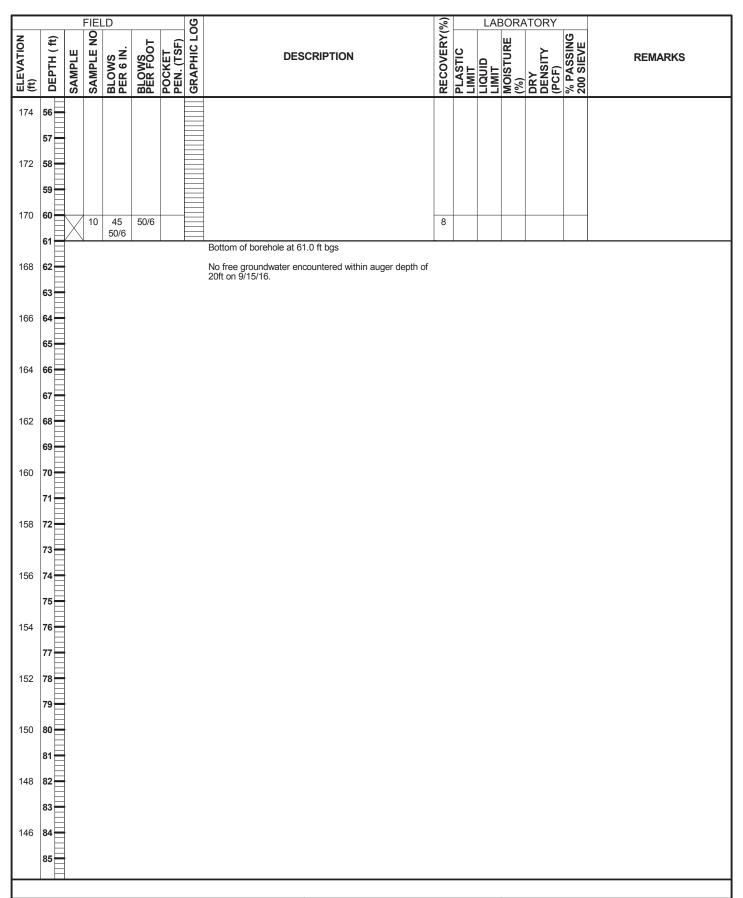
BORING: B4 ENTRY BY: NRA





PROJECT NUMBER: 16-319.1
PROJECT: Trinidad Rancheria Hotel

BORING: B4 ENTRY BY: NRA





PROJECT NUMBER: 16-319.1
PROJECT: Trinidad Rancheria Hotel

BORING: B4 ENTRY BY: NRA

PROJECT NO: 16-319.1

PROJECT: Trinidad Rancheria Hotel

LOCATION: Trinidad, CA

CLIENT: TREDC LOGGED BY: NRA

DEPTH OF BORING: 61.5 (ft)

BEGIN DATE: 9/16/2016

COMPLETION DATE: 9/16/2016 SURFACE ELEVATION: 230 (ft)

SURFACE CONDITION: Asphalt WATER DEPTH: Not encountered

READING TAKEN: 9/16/2016 HAMMER EFFICIENCY: 70% DRILLING CONTRACTOR: Geo-Ex Subsurface

DRILLING METHOD: Rotary Wash

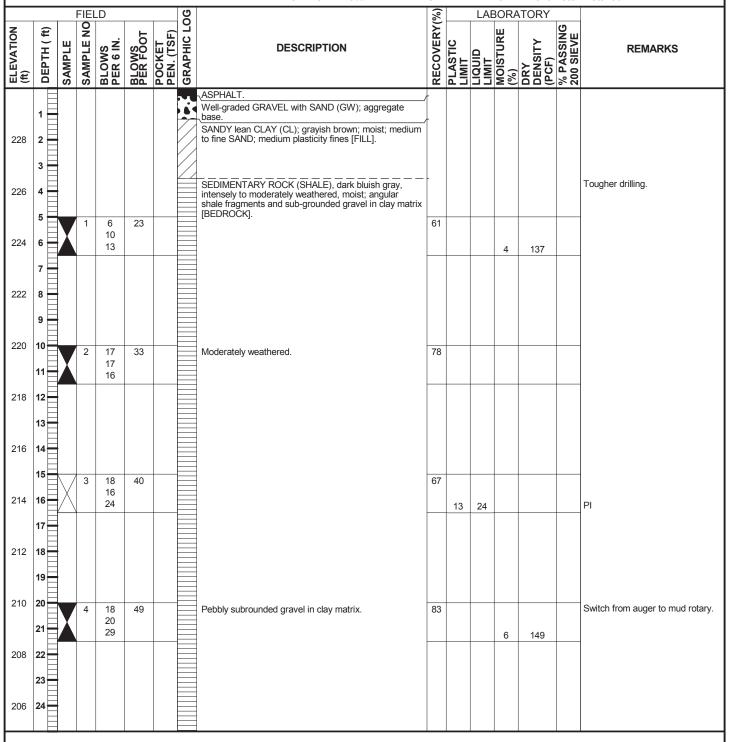
DRILL RIG: CME 75

HAMMER TYPE: Auto 140lb, 30" drop

SAMPLER TYPE & SIZE: MCAL (2.5"ID), SPT (1.4"ID)

BOREHOLE DIAMETER: 4.5 (in)

BACKFILL METHOD: Piezometer Installed





Crawford & Associates, Inc. 1100 Corporate Way, Suite 230 Sacramento, CA 95831 (916) 455-4225 PROJECT NUMBER: 16-319.1
PROJECT: Trinidad Rancheria Hotel

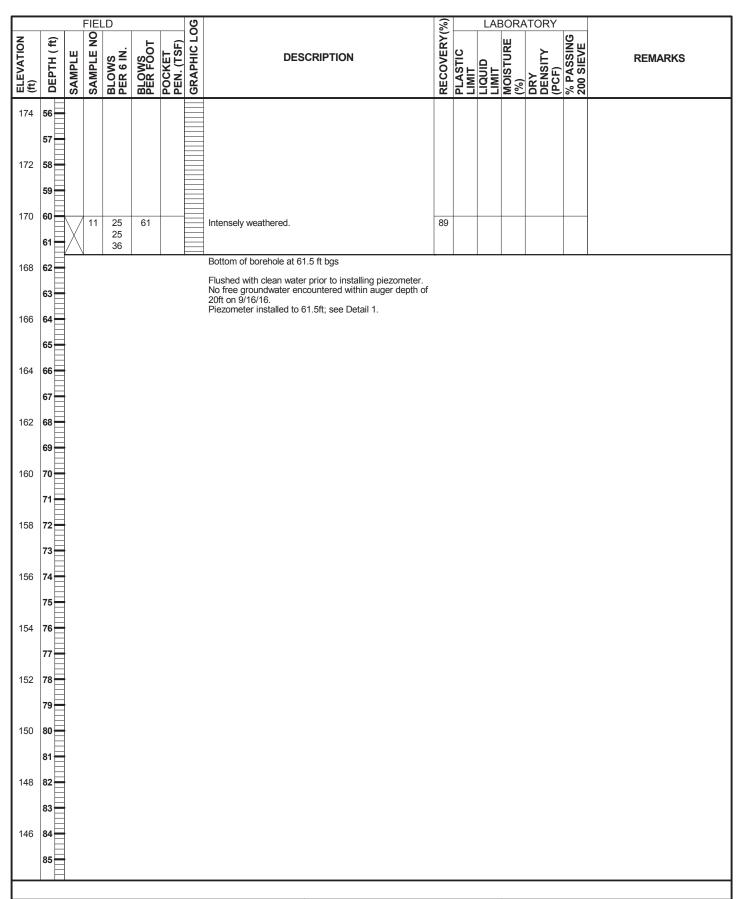
BORING: B5 ENTRY BY: NRA

			FIEL	.D			90	8 LABORATORY							
ELEVATION (ft)	DEPTH (ft)	SAMPLE	SAMPLE NO	BLOWS PER 6 IN.	BLOWS PER FOOT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION	RECOVERY(%)	PLASTIC LIMIT	LIQUID	MOISTURE (%)	DRY DENSITY (PCF)	% PASSING 200 SIEVE	REMARKS
204	26	X	5	7 5 11	16			Moderately weathered. SEDIMENTARY ROCK (Shale) (continued).	61						
202	27	1													
	29	1													Easier drilling.
200	31	X	6	33 37 51	88				22						Sample very disturbed.
198	32														
196	34	1													
194	35	X	7	9 16 16	32			Intensely to moderately weathered.	83	14	29				PI
192	37	1													
190	39														
100	41	X	8	23 32 38	70			Moderately weathered.	22			6	141		Triaxial Shear Strength - Staged
188	43														phi = 27.5 degrees cohesion = 1225 psf
186	44														
184	46		9	17 10 13	23			Intensely to moderately weathered.	78						Corrosion Testing pH = 8.55
182	48														Min. Resistivity = 800 ohm-cm Chlorides = 12.9 ppm Sulfates = 131.8 ppm Tougher drilling. Drill bit grinding on rock.
180	49 50		. 10 /	50/2	REF			Light gravish green and white elightly weathered	100						OILIOUR.
170	51		. 10/	0012	LINEF			Light grayish green and white, slightly weathered, intensely fractured, partly serpentinized.	100						
178	52														
176	54														



PROJECT NUMBER: 16-319.1 PROJECT: Trinidad Rancheria Hotel

BORING: B5 ENTRY BY: NRA





PROJECT NUMBER: 16-319.1
PROJECT: Trinidad Rancheria Hotel

BORING: B5 ENTRY BY: NRA

PROJECT NO: 16-319.1

PROJECT: Trinidad Rancheria Hotel

LOCATION: Trinidad, CA

CLIENT: TREDC LOGGED BY: NRA

DEPTH OF BORING: 31.5 (ft)

BEGIN DATE: 9/15/2016

COMPLETION DATE: 9/16/2016 SURFACE ELEVATION: 230 (ft)

SURFACE CONDITION: Asphalt WATER DEPTH: Not encountered

READING TAKEN: 9/16/2016 HAMMER EFFICIENCY: 70% DRILLING CONTRACTOR: Geo-Ex Subsurface

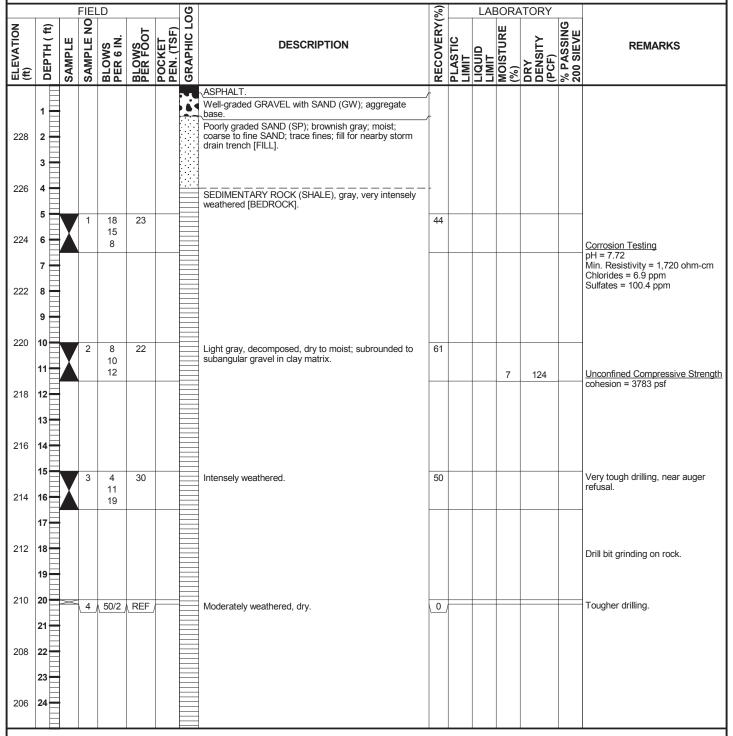
DRILLING METHOD: Solid-Stem Auger

DRILL RIG: CME 75

HAMMER TYPE: Auto 140lb, 30" drop

SAMPLER TYPE & SIZE: MCAL (2.5"ID), SPT (1.4"ID)

BOREHOLE DIAMETER: 4.5 (in) BACKFILL METHOD: Soil cuttings

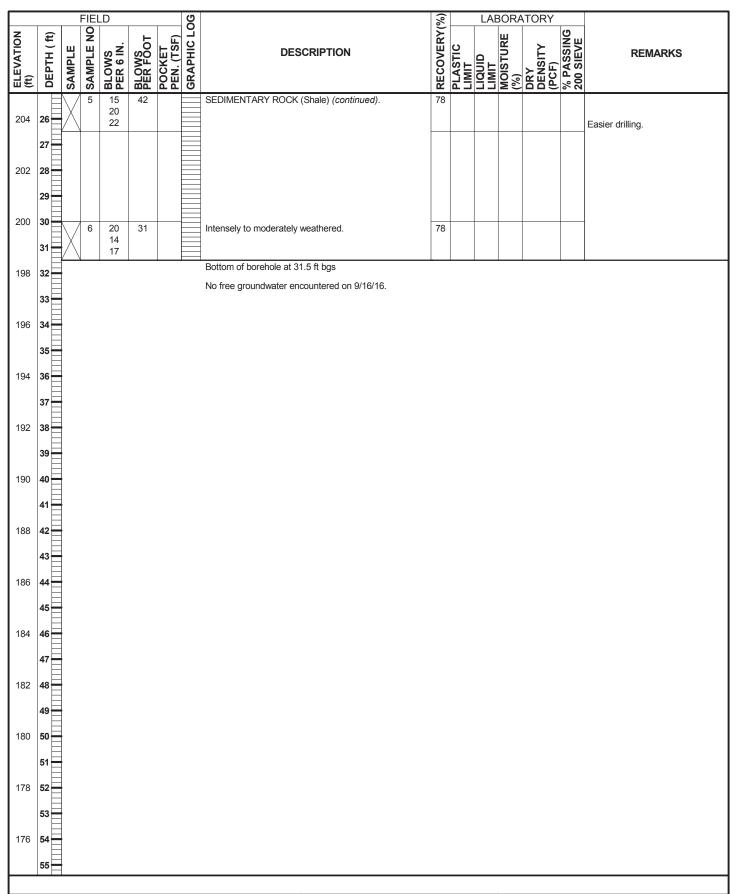




Crawford & Associates, Inc. 1100 Corporate Way, Suite 230 Sacramento, CA 95831 (916) 455-4225

PROJECT NUMBER: 16-319.1
PROJECT: Trinidad Rancheria Hotel

BORING: B6 ENTRY BY: NRA





PROJECT NUMBER: 16-319.1
PROJECT: Trinidad Rancheria Hotel

BORING: B6 ENTRY BY: NRA

File: 16-319.1 November 8, 2016

APPENDIX B

Laboratory Test Results







CAInc File No: 16-319.1 Date: 9/30/16 Technician: CAP

MOISTURE-DENSITY TESTS - D2216

5 2 3 1 4 Sample No. B1-2 B1-3 B2-2 B1-1 B1-6 SM **USCS Symbol** GC SM SP GP Depth (ft.) 6 11 16 31 Sample Length (in.) 5.544 5.600 5.651 5.622 5.218 Diameter (in.) 2.388 2.374 2.374 2.405 2.375 0.01437 0.01434 0.01448 0.01478 0.01338 Sample Volume (ft³) Total Mass Soil+Tube (g) 1087.8 1151.6 1058.3 1157.9 998.2 Mass of Tube (g) 275.1 271.8 276.0 295.8 253.0 P10 P9 P1 P9 G1 Tare No. Tare (g) 131.7 254.6 131.4 254.5 20.7 Wet Soil + Tare (g) 741.6 506.6 740.6 59.5 580.3 Dry Soil + Tare (g) 510.8 700.7 464.4 711.8 57.0 Dry Soil (g) 379.1 446.1 333.0 457.3 36.4 Water (g) 69.5 40.9 42.2 28.8 2.5 Moisture (%) 18.3 9.2 12.7 6.3 6.9 **Dry Density (pcf)** 105.3 123.4 103.1 124.3 114.9

Notes:



CAInc File No: 16-319.1 Date: 9/30/16

Technician: CAP

MOISTURE-DENSITY TESTS - D2216

	1	2	3	4	5
Sample No.	B2-3	B2-4	B2-5	B3-1	B3-6
USCS Symbol	SM	SC	SM	SM	Rock
Depth (ft.)	13	18	23	5.5	31
Sample Length (in.)	5.361	5.589	5.983	3.618	4.657
Diameter (in.)	2.377	2.392	2.358	2.408	2.418
Sample Volume (ft ³)	0.01377	0.01453	0.01512	0.00954	0.01238
Total Mass Soil+Tube (g)	1081.2	1138.4	1120.3	771.5	1040.1
Mass of Tube (g)	272.4	272.0	302.4	267.5	265.1
Tare No.	P18	P8	Q6	D17	C15
Tare (g)	129.0	127.6	186.3	20.8	20.7
Wet Soil + Tare (g)	591.4	509.7	496.0	71.9	69.5
Dry Soil + Tare (g)	532.6	465.8	471.8	65.0	65.9
Dry Soil (g)	403.6	338.2	285.5	44.3	45.2
Water (g)	58.8	43.9	24.2	6.9	3.7
Moisture (%)	14.6	13.0	8.5	15.5	8.1
Dry Density (pcf)	113.0	116.3	109.9	100.9	127.7

Notes:



CAInc File No: 16-319.1 Date: 9/30/16

Technician: CAP

MOISTURE-DENSITY TESTS - D2216

1 2 3 4 5

	1	2	3	4	5
Sample No.	B3-10	B4-2	B5-1	B5-4	
USCS Symbol	Rock	Rock	Rock	Rock	
Depth (ft.)	51	11	6	21	
Sample Length (in.)	5.983	5.907	5.749	5.635	
Diameter (in.)	2.377	2.375	2.369	2.377	
Sample Volume (ft ³)	0.01536	0.01514	0.01466	0.01447	
Total Mass Soil+Tube (g)	1334.7	1296.5	1235.5	1221.9	
Mass of Tube (g)	273.4	274.3	284.9	189.8	
Tare No.	H5	D15	G7	C5	
Tare (g)	20.7	20.9	20.5	21.1	
Wet Soil + Tare (g)	61.7	56.1	102.1	82.8	
Dry Soil + Tare (g)	59.0	53.4	98.89	79.4	
Dry Soil (g)	38.4	32.5	78.39	58.3	
Water (g)	2.7	2.8	3.21	3.4	
Moisture (%)	7.0	8.5	4.1	5.8	
Dry Density (pcf)	142.3	137.1	137.3	148.7	

Notes:

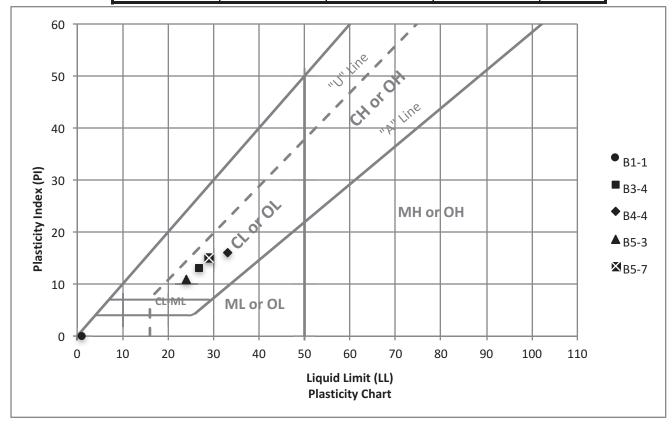


CAInc File No: 16-319.1 Date: 10/3/16

Technician: KKL/CAP

Plastic Index - ASTM D4318

Sample ID	Depth (ft)	Liquid Limit	Plastic Limit	PI
B1-1	6	NP	NP	NP
B3-4	21	27	14	13
B4-4	21	33	17	16
B5-3	16	24	13	11
B5-7	36	29	14	15

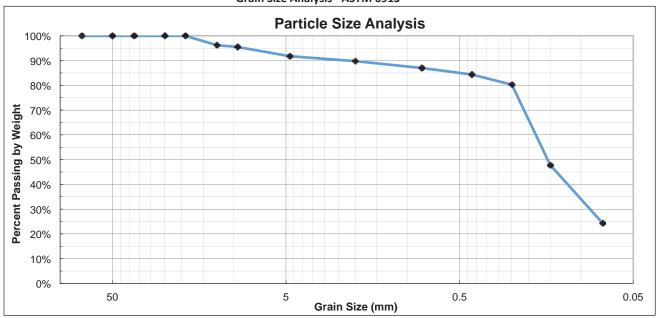


Note: For B1-1, the material was not able to be rolled into a 3.2 mm diameter thread for the plastic limit and the soil pat slid in the cup when performing the liquid limit.



CAInc File No: 16-319.1 Date: 10/4/16 Technician: KKL Sample ID: B1-1 Depth: 6'

USCS Classification: Silty SAND



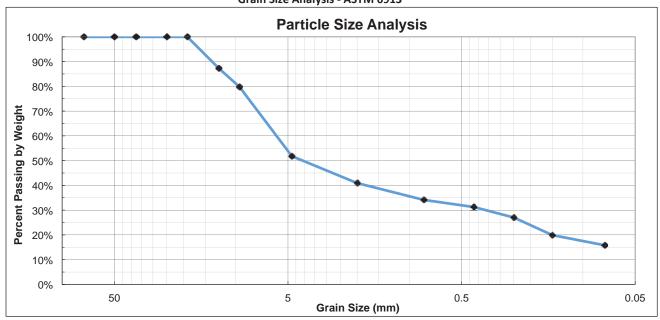
% Cobble % Gravel				% Sand			
% CODDIE	Coarse	Fine	Coarse	Medium	Fine	Silt/Clay	
	0	8	2	6	60		
0		3		68			

		Sieve #	Opening mm	Cummulative Mass Retained (g)	% Passing %
	Cobbles	3"	75	0.0	100%
		2"	50	0.0	100%
	Coarse	1-1/2"	37.5	0.0	100%
		1"	25.0	0.0	100%
Gravel		3/4"	19.0	0.0	100%
	Fine	1/2"	12.5	14.3	96%
		3/8"	9.50	17.1	95%
		#4	4.75	31.2	92%
	Coarse	#10	2.00	38.7	90%
	Medium	#20	0.825	49.3	87%
Sand	iviedium	#40	0.425	59.2	84%
Sand		#60	0.250	74.8	80%
	Fine	#100	0.150	198.1	48%
		#200	0.075	286.7	24%



CAInc File No: 16-319.1 Date: 10/3/16 Technician: KKL Sample ID: B1-2 Depth: 11'

USCS Classification: Clayey GRAVEL with SAND



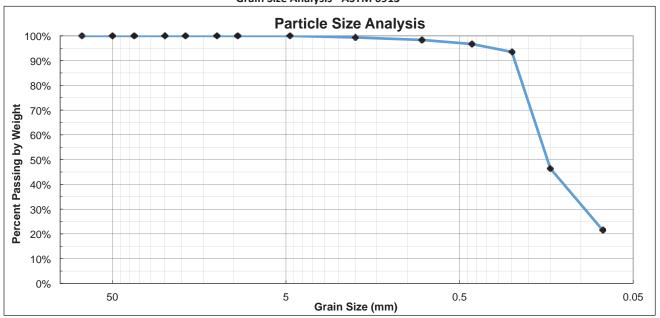
% Cobble	% Gı	ravel	% Sand			% Fines
% CODDIE	Coarse	Fine	Coarse	Medium	Fine	Silt/Clay
	0	48	11	10	15	
0	4	8		36		16

		Sieve #	Opening mm	Cummulative Mass Retained (g)	% Passing %
	Cobbles	3"	75	0.0	100%
		2"	50	0.0	100%
	Coarse	1-1/2"	37.5	0.0	100%
		1"	25.0	0.0	100%
Gravel		3/4"	19.0	0.0	100%
	Fine	1/2"	12.5	48.2	87%
		3/8"	9.50	76.7	80%
		#4	4.75	182.5	52%
	Coarse	#10	2.00	223.7	41%
	Medium	#20	0.825	249.4	34%
Sand	iviedium	#40	0.425	260.3	31%
Sand		#60	0.250	276.4	27%
	Fine	#100	0.150	303.3	20%
		#200	0.075	318.8	16%



CAInc File No: 16-319.1 Date: 10/7/16 Technician: CAP Sample ID: B1-5 Depth: 26'

USCS Classification: Silty SAND



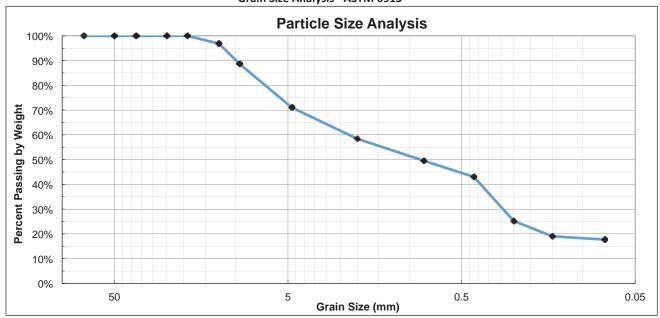
% Cobble	% Gı	ravel	% Sand			% Fines	
% CODDIE	Coarse	Fine	Coarse	Medium	Fine	Silt/Clay	
	0	0	1	2	75		
0	(0		78			

		Sieve #	Opening mm	Cummulative Mass Retained (g)	% Passing %
	Cobbles	3"	75	0.0	100%
		2"	50	0.0	100%
	Coarse	1-1/2"	37.5	0.0	100%
		1"	25.0	0.0	100%
Gravel		3/4"	19.0	0.0	100%
	Fine	1/2"	12.5	0.0	100%
		3/8"	9.50	0.0	100%
		#4	4.75	0.0	100%
	Coarse	#10	2.00	1.1	99%
	Medium	#20	0.825	2.8	98%
Sand	iviedium	#40	0.425	5.6	97%
Salla		#60	0.250	11.0	94%
	Fine	#100	0.150	90.7	46%
		#200	0.075	132.8	22%



CAInc File No: 16-319.1 Date: 10/4/16 Technician: KKL Sample ID: B2-3 Depth: 13'

USCS Classification: Silty SAND with GRAVEL



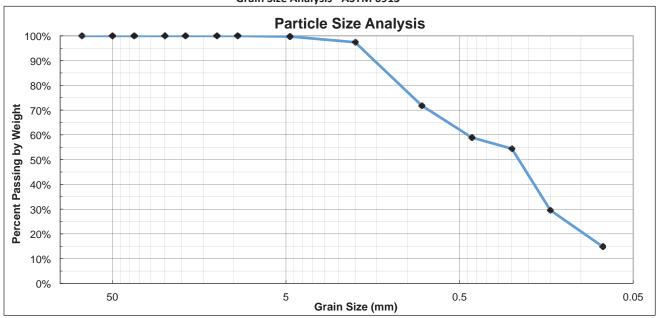
% Cobble	% Gravel		% Sand			% Fines
	Coarse	Fine	Coarse	Medium	Fine	Silt/Clay
	0	29	13	15	25	
0	29		53			18

		Sieve #	Opening mm	Cummulative Mass Retained (g)	% Passing %
Cobbles		3"	75	0.0	100%
Gravel	Coarse	2"	50	0.0	100%
		1-1/2"	37.5	0.0	100%
		1"	25.0	0.0	100%
		3/4"	19.0	0.0	100%
	Fine	1/2"	12.5	12.5	97%
		3/8"	9.50	45.7	89%
		#4	4.75	116.9	71%
Sand	Coarse	#10	2.00	167.7	58%
	Medium	#20	0.825	203.6	50%
	iviedium	#40	0.425	229.9	43%
		#60	0.250	301.9	25%
	Fine	#100	0.150	326.8	19%
		#200	0.075	332.1	18%



CAInc File No: 16-319.1 Date: 10/3/16 Technician: KKL Sample ID: B2-5 Depth: 23'

USCS Classification: Silty SAND



% Cobble	% Gravel		% Sand			% Fines
	Coarse	Fine	Coarse	Medium	Fine	Silt/Clay
	0	0	3	38	44	
0	0		85			15

		Sieve #	Opening mm	Cummulative Mass Retained (g)	% Passing %
Cobbles		3"	75	0.0	100%
Gravel	Coarse	2"	50	0.0	100%
		1-1/2"	37.5	0.0	100%
		1"	25.0	0.0	100%
		3/4"	19.0	0.0	100%
	Fine	1/2"	12.5	0.0	100%
		3/8"	9.50	0.0	100%
		#4	4.75	0.8	100%
Sand	Coarse	#10	2.00	7.4	97%
	Medium	#20	0.825	80.5	72%
	iviedium	#40	0.425	117.3	59%
		#60	0.250	130.1	54%
	Fine	#100	0.150	201.1	30%
		#200	0.075	243.0	15%

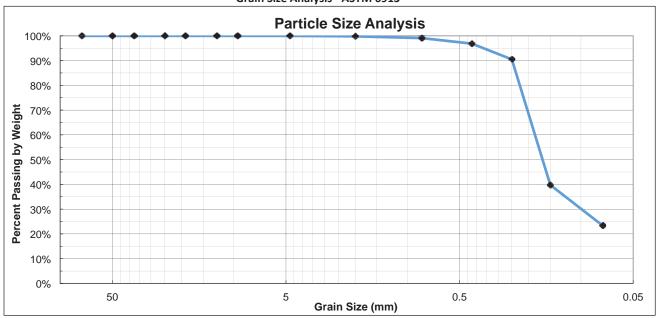


Project Name: Trinadad Rancheria Hotel

CAInc File No: 16-319.1 Date: 10/7/16 Technician: CAP Sample ID: B2-7 Depth: 33'

USCS Classification: Silty SAND

Grain Size Analysis - ASTM 6913



% Cobble	% Gravel			% Fines			
% CODDIE	Coarse	Fine	Coarse	Medium	Fine	Silt/Clay	
	0	0	0	3	74		
0	0			77			

		Sieve #	Opening mm	Cummulative Mass Retained (g)	% Passing %
	Cobbles		75	0.0	100%
		2"	50	0.0	100%
	Coarse	1-1/2"	37.5	0.0	100%
	Coarse	1"	25.0	0.0	100%
Gravel		3/4"	19.0	0.0	100%
		1/2"	12.5	0.0	100%
	Fine	3/8"	9.50	0.0	100%
		#4	4.75	0.0	100%
	Coarse	#10	2.00	0.3	100%
	Medium	#20	0.825	1.3	99%
Sand	iviedium	#40	0.425	4.5	97%
		#60	0.250	13.6	90%
	Fine	#100	0.150	86.1	40%
		#200	0.075	109.5	23%



Project Name: Trindad Rancheria Hotel

CAInc File No: 16-319.1 Date: 10/3/16

Technician: KKL

200 Wash - ASTM D1140

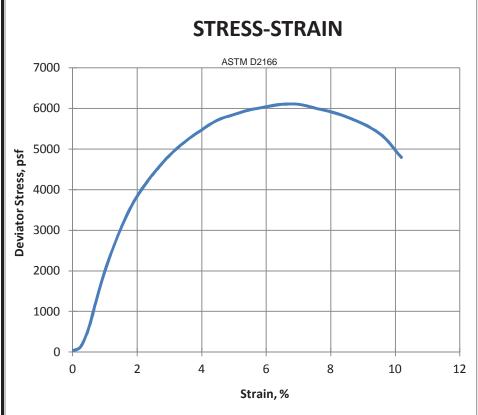
Max Particle Size (100% Passing)	Standard Sieve Size	Recommended Min Mass of Test Specimens
2 mm or less	No. 10	20 g
4.75 mm	No. 4	100 g
9.5 mm	3/8 "	500 g
19.0 mm	3/4 "	2.5 kg
37.5 mm	1 1/2 "	10 kg
75.0 mm	3 "	50 kg

Table from 6.2 of ASTM D1140

Sample No.	B1-3	B2-4		
USCS Symbol	SM	SC		
Depth (ft.)	16	18		
Tare No.	P1	P8		
Tare (g)	131.4	127.6		
Dry Soil + Tare (g)	464.4	465.8		
Dry Mass before (g)	333.0	338.2		
Dry Mass after (g)	281.4	265.1		
Percent Fines (%)	15	22		

EXPANSION INDEX TEST											
Project	No:	S9763-05	5-86	JOB	Crawford	16-319.1				AST	M D4829
Sample		Bulk 1				DATE	10/5-7/16			вү	MR
Init	tial Ht =	1	inches	G _s =	2.7		Factor =	(4)(1728) $(\pi)(4.01)$		=	0.3016
EI _{raw} =				!	Dry Densi	$ity (pcf) = \gamma$	$\gamma_d = (Calc$	'd Dry Wt,	gms) (Fac		
	Н		/50 SV/65	, E / \	b.o.ro.	0/	inturna in al	` '	ht. in inche	,	
1	E I corrected	$=EI_{raw}$ -	<u>(50-S)(65</u>	<u>+⊏ r_{raw})</u> 220-S	wnere:	w = % mo S = satura	ation in per		21 - 50 l	CERY LOW	
Sa	turation =	(100)(w)(c) [(Gs)(62.4				H = initial $\Delta H = total$		height	91 - 130	MEDIUM HIGH /ERY HIGH	
			AL 1					TRI	AL 2		
DATE ar	nd TIME	LOAD	DIAL READ	REV COUNT	TOTAL EXPAN	DATE a	nd TIME	LOAD	DIAL READ	REV COUNT	TOTAL EXPAN
		D	RY					D	RY		
		1 psi				10/5/2016	6 1:16 PM	1 psi	0.2278		
		1 psi			0.0000	10/5/2016	6 1:26 PM	1 psi	0.2274		-0.0004
		W	ET								
		1 psi			0.0000	10/5/2016	6 2:06 PM	1 psi	0.2104		-0.0170
		1 psi			0.0000	10/5/2016	6 2:32 PM	1 psi	0.2304		0.0030
		1 psi			0.0000	10/5/2016	6 4:07 PM	1 psi	0.2302		0.0028
		1 psi			0.0000	10/5/2016	6 4:32 PM	1 psi	0.2307		0.0033
		1 psi			0.0000	10/5/2016	6 4:50 PM	1 psi	0.2307		0.0033
		1 psi			0.0000	10/6/2016	8:05 AM	1 psi	0.2303		0.0029
		1 psi			0.0000	10/6/2016	9:27 AM	1 psi	0.2303		0.0029
		1 psi			0.0000			1 psi			
			AL 1						AL 2		
Moi	sture Con Before			Density	Attor	Mo	isture Con			Density	\ Hor
Tare No.	Delote	After		Before	After	Tare No.	Before Adj	After MT-6		Before	After
Gross Wet Wt (gm)	983.7		Wet+ring (gms)	549.5		Gross Wet Wt (gm)		854.45	Wet+ring (gms)	550.7	588.65
Gross Dry Wt (gm)	901.6		Ring (gms)	192.8		Gross Dry Wt (gm)		771.58	Ring (gms)	192.8	
Water Loss (gm)	82.1		Wet Soil (gms)	356.7		Water Loss (gm)		82.87	Wet Soil (gms)	357.9	
Tare Wt. (gm) Net Dry Wt	224		Calc'd dry soil (gms)	318.2		Tare Wt. (gm) Net Dry Wt		459.43	Calc'd dry soil (gms)	314.5	312.8
(gm) Moisture	677.6		Dry Dens (pcf)	96.0		Net Dry Wt (gm) % Moisture		312.15	Dry Dens (pcf)	94.9	94.0
	12.1						13.8	26.5			
Calculated		on (%)		43.3		Calculated		n (%)		48.0	90.5
Total Swe						Total Swe					.3
Expansion	ı ındex			<u> </u>		Expansion	ı ındex				3

EXPANSION INDEX TEST											
Project	No:	S9763-05	-86	JOB	Crawford	16-319.1				AST	M D4829
Sample		Bulk 2				DATE	10/5-7/16			ву	MR
Init	ial Ht =	1	inches	$G_s =$	2.7		Factor =	(4)(1728) $(\pi)(4.01)$		=	0.3016
EI _{raw} =					Dry Densi	$f(y (pcf) = \gamma$	_d = <u>(Calc</u>	'd Dry Wt,	gms) (Fac		
	Н		(50-5)(65	± <i>F l</i>)	whore:	w = % mo	icturo in d	• •	ht. in inche 0 - 20 V	s) 'ERY LOW	
1	E I corrected	= E I _{raw} -	<u>(50-S)(65</u>	220-S	where.	W = % mo S = satura H = initial	ation in per		21 - 50 l	LOW LOW MEDIUM	
Sa	turation =	(100)(w)(0 [(Gs)(62.4				ΔH = total	change in	height	91 - 130 > 130	HIGH /ERY HIGH	
			AL 1					TRI	AL 2		
DATE ar	nd TIME	LOAD	DIAL READ	REV COUNT	TOTAL EXPAN	DATE a	nd TIME	LOAD	DIAL READ	REV COUNT	TOTAL EXPAN
27112 01	10 111112		RY			27112 01			RY		
		1 psi				10/5/2016	3 2:19 PM	1 psi	0.2706		
		1 psi			0.0000	10/5/2016	3 2:29 PM	1 psi	0.2711		0.0005
		W	ET						•	•	
		1 psi			0.0000	10/5/2016	6 4:05 PM	1 psi	0.3075		0.0364
		1 psi			0.0000	10/5/2016	6 4:30 PM	1 psi	0.3110		0.0399
		1 psi			0.0000	10/5/2016	6 4:52 PM	1 psi	0.3121		0.0410
		1 psi			0.0000	10/6/2016	8:04 AM	1 psi	0.3245		0.0534
		1 psi			0.0000	10/6/2016	9:26 AM	1 psi	0.3246		0.0535
		1 psi			0.0000						
		1 psi			0.0000						
		1 psi			0.0000						
		TRI	AL 1						AL 2		
Moi	sture Con			Density	T	Moi	isture Con			Density	1
Tare No.	Before	After		Before	After	Tare No.	Before Adj	After MT-6		Before	After
Gross Wet Wt (gm)	734.19		Wet+ring (gms)			Gross Wet Wt (gm)	,	661.45	Wet+ring (gms)	624.3	657.18
Gross Dry Wt (gm)	686.5		Ring (gms)			Gross Dry Wt (gm)		593.57	Ring (gms)	199.6	
Water Loss (gm)	47.69		Wet Soil (gms)	0		Water Loss (gm)		67.88	Wet Soil (gms)	424.7	
Tare Wt. (gm)	111.4		Calc'd dry soil (gms)	0.0		Tare Wt. (gm)		205.1	Calc'd dry soil (gms)	393.2	389.5
Net Dry Wt (gm)	575.1		Dry Dens (pcf)	0.0		Net Dry Wt (gm)		388.47	Dry Dens (pcf)	118.6	111.5
% Moisture	8.3					% Moisture	8.0	17.5			
Calculated		on (%)		0.0		Calculated		n (%)		51.4	92.4
Total Swe						Total Swe	/				.4
Expansion	ındex					Expansion	n Index			5	4





Sample Description Gravel up to 1/2" removed and patched as possible					
Sample ID	B3-2				
Sample Depth (feet)	11.00				
Material Description	Black lean CLAY with gravel (shale)				
Initial Conditions at Start of Test					
Height (inch) average of 3	4.97				
Diameter (inch) average of 3	2.39				
Moisture Content (%)	8.5				
Dry Density (pcf)	133.0				
Estimated Specific Gravity	2.7				
Saturation (%)	86.5				
Shear Test Conditions					
Strain Rate (%/min)	0.9925				
Major Principal Stress at Failure (psf)	6100				
Strain at Failure (%)	6.5				
Test Results					
Unconfined Compressive Strength (tons/ft ²)	3.1				
Unconfined Compressive Strength (lbs/ft ²)	6101				
Shear Strength (tons/ft ²)	1.5				
Shear Strength (lbs/ft ²)	3051				



GEOCON Telephone: (916) 852-9118

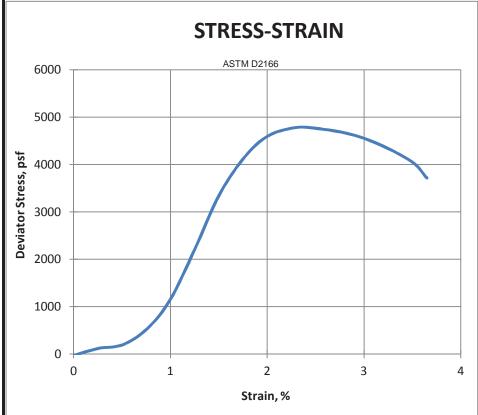
Fax: (916) 852-9132

Unconfined Compressive Strength (ASTM D2166)

Project: Crawford 16-319.1

Location:

Number: S9763-05-86





Sample Description Sample partially remolded in	order to perform test (1/2" gravel)
Sample ID	B3-3
Sample Depth (feet)	16.00
Material Description	Black lean CLAY with gravel (shale)
Initial Conditions at Start of Test	
Height (inch) average of 3	4.69
Diameter (inch) average of 3	2.42
Moisture Content (%)	4.9
Dry Density (pcf)	138.2
Estimated Specific Gravity	2.7
Saturation (%)	60.4
Shear Test Conditions	
Strain Rate (%/min)	0.9872
Major Principal Stress at Failure (psf)	4770
Strain at Failure (%)	2.5
Test Results	
Unconfined Compressive Strength (tons/ft ²)	2.4
Unconfined Compressive Strength (lbs/ft ²)	4774
Shear Strength (tons/ft ²)	1.2
Shear Strength (lbs/ft²)	2387



GEOCON Telephone: (916) 852-9118

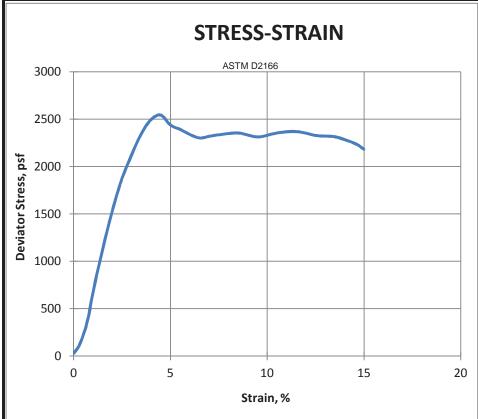
Fax: (916) 852-9132

Unconfined Compressive Strength (ASTM D2166)

Project: Crawford 16-319.1

Location:

Number: S9763-05-86





Sample Description Sample partially remolded in order to perform test					
Sample ID	B4-1				
Sample Depth (feet)	6.00				
Material Description	Black lean CLAY with gravel (shale)				
Initial Conditions at Start of Test					
Height (inch) average of 3	4.94				
Diameter (inch) average of 3	2.39				
Moisture Content (%)	8.8				
Dry Density (pcf)	129.6				
Estimated Specific Gravity	2.7				
Saturation (%)	79.6				
Shear Test Conditions					
Strain Rate (%/min)	0.9967				
Major Principal Stress at Failure (psf)	2540				
Strain at Failure (%)	4.5				
Test Results					
Unconfined Compressive Strength (tons/ft ²)	1.3				
Unconfined Compressive Strength (lbs/ft ²)	2544				
Shear Strength (tons/ft ²)	0.6				
Shear Strength (lbs/ft²)	1272				



GEOCON Telephone: (916) 852-9118

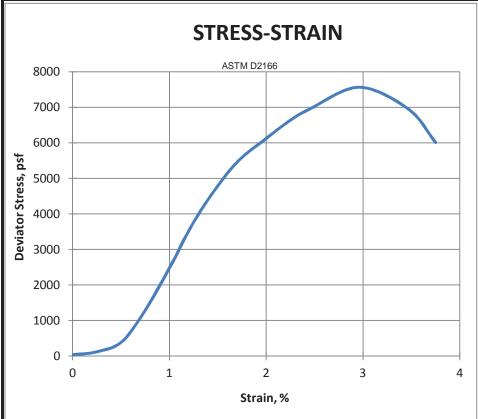
Fax: (916) 852-9132

Unconfined Compressive Strength (ASTM D2166)

Project: Crawford 16-319.1

Location:

Number: S9763-05-86





Sample Description	
Sample ID	B6-2
Sample Depth (feet)	11.00
Material Description	Dark gray lean CLAY
Initial Conditions at Start of Test	
Height (inch) average of 3	4.97
Diameter (inch) average of 3	2.39
Moisture Content (%)	6.6
Dry Density (pcf)	123.6
Estimated Specific Gravity	2.7
Saturation (%)	49.3
Shear Test Conditions	
Strain Rate (%/min)	1.0151
Major Principal Stress at Failure (psf)	7570
Strain at Failure (%)	3.0
Test Results	
Unconfined Compressive Strength (tons/ft ²)	3.8
Unconfined Compressive Strength (lbs/ft ²)	7566
Shear Strength (tons/ft ²)	1.9
Shear Strength (lbs/ft ²)	3783



GEOCON Telephone: (916) 852-9118

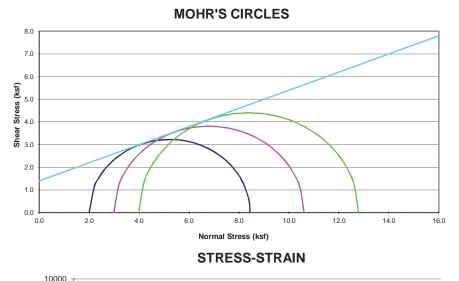
Fax: (916) 852-9132

Unconfined Compressive Strength (ASTM D2166)

Project: Crawford 16-319.1

Location:

Number: S9763-05-86





10000 9000 8000 psf 7000 Deviator Stress, 6000 5000 4000 3000 2000 1000 0 2 12 16 Strain, %

Test Results				
φ, degrees		21.8		
c, psf		1400		
Sample Description				
Sample ID		B4-7		
Sample Depth (feet)		36		
Material Description	Black	lean C	LAY (S	Shale)
Initial Conditions at Start of Stage				
Sample ID (psf), minor principal stress	2000	3000	4000	
Height (inch)	4.970	4.831	4.593	
Diameter (inch)	2.396	2.430	2.456	
Moisture Content (%)	6.2	6.2	6.2	
Dry Density (pcf)	143.0	143.0	143.0	
Saturation (%)	93.7	93.7	93.7	
Shear Test Conditions				
Strain Rate (%/min)	0.2956	0.2941	0.2990	
Major Principal Stress at Failure (psf)	8440	10610	12790	
Strain at failure (%)	3.39	5.47	13.50	
Deviator Stress and Fail (psf)	6440	7620	8800	



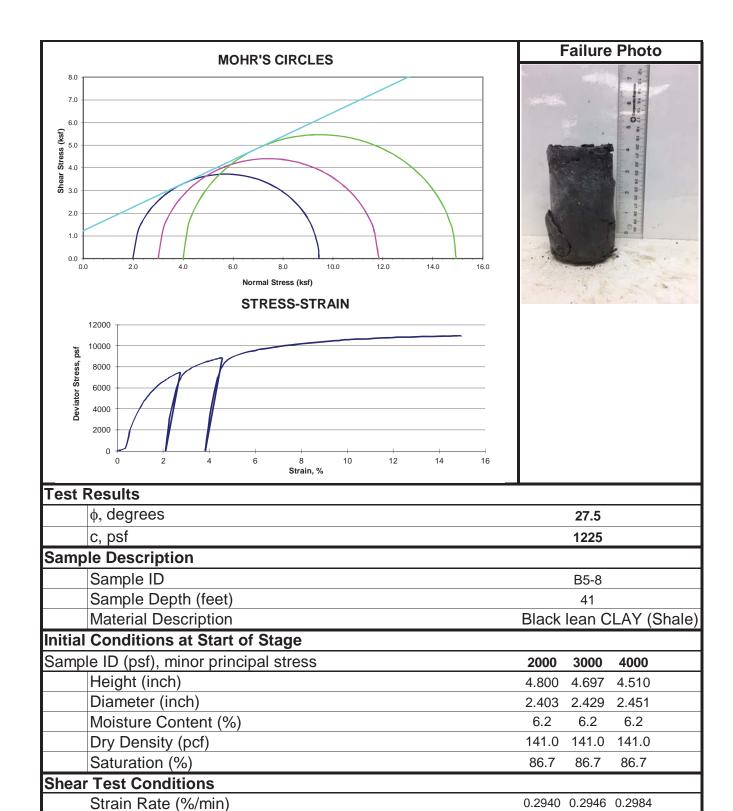
Geocon Consultants, Inc. 3160 Gold Valley Drive, Suite 800 Rancho Cordova, California 95742

Triaxial Shear Strength - UU Test (staged)

Project: Crawford 16-319.1

Location:

Number: S9763-05-86





Deviator Stress and Fail (psf)

Strain at failure (%)

Telephone: (916) 852-9118 Fax: (916) 852-9132

Major Principal Stress at Failure (psf)

Triaxial Shear Strength - UU Test (staged)

2.70

7450

9440 11820 14930

4.56

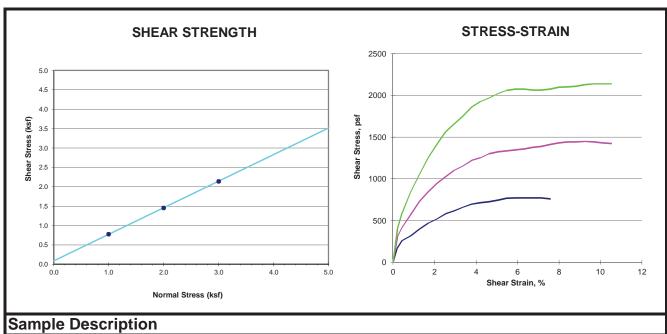
14.32

8820 10930

Project: Crawford 16-319.1

Location:

Number: S9763-05-86



Sample Description			
Boring Number	B1-4		
Sample Depth (feet)			
Material Description	Olive Silty SA	ND	
Initial Conditions at Start of Test			
Sample ID (psf)	1000	2000	3000
Height (inch)	1.00	1.00	1.00
Diameter (inch)	2.375	2.375	2.375
Moisture Content (%)	14.1	13.0	13.1

Height (inch)	1.00	1.00	1.00
Diameter (inch)	2.375	2.375	2.375
Moisture Content (%)	14.1	13.0	13.1
Dry Density (pcf)	93.9	93.7	95.8
Estimated Specific Gravity	2.70	2.70	2.70
Saturation (%)	47.9	43.9	46.7
Shear Test Conditions			
Strain Rate (%/min)	1.004	1.049	1.026
Major Principle Stress at Failure (psf)	769	1447	2138

Strain Rate (%/min)	1.004	1.049	1.026
Major Principle Stress at Failure (psf)	769	1447	2138
Strain at Failure (%)	5.89	9.26	9.68
Test Results			

φ, degrees 34.4 85 c, psf



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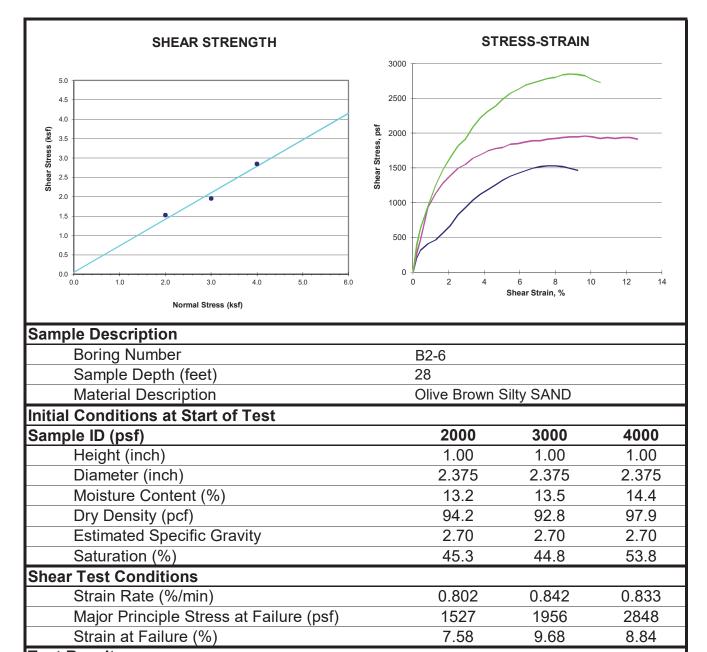
GEOCON Telephone: (916) 852-9118 CONSULTANTS. INC. Fax: (916) 852-9132

Direct Shear Strength Test (ASTM D3080)

Project: Crawford Lab 16-319.1

Location:

Number: S9763-05-86



Test Results

φ, degrees **34.3**

c, psf **50**



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GEOCON Telephone: (916) 852-9118

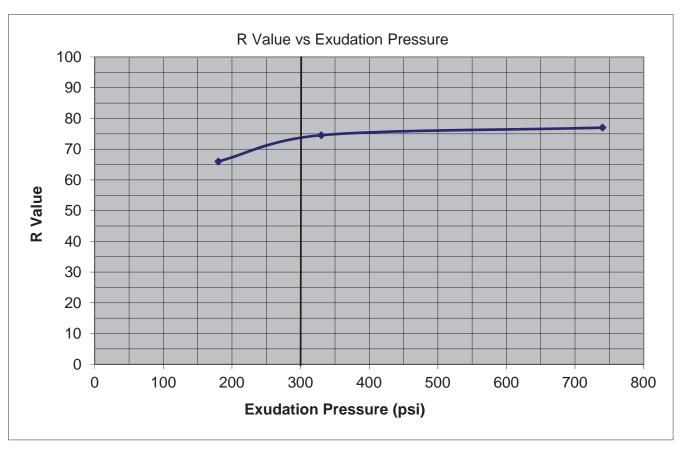
CONSULTANTS, INC. Fax: (916) 852-9132

Direct Shear Strength Test (ASTM D3080)

Project: Crawford Lab 16-319.1

Location:

Number: S9763-05-86



Sample ID & Description				
Boring Number	Bulk-1			
Sample Depth (feet)				
Material Description	Dark reddish br	own Silty SAN	D with gravel	
Test Data				
Specimen	D	Е	F	
Exudation Pressure (psi)	180	330	740	
Expansion Dial (.0001")	22	25	38	
Expansion Pressure (psf)	95	108	165	
Resistance 'R' Value	66	75	77	
Moisture at test (%)	16.5	15.6	14.7	
Dry density at test (pcf)	106.7	104.2	110.0	
R Value at 300 psi exudati	on pressure	7	4	
R Value by expansion pres	ssure (TI=5.0)	6	3	



Geocon Consultants, Inc. 3160 Gold Valley Drive, Suite 800 Rancho Cordova, California 95742 Telephone: (916) 852-9118

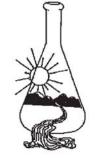
Fax: (916) 852-9132

R Value By Exudation

Project: Crawford 16-319.1

Location:

Number: S9763-05-86



Rancho Cordova, CA 95742 (916) 852-8557

> Date Reported 09/28/16 Date Submitted 09/23/16

To: Nick Anderson

Crawford and Associates

5701 Lonetree Blvd, Suite 110

Rocklin, CA, 95765

From: Gene Oliphant, Ph.D. \ Randy Horney General Manager \ Lab Manager

The reported analysis was requested for the following:

Location: 16-319.1 Site ID: B6-1 Thank you for your business.

* For future reference to this analysis please use SUN # 72899 - 152178

EVALUATION FOR SOIL CORROSION

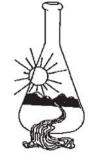
7.72 Soil pH

Minimum Resistivity 1.72 ohm-cm (x1000)

Chloride 6.9 ppm 0.0007 %

Sulfate-S 100.4 ppm 0.01 %

METHODS:



Rancho Cordova, CA 95742 (916) 852-8557

> Date Reported 09/28/16 Date Submitted 09/23/16

To:

Nick Anderson

Crawford and Associates

5701 Lonetree Blvd, Suite 110

Rocklin, CA, 95765

From: Gene Oliphant, Ph.D. \ Randy Horney General Manager \ Lab Manager

The reported analysis was requested for the following:

Location: 16-319.1 Site ID: B5-9 Thank you for your business.

* For future reference to this analysis please use SUN # 72899 - 152177

EVALUATION FOR SOIL CORROSION

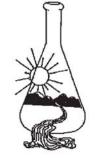
8.55 Soil pH

Minimum Resistivity 0.80 ohm-cm (x1000)

Chloride 12.9 ppm 0.0013 %

Sulfate-S 131.8 ppm 0.0132 %

METHODS:



Rancho Cordova, CA 95742 (916) 852-8557

> Date Reported 09/28/16 Date Submitted 09/23/16

To:

Nick Anderson

Crawford and Associates

5701 Lonetree Blvd, Suite 110

Rocklin, CA, 95765

From: Gene Oliphant, Ph.D. \ Randy Horney General Manager \ Lab Manager

The reported analysis was requested for the following:

Location: 16-319.1 Site ID: B4-8 Thank you for your business.

* For future reference to this analysis please use SUN # 72899 - 152176

EVALUATION FOR SOIL CORROSION

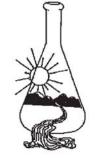
8.54 Soil pH

Minimum Resistivity 1.85 ohm-cm (x1000)

Chloride 3.7 ppm 0.0004 %

Sulfate-S 19.4 ppm 0.0019 %

METHODS:



Rancho Cordova, CA 95742 (916) 852-8557

> Date Reported 09/28/16 Date Submitted 09/23/16

To:

Nick Anderson

Crawford and Associates

5701 Lonetree Blvd, Suite 110

Rocklin, CA, 95765

From: Gene Oliphant, Ph.D. \ Randy Horney General Manager \ Lab Manager

The reported analysis was requested for the following:

Location: 16-319.1 Site ID: B4-4 Thank you for your business.

* For future reference to this analysis please use SUN # 72899 - 152175

EVALUATION FOR SOIL CORROSION

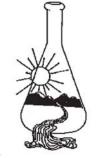
8.18 Soil pH

Minimum Resistivity 1.15 ohm-cm (x1000)

Chloride 12.0 ppm 0.0012 %

Sulfate-S 175.2 ppm 0.0175 %

METHODS:



Rancho Cordova, CA 95742 (916) 852-8557

> Date Reported 09/28/16 Date Submitted 09/23/16

To: Nick Anderson

Crawford and Associates

5701 Lonetree Blvd, Suite 110

Rocklin, CA, 95765

From: Gene Oliphant, Ph.D. \ Randy Horney General Manager \ Lab Manager

The reported analysis was requested for the following:

Location: 16-319.1 Site ID: B3-7 Thank you for your business.

* For future reference to this analysis please use SUN # 72899 - 152174

EVALUATION FOR SOIL CORROSION

Soil pH 8.57

Minimum Resistivity 1.07 ohm-cm (x1000)

Chloride 0.0012 % 12.1 ppm

Sulfate-S 225.9 ppm 0.0226 %

METHODS:

CAInc

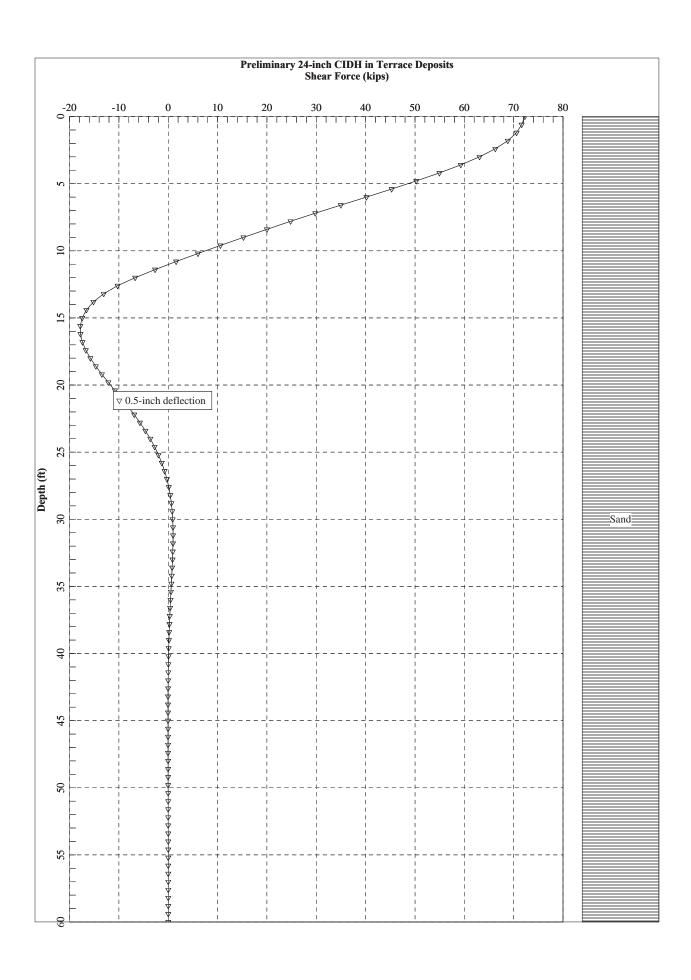
File: 16-319.1 November 8, 2016

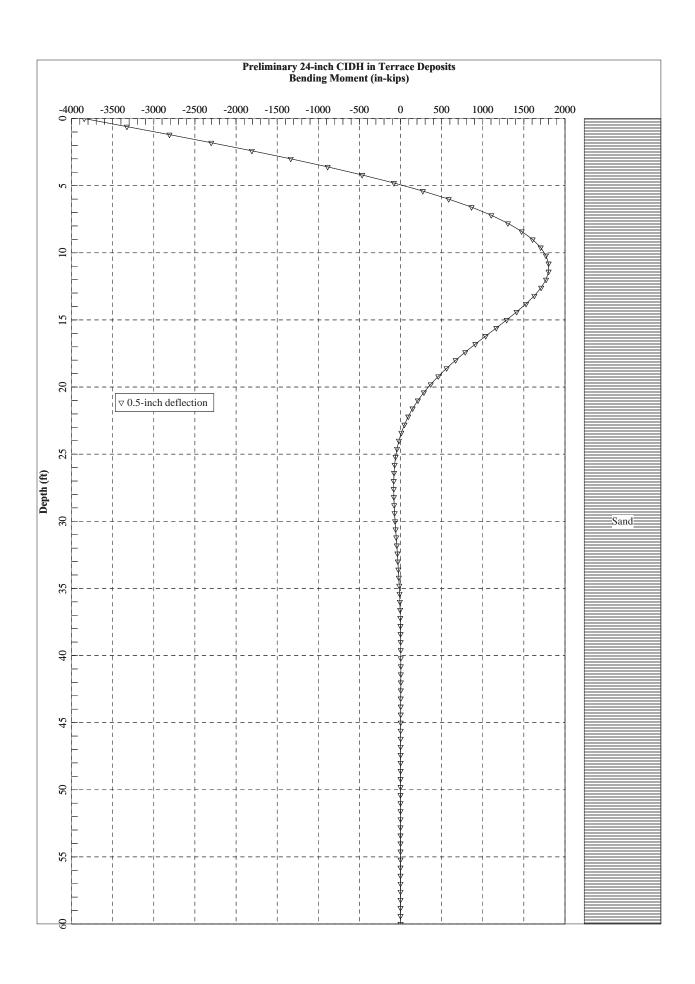
APPENDIX C

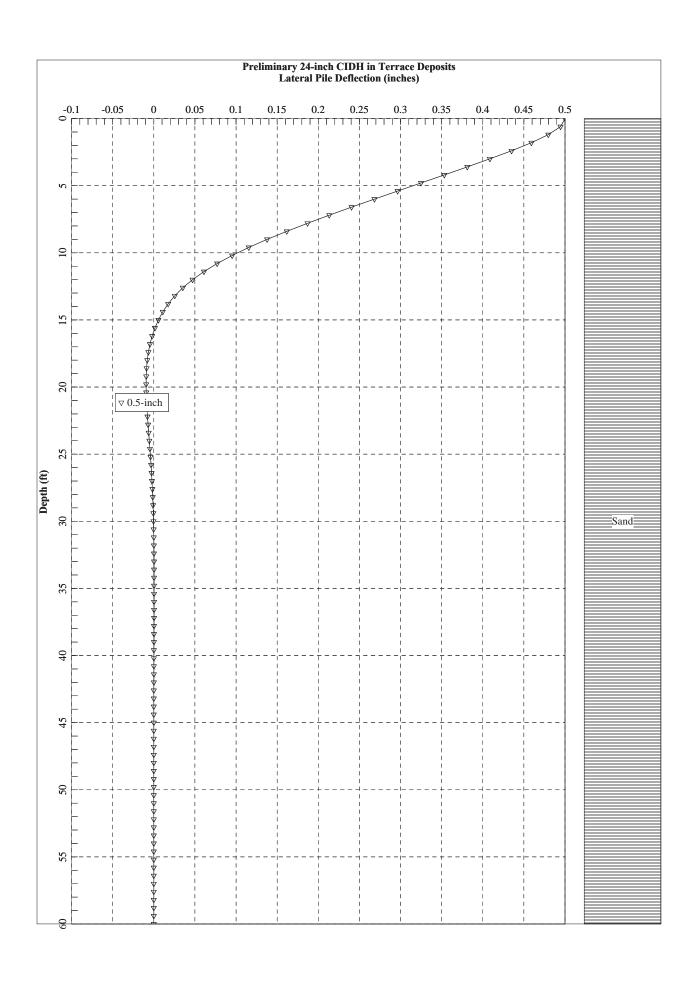
LPile Outputs

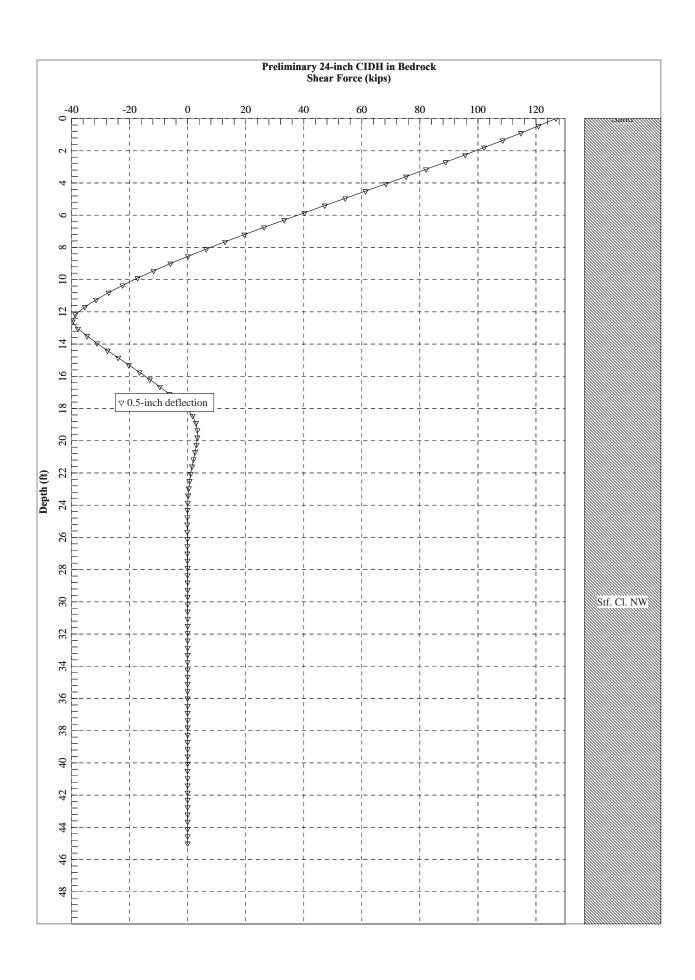


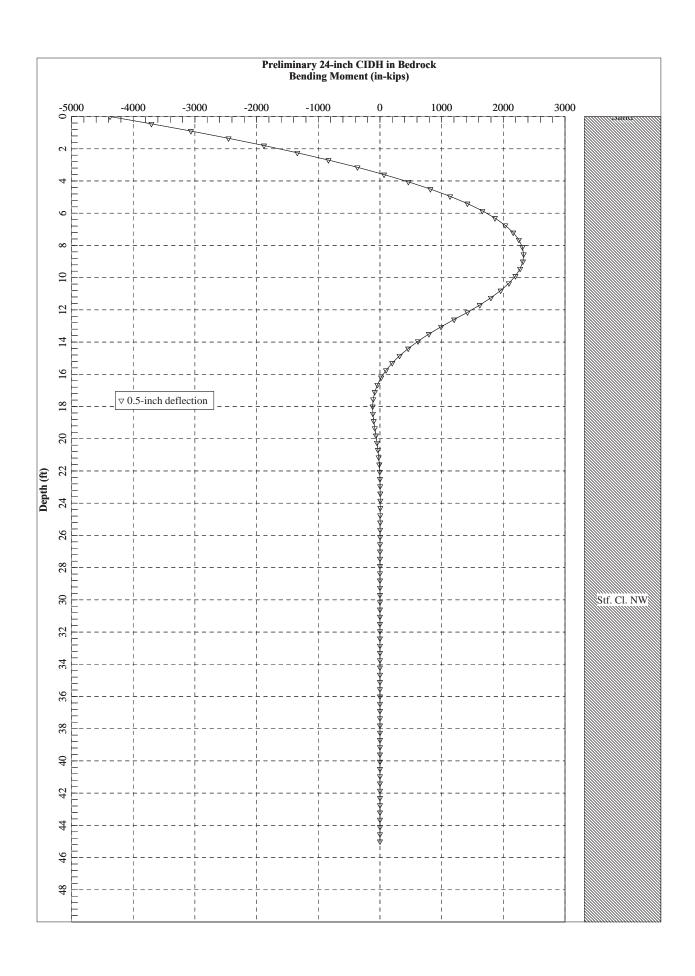


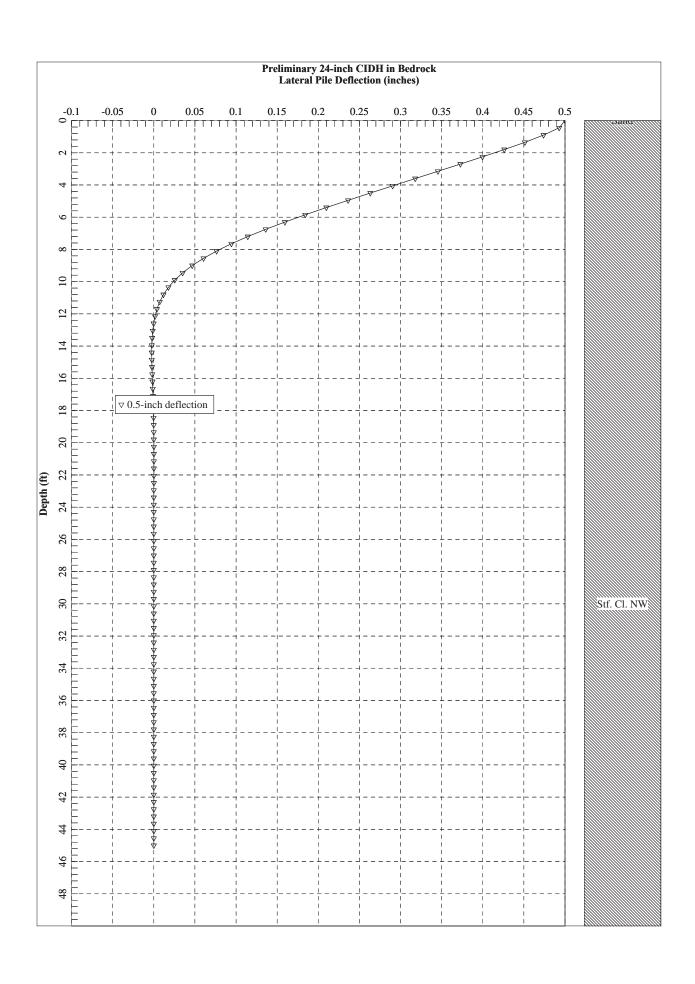


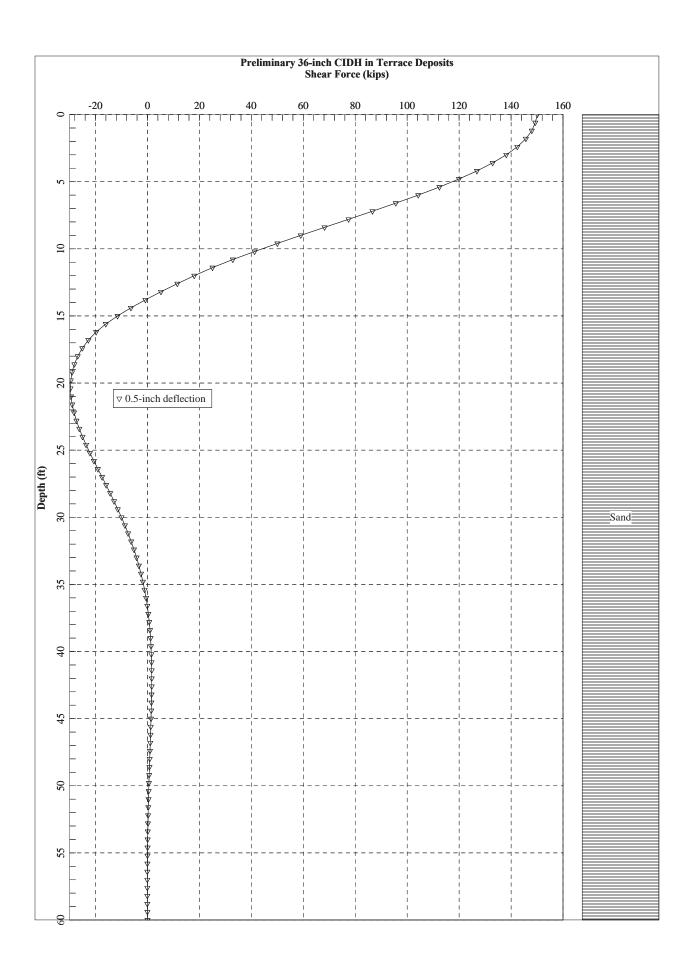


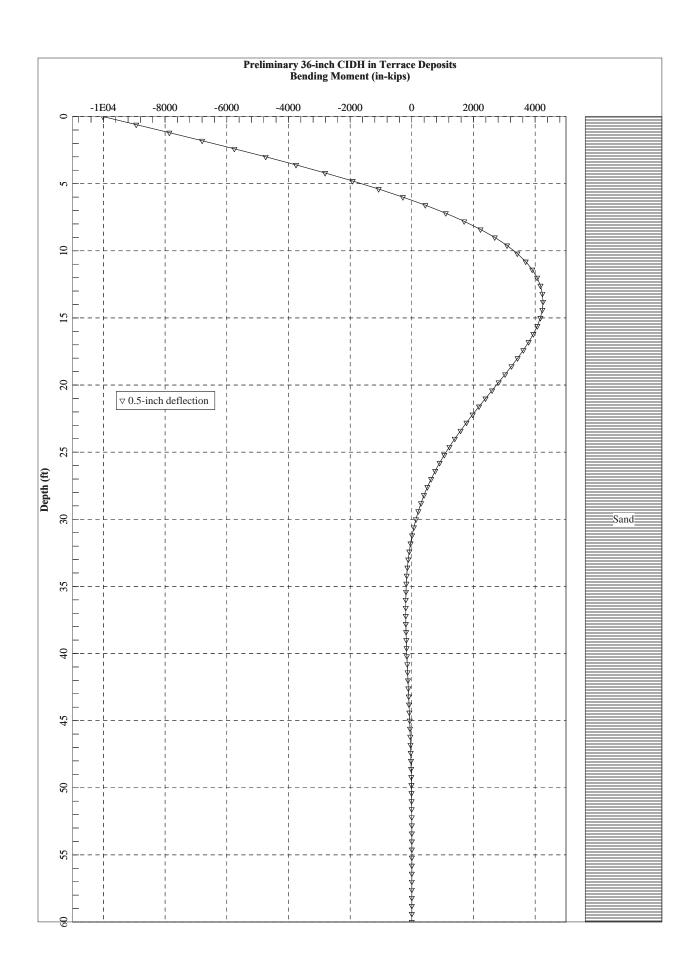


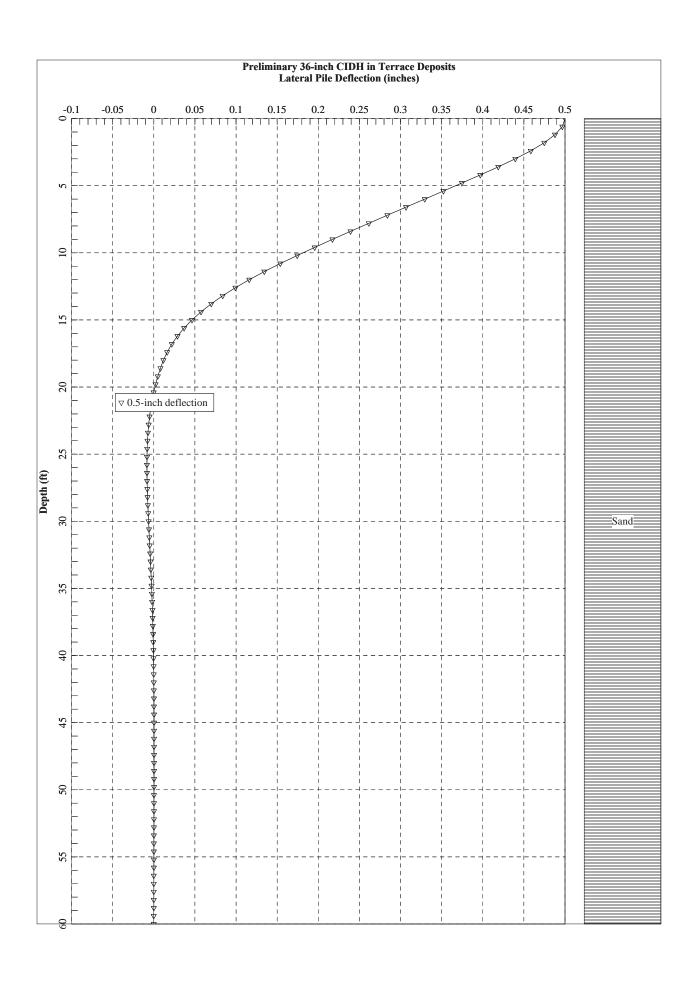




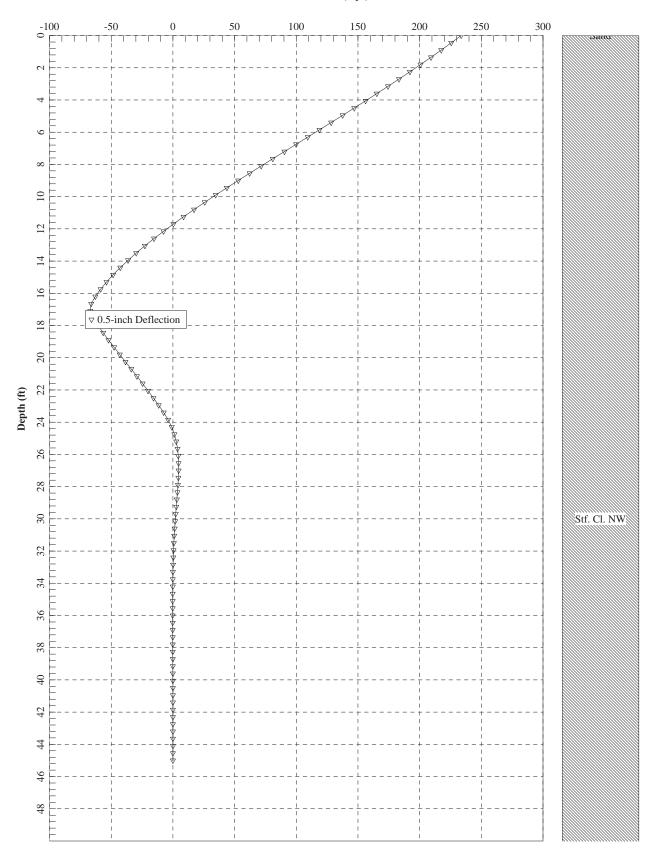


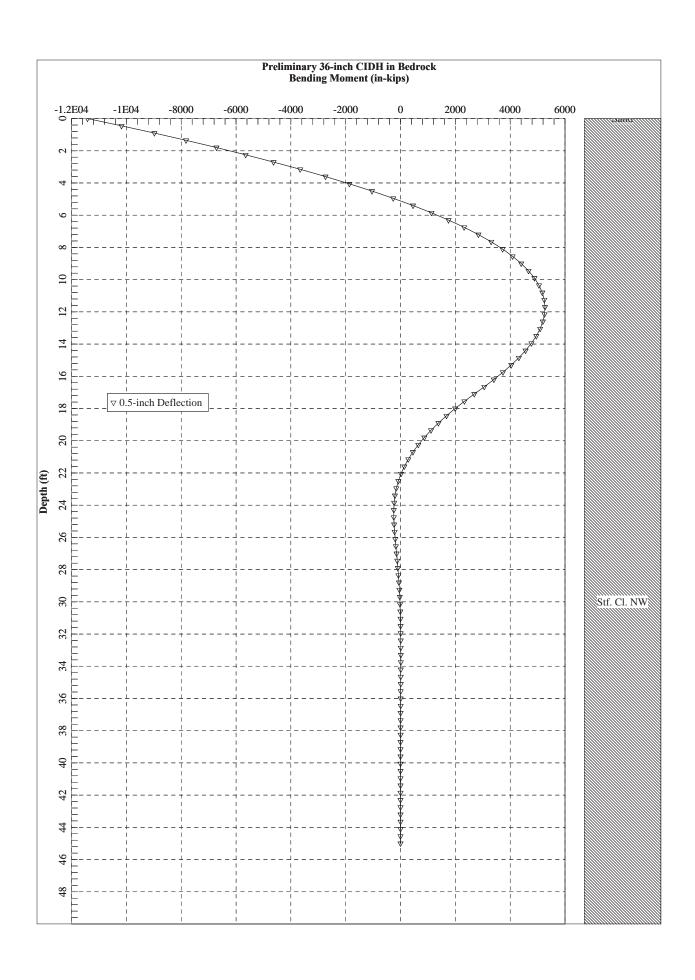


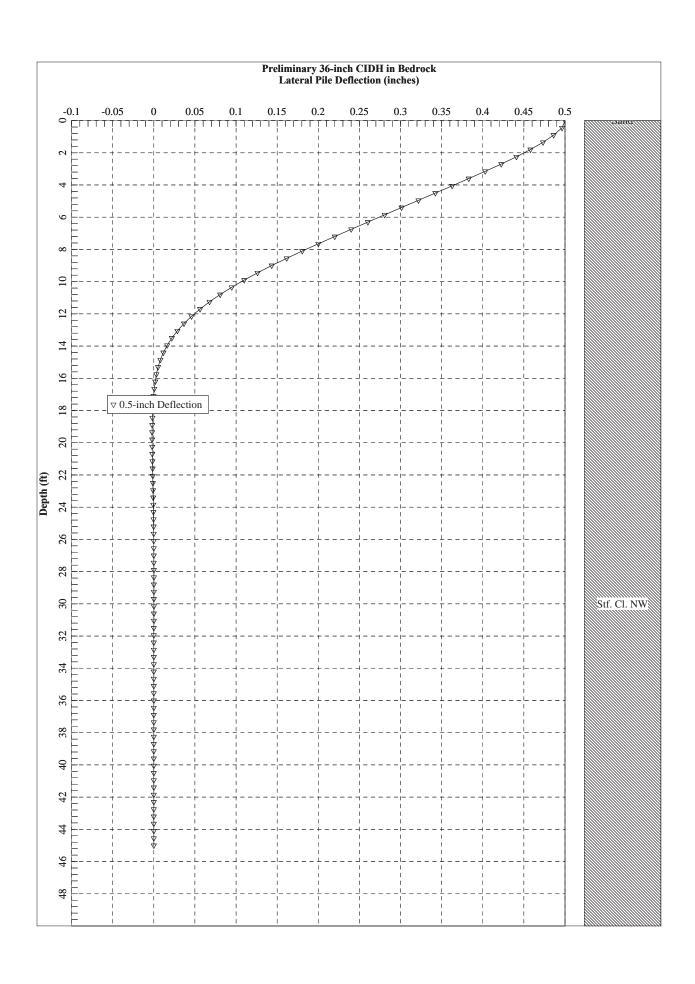




Preliminary 36-inch CIDH in Bedrock Shear Force (kips)







File: 16-319.1 November 8, 2016

APPENDIX D

SHN Geotechnical Report – Proposed Expansion Cher-Ae Heights Gaming Building Boring Logs
Taber Geotechnical Report – Trinidad Rancheria Expansion Project Test Pit Logs





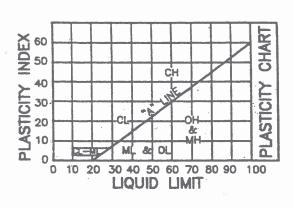
BORING LOG KEY

SAM	IPLE TYPES	SYMBOLS	
X	DISTURBED SAMPLE (BULK)	₹ 2	INITIAL WATER LEVEL
	HAND DRIVEN TUBE SAMPLE	<u></u>	STABILIZED WATER LEVEL
		galan german dansam dansam dalam	GRADATIONAL CONTACT
I	1.4" I.D. STANDARD PENETRATION TEXT SAMPLE (SPT)		WELL DEFINED CONTACT
	2.5" I.D. MODIFIED CALIFORNIA SAMPLE (NOT RETAINED)	SS	SPLIT SPOON
	MODIFIED CALIFORNIA SAMPLE (RETAINED)		
	CORE BARREL SAMPLE (NOT RETAINED)		
	CORE BARREL SAMPLE (RETAINED)		

METHOD OF SOIL CLASSIFICATION

MAJ	OR DIVISIONS	SYMBOLS	TYPICAL NAMES	
		GW	WELL GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
GRAVELS (MORE THAN 1/2 OF	GP	POORLY GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES		
D SOILS OF SOIL SIZE)	COARSE FRACTION > NO.4 SIEVE SIZE)	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES	
NE NE NE		GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES	
GRAI THAN 1, 200 SIE		SW	WELL GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES	E
SANDS (MORE THAN 1/2 OF COARSE FRACTION < NO.4 SIEVE SIZE)	SP	POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES	CHART	
	SM	SILTY SANDS, SAND-SILT MIXTURES	1 -	
		SC	CLAYEY SANDS, SAND-CLAY MIXTURES	CATI
NED SOIL SIEVE SIZE) SIZ		ML	INDRGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY	CLASSIFICATION
		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	₹
		OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
GRAINED THAN 1/2 200 SIEVE	CILTO & CLAVO	МН	INORGANIC LILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS	
SILTS & CLAYS LIQUID LIMIT GREATER THAN 50	СН	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS		
	ОН	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTY CLAYS, ORGANIC SILTS		
HIGHL	HIGHLY ORGANIC SOILS PT PEAT AND OTHER HIGHLY ORGANIC SOILS			

CLASSIFICATION BOULDERS COBBLES GRAVEL CDARSE	U.S. STANDARD SIEVE SIZE ABOVE 12" 12" TO 3" 3" TO NO. 4 3" TO 3/4"	SIZE CHART
FINE SAND COARSE MEDIUM FINE SILT & CLAY	3/4° TO NO. 4 NO. 4 TO NO. 200 NO. 4 TO NO. 10 NO. 10 TO NO. 40 NO. 40 TO NO. 200 BELOW NO. 200	GRAIN



CONSISTANCY OF FINE GRAINED SOILS		DENSITY OF COARSE GRAINED SOILS	
CLASSIFICATION	COHESION (PSF)	-CLASSIFICATION	STANDARD PENETRATION (BLOW COUNT)
VERY SOFT SOFT MEDIUM STIFF STIFF VERY STIFF HARD	0-250 250-500 500-1000 1000-2000 2000-4000 4000+	VERY LOOSE LOOSE MEDIUM DENSE VERY DENSE	0-4 4-10 10-30 30-50 50+

MOISTURE CLASIFICATIONS			
	DRY		
	DAMP		
	MOIST		
3.6	***		

BASED ON UNIFIED SOILS CLASSIFICATION SYSTEM

PROJECT <u>Cher-Ae Heights</u>		JOB NUMBER <u>098210</u>	
LOCATION Trinidad, California		DATE DRILLED 9/17/98	
GROUND SURFACE ELEVATION 286 f	t	SAMPLER TYPE 2.5" ID Mod	. CA; 1.4" SPT w/ no
EXCAVATION METHOD 8.5" Hollow	Stem Auger	liners; downhole 130 lb	hammer, rope & pulley
LOGGED BY CC		TOTAL DEPTH OF HOLE 19.5	ft
(%) (PCF) (PSF) (PSF) (PSF)	_D		
	IC LOG	MATERIALS DESCRIPTION	REMARKS
MOISTURE UNC CMP BY POCKE BY POCKE BAMPLES BLOWS/6			
MOIS UNC BBY B SAMI	1 - 1 - 1		
	BANAGARA	T/CONCRETE GRAVEL, aggragate base, rounded	_
	to 3/4	maximum dimension.	
+ , 1	S	CTLT condu player your stiff	
3 7 9	damp.	SILT, sandy, clayey, very stiff, light brown, with angular gravel nts to 1/4" maximum dimension.	fairly cohesive
24,1 87 1050 — 4 19	Tragme	its to 1/4 maximum ulmension.	в
F 5 - 1			
			1
7 14		ONE, fractured to 2.5" maximum ion, with minor gray clay.	Very fine sand particle seen under lens.
11.5 117 — >5000 8 27			Becomes denser
			per di 111ci
10 17	h	NE, fractured to larger than 2.5" m dimension, with moisture in	1
7.2 123 — >5000 11 50/	l	res, minor clayey silt, plastic.	-
F 12 - 15"			
13 50/			No recovery. Increasing gravel
14 - 3"			per driller
F 15 - 1			₩ery dry, gray cuttings Hard drilling
F 16 - 1			-
F 17 - 1			-
F 18 + 11			
19 19 50/	MUDSTO	NE, bedded.	
20 4 5	Botton	of boring at 19.5 feet.	1
21 -	NO TRE	e goundwater observed.	9
22 -			
23 -			
↓			
- 26 -			
- 27 - - 27 -			
- 2B -			

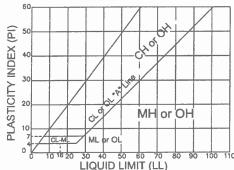
PROJECT <u>Cher-Ae Heights</u>		JOB NUMBER 098210	
LOCATION Trinidad, California		DATE DRILLED 9/17/98	
GROUND SURFACE ELEVATION 28	9.3 ft.	SAMPLER TYPE 2.5" ID Mod	. CA; 1.4" SPT w/ no
EXCAVATION METHOD 8.5" Holl	w Stem Auger	liners; downhole 130 lb	hammer, rope & pulley
LOGGED BY CC		TOTAL DEPTH OF HOLE 26.0	ft.
(%) (PCF) (PSF) (PSF)	12		
MOISTURE (% DHY DEN (PC UNC CMP (PS BY POCKET P DEPTH (ft.) SAMPLES	GRAPHIC USGS CL	RIALS DESCRIPTION	REMARKS
- , -	ASPHALT/CO	NCRETE EL, aggragate base, rounded	
	ML to 3/4" ma	ximum dimension.	1
- 2 3 4 - 5 6	37 SM 1/2" maxim 50/ SAND, silt 3" brown and	elly, soft, damp to dry, n, roots, with gravel to um dimension, topsoil. y, very dense, damp, light reddish brown, with angular gravel to 2" maximum	Colluvium?
- 7 - 8 - 1 - 9 - 1		fractured, weathered, very ed, dry, greenish brown.	
- 10 - 11 - 12 - 12 - 12 - 12 - 12 - 12		highly weathered, stiff, , with silt and clay.	
- 13 - 14 - 115 - 15 - 15 - 15 - 1	damp, gray	highly weathered, stiff, , with silt and clay, with ded mudstone gravel, with n.	-
- 16 - 17 - 18 - 18 - 19 - 19 - 120 - 21 - 21 - 21 - 21 - 21 - 21 - 2	SILTSTONE damp, gray	highly weathered, very stiff	Very hard drilling. Dry cuttings with rounded gravel.
- 22 23 24 25 26 - 26 - 26 - 26 - 26 - 2	damp, gray 40 19 50/		- Auger refusal
- 27 - - 28 -	- Bottom of	boring at 26.0 feet. roundwater observed.	



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UNIFIED SOIL CLASSIFICATION SUMMARY

5	Pt	OH C	Н МН	OL	CL	ML	SC	SM	SP	SW	GC	GM	GP	GW
187-90	Highly organic	Silts an			Its and cl			ith fines fines		sands fines		with fines 7 fines		gravels fines
D 24	soils	Liquid limit	50 or more	Liquia	imit less	tnan Su		-50% or is smaller				-more tho is larger		
(ASTIV		(50% or	Fine gr more is sm	gined soils aller than		ieve)		(Mor			ained soil ger than	s No. 200 s	ieve)	



LABORATORY CLASSIFICATION CRITERIA

GW and SW - Cu \geq 4 for GW and 6 FOR SW; 1 \leq Cc \leq 3

GP and SP-Clean gravel or sand not meeting requirements for GW and SW.

GM and SM-Atterberg limits of fines below "A" line or P.I. less than 4.

GC and SC-Atterberg limits of fines above "A" line with P.I. greater than 7.

			Sand	1		Gı	avel	Cabbias	Boulders
Fines (silt or	clay)	Fine	Ма	dium Co	arse	Fine	Coarse	Cobbles	Boulders
Sieve sizes	20	00	40	10	4	3	/4"	3"	10"

Classification of earth materials shown on the test boring logs is based on field inspection and should not be construed to imply laboratory analysis unless so stated.

MATERIAL SYMBOLS

0000	Gravel	~~~ ~~~	Peat or organic matter
	Sand		Fill material
	Silt		Shale
	Clay		Sandstone
	Sandy clay or clayey sand		Limestone
	Sandy silt or silty sand		Metamorphic rock
177	Silty clay or		terrorum sook

clayey silt

CONSISTENCY CLASSIFICATION FOR SOILS

No. of Blows*	Granular	Cohesive
0-5	Very loose	Very soft
6-10	Loose	Soft
11-20	Semicompact	Stiff
21-35	Compact	Very stiff
36-70	Dense	Hord
> 70	Very dense	Very hard

* According to the Standard Penetration Test (ASTM D 1586)

Where standard penetration test has not been performed, consistencies shown on logs are estimated.

KEY TO "OTHER TESTS" LABORATORY

Hydrometer

- Expansion Index

- Atterberg Limits

Gradation

SE - Sand Equivalent

- Consolidation

Maximum Dry Density Determination

- Stabilometer Resistance Value

- Direct Shear

T - Triaxial Shear

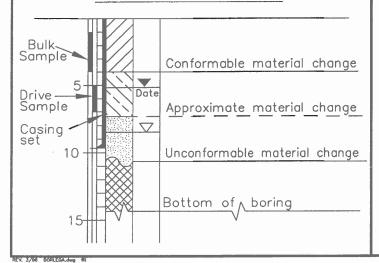
- Permeability

Ch - Corrosivity Testing

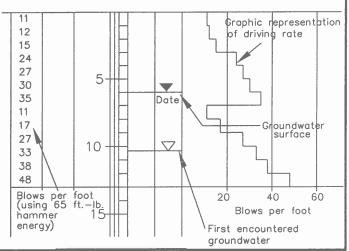
SG - Specific Gravity

LEGEND OF BORING

Igneous rock



LEGEND OF PENETRATION TEST



[&]quot;+" indicates extrapolated blow count

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Since 1954 (916) 371-1690 Fax (918) 371-TYPE: Case 490 with 18-Inch Bucket ELEVATION: 304+ Test Pit No. 1 (Stiff) Red brown CLAYEY SILT with very fine SAND and ROOTS/ROOTLETS 84 SC (Semicompact-compact) orange brown and brown 29 S 88 SILTY very fine-fine SAND with thin lenses of 1 R,G,E Α Bag CLAYEY SILT and fine-coarse SANDY GRAVEL (Very hard) blue gray gravelly rock fragments in CLAYEY matrix (completely weathered and fractured and sheared sedimentary ROCK-SHALE) 10 Groundwater measured at 6.3ft. depth; Test pit backfilled with spoils, tamped/wheel rolled 12-22-98 15 20 ELEVATION: 308.5± Test Pit No. 2 TYPE: Case 490 with 18-Inch Bucket (Loose) red brown SILTY very fine-fine SAND with ROOTS/ROOTLETS (Semicompact) light brown SILTY very fine-fine 80 23 2.5 1 (Compact-dense) light brown and orange brown SILTY and CLAYEY fine SAND with thin SILTY layers SC 1 В S,GBaa SM 2.5 2 97 25 2-22-98 (Very hard) dark brown/black weathered and completely fractured sedimentary ROCK-SHALE 10 Groundwater measured at 9.0ft. depth; Test pit backfilled with spoils, tamped/wheel rolled 12-22-98 15 20 UNCONFINED COMPRESSIVE STRENGTH (tsf) TESTS DRY DENSITY (lbs/cu. ft.) SIZE Š THE BORING LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES MATERIAL SYMBOL SAMPLE (inches) SAMPLE UNIFIED SOIL CL/ Moisture (%) FEE OTHER DEPTH

z

DATE:

W.E.N.

LOGGED BY:

12-22-98

Taber Consultants
Engineers and Geologists
536 Geveston Street
West Sacramento, CA
(916) 371–1690 Fax (916) 371–7265

TYPE: Case 490 with 18-Inch Bucket ELEVATION: 305.5+ Test Pit No. 3 (Loose) gray coarse GRAVEL cover over (compactdense) orange brown to gray weakly cemented SILTY very fine-fine SAND to fine-medium SAND SM (Very hard) dark blue gray CLAY with fine-coarse ROCK fragments (completed weathered and fractured/sheared sedimentary ROCK-SHALE) R.E C Bag 10 Groundwater measured at 6.3ft. depth; Test pit backfilled with spoils, tamped/wheel rolled on 12-22-98 15 TYPE: Case 490 with 18-Inch Bucket ELEVATION: 308+ Test Pit No. 4 (Compact to dense) orange brown to light brown weakly cemented SILTY very fine-fine SAND (Semicompact-compact) gray fine SAND grading to coarse SAND ⁻⁹⁸ (Compact-dense) gray fine-coarse SANDY 00 GRAVEL/GRAVELLY SAND and COBBLES 10 (Very stiff-hard) dark gray CLAY with ROCK fragments (completely weathered and fractured/ sheared sedimentary ROCK-SHALE 15 Groundwater measured at 8.5ft. depth; Test pit backfilled with spoils, tamped/wheel rolled on 12-22-98 20 UNCONFINED COMPRESSIVE STRENGTH (tsf) **DTHER TESTS** SIZE Š. UNIFIED SOIL CLASS THE BORING LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES MATERIAL SYMBOL SAMPLE : (inches) Moisture (%) SAMPLE DEPTH IN FEET 12-22-98 LOGGED BY: W.E.N. DATE:

Taber Since 1954

Taber Consultants Engineers and Geologists 536 Colvecton Street West Socramento, CA 95691 (916) 371–1690 Fax (916) 371–7265

Test Pit No. 5 ELEVATION: 301+ TYPE: Case 490 with 18-Inch Bucket (Loose-semicompact) orange brown SILTY SAND with ROOTS/ROOTLETS (Stiff) gray CLAY 2.5 S | 103 23 D Baa (Very hard) gray GRAVELLY ROCK fragments in CLAYEY matrix (completely weathered and fractured/sheared sedimentary ROCK-SHALE) No free groundwater encountered. Test pit backfilled with spoils, tamped with bucket on 12-22-98. 10 15 20 ELEVATION: 305± TYPE: Case 490 with 18-Inch Bucket Test Pit No. 6 (Loose) gray fine-coarse GRAVEL (fill) over (semicompact) orange brown fine SANDY SILT (Very hard) black highly weathered and completely fractured sedimentary ROCK-SHALE Groundwater measured at 6.5ft. depth; 10 Test pit backfilled with spoils, tamped/wheel rolled on 12-22-98 15 20 OTHER TESTS DENSITY /cu. ft.) BLOWS/FOOT 350 ft-lb SIZE Š UNIFIED SOIL CLASS THE BORING LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES Moisture (%) SAMPLE SAMPLE (inches) PEET SYMBOL DEPTH 12-22-98 W.E.N. LOGGED BY: Z DATE:

File: 16-319.1 November 8, 2016

APPENDIX E

Site Photos





CAInc

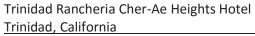




Photo 1: Looking east at head of landslide



Photo 2: "Water loving plants" beneath landslide at Scenic Drive





CAInc



Photo 3: Vertical drop at landslide scarp



Photo 4: Exposed bedrock at Casino Entrance





Trinidad, California

File: 16-319.1 November 8, 2016

CAInc



Photo 5: Sea stacks at beach west of Scenic Drive



Photo 6: Weathered bedrock





APPENDIX C

BEST MANAGEMENT PRACTICES

BEST MANAGEMENT PRACTICES AND CONSERVATION MEASURES

Construction

The project site development footprint is under one acre (approximately 0.40 acres) and coverage under the General Construction National Pollutant Discharge Elimination System (NPDES) permit is not required and therefore a Stormwater Pollution Prevention Plan (SWPPP) is not required. However, to further reduce construction impacts from construction, Best Management Practices (BMPs) shall be implemented as necessary. BMPs shall be inspected, maintained, and repaired to assure continued performance of their intended function. BMPs shall be chosen to best suit the site and the activities that occur. Construction BMPs may include, but are not limited to, the following:

- Stripped areas shall be stabilized through temporary seeding using dryland grasses.
- Exposed stockpiled soils shall be covered with plastic covering to prevent wind and rain erosion.
- The construction entrance shall be stabilized by the use of riprap, crushed gravel, or other such materials to prevent the track-out of dirt and mud.
- Construction roadways shall be stabilized using frequent watering, stabilizing chemical application, or physical covering of gravel or riprap.
- Filter fences shall be erected at all on-site stormwater exit points and along the edge of graded areas to stabilized non-graded areas and control siltation of on-site stormwater.
- Prior to land-disturbing activities, the clearing and grading limits shall be marked clearly, both in the field and on the plans. This can be done using construction fences or by creating buffer zones.
- Concentrated flows create high potential for erosion; therefore, any slopes shall be protected from
 concentration flow. This can be done by using gradient terraces, interceptor dikes, and swales, and
 by installing pipe slope drains or level spreaders. Inlets need to be protected to provide an initial
 filtering of stormwater runoff; however, any sediment buildup shall be removed so the inlet does
 not become blocked.
- If construction occurs during wet periods, sub-grade stabilization shall be required. Mulching or netting may be needed for wet-weather construction.
- Temporary erosion control measures (such as silt fence, gravel filter berms, straw wattles, sediment/grease traps, mulching of disturbed soil, construction stormwater chemical treatment, and construction stormwater filtration) shall be employed for disturbed areas.
- Exposed and unworked soils shall be stabilized by the application of effective BMPs. These include, but are not limited to, temporary or permanent seeding, mulching, nets and blankets, plastic covering, sodding, and gradient terraces.
- Temporary erosion control measures (such as silt fences, staked straw bales, and temporary revegetation) shall be employed for disturbed areas and stockpiled soil.
- Potentially hazardous materials shall be stored away from drainages and containment berms shall be constructed to prevent spilled materials from reaching water bodies.
- Vehicles and equipment used during construction shall be provided proper and timely maintenance
 to reduce potential for mechanical breakdowns leading to a spill of materials into water bodies.
 Maintenance and fueling shall be conducted in an area that meets the criteria set forth in the spill
 prevention plan.

Water Resources

The following BMPs would be implemented to reduce water usage at the Hotel:

• In order to reduce water consumption and support LEED and sustainability goals of the building, all plumbing would include low-flow and ultra-flow fixtures to reduce water consumption. All fittings are made of brass construction with a high-quality chrome finish, and polished, per the current Hyatt Place plumbing and accessories list. All proposed fixtures would comply with applicable water use reduction requirements of American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 189.1 Section 6.

Air Quality and Greenhouse Gasses

Generation of construction-related emissions is a short-term nuisance impact. The following BMPs, required through contractual obligations, would be implemented to reduce these temporary construction emissions.

- The contractor shall designate an on-site Air Quality Construction BMP Manager (AQCBM) whom would be responsible for directing compliance with the following BMPs for project construction relating to heavy-duty equipment use:
 - O All diesel-powered equipment shall be properly maintained and shall minimize idling time to 5 minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is required.
 - o Engines shall be kept in good mechanical condition to minimize exhaust emissions.
- The AQCBM would be responsible for directing compliance with the following BMPs for fugitive dust control practices during project construction:
 - o Spray exposed soil with water or other suppressant at least twice a day or as needed.
 - Minimize dust emissions during transport of fill material or soil by wetting down loads, ensuring adequate freeboard (space from the top of the material to the top of the truck bed) on trucks, and/or covering loads.
 - o Promptly clean up spills of transported material on public roads.
 - Locate construction equipment and truck staging areas away from sensitive receptors as practical and in consideration of potential effects on other resources.
 - o Cover dirt, gravel, and debris piles as needed to reduce dust and wind-blown debris.
- To reduce operational greenhouse gas emissions, the Tribe shall install Energy Star rated appliances such as washing machines, dishwashers, celling fans, and refrigerators. Additionally, the Tribe shall install Energy Star rated low-flow water fixtures such as showerheads and bathroom faucets.

Fire Protection

The following BMPs, required through contractual obligations, would be included as part of Alternative A to minimize the risk of fire during construction:

Any construction equipment that normally includes a spark arrester would be equipped with an
arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and
chainsaws.

- Structural fire protection would be provided through compliance with Uniform Fire Code requirements for residences and commercial structures similar in size to the proposed clubhouse. The Tribe would cooperate with the fire district by allowing routine inspections. The Tribe would ensure that appropriate water supply and pressure is available for emergency fire flows.
- Typical fire flow allowances would be confirmed with the local Fire Marshall prior to construction of any water storage tank.
- Comply with California Fire Code and National Fire Alarm Code requirements for commercial structures similar in size to the proposed Hotel.

Hazardous Materials

The following BMPs would be required through contractual obligations and would be included as part of Alternative A to minimize the risk from use of hazardous materials during construction:

- Personnel shall follow BMPs for filling and servicing construction equipment and vehicles. To reduce the potential for accidental release, fuel, oil, and hydraulic fluids shall be transferred directly from a service truck to construction equipment and shall not be stored on site.
- Catch-pans shall be placed under equipment to catch potential spills during servicing.
- Refueling shall be conducted only with approved pumps, hoses, and nozzles.
- Vehicle engines shall be shut down during refueling and idling shall be kept to a minimum.
- No smoking, open flames, or welding shall be allowed in refueling or service areas.
- Refueling shall be performed away from bodies of water to prevent contamination of water in the event of a leak or spill.
- Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents.
- Should a spill contaminate soil, the soil shall be put into containers and disposed of in accordance with local, state, and federal regulations.
- All containers used to store hazardous materials shall be inspected at least once per week for signs of leaking or failure. All maintenance, refueling, and storage areas shall be inspected monthly.
- Hazardous materials must be stored in appropriate and approved containers in accordance with applicable regulatory agency protocols.
- Potentially hazardous materials, including fuels, shall be stored away from drainages and secondary containment shall be provided for all hazardous materials stored during construction and operation.
- In the event that contaminated soil and/or groundwater are encountered during construction-related earth-moving activities, all work shall be halted until a professional hazardous materials specialist or other qualified individual assesses the extent of contamination. If contamination is determined to be hazardous, representatives of the Tribe shall consult with the BIA and EPA to determine the appropriate course of action, including development of a Sampling and Remediation Plan, if necessary. Any contaminated soils that are determined to be hazardous shall be disposed of in accordance with federal regulations.

APPENDIX D

REGULATORY CONTEXT

1 WATER QUALITY

1.1 SURFACE WATER

The Clean Water Act (CWA) (33 USC 1251-1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The U.S. Environmental Protection Agency (USEPA) is delegated as the authoritative body under the CWA. Important sections of the CWA applicable to the Proposed Action are as follows:

- Section 303 and Section 304 provide for water quality standards, criteria, and guidelines. Section 303(d) requires states to identify impaired water bodies and develop total maximum daily loads (TMDLs) for the contaminant(s) of concern. Section 304 publishes water quality criteria for the protection of aquatic life and human health in surface water for approximately 150 pollutants.
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a
 permitting system for the discharge of any pollutant (except for dredged or fill material) into
 waters of the U.S. Each NPDES permit contains limits on pollutant concentrations of wastes
 discharged to surface waters to prevent degradation of water quality and protect beneficial uses.

1.2 ANTIDEGRADATION POLICY

The federal antidegradation policy (40 CFR Part 131.6) is designed to protect water quality and water resources. The policy directs states to adopt a statewide policy that includes the following primary provisions: (1) existing instream uses and the water quality necessary to protect those uses shall be maintained and protected; (2) where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development; and (3) where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected. Each state must also develop procedures to implement its antidegradation policy through water quality management processes. Each state's antidegradation policy must include implementation methods consistent with the provisions outlined in 40 CFR 131.12 (USEPA, 1994).

Complying with the antidegradation provision of the CWA, the North Coast Regional Water Quality Control Board (NCRWQCB) has established general water quality objectives for all inland surface waters under State jurisdiction to protect designated beneficial uses. The Water Quality Control Plan for the North Coast Region (Basin Plan) outlines these surface water quality objectives. **Table 1** lists the specific water quality objectives outlined in the Basin Plan by parameter for surface waters under State jurisdiction within the surrounding watersheds. The Basin Plan does not currently list surface water quality objectives for the Trinidad HU.

The State Water Resources Control Board (SWRCB), in compliance with Section 303 of the CWA, has prepared a list of impaired water bodies in California. Impaired water bodies occur where industrial and

technological waste limits or other legal mechanisms for pollution control are not enough to meet water quality standards. The list includes a priority schedule for the development of TMDLs for each contaminant or "stressor" affecting the water body. The Proposed Project will not discharge into or affect any of the listed impaired water bodies (CDWR, 2006).

TABLE 1
GENERAL WATER QUALITY OBJECTIVES

WATERB	COND NO (MIC	CIFIC DUCTA CE CRO- IM)	DIS S	TOTAL SSOLVE SOLIDS MG/L)	D	DISSO OXY (MO		P	Н	HARDN ESS (MG/L)	BOI (MC	RON G/L)
ODY	90% UPP ER LIM IT ¹	50% UPP ER LIM IT ²	90% UPP ER LIM IT ¹	50% UPP ER LIM IT ²	MI N	90% UPP ER LIM IT ¹	50% UPP ER LIM IT ²	MI N	M AX	50% UPPER LIMIT ²	90% UPP ER LIM IT ¹	50% UPP ER LIM IT ²
Redwood Creek	2203	1253	1153	753	7.0	7.5	10.0	8.5	6.5	NONE	NON E	NON E
Mad River	3003	1503	1603	903	7.0	7.5	10.0	8.5	6.5	NONE	NON E	NON E
Eel River	3753	2253	2753	1403	7.0	7.5	10.0	8.5	6.5	NONE	NON E	NON E

¹ 50% upper and lower limits represent the 50 percentile values of the monthly means for a calendar year. 50% or more of the monthly means must be less than or equal to an upper limit and greater than or equal to a lower limit.

Source: NCRWQCB, 2011a

1.3 GROUNDWATER

The Basin Plan also specifies water quality objectives for groundwater in the north coast. Water quality objectives for groundwater are listed in **Table 2**.

In order to protect drinking water supplies and under the mandate of the Safe Drinking Water Act, USEPA defines National Primary Drinking Water Regulations (primary standards). These legally enforceable standards apply to public water systems. These standards are established to protect human health by limiting the levels of contaminants in drinking water. The USEPA also defines National Secondary Drinking Water Regulations (secondary standards).

² 90% upper and lower limits represent the 90 percentile values for a calendar year. 90% or more of the values must be less than or equal to an upper limit and greater than or equal to a lower limit.

³ Does not apply to estuarine areas.

TABLE 2
WATER QUALITY OBJECTIVES FOR GROUNDWATER

TASTES AND ODORS	BACTERIA ¹	RADIOACTIVITY ¹	CHEMICAL CONSTITUENTS ¹
Cannot exceed concentrations that cause nuisance or adversely affect beneficial uses	Cannot exceed 1.1 mpn/100ml or 1 colony/100ml	Cannot exceed California Code of Regulations, Title 22, Division 4, Chapter 15, Article 5, Section 64443, Table 4 and Listed in Table 3-2 of the Basin Plan	Cannot exceed Limits Specified in California Code of Regulations, Title 22, Division 4, Chapter 15, Article 4, Section 64435 Tables 2 and 3, and Section 64444.5 (Table 5) and Listed In Table 3-2 of the Basin Plan

¹ Domestic or municipal sources only.

source: NCRWQCB, 2011a

2.1 CLEAN AIR ACT

The Federal Clean Air Act (CAA) was enacted for the purpose of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. Basic components of the CAA and its amendments include national ambient air quality standards (NAAQS) for major air pollutants and state implementation plans (SIPs) to ensure countrywide NAAQS compliance. Regulation of air pollution is achieved through both the NAAQS and emissions limitations for individual sources of air pollutants established through permitting requirements. The USEPA is the federal agency responsible for identifying criteria air pollutants (CAPs) for which NAAQS are established, updating and revising the NAAQS, and approving and overseeing SIPs as they relate to compliance with the CAA. The USEPA has identified six CAPs that are both common indicators of regional air quality and detrimental to human health. The six CAPs are ozone, carbon monoxide (CO), particulate matter (\leq 10 microns and \leq 2.5 microns in diameter (PM₁₀ and PM_{2.5})), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead (Pb). The NAAQS, appropriate metrics, and violation criteria for the six CAPs are presented in **Table 3**.

TABLE 3
NATIONAL AMBIENT AIR QUALITY STANDARDS

POLLUTANT	AVERAGING TIME	PARTS PER MILLION (PPM) MICROGRAMS	PER CUBIC METER (μG/M3)	VIOLATION CRITERIA
Ozone	8 hours	0.075	75	If exceeded on more than 3 days in 3 years.
00	8 hours	9	9,000	If exceeded on more than 1
СО	1 hour	35	35,000	day per year.
PM ₁₀	24-hour	N/A	150	If exceeded on more than 1 day per year.
PM _{2.5}	24-hour	N/A	35	If exceeded on more than 1 day per year.
	Annual	0.053	100	If exceeded.
NO ₂	1-hour	0.100	N/A	If exceeded on more than 3 days in 3 years.
SO_2	1-hour	0.075	N/A	If exceeded on more than 1 day per year.
Lead	Quarter	N/A	0.15	If exceeded on more than 1 day per year.
Source: USEPA, 2	017			_

2.1.1 Federal General Conformity

Under the General Conformity Rule of the CAA, the lead agency with respect to a federal action is required to demonstrate that a proposed federal action conforms to the applicable SIP(s) before the proposed federal action is taken. There are two phases to a demonstration of general conformity:

- 1) The Conformity Review process, which entails an initial review of the federal action to assess whether a full conformity determination is necessary, and
- 2) The Conformity Determination process, which requires that a proposed federal action be demonstrated to conform to the applicable SIP(s).

The Conformity Review requires the lead agency to compare estimated emissions attributable to the federal action to the applicable general conformity *de minimis* threshold(s) for all CAPs for which the applicable air basin or region is in nonattainment for the applicable NAAQS. If the emission estimate(s) from step one is below the applicable *de minimis* threshold(s), then a General Conformity Determination is not required under the CAA (40 CFR Part 93). If emission estimates are greater than *de minimis* levels, the lead agency must conduct a Conformity Determination.

2.1.2 Federal Class I Areas

Title 1, Part C of the CAA was established, in part, to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value. The CAA designates all international parks, national wilderness areas, and memorial parks larger than 5,000 acres and national parks larger than 6,000 acres as "Class I areas." The CAA prevents significant deterioration of air quality in Class I areas under the Prevention of Significant Deterioration (PSD) program. The PSD Program protects Class I areas by allowing only a small increment of air quality deterioration in these areas by requiring assessment of potential adverse impacts on air quality related values of Class I areas. The nearest federal Class I area, Redwood National Park, is located approximately 10 miles northeast of the project site.

Any major source of emissions within 100 kilometers (km) (62.1 miles) from a federal Class I area is required to conduct a pre-construction review of air quality impacts on the area(s). A "major source" for the PSD program is defined as a facility that will emit 250 tons per year (tpy) of regulated pollutant from direct stationary sources. For certain industries, these requirements apply to facilities that emit 100 tpy or more of regulated pollutants through direct stationary sources. Mobile sources such as vehicle emissions are not stationary sources by definition and are therefore not subject to the PSD program.

2.1.3 Federal Hazardous Air Pollutant Program

Title III of the CAA requires the USEPA to promulgate National Emissions Standards for Hazardous Air Pollutants (NESHAPs). The NESHAPs may differ between regional sources and area sources of hazardous air pollutants (HAPs). Major sources are defined as stationary sources with potential to emit more than 10 tons per year (tpy) of any HAP or more than 25 tpy of any combination of HAPs (all other non-major sources are considered area sources under the NESHAPs program). HAPs are a specific group of airborne chemicals designated by the USEPA. Sources of HAPs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different HAPs. The most

important HAPs, in terms of health risk, are diesel particulate matter (DPM), benzene, formaldehyde, 1,3-butadiene, and acetaldehyde.

HAPs are less pervasive in the urban atmosphere than CAPs but are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of HAPs, with varying degrees of toxicity. Currently, there are over 188 HAPs listed by the USEPA. The majority of the estimated health risk from HAPs can be attributed to relatively few compounds, the most important being DPM (CARB, 2005). Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are particulate matter, which includes carbon. Diesel exhaust also contains a variety of harmful gases and over 40 other cancercausing substances.

2.2 CLIMATE CHANGE

2.2.1 Federal

In 2002, President George W. Bush established a national policy goal of reducing the GHG emission intensity (tons of GHG emissions per million dollars of gross domestic product) of the U.S. economy by 18 percent by 2012. No binding reductions were associated with the goal. Rather, the USEPA administered a variety of voluntary programs and partnerships with GHG emitters, in which the USEPA collaborated with industries producing and utilizing GHGs to reduce associated emissions.

2.2.2 Clean Air Act

In *Massachusetts et al.* vs. *Environmental Protection Agency et al.* (April 2, 2007), the US Supreme Court ruled that the CAA authorizes the USEPA to regulate CO₂ emissions from new motor vehicles. The Court did not mandate that the USEPA enact regulations to reduce GHG emissions but found that the only instances in which the USEPA could avoid taking action were if the USEPA found that GHGs do not contribute to climate change or if the UESPA offered a "reasonable explanation" for not determining that GHGs contribute to climate change. On December 15, 2009, the USEPA issued a final endangerment and cause finding (74 FR 66496), stating that high atmospheric levels of GHGs "are the unambiguous result of human emissions and are very likely the cause of the observed increase in average temperatures and other climatic changes." The USEPA further found that "atmospheric concentrations of GHG endanger public health and welfare within the meaning of Section 202 of the Clean Air Act." The finding itself does not impose any requirements on industry or other entities.

2.2.3 U.S. Environmental Protection Agency

On December 7, 2009, USEPA Administrator Lisa Jackson signed a Final Action, under Section 202(a) of the CAA, finding that six key well-mixed GHGs constitute a threat to public health and welfare and that the combined emissions from motor vehicles cause and contribute to the climate change problem. The following are the most recent regulatory actions taken by the USEPA:

On September 15, 2009, the USEPA and the U.S. Department of Transportation's (DOT's)
 National Highway Traffic Safety Administration (NHTSA) proposed a new national program that
 would reduce GHG emissions and improve fuel economy for all new cars and trucks sold in the
 United States. The USEPA proposed the first national GHG emissions standards under the CAA

- and NHTSA proposed an increase in the Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act.
- In response to the FY2008 Consolidated Appropriations Act (HR 2764; PL 110–161), the USEPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. Signed by the Administrator on September 22, 2009, the rule requires that suppliers of fossil fuels and industrial GHGs, manufacturers of vehicles and engines outside of the light duty sector, and facilities that emit 25,000 metric tons or more of GHGs per year to submit annual reports to the USEPA. The rule is intended to collect accurate and timely emissions data to guide future policy decisions on climate change.
- On September 30, 2009, the USEPA proposed new thresholds for GHGs that define when CAA
 permits under the New Source Review and Title V operating permits programs would be
 required.

2.2.4 Council on Environmental Quality (CEQ) GHG Guidance

The Council on Environmental Quality (CEQ) recently released a final guidance memorandum on how climate change should be addressed in NEPA documents (CEQ, 2016). The CEQ guidance advises federal lead agencies to address impacts to and from climate change when assessing cumulative project-level impacts under NEPA. To assess impacts, the guidance states that federal agencies should quantify direct and indirect emissions of the Project Alternatives (including the No-Action Alternative), with the level of effort being proportionate to the scale of the emissions relevant to NEPA review, as a proxy for assessing potential effects on climate change in a NEPA analysis. According to CEQ, climate change impacts relating to indirect and direct actions concerning the federal action and associated short-term and long-term effects should also be included in the NEPA analysis.

The guidance does not establish any particular quantity of GHG emissions as "significantly" affecting the quality of the human environment or give greater consideration to the effects of GHG emissions and climate change over other effects on the human environment. However, the guidance does state that agencies should consider reasonable alternatives and mitigation measures to reduce action-related GHG emissions or increase carbon sequestration in the same fashion as they consider alternatives and mitigation measures for any other environmental effects. The guidance further states that climate change effects on the environment and on the Proposed Project should be considered in NEPA analysis if the project is considered vulnerable to the effects of climate change, such as increasing sea level, drought, high intensity precipitation events, increased fire risk, or ecological change. Assessment of such impacts, if applicable, should be conducted with existing information as CEQ states that agencies need not undertake new research or analysis of potential climate change impacts in the Proposed Action area.

Local

The County Draft Climate Action Plan (CAP) includes a GHG inventory and establishes an emission reduction target. The Draft CAP also identifies numerous goals and policies aimed at reducing GHG emissions. These goals and policies are to be incorporated into the County General Plan; however, the General Plan has yet to be adopted by the County Board of Supervisors and does not apply to land held in trust by the federal government (County of Humboldt, 2012a). Primary sources of GHG emissions in the region include vehicles, trucks, airplanes, mills, ships, canneries, and electricity generation facilities.

3.1 FEDERAL ENDANGERED SPECIES ACT

The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) implement the Federal Endangered Species Act of 1973 (FESA) (16 USC 1531 *et seq.*). Threatened and endangered species on the federal list (50 CFR 17.11 and 17.12) are protected from "take" (direct or indirect harm), unless a Biological Opinion (BO) with incidental take provisions is rendered. Pursuant to the requirements of FESA, an agency reviewing a Proposed Project within its jurisdiction must determine whether any federally listed species may be present in the project site and determine whether the Proposed Project will have a potentially significant impact upon such species. Under FESA, habitat loss is considered an impact to the species. In addition, the agency must determine whether the Proposed Project is likely to jeopardize the existence of species or habitat for species proposed to be listed under FESA (16 USC 1536[3], [4]). USFWS also designates species of concern. Species of concern receive attention from federal agencies during environmental review, although they are not otherwise protected under FESA. Project-related impacts to such species would also be considered significant and would require mitigation.

3.1.1 Waters of the U.S.

Any person, firm, or agency planning to alter or work in navigable waters of the U.S., including the discharge of dredged or fill material, must first obtain authorization from the United States Army Corps of Engineers (USACE). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act of 1899 prohibits the obstruction or alteration of navigable waters of the United States without a permit from the Corps of Engineers (33 USC 403). Section 301 of the Federal Water Pollution Control Act and Amendments of 1972 (CWA) prohibits the discharge of pollutants, including dredged or fill material, into waters of the United States without a Section 404 permit from USACE (33 USC 1344). Water Quality Certification (a CWA Section 401 permit) may be required by the USEPA before other permits are issued.

3.1.2 Executive Order 11990 (Protection of Wetlands)

Executive Order (EO) 11990 was established for the protection of wetlands and riparian systems. Wetlands are transitional lands between terrestrial and aquatic systems. EO 11990 requires federal agencies to consider wetland protection as an important part of their policies and take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands.

3.1.3 Migratory Bird Treaty Act

Most bird species, especially those that are breeding, migratory, or of limited distribution, are protected under federal and state regulations. Under the Migratory Bird Treaty Act of 1918 (16 USC 703-711), migratory bird species and their nests and eggs that are on the federal list (50 CFR 10.13) are protected from injury or death and project-related disturbances must be reduced or eliminated during the nesting cycle.

4.1 NATIONAL REGISTER OF HISTORIC PLACES

The eligibility of a resource for listing in the National Register of Historic Places (NRHP) is determined by evaluating the resource using criteria defined in 36 CFR 60.4 as follows: the quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history;
- B. That are associated with the lives of persons significant in our past;
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That has yielded, or may be likely to yield, information important to prehistory or history.

Sites younger than 50 years, unless of exceptional importance, are not eligible for listing in the NRHP.

While most historic buildings and many historic archaeological properties are significant because of their association with important events, people, or styles (criteria A, B, and C), the significance of most prehistoric and some historic-period archaeological properties is usually assessed under criterion D. This criterion stresses the importance of the information contained in an archaeological site, rather than its intrinsic value as a surviving example of a type or its historical association with an important person or event. It places importance not on physical appearance but rather on information potential.

4.1.1 National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) as amended, and its implementing regulations found in 36 CFR Part 800, require federal agencies to identify cultural resources that may be affected by actions involving federal lands, funds, or permitting. The significance of the resources must be evaluated using established criteria outlined in 36 CFR 60.4, as described below.

If a resource is determined to be a *historic property*, Section 106 of the NHPA requires that effects of the federal undertaking on the resource be determined. A historic property is defined as:

...any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and material remains related to such a property (NHPA Sec. 301[5])...

Section 106 of the NHPA prescribes specific criteria for determining whether a project would adversely affect a historic property, as defined in 36 CFR 800.5. An impact is considered adverse when prehistoric or historic archaeological sites, structures, or objects that are listed or eligible for listing in the NRHP are subjected to the following:

- Physical destruction of or damage to all or part of the property;
- Alteration of a property;
- Removal of the property from its historic location;
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;
- Neglect of a property that causes its deterioration; and
- Transfer, lease, or sale of the property out of federal control without adequate and legally
 enforceable restrictions or conditions to ensure long-term preservation of the property's historic
 significance.

If the historic property will be adversely affected by development, then prudent and feasible measures to avoid or reduce adverse impacts must be taken. The State Historic Preservation Officer (SHPO) must be provided an opportunity to review and comment on these measures prior to project implementation.

4.2 TRADITIONAL CULTURAL PROPERTIES

The 1992 amendments to the NHPA allowed for a new designation of a traditional cultural property (TCP). These amendments established "Properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization" might be determined eligible for inclusion in the NRHP (Section 101(d)(6) of the NHPA. Accordingly, a tribal TCP can only be significant and eligible for listing on the NRHP if it meets two criteria: 1) rooted in that community's history; and 2) are important in maintaining the continuing cultural identity of the community."

4.3 Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) is a federal law passed in 1990. NAGPRA provides a process for museums and federal agencies to return certain Native American cultural items -- human remains, funerary objects, sacred objects, or objects of cultural patrimony -- to lineal descendants and culturally affiliated Indian tribes and Native Hawaiian organizations. NAGPRA includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American burials and cultural items on federal and tribal lands, and penalties for noncompliance and illegal trafficking.

4.4 PALEONTOLOGICAL RESOURCES PRESERVATION ACT

The Paleontological Resources Preservation subtitle of the Omnibus Public Land Management Act, 16 USC 470aaa to aaa-11 requires the U.S. Department of Agriculture and the U.S. Department of the Interior to issue implementation regulations that provide for the preservation, management, and protection of paleontological resources on Federal lands and to insure that these resources are available for current and future generations to enjoy as part of America's national heritage.

Paleontological resources are defined as the traces or remains of prehistoric plants and animals. Such remains often appear as fossilized or petrified skeletal matter, imprints, or endocasts, and reside in

sedimentary rock layers. Fossils are important resources, due to their scientific and educational value. Fossil remains of vertebrates are considered significant. Invertebrate fossils are considered significant if they function as index fossils. Index fossils are those that appear in the fossil record for a relatively short and known period, allowing geologists to interpret the age range of the geological formations in which they are found.

Significance Criteria

Significance for paleontological resources is reflected in terms of compliance with the Antiquities Act of 1906 (PL 59-209; 16 USC 431 et seq.; 34 Stat. 225), which calls for the protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on federal land. Additional provisions appear in the Archaeological and Historic Data Preservation Act of 1974, as amended, for the survey, recovery, and preservation of significant scientific, prehistoric, historic, archaeological, or paleontological data, in such cases wherein this type of data might be otherwise destroyed or irrecoverably lost because of federal projects.

5 SOCIOECONOMIC CONDITIONS/ENVIRONMENTAL JUSTICE

On February 11, 1994, President Clinton issued EO 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" and an accompanying Presidential Memorandum to focus federal attention on the environmental and human health conditions in minority communities and low-income communities. EO 12898, as amended, directs federal agencies to develop an Environmental Justice Strategy that identifies and addresses disproportionately high human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. Compliance with EO 12898 has been incorporated into the NEPA compliance requirements of the BIA for the Proposed Action.

6.1 REGULATORY SETTING

The Nation's coastal waters are protected by the federal Coastal Zone Management Act (CZMA) of 1972, which is administered by the National Oceanic and Atmospheric Administration (NOAA) within the Department of Commerce. In California, the CZMA is administered by the California Coastal Commission (CCC), which was established by voter initiative and made permanent by the California Coastal Act of 1976. The CCC carries out its statutory responsibilities largely through the review and approval of local coastal programs (LCPs). The Coastal Zone is defined by the California Coastal Act as "the land and water area of the State of California from the Oregon Border to the border of the Republic of Mexico," as officially mapped on 7.5-minute USGS quadrangle maps and adopted by the CCC. The CZMA states that "excluded from the coastal zone are lands of which is held in trust by the federal government." Therefore, the project site is not considered part of the Coastal Zone.

Title 15 CFR Part 930 requires federal consistency determinations for projects directly or indirectly affecting any coastal use or resource. Federal consistency determinations stem from the CZMA requirement that federal actions (that are reasonably likely to affect any land or water use or natural resource of the Coastal Zone) be consistent with the enforceable policies of a coastal State's or territory's federally approved Coastal Management Program ("State CMP" or "CMP"). Federal actions include: (1) direct federal actions--activities and development projects performed by a federal agency or a contractor for the benefit of a federal agency; and (2) indirect federal actions--activities not performed by a federal agency, but requiring federal permits or licenses or other forms of federal approval and federal financial assistance to states, territories, and local governments.

The objective is to ensure that federal agencies and applicants for federal approvals and funding adequately consider and comply with State CMPs. Under CZMA Sec. 307(C), each federal agency shall provide a consistency determination to the relevant State agency designated at the earliest practical time but in no case later than 90 days before final approval of the federal activity (unless both the federal agency and the State agency agree to a different schedule).

7 AGRICULTURE

7.1 WILLIAMSON ACT PROVISIONS

Under the provisions of the Williamson Act (California Land Conservation Act 1965, Section 51200), landowners contract with the County to maintain agricultural or open space use of their lands in return for reduced property tax assessment. Withdrawal involves a ten-year period of tax adjustment to full market value before protected open space can be converted to urban uses. Consequently, land under a Williamson Act Contract can be in either a non-renewal status or a renewal status. Lands with a non-renewal status indicate the owner has withdrawn from the Williamson Act Contract and is waiting for a period of tax adjustment for the land to reach its full market value for tax purposes.

7.2 FARMLAND PROTECTION POLICY ACT

The goal of the Farmland Protection Policy Act (FPPA) is to minimize the extent that federal actions and programs result in the conversion of agricultural lands to non-agricultural uses. Pursuant to the FPPA, the Farmland Conversion Rating Form (Form AD 1006) is used to determine the value of the farmland under consideration and the level of protection such land should receive.

8 Noise

Noise is generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain.

Environmental noise is typically measured in A-weighted decibels (dBA). A dBA is a dB corrected for the variation in frequency response of the typical human ear at commonly encountered noise levels. In general, A-weighting of environmental sound consists of evaluating all of the frequencies of a sound, taking into account the fact that human hearing is less sensitive at low frequencies and extremely high frequencies but is more sensitive in mid-range frequency. **Table 4** provides examples of noise sources and their effects on humans, which correspond to various sound levels.

TABLE 4
TYPICAL A-WEIGHTED SOUND LEVELS

COMMON NOISES	NOISE LEVEL (DBA)	EFFECT
Rocket launching pad	180	Irreversible hearing loss
Carrier deck jet operation/Air raid siren	140	Painfully loud
Thunderclap	130	Painfully loud
Jet takeoff (200 feet)/Auto horn (3 feet)	120	Maximum vocal effort
Pile driver/Rock concert	110	Very loud
Garbage truck/Firecrackers	100	Very loud
Heavy truck (50 feet)/City traffic	90	Very annoying and continuous exposure is likely to result in hearing damage
Alarm Clock (2 feet)/Hair dryer	80	Annoying
Noisy restaurant/Freeway traffic/Business office	70	Telephone use difficult
Air conditioning unit/Conversational speech	60	Intrusive
Light auto traffic (100 feet)	50	Quiet
Living room/Bedroom/Quiet office	40	Quiet
Library/soft whisper (15 feet)	30	Very Quiet
December of the	20	Very Quiet
Broadcasting studio	10	Just Audible
Threshold of hearing	0	Hearing begins
Source: U.S. Department of Housing and U	rban Development, 2009	

8.1 Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period. A noise level is a measure of noise at a given instant in time. However, community noise varies continuously over a period with respect to the contributing sound sources in the community noise environment. What makes community noise constantly variable throughout a day is the addition of short duration, single event noise sources such as aircraft flyovers, vehicle passbys, sirens, etc. that are readily identifiable to the individual. These successive additions of sound to the community noise environment vary the community noise level from instant to instant, requiring the measurement of noise exposure over a period to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The noise descriptors used in this EA are summarized below:

- Leq: the equivalent sound level (Leq) is used to describe noise over a specified period, typically one hour, in terms of a single numerical value. Leq is the constant sound level which would contain the same acoustic energy as the varying sound level during the same period (i.e. the average noise exposure level for the given time period).
- Ldn: 24-hour day and night A-weighed noise exposure level (Ldn), which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night ("penalizing" nighttime noises). Noise between 10:00 PM and 7:00 AM is weighted (penalized) by adding 10 dB to take into account the greater annoyance of nighttime noises.
- CNEL: similar to the Ldn, the Community Noise Equivalent Level (CNEL) adds a 5-dB "penalty" for the evening hours between 7:00 PM and 10:00 PM, in addition to a 10-dBA penalty between the hours of 10:00 PM and 7:00 AM.

A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness and can cause adverse response, depending on the existing ambient noise level.

8.2 Noise Standards

Noise standards used in this study include the Federal Highway Administration (FHWA) Noise Abatement Criteria (NAC) for the assessment of noise consequences related to surface traffic and the noise impact criteria established by the County noise policy. These standards are discussed below.

8.2.1 Federal Noise Abatement Criteria

The Federal Highway Administration (FHWA) provides construction noise level thresholds in its 2006 Construction Noise Handbook, which are provided in **Table 5**. Sensitive receptors with the potential to be impacted by the Project Alternatives include residential land uses; thus, a 78-dBA Leq noise standard would apply. Activity criteria provided in **Table 5** are used to evaluate impacts to the noise environment from construction activities.

TABLE 5FEDERAL CONSTRUCTION NOISE THRESHOLDS

NOISE RECEPTOR LOCATIONS AND	DAYTIME (7:00 AM- 6:00 PM)	EVENING (6:00 PM TO 10:00 PM)	NIGHTTIME (10:00 PM TO 7:00 AM)
LAND USES		DBA, LEQ ¹	
Noise-Sensitive Locations: (residences, institutions, hotels, etc.)	78 or Baseline + 5 (whichever is louder)	Baseline + 5	Baseline + 5 (if Baseline < 70) or Baseline + 3 (if Baseline > 70)
Commercial Areas: (businesses, offices, stores, etc.)	83 or Baseline + 5	None	None
Industrial Areas: (factories, plants, etc.)	88 or Baseline + 5	None	None

Notes: ¹ Leq thresholds were empirically determined (FHWA, 2006)

Source: FHWA Construction Noise Handbook, 2006

8.2.2 County Noise Regulations

The County establishes a maximum acceptable noise threshold of 50 dBA Leq for commercial land use noise (County of Humboldt, 2012). However, pursuant to Noise Control Ordinance Measure N-IM7x, construction is exempt from noise requirements (County of Humboldt, 2012). Construction noise may occur at levels identified as normally unacceptable if mitigation measures and construction standards reduce noise levels to a normally acceptable value.

8.2.3 Sensitive Receptors

Some land uses are considered more sensitive to noise than others due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, and parks and other outdoor recreation areas are generally more sensitive to noise than commercial and industrial land uses are. A *sensitive receptor* is defined as any living entity or aggregate of entities whose comfort, health, or well-being could be impaired or endangered by the existence of the criteria pollutant, whether it is air emissions or noise, in the atmosphere.

APPENDIX E

CALEEMOD FILES

CalEEMod Inputs

TREDC Hotel Project

Project-Specific Inputs for the TREDC Hotel Project

***************************************	T. co.	Project	Project Specific Inputs
and	i ype oi iiibat	Inputs	Source/Notes
Project Name	Project Name	TREDC Hotel Project	Project Description
Project Location	County	Humboldt	Modeler, based on location
Climate zone	Climate Zone Number	1	Modeler, based on location
Land Use Setting	Urban or Rural	Rural	Modeler, based on location
Operational Year	1st year of operation after full buildout.	2018 – 1 st year 2040 – cumulative	Project Description
Utility Company	Utility Company Name	PG&E	USEPA Power Profiler
Land Use Type and Subtype	Residential, Commercial, Recreation, etc.	See Table 1.	See Table 1.
Unit Amount	Size of Buildings or Number of units for each Land Use Type.	See Table 1.	See Table 1.
Lot Acreage	Acreage of each Land Use Type	See Table 1 .	See Table 1 .
Population	Population based on persons/household	See Table 1.	See Table 1.
Construction Phases	Type of construction phase (Demo, Site Prep, etc.) and beginning and ending dates	6 Months starting 6/1/2017	Project Description
Off-Road Equipment	Type of equipment (Excavator, Dozer, etc.) and number of units per construction phase	-	1
Demolition	Sq ft or tons of Demo	3,484 tons	Cal Recycle, 2004. Assuming the depth of asphalt is 6 inches and the entire site is demolished.
Construction Trip Gen Rate	Average number of one-way trips per day	-	•
Operational Trip Reductions	% reduction in trips.	1	1
Operational Trip Gen Rate and trip length	Trips and trip lengths	See Tables 2 .	See Tables 2 .
Area Sources	Hearths – # of wood-burning fireplaces, #of gas fireplaces, and # of units with no fireplace.	Not Applicable	No hearths are included in the project design.
	Landscape Equipment - % of equipment that is electric.	ŀ	:
Energy Use	Project Specific Emission Factors.	:	:

Graton Casino Resort Hotel Expansion Project Site Specific CalEEMod Inputs

1100	Type of Innit	Project	Project Specific Inputs
		Inputs	Source/Notes
Water and Wastewater	Indoor and outdoor water use for each Land Use Subtype in gallons per year.	1	-
Solid waste	Tons of solid waste generated per year (per hotel room)	0.73	Project Description
	Land Fill Gas Capture Rate		
Operational off-road equipment	Excavator, Dozer, etc.	1	-
Land Use Change	Vegetation land use type (cropland, etc.) and initial and final acreage	1	-
Sequestration	Type and net number of new trees added	-	-

Source: AES, 2016; CalEEMod, 2016; USEPA, 2015; Cal Recycle, 2004.

Project-Mitigation Inputs for the TREDC Hotel Project

	CAPCOA	Include in		300,000	Section Control of the Control of
Mitigation	Mitigation	Model	Type of Input / Unit	nafoil	copecific inputs
Input Category	Number	(yes/no)		Inputs	Source/Notes
Off-Road Equipment	C-1	Yes	Engine Type, DPF Level, and Oxidation Catalyst	See Table 3 .	See Table 3 .
Soil Stabilizer	N/A		PM10 (% Reduction)	10%	Default % Reduction.
tor Unpaved Roads	N/A	Yes	PM2.5 (% Reduction)	10%	Default % Reduction.
	N/A		Frequency (per day)	2 times per day	Default % Reduction
Water Exposed Area	N/A	Yes	PM10 (% Reduction)	22%	Default % Reduction.
	N/A		PM2.5 (% Reduction)	55%	Default % Reduction.
Replace Ground Cover of Area	A/N	<u>8</u>	PM10 (% Reduction)	ı	ı
Disturbed	N/A		PM2.5 (% Reduction)	1	1
Unpaved Road	N/A	No	Moisture Content (%)	-	-
Mitigation	N/A	Yes	Vehicle Speed (mph)	15	Default Reduction
Type of Residential	N/A	No	Type of Residential	1	:
Increased	!		Dwelling Units/Acre	-	1
Density	LUT-1	<u>0</u>	Job/Job Acre	1	ı
Increased Diversity	LUT-3	No	Yes or No	1	1
Improved Walkability Design	LUT-9	No	Intersections/Square Miles	;	;
Improve Destination Accessibility	LUT-4	No	Distance to Downtown/Job Ctr	;	;
Increased Transit Accessibility	LUT-5	No	Average Distance to Transit Station (miles)	1	:
Integrated Below Market Rate Housing	LUT-6	No	# Dwelling Units Below Market Rate	;	;
Improve Pedestrian Network	SDT-1	No	Yes or No; Project Site, Project Site and Connecting off-site, and Rural	i	·

Mitigation	CAPCOA	Include in	Type of Input / Ilbit	Project	Project Specific Inputs
Input Category	Number	(yes/no)		Inputs	Source/Notes
Provide Traffic	C C	o N	% Streets with Improvement	1	ı
Calming Measures	Z- 100	N _O	% Intersections with Improvement	1	ı
Implement Neighborhood Electric Vehicle (NEV) Network	SDT-3	o Z	% of streets equipped with NEV network.	ı	I
Limit Parking Supply	PDT-1	No	% Reduction in Spaces	1	ı
Unbundled Parking Costs	PDT-2	oN	Monthly Parking Costs (\$)	ı	ı
On-Street Market Pricing	PDT-3	No	% Increase in Price	1	I
Provide a Bus Rapid Transit System	TST-1	No	% Lines BRT	:	:
Expand Transit Network	TST-3	o N	% Increase Transit Coverage	ı	·
Increase Transit	10T	No	Level of Implementation	·	:
Frequency	† - -	No	% Reduction in Headways	1	ı
Implement Trip	TRT-1 TRT-2	No	% employee eligible		:
Program		o N	Program Type	1	ı
	TRT-4	No	% employee eligible	-	-
Transit Subsidy		No	Daily Transit Subsidy Amount (\$)	·	:
Implement Employee Parking "Cash- Out"	TRT-15	No	% employee eligible	·	:
Workplace.		8 N	% employee eligible	:	:
Parking Charge	TRT-14	No	Daily Parking Charge (\$)		•
Encourage Telecommuting	TRT-6	N N	% employee work 9/80	:	:

Mitigation	CAPCOA	Include in	Type of land / Hait	Project	Project Specific Inputs
Input Category	Number	(yes/no)	i ype oi input / onit	Inputs	Source/Notes
and Alternative Work Schedules		No	% employee work 4/40	1	ı
		N _O	% employee telecommute 1.5 days	1	1
Market Commute Trip Reduction Option	TRT-7	ON.	% employee eligible	ı	ı
Employee	TDT 44	N _o	% employee eligible	1	1
Vanpool/Shuttle	ובו-וצו	No	% vanpool mode share	1	-
Provide Ride Sharing Program	TRT-3	No	% employee eligible	:	:
Implement School Bus Program	TRT-13	No	% family using		:
Only Natural Gas Hearth	A/A	No	Yes or No	ŀ	:
No hearth	N/A	No	Yes or No	-	-
Use of Low VOC Cleaning Supplies	N/A	No	Yes or No	ŀ	1
Use low VOC Paint (Residential Interior)	N/A	0 N	Emission Factor (EF) (g/l)	I	ı
Use low VOC Paint (Residential Exterior)	N/A	No	EF (g/l)	ŀ	:
Use low VOC Paint (Non- residential Interior)	N/A	No	EF (g/l)	ı	ı
Use low VOC Paint (Non-residential Exterior)	N/A	0 N	EF (g/l)	ı	I
Electric Lawnmower	A-1	No	Percent of equipment type that will be electric.	-	:
Electric Leafblower	A-1	oN N	Percent of equipment type that will be electric.	:	:

Mitigation	CAPCOA	Include in	Type of Indit	Projec	Project Specific Inputs
Input Category	Number	(yes/no)	iype of input, offic	Inputs	Source/Notes
Electric Chainsaw	A-1	oN	Percent of equipment type that will be electric.	1	ï
Exceed Title 24	BE-1	oN	Percentage improvement selected for the Project.	I	ı
Install High Efficiently Lighting	LE-1	ON	% Lighting Energy Reduction	ı	ï
On-site	AE 4 AE 2	No	kWh Generated	-	:
Renewable Energy	AE-1, AE-2, AE-3	No	% of Electricity Use Generated	ŀ	ı
Energy Efficient Appliances	BE-4	sə,	Appliance Type, Land Use Subtype, % Improvement	Use Default Values	Defaults
Apply Water	0 7 8 11 11 8 7	No	% Reduction Indoor	:	:
Conservation Strategy	WUW-2	No	% Reduction Outdoor	:	-
Use Reclaimed	1//0/// 4	No	% Indoor Water Use	-	•
Water	VV OVV= I	No	% Outdoor Water Use		:
Use Grev Water	WSW-2	No	% Indoor Water Use	ı	ı
`		No	% Outdoor Water Use	:	:
Install Low-Flow Bathroom Faucet	WUW-1	Yes	% Reduction in flow	32%	Default % reduction assuming implementation of Recommended Mitigation
Install Low-flow Kitchen Faucet	WUW-1	Yes	% Reduction in flow	18%	Default % reduction assuming implementation of Recommended Mitigation.
Install Low-flow Toilet	WUW-1	Yes	% Reduction in flow	20%	Default % reduction assuming implementation of Recommended Mitigation
Install Low-flow Shower	WUW-1	Yes	% Reduction in flow	20%	Default % reduction assuming implementation of Recommended Mitigation
Turf Dodion	3/WI IW	No	Turf Reduction Area (sqft)	-	:
I dil Reduction	VV U VV -3	oN	% Reduction turf	-	:
Use Water- Efficient Irrigation Systems	WUW-4	No	% Reduction	:	:
Water Efficient	W/I I/W/-3	No	Maximum Applied Water Allowance (MAWA) (gal/yr)	:	:
Landscape		No	Estimated Total Water Use (ETWU) (gal/yr)	:	:

Project Specific Inputs	Source/Notes	1
Project	Inputs	-
Time of land / Hait	i ype ol ilipat / ollit	% Reduction in Waste Disposal over State requirements
Include in	(yes/no)	No
CAPCOA	Number	SW-1
Mitigation	Input Category	Institute Recycling and Composting Service

Source: AES, 2016; CalEEMod, 2016

Table 1 - Land Use Inputs

I and Hea Tyne	I and I so Subtuno	I Init Amount	Cizo Motric
Lalla Ose I ype	Lalla Use of	OILL AIROUIT	OIZE MEHIC
Recreation	Hotel	100	Rooms

Table 2 - Trip Generation Rates

	Daily Ti	Daily Trip Generation Rate ¹	n Rate¹		Trip Length ²	
Land	Weekday	Saturday	Sunday	Commercial- Customer (C-C)	Commercial- Commercial- Work Nonwork (C-W) (C-NW)	Commercial- Nonwork (C-NW)
Hotel	5.72 trips/rooms	5.73 trips/rooms	4.17 trips/rooms	54	24	24

Notes: 1 – includes 30% internal capture rate

2 – Trip length adjusted to reflect an average trip length from the City of Eureka Omni-Means, LTD and SHN Consulting Engineers & Geologist, Inc. 2014

Table 3 - Off-Road Equipment Mitigation Inputs

Equipment Type	Engine Tier	Number of Equipment Mitigated	Diesel Particulate Filter (DPF)
Air Compressors	Tier 3	1	Level 3
Cement and Mortar Mixers	Tier 3	4	Level 3
Concrete/Industrial Saws	Tier 3	2	Level 3
Cranes	Tier 3	1	Level 3
Forklifts	Tier 3	2	Level 3
Graders	Tier 3	1	Level 3
Pavers	Tier 3	1	Level 3
Rollers	Tier 3	1	Level 3
Rubber Tired Dozers	Tier 3	2	Level 3
Tractors/Loaders/Backhoes	Tier 3	8	Level 3

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1.0 Project Characteristics

1.1 Land Usage

Population	0
Floor Surface Area	17,424.00
Lot Acreage	0.40
Metric	Room
Size	100.00
Land Uses	Hotel

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	103
Climate Zone	_			Operational Year	2018
Utility Company	Pacific Gas & Electric Company	npany			
CO2 Intensity (Ib/MWhr)	641.35	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity (Ib/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Refer to Project Description

Construction Phase -

Vehicle Trips - Refer to CalEEMod input table

Demolition -

Construction Off-road Equipment Mitigation - Refer to CalEEMod tables

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15

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thlConstEduioMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

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Tier 3	Tier 3	Tier 3	17,424.00	17,424.00	0.40	Rural	24.00	24.00	24.00	5.73	4.17	5.72
No Change	No Change	No Change	145,200.00	145,200.00	3.33	Urban	09.9	09.9	14.70	8.19	5.95	8.17
Tier	Tier	Tier	BuildingSpaceSquareFeet	LandUseSquareFeet	LotAcreage	UrbanizationLevel	CC_TL	CNW_TL	CW_TL	ST_TR	SU_TR	WD_TR
tblConstEquipMitigation	tblConstEquipMitigation	tblConstEquipMitigation	tblLandUse	tblLandUse	tblLandUse	tblProjectCharacteristics	tbIVehicleTrips	tbIVehicleTrips	tbIVehicleTrips	tbIVehicleTrips	tbIVehicleTrips	tbIVehicleTrips

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	×ON	00	805	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Bio- CO2 NBio- CO2 Total CO2	CH4	NZO	CO2e
					tons/yr	s/yr							MT/yr	'yr		
•	0.2876	0.8370	0.5523	0.2876 0.8370 0.5523 9.2000e- 0.0475 0.0475	0.0475	0.0506	0.0982	0.0506 0.0982 8.5900e- 0.0468 003	0.0468	0.0554	0.0000	85.3120	0.0000 85.3120 85.3120 0.0196 0.0000 85.8012	0.0196	0.0000	85.8012
Maximum	0.2876	0.2876 0.8370	0.5523	9.2000e- 004	0.0475	0.0506	0.0982	.2 8.5900e- 003	0.0468	0.0554	0.0000	85.3120	85.3120	0.0196	0.0000	85.8012

Mitigated Construction

CO2e		85.8011	85.8011		
N20		0.0000	0.0000		
CH4	'yr	0.0196	0.0196		
Total CO2	MT/yr	85.3120	85.3120		
Bio- CO2 NBio- CO2 Total CO2		0.0000 85.3120 85.3120 0.0196 0.0000 85.8011	85.3120		
Bio- CO2		0.000.0	0.0000		
PM2.5 Total		9.7100e- 003	9.7100e- 003		
Exhaust PM2.5		4.4700e- 003	4.4700e- 003		
Fugitive PM2.5		4.5200e- 0.0310 5.2400e- 4.4700e- 9.7100e- 003 003 003	5.2400e- 4.4700e- 003 003		
PM10 Total	tons/yr			0.0310	0.0310
Exhaust PM10		4.5200e- 003	4.5200e- 003		
Fugitive PM10			0.0265		
S02		0.2287 0.4604 0.5466 9.2000e- 0.0265 0.04	9.2000e- 004		
00		0.5466	0.5466		
×ON		0.4604	0.4604		
ROG		0.2287	0.2287		
	Year	2017	Maximum		

C02e	0.00
N20	0.00
СН4	0.00
Total CO2	0.00
NBio-CO2 Total CO2	0.00
Bio- CO2	00:00
PM2.5 Total	82.47
Exhaust PM2.5	90.45
Fugitive PM2.5	39.00
PM10 Total	68.46
Exhaust PM10	91.07
Fugitive PM10	44.33
S02	0.00
00	1.03
XON	44.99
ROG	20.46
	Percent Reduction

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Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
6-1-2017	8-31-2017	0.5375	0.3010
9-1-2017	9-30-2017	0.1577	0.0759
	Highest	0.5375	0.3010

2.2 Overall Operational

Unmitigated Operational

C02e		1.9100e- 003		1,554.037 4	27.5339	7.7496	1,647.721 0
NZO		0.0000	7.2000e- 004	0.0000	0.0000	1.9900e- 003	2.7100e- 003
CH4	/yr	0.0000	2.1200e- 003	0.0962	0.6568	0.0829	0.8379
Total CO2	MT/yr	1.7900e- 003	58.1311	1,551.633 3	11.1138	5.0848	1,625.964 7
Bio- CO2 NBio- CO2 Total CO2			58.1311	1,551.633 1,551.633 3	0.000.0	4.2800	1,614.046 2
Bio- CO2		0.000.0	0.0000	0.000.0	11.1138	0.8048	11.9185
PM2.5 Total		0.0000	1.3500e- 003	0.3563	0000.0	0.000.0	0.3576
Exhaust PM2.5		0.0000 0.0000	1.3500e- 003	0.0356	0.000.0	0.000.0	0.0370
Fugitive PM2.5			 	0.3207	 	 	0.3207
PM10 Total		0.0000	1.3500e- 003	1.2256	0.0000	0.0000	1.2269
Exhaust PM10	s/yr	0.0000	1.3500e- 003	0.0375	0.0000	0.0000	0.0389
Fugitive PM10	tons/yr			1.1881			1.1881
S02		0.000.0	1.1000e- 004	0.0170			0.0171
00		9.3000e- 004	0.0150	8.7755			8.7914
×ON		1.0000e- 005	0.0178	3.8939	 		3.9117
ROG		0.0883	1.9600e- 003	0.5918			0.6821
	Category	Area	Energy	Mobile	Waste	Water	Total

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2.2 Overall Operational

Mitigated Operational

CO2e		1.9100e- 003	58.3982	1,554.037	27.5339	6.2573	1,646.228 6
NZO		0.000.0	7.2000e- 004	0.0000	0.0000	1.5900e- 003	2.3100e- 003
CH4	'yr	0.0000	2.1200e- 003	0.0962	0.6568	0.0663	0.8214
Total CO2	MT/yr	1.7900e- 003	58.1311	1	11.1138	4.1252	1,625.005 2
Bio- CO2 NBio- CO2 Total CO2		1.7900e- 003	58.1311	1	0.000.0	3.4814	1,613.247 6
Bio- CO2		0.0000	0.0000	0.0000	11.1138	0.6438	11.7576
PM2.5 Total		0.0000	1.3500e- 003	0.3563	0.0000	0.0000	0.3576
Exhaust PM2.5		0.000.0	1.3500e- 003	0.0356	0.000.0	0.000.0	0.0370
Fugitive PM2.5			r 	0.3207	r 	r 	0.3207
PM10 Total		0.000.0	1.3500e- 003	1.2256	0.000	0.000	1.2269
Exhaust PM10	s/yr	0.000.0	1.3500e- 003	0.0375	0.000	0.000	0.0389
Fugitive PM10	tons/yr		 	1.1881			1.1881
S02		0.0000	1.1000e- 004	0.0170	 	 	0.0171
00		9.3000e- 004	0.0150	8.7755			8.7914
×ON		.0000e- 005	0.0178	3.8939			3.9117
ROG		0.0883	1.9600e- 003	0.5918			0.6821
	Category		:	Mobile	Waste	Water	Total

C02e

N20

CH4

Bio- CO2 NBio-CO2 Total CO2

PM2.5 Total

Exhaust PM2.5

Fugitive PM2.5

PM10 Total

Exhaust PM10

Fugitive PM10

802

ဝ္ပ

Ň

ROG

0.09

14.76

1.98

90.0

0.05

1.35

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

Percent Reduction

3.0 Construction Detail

Construction Phase

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	Phase Type	Start Date	End Date	Num Days Num Days Week	Num Days	Phase Description
 	Demolition	6/1/2017	6/14/2017	5	10	
	oaration	!	6/15/2017	2		
	 	6/16/2017	6/19/2017	2	2	
. W !		6/20/2017	11/6/2017	5	1001	
	ural Coating	11/14/2017	11/20/2017	5	5	
 	Paving	11/7/2017	11/13/2017	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 26,136; Non-Residential Outdoor: 8,712; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws		8.00	81	0.73
	Rubber Tired Dozers		1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	0.00	97	0.37
Site Preparation	Graders		8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes		8.00	97	0.37
	Concrete/Industrial Saws		8.00	81	0.73
	Rubber Tired Dozers		1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	0.00	97	0.37
Building Construction	Cranes		4.00	231	0.29
Building Construction	Forklifts	2	9.00	68	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	1	0.00	6	0.56
	Pavers		7.00	130	0.42
	Rollers		7.00	80	0.38
	Tractors/Loaders/Backhoes		7.00	16	0.37
Architectural Coating	Air Compressors	1	00.9	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Worker Trip Vendor Trip Count Number	Worker Trip Number		Hauling Trip Number	Worker Trip Length	Vendor Trip Hauling Trip Length Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4		00.0	344.00	16.80	09.9		20.00 LD_Mix	HDT_Mix	HHDT
Site Preparation	2	-, 	00.0	0.00	16.80	9.90		20.00 LD_Mix	HDT_Mix	HHDT
Grading	4	1	00.0	0.00		09.9	· · · · · · · · · · · · · · · · · ·	Mix	HDT_Mix	HHDT
Building Construction	 	7.00	3.00	0.00	16.80	9.9		Mix	HDT_Mix	HHDT
Paving		! ! ! !	00.0) 		9.9		20.00 LD_Mix	HDT_Mix	HHDT
Architectural Coating		1.00	00'0	0.00	16.80	09.9		_D_Mix	HDT_Mix	HEDT

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

N2O CO2e		0.0000 0.0000	0.0000 5.3755	0.0000 5.3755	
CH4	'nΓ	0.0000	3 1.0500e- (003	1.0500e- 003	
Bio- CO2 NBio- CO2 Total CO2	MT/	MT/yr	0.000	5.349	5.3493
NBio- CO2		0.0000	5.3493	5.3493	
Bio- CO2		0.0000	0.0000	0.0000	
PM2.5 Total		5.6400e-	- 3.4900e- 003	9.1300e- 003	
Exhaust PM2.5		0.0000	3.4900e- 003	e- 3.4900e- 003	
Fugitive PM2.5		5.6400e- 0.0000 003		5.6400e- 3.4 003	
PM10 Total	tons/yr	0.0373	3.6600e- 003	0.0409	
Exhaust PM10		0.0000	3.6600e- 003	3.6600e- 003	
Fugitive PM10		0.0373		0.0373	
SO2			6.0000e- 005	6.0000e- 0 005	
00			0.0396	0.0396	
NOX			6.0500e- 0.0525 0.0396 003	0.0525	
ROG			6.0500e- 003	6.0500e- 0.0525 003	
	Category	Fugitive Dust	Off-Road	Total	

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3.2 Demolition - 2017
Unmitigated Construction Off-Site

	ROG	XON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
Category					tons/yr	s/yr							MT/yr	/yr		
Hauling	2.7100e- 0.0703 0.0145 1.4000e- 2.8300e- 003 003	0.0703	0.0145	1.4000e- 004	2.8300e- 003	7.5000e- 004	3.5700e- 003	7.5000e- 3.5700e- 7.8000e- 7.1000e- 004 003 004 004	7.1000e- 004	1.4900e-	0.0000	13.3567	13.3567	0.0000 13.3567 13.3567 4.9000e-	0.0000 13.3690	13.3690
Vendor	0.0000	0.0000 0.0000 0.0000 0.0000	0.000	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.000	0.0000	0.0000	0.000.0	0.0000	0.000.0	0.0000
Worker	7.0000e- 004	7.0000e- 7.3000e- 5.7700e- 1.0000e- 6.0000e- 004 004 003 005 004	5.7700e- 003	1.0000e- 005	6.0000e- 004	1.0000e- 005	6.1000e- 004	3000 004	.0000e- 005	1.7000e- 004	0.0000	0.5892	0.5892	5.0000e- 005	0.000.0	0.5905
Total	3.4100e- 003	3.4100e- 003 0.0203 1.5000e- 3.4300e- 003 0.0203 0.0203 0.020	0.0203	1.5000e- 004	3.4300e- 003	7.6000e- 004	4.1800e- 003	1000e- 004	7.2000e- 004	1.6600e- 003	0.0000	13.9459	13.9459	5.4000e- 0 004	0000	13.9595

Mitigated Construction On-Site

CO2e		0.0000	5.3755	5.3755	
N20		0.0000	0.0000	0.0000	
CH4	/yr	0.0000	1.0500e- 003	1.0500e- 003	
Total CO2	MT/yr	LM	0.0000		5.3492
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000 0.0000	5.3492 5.3492	5.3492	
Bio- CO2		0.0000	0.0000	0.0000	
PM2.5 Total		2.5400e- 003	3.0000e- 004	2.8400e- 003	
Exhaust PM2.5		0.0000	3.0000e- 004	0000e- 004	
Fugitive PM2.5		0.0000 0.0168 2.5400e- 003		2.5400e- 3.0	
PM10 Total		0.0168	3.0000e- 004	0.0171	
Exhaust PM10	ns/yr	0.0000	3.0000e- 3.0000e- 004 004	3.0000e- 004	
Fugitive PM10	tons	0.0168		0.0168	
802			6.0000e- 005	0.0397 6.0000e- 005	
00			0.0397 6.0000e- 005	0.0397	
XON			0.0298	0.0298	
ROG			1.3300e- 0.0298 0 003	1.3300e- 0.0298 003	
	Category		Off-Road	Total	

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3.2 Demolition - 2017
Mitigated Construction Off-Site

CO2e		13.3690	0.0000	0.5905	13.9595		
N20		0.0000 13.3690	0.0000	0.0000	0.000		
CH4	/yr	4.9000e- 004	0.0000	5.0000e- 005	5.4000e- 004		
Total CO2	MT/yr	M	TM	13.3567	0.000.0	0.5892	13.9459
Bio- CO2 NBio- CO2 Total CO2		0.0000 13.3567 13.3567 4.9000e-	0.0000 0.0000	0.5892	13.9459		
Bio- CO2		0.0000	0.0000	0.0000	0.0000		
PM2.5 Total		1.4900e- 003	0.000	1.7000e- 004	1.6600e- 003		
Exhaust PM2.5		7.1000e- 004	0.000.0	1.0000e- 005	7.2000e- 004		
Fugitive PM2.5	tons/yr	7.5000e- 3.5700e- 7.8000e- 7.1000e- 004	0.000)e- 1.6000e- 004	9.4000e- 004		
PM10 Total			3.5700e- 003	0.000.0	6.1000e- 004	4.1800e- 003	
Exhaust PM10		7.5000e- 004	0.0000	1.0000e- 6.1000e- 005 004	7.6000e- 004		
Fugitive PM10		2.8300e- 003	0.0000	i .			
S02		1.4000e- 004	0.0000 0.0000	1.0000e- 005	1.5000e- 3.4300e- 004 003		
00		0.0145	0.0000	5.7700e- 003	0.0203		
NOx		0.0703	0.000.0	7.0000e- 7.3000e- 5.7700e- 1.0000e- 6.0000e 004 004 003 005 004	0.0710		
ROG			0.0000	7.0000e- 004	3.4100e- 003		
	Category	Hauling	Vendor	Worker	Total		

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

			•	
CO2e		0.0000	0.4569	0.4569
N20		0.0000	0.0000	0.0000
CH4	MT/yr	0.0000 0.0000 0.0000 0.0000 0.0000	1.4000e- 004	1.4000e- 004
Total CO2	M	0.0000	0.4534	0.4534
Bio- CO2 NBio- CO2 Total CO2		0.0000	0.0000 0.4534 0.4534 1.4000e-	0.4534
Bio- CO2		0.0000	0.0000	0.0000
PM2.5 Total		3.0000e- 005	2.2000e- 004	2.5000e- 004
Exhaust PM2.5		0.0000	2.2000e- 004	2.2000e- 004
Fugitive PM2.5		.0000e- 005		3.0000e- 005
PM10 Total		2.7000e- 004	2.4000e- 004	5.1000e- 004
Exhaust PM10	ns/yr	0.0000	2.4000e- 2.4000e- 004 004	.4000e- 004
Fugitive PM10	ton	2.7000e- 004		0.0000 2.7000e- 2 004
SO2			0.0000	0.0000
00			2.1800e- 003	2.1800e- 003
XON			5.2600e- 003	4.3000e- 5.2600e- 2.1800e- 003
ROG			4.3000e- 5.2600e- 2.1800e- 004 003 003	4.3000e- 004
	Category	Fugitive Dust	Off-Road	Total

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3.3 Site Preparation - 2017
Unmitigated Construction Off-Site

CO2e		0.0000	0.0000	0.0295	0.0295
N20		0.0000	0.0000	0.0000	0.0000
CH4	'yr	0.0000	0.0000		0.0000
Total CO2	MT/yr	0.0000 0.0000	0.0000	0.0295	0.0295
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000	0.0000 0.0000	0.0295	0.0295
Bio- CO2		0.0000	0.0000	0.0000	0.0000
PM2.5 Total		0.0000	0.0000	1.0000e- 005	1.0000e- 005
Exhaust PM2.5			0000	0.0000	0.000
Fugitive PM2.5		0.0000 0.0000 0.0000	0.0000	1.0000e- 005	1.0000e- 005
PM10 Total			0.0000	3.0000e- 005	3.0000e- 005
Exhaust PM10	ns/yr	0.0000	0.0000	0.0000	0.0000
Fugitive PM10	ton	0.0000	0.0000	3.0000e- 005	3.0000e- 005
S02		0.0000	0.0000	0.0000	0.0000 3.0000e-
00		0.000.0	0.000.0	2.9000e- 004	2.9000e- 004
XON		0.000.0	0.0000	3.0000e- 4.0000e- 2.9000e- 0.0000 3.0000e- 005 005 004 005	3.0000e- 4.0000e- 2.9000e- 005 004
ROG		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000 0.0000	3.0000e- 005	3.0000e- 005
	Category	Hauling		Worker	Total

Mitigated Construction On-Site

Φ.		00	66	69
CO2e		0.000	0.4569	0.4569
N20		0.0000	0.0000	0.000
CH4	/yr	0.0000	1.4000e- 004	1.4000e- 0 004
Total CO2	MT/yr	0.000.0	0.4534 1.4000e- 004	0.4534
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000 0.0000	0.4534	0.4534
Bio- CO2		0.0000	0.0000	0.0000
PM2.5 Total		1.0000e- 005	2.0000e- 005	3.0000e- 005
Exhaust PM2.5		0.0000	2.0000e- 005	2.0000e- 005
Fugitive PM2.5		0.0000 1.2000e- 1.0000e- 004 005		000e- 005
PM10 Total		1.2000e- 004	2.0000e- 005	1.4000e- 004
Exhaust PM10	tons/yr	0.0000	2.0000e- 2.0000e- 005 005	.0000e- 005
Fugitive PM10	ton	1.2000e- 004		0.0000 1.2000e- 2 004
SO2			0.0000	0.000.0
00			2.9300e- 003	2.9300e- 003
XON			1.2000e- 2.4400e- 2.9300e- 004 003 003	1.2000e- 2.4400e- 2.9300e- 004 003 003
ROG			1.2000e- 004	1.2000e- 004
	Category	Fugitive Dust	Off-Road	Total

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Mitigated Construction Off-Site 3.3 Site Preparation - 2017

	ROG	×ON	8	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
Category					tons/yr	/yr							MT/yr	'yr		
Hauling	0.0000	0.0000 0.0000 0.0000 0.0000	0.000.0	0.000.0		0.0000	0.000.0	0.0000 0.0000 0.0000 0.0000	0.000.0		0.0000		0.000.0	0.000.0	0.0000	0.0000
Vendor	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.000.0	0.0000	0.0000	0.000.0	r	0.0000	00000	0.0000	r	0.000.0	0.0000	0.0000	0.0000
Worker	3.0000e- 005	3.0000e- 4.0000e- 2.9000e- 0.0000 3.0000e- 005 005	2.9000e- 004	0.0000	i	0.0000	3.0000e- 005	1.0000e- 005	0.000.0	1.0000e- 005	0.0000	0.0295	0.0295	0.0000	0.0000	0.0295
Total	3.0000e- 005	3.0000e- 4.0000e- 2.9000e- 0.0000 3.0000e- 005	2.9000e- 004	0.0000		0.0000	3.0000e- 005	1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0295	0.0295	0.0000	0.0000	0.0295

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	XON	00	802	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	NZO	CO2e
Category					tons/yr	s/yr							MT/yr	/yr		
Fugitive Dust					7.5000e- 004	0.0000	7.5000e- 004	4.1000e- 004	0.0000	0.0000 7.5000e- 4.1000e- 0.0000 4.1000e- 004 004 004	0.0000	0.0000	0.0000 0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e- 003	0.0105	0.0105 7.9200e- 1.0000e- 003 005	1.0000e- 005		7.3000e- 004	7.3000e- 7.3000e- 004 004		7.0000e- 004	7.0000e- 7.0000e- 004 004	0.0000	1.0699	1.0699	2.1000e- 004	0.0000	1.0751
Total	1.2100e- 0. 003	0.0105	0.0105 7.9200e- 1.0000e- 7.5000e- 003	1.0000e- 005	7.5000e- 004	7.3000e- 004	1.4800e- 4.1000e- 003 004	4.1000e- 004	7.0000e- 004	1.1100e- 003	0.0000	1.0699	1.0699	2.1000e- 0.	0.0000	1.0751

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3.4 Grading - 2017 Unmitigated Construction Off-Site

				•	
CO2e		0.0000	0.0000	0.1181	0.1181
N20		0.0000	0.0000	0.0000	0.000
CH4	'yr	0.0000	0.0000	1.0000e- 005	1.0000e- 005
Total CO2	MT/yr	0.000.0	0.0000	0.1178	0.1178
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000 0.0000	0.0000	0.1178	0.1178
Bio- CO2		0.0000	0.0000	0.0000	0.0000
PM2.5 Total		0.0000	0.0000	3.0000e- 005	3.0000e- 005
Exhaust PM2.5		0.000.0	0.000.0	0.000.0	0.000
Fugitive PM2.5		0.0000 0.0000 0.0000	0.0000 0.0000	3.0000e- 005	3.0000e- 005
PM10 Total		0.0000	0.0000	1.2000e- 004	1.2000e- 004
Exhaust PM10	ons/yr	0.0000	0.0000	0.0000	0.0000
Fugitive PM10	tons	0.0000	0.0000	1.2000e- 004	1.2000e- 004
SO2		0.0000	0.0000	0.0000	0.0000 1.2000e-
00		0.0000	0.0000	1.1500e- 003	1.1500e- 003
×ON		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000 0.0000 0.0000	1.4000e- 1.5000e- 1.1500e- 004 003	1.4000e- 1.5000e- 1.1500e- 004 003
ROG		0.0000	0.0000	1.4000e- 004	1.4000e- 004
	Category	Hauling	Vendor	Worker	Total

Mitigated Construction On-Site

	ROG	XON	00	802	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
Category					ton	tons/yr							MT/yr	/yr		
Fugitive Dust					3.4000e- 004		3.4000e- 004	1.9000e- 004	0.0000	1.9000e- 004	0.0000	0.0000	0.0000 0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e- 004	5.9600e- 003	2.7000e- 5.9600e- 7.9400e- 1.0000e- 004 003 003 005	1.0000e- 005		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	1.0699	1.0699	2.1000e- 004	0.0000	1.0751
Total	2.7000e- 004	5.9600e- 003	2.7000e- 5.9600e- 7.9400e- 1.0000e- 3.4000e- 004 005 005	1.0000e- 005	3.4000e- 004	6.0000e- 005	4.0000e- 004	9000e- 004	0000e- 005	2.5000e- 004	0.0000	1.0699	1.0699	2.1000e- 0 004	0.0000	1.0751

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3.4 Grading - 2017
Mitigated Construction Off-Site

	ROG	Ň	8	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
Category					tons/yr	ί⁄γr							MT/yr	'yr		
Hauling	0.0000	0.0000 0.0000 0.0000 0.0000	0.000.0	0.000.0		0.0000	0.000.0	0.0000	0.0000	P	0.0000		0.000.0	0.000.0	0.0000	0.0000
Vendor	0.0000	0.0000 0.0000 0.0000 0.0000	0.000.0	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	00000	0.000.0	r	0.000.0	0.0000	0.0000	0.0000
Worker	1.4000e- 004	1.4000e- 1.5000e- 1.1500e- 0.0000 004 004	1.1500e- 003	0.0000	1.2000e- 004	0.0000	1.2000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.0000 0.1178	0.1178	1.0000e- 005	0.0000	0.1181
Total	1.4000e- 004	1.4000e- 1.5000e- 1.1500e- 0.0000 1.2000e- 004 004	1.1500e- 003	0.0000		0.0000	1.2000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.1178	0.1178	1.0000e- 005	0.0000	0.1181

3.5 Building Construction - 2017

Unmitigated Construction On-Site

CO2e		53.2902	53.2902					
N20		0.0000	0.0000					
CH4	ýr	0.0162	0.0162					
Total CO2	MT/yr	52.8851	52.8851					
Bio- CO2 NBio- CO2 Total CO2		0.0000 52.8851 52.8851 0.0162 0.0000 53.2902	52.8851 52.8851					
Bio- CO2		0.0000	0.0000					
PM2.5 Total		0.0395	0.0395					
Exhaust PM2.5	0.0430 0.0430 0.0395							
Fugitive PM2.5	ns/yr 0.0430 0.0430 0.0395							
PM10 Total	0.0430 0.0430 0.0395 0.0395 0.0395							
Exhaust PM10	0.0430 0.0430 0.0395 0.0395 0.0395							
Fugitive PM10	0.0430 0.0430 0.0395 0.0395 0.0395							
SO2		5.7000e- 004	5.7000e- 004					
00		0.4035	0.4035 5.7000e-					
×ON		0.6380	0.6380					
ROG		0.0641 0.6380 0.4035 5.7000e-	0.0641					
	Category	Off-Road	Total					

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3.5 Building Construction - 2017 Unmitigated Construction Off-Site

CO2e		0.0000	3.6837	4.1336	7.8173
N20		0.0000	0.0000	0.0000	0.000
CH4	/yr	0.0000	2.4000e- 004	3.6000e- 004	6.0000e- 004
Total CO2	MT/yr	0.0000 0.0000 0.0000	3.6777	4.1245	7.8022
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000	3.6777	4.1245	7.8022
Bio- CO2			0.0000	0.0000	0.0000
PM2.5 Total		0.0000	5.3000e- 004	1.1600e- 003	1.6900e- 003
Exhaust PM2.5			2.8000e- 004	5.0000e- 005	3.3000e- 004
Fugitive PM2.5		0.000.0	5000e- 004	e- 1.1200e- 003	1.3700e- 003
PM10 Total		0.0000	1.1600e- 2.0 003	4.2500e- 003	5.4100e- 003
Exhaust PM10	ons/yr	0.0000	! .	5.0000e- 005	3.4000e- 004
Fugitive PM10	tons	0.0000	8.7000e- 004	4.2000e- 003	5.0700e- 003
S02		0.0000	4.0000e- 005	5.0000e- 005	9.0000e- 005
00		0.000.0	8.4100e- 003	0.0404	0.0488
×ON		0.0000 0.0000 0.0000 0.0000	1.3400e- 0.0234 8.4100e- 003 003	4.8700e- 5.1200e- 003 003	0.0285
ROG		0.0000	1.3400e- 003	4.8700e- 003	6.2100e- 003
	Category	Hauling	• • • • • •	Worker	Total

Mitigated Construction On-Site

CO2e		53.2901	53.2901					
N20		0.0000	0.0000					
CH4	Уr	0.0162	0.0162					
Total CO2	MT/yr	52.8850	52.8850					
NBio- CO2 Total CO2		52.8850 52.8850 0.0162	52.8850					
Bio- CO2		0.0000.0	0.0000					
PM2.5 Total		2.8900e- (003	2.8900e- 003					
Exhaust PM2.5	2.8900e- 2.8900e- 2.8900e- 0.33 003 003 003 003 003 003 003 003 00							
Fugitive PM2.5	2.8900e- 2.8900e- 2.8900e- 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.0							
PM10 Total	2.8900e- 2.8900e- 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.0							
Exhaust PM10	8900e- 2.8900e- 2.8900e- 003 003 003							
Fugitive PM10	tons							
SO2		5.7000e- 004	5.7000e- 004					
00		0.3981	0.3981					
×ON		0.0140 0.3065 0.3981 5.7000e-	0.0140 0.3065 0.3981 5.7000e-					
ROG		0.0140	0.0140					
	Category	Off-Road	Total					

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3.5 Building Construction - 2017
Mitigated Construction Off-Site

	ROG	× ON	8	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
					tons/yr	s/yr							MT/yr	/yr		
Hauling	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.000 0.0000 0.0000	0.0000	0.0000	0.0000	0.0000 0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3400e- 0.0234 8.4100e- 4.0000e- 8.7000e- 0.03	0.0234	8.4100e- 003	4.0000e- 005		i .	1.1600e- 003	2.5000e- 2.8000e- 004 004		5.3000e- 004	0.0000	3.6777	3.6777	2.4000e- 004	0.0000	3.6837
	4.8700e- 5.1200e- 0.0404 5.0000e- 4.2000e- 003 003 005	5.1200e- 003	0.0404	5.0000e- 005	4.2000e- 003	5.0000e- 005)e- 4.2500e- 003	1.1200e- 003	e- 5.0000e- 005	1.1600e- 003	0.0000	4.1245	4.1245	3.6000e- 004	0.0000	4.1336
	6.2100e- 003 0.0285 0.0488 9.0000e- 5.0700e- 003 005 003	0.0285	0.0488	9.0000e- 005	5.0700e- 003	3.4000e- 004	5.4100e- 003	1.3700e- 3.3000e- 003 004	3.3000e- 004	1.6900e- 003	0.0000	7.8022	7.8022	6.0000e- 004	0000	7.8173

3.6 Architectural Coating - 2017 Unmitigated Construction On-Site

CO2e		0.0000	0.6400	0.6400
N20		0.0000	7.0000e- 0.0000 005	0.0000
CH4	/yr	0.0000	7.0000e- 005	7.0000e- 005
Total CO2	MT/yr	0.000.0	0.6383	0.6383
Bio- CO2 NBio- CO2 Total CO2		0.0000	0.0000 0.6383	0.6383
Bio- CO2		0.0000	.	0.0000
PM2.5 Total		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	4.3000e- 004	4.3000e- 004
Exhaust PM2.5		0.0000	4.3000e- 4.3000e- 004 004	4.3000e- 004
Fugitive PM2.5				
PM10 Total		0.0000	4.3000e- 004	4.3000e- 004
Exhaust PM10	tons/yr	0.000.0 0.000.0	4.3000e- 004	4.3000e- 004
Fugitive PM10	ton			
SO2			1.0000e- 005	1.0000e- 005
00			4.6700e- 003	4.6700e- 003
NOX			5.4600e- 003	0.2027 5.4600e- 4.6700e- 1.0000e- 003
ROG		0.2019	8.3000e- 5.4600e- 4.6700e- 1.0000e- 004 003 003	0.2027
	Category	g	Off-Road	Total

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3.6 Architectural Coating - 2017
Unmitigated Construction Off-Site

ROG NOx	×ON		8	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	/yr								MT/yr	ʻyr		
0.0000					0.0	0.0000	0.000.0	0.0000 0.0000	0.0000	0.0000	0.0000		0.000.0	0.0000	0.0000 0.0000 0.0000	0.0000
0.0000 0.0000 0.0000 0.0000 0.0000					0.00	00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3.0000e- 4.0000e- 2.9000e- 0.0000 3.0000e- 0.0 005 005 006					0.0	0.0000	3.0000e- 005	1.0000e- 0.0000 005	0.0000	1.0000e- 005	0.0000	0.0295	0.0295		0.0000	0.0295
3.0000e- 4.0000e- 2.9000e- 0.0000 3.0000e- 0.00 005 005 004 0.000	0.0000 3.0000e- 005	0.0000 3.0000e- 005	0.0000 3.0000e- 005		0.00	0.0000	3.0000e- 1.0	1.0000e- 0 005	.0000	1.0000e- 005	0.0000	0.0295	0.0295	0.0000	0.0000	0.0295

Mitigated Construction On-Site

			•	
CO2e		0.0000	0.6400	0.6400
N20		0.0000	0.0000	0.000
CH4	/yr	0.0000	33 7.0000e- 005	7.0000e- 005
Total CO2	MT/yr	0.0000	0.6383	0.6383
Bio- CO2 NBio- CO2 Total CO2			0.6383	0.6383
Bio- CO2		0.0000	0.0000	0.0000
PM2.5 Total		0.0000	4.0000e- 005	4.0000e- 005
Exhaust PM2.5		0.0000	4.0000e- 005	4.0000e- 005
Fugitive PM2.5				
PM10 Total			4.0000e- 005	4.0000e- 005
Exhaust PM10	tons/yr	0.0000	4.0000e- 005	4.0000e- 005
Fugitive PM10	ton			
S02			1.0000e- 005	1.0000e- 005
00			4.5800e- 003	4.5800e- 003
XON			1.5000e- 3.3900e- 4.5800e- 1.0000e- 004 003 005	0.2021 3.3900e- 4.5800e- 1.0000e- 003 003 005
ROG		0.2019	1.5000e- 004	0.2021
	Category	Archit. Coating 0.2019	Off-Road	Total

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3.6 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	×ON	8	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
Category					tons/yr	/yr							MT/yr	yr		
Hauling	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.000.0	ļ	0.0000	0.0000	0.0000 0.0000 0.0000 0.0000	0.000.0	0	0.000.0	0.0000	0.000.0	0.000.0	0.0000 0.0000 0.0000 0.0000 0.0000	0.0000
Vendor	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.000.0	0.000.0	0.0000	0.0000 0.0000		0000:0	0.000.0	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e- 4.0000e- 2.9000e- 0.0000 005 005 004	4.0000e- 2.9000e- 0.0000 005 004	2.9000e- 004	0.0000	3.0000e- 005	0.0000	3.0000e- 005	1.0000e- 005	0.000.0	1.0000e- 005	0.0000	0.0295	0.0295	0.0000	0.000.0	0.0295
Total	3.0000e- 005	3.0000e- 005 005 005 004	2.9000e- 004	0.0000 3.0000e- 005		0.0000	3.0000e- 005	1.0000e- 005	0.000	1.0000e- 005	0.0000	0.0295	0.0295	0.0000	0.0000	0.0295

3.7 Paving - 2017

Unmitigated Construction On-Site

CO2e		2.4781	0.0000	2.4781
N20		0.0000	0.0000	0.0000
CH4	/yr	6.8000e- 004	0.0000	6.8000e- 004
Total CO2	MT/yr	2.4610	0.0000	2.4610
NBio- CO2 Total CO2		0.0000 2.4610 2.4610 6.8000e- 0.0000	0.0000 0.0000 0.0000	2.4610
Bio- CO2		0.0000	0.0000	0.0000
PM2.5 Total		1.4100e- 1.4100e- 003 003	0.0000	1.4100e- 003
Exhaust PM2.5		1.4100e- 003	0.0000	1.4100e- 003
Fugitive PM2.5				
PM10 Total		1.5200e- 003	0.0000	1.5200e- 003
Exhaust PM10	tons/yr	1.5200e- 1.5200e- 003 003	0.0000	1.5200e- 003
Fugitive PM10	ton			
SO2		3.0000e- 005		0.0184 3.0000e- 005
00		0.0184		0.0184
NOx		0.0249		2.6300e- 0.0249 003
ROG		2.6300e- 0.0249 0.0184 3.0000e- 003 005	0.0000	2.6300e- 003
	Category	Off-Road	Paving	Total

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3.7 Paving - 2017 Unmitigated Construction Off-Site

CO2e		0.0000	0.0000	0.5315	0.5315
N20		0.0000	0.0000	0.0000	0.0000
CH4	ýr	0.000.0	0.000.0	5.0000e- 005	5.0000e- 005
Total CO2	MT/yr	0.000.0	0.0000	0.5303	0.5303
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000	0.0000	0.5303	0.5303
Bio- CO2		0.000.0	0.0000	0.0000	0.0000
PM2.5 Total		0.0000	0000.0	1.5000e- 004	1.5000e- 004
Exhaust PM2.5			0.0000	1.0000e- 005	1.0000e- 005
Fugitive PM2.5		0.0000 0.0000 0.0000	0.000.0	e- 1.4000e- 004	1.4000e- 004
PM10 Total		0.000.0	0.0000	5.5000 004	5.5000e- 004
Exhaust PM10	s/yr	0.0000	0.0000	1.0000e- 005	1.0000e- 005
Fugitive PM10	tons/yr	0.0000	0.0000	5.4000e- 004	5.4000e- 004
S02		0.0000	0.0000 0.0000	1.0000e- 005	1.0000e- 005
00		0.000.0	0.000.0	5.2000e- 003	5.2000e- 003
×ON		0.000.0	0.0000 0.0000	6.6000e- 004	6.3000e- 004 004
ROG		0.0000 0.0000 0.0000 0.0000	0.0000	6.3000e- 6.6000e- 5.2000e- 1.0000e- 004 004 003 005	6.3000e- 004
	Category	Hauling	:	Worker	Total

Mitigated Construction On-Site

2e		.81	000	84
CO2e		2.47	0.0000	2.4781
N20		0.0000	0.0000	0.000
CH4	/yr	6.8000e- 004	0.0000	6.8000e- 0 004
Total CO2	MT/yr	2.4610	0.0000	2.4610
Bio- CO2 NBio- CO2 Total CO2		0.0000 2.4610 2.4610 6.8000e- 0.0000 2.4781 004	0.0000 0.0000	2.4610
Bio- CO2		0.0000	0.0000	0.0000
PM2.5 Total		1.1000e- 004	0.0000	1.1000e- 004
Exhaust PM2.5		1.1000e- 004	0.0000	1.1000e- 004
Fugitive PM2.5				
PM10 Total		1.1000e- 004	0.0000	1.1000e- 004
Exhaust PM10	tons/yr	1.1000e- 1.1000e- 004 004	0.0000	1.1000e- 004
Fugitive PM10	ton			
SO2		3.0000e- 005		3.0000e- 005
00		0.0173		0.0173 3.0000e-
×ON		0.0119		5.6000e- 0.0119 (
ROG		5.6000e- 0.0119 0.0173 3.0000e-	0.0000	5.6000e- 004
	Category	Off-Road	Paving	Total

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3.7 Paving - 2017
Mitigated Construction Off-Site

	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	NZO	CO2e
Category					tons/yr	s/yr							MT/yr	/yr		
Hauling	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000	0.0000	0.000.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000 0.0000		0.0000	0.0000
Vendor	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e- 004	6.3000e- 6.6000e- 5.2000e- 1.0000e- 5.4000e- 004 003 005 004	5.2000e- 003	1.0000e- 005	[]	1.0000e- 5.5000e- 1.4000e- 1.0000e- 005 004 005	5.5000e- 004	1.4000e- 004	1.0000e- 005	1.5000e- 004	0.0000	0.5303	r	5.0000e- 005	0.0000	0.5315
Total	6.3000e- 004	6.3000e- 6.4000e- 6.6000e- 6.0000e- 6.0000e- 6.0000e- 6.0000e- 6.0000e- 6.0000e- 6.0000	5.2000e- 003	1.0000e- 005		1.0000e- 005	5.5000e- 004	1.4000e- 004	1.0000e- 005	1.5000e- 004	0.0000	0.5303	0.5303	5.0000e- 005	0.0000	0.5315

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	Ň	8	802	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Bio-CO2 NBio-CO2 Total CO2 CH4	CH4	N20	CO2e
				tons/yr	s/yr							MT/yr	ýr		
8 6833	∞	.7755	0.5918 3.8939 8.7755 0.0170 1.1881	1.1881	0.0375 1.2256 0.3207 0.0356	1.2256	0.3207		0.3563	0.0000	1,551.633 3	0.0000 1,551.633 1,551.633 0.0962 0.0000 1,554.037 3 3 4	0.0962	0.0000	1,554.037 4
0.5918 3.8939 8.7755	ω.	7755	0.0170 1.1881	1.1881	0.0375	1.2256	1.2256 0.3207 0.0356	0.0356	0.3563	0.0000	1,551.633 3	0.0000 1,551.633 1,551.633 0.0962 0.0000 1,554.037	0.0962	0.0000	1,554.037 4

4.2 Trip Summary Information

	Aver	Average Daily Trip Rate	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday Sunday	Sunday	Annual VMT	Annual VMT
Hotel	572.00	573.00	417.00	3,244,041	3,244,041
Total	572.00	573.00	417.00	3,244,041	3,244,041

4.3 Trip Type Information

		_	
% €	Pass-by	4	
Trip Purpose %	Diverted	38	
	Primary	28	
	H-O or C-NW	19.00	
Trip %	H-S or C-C	61.60	
Trip % H-O or C-NW H-W or C-W H-S or C-C H-O or C-NW			
	H-O or C-NW	24.00	
Miles	0	24.00	
	H-W or C-W H-S or C-	24.00	
	Land Use	Hotel	

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	NBUS	MCY	SBUS	MH
Hotel	0.448795	0.448795 0.060687 0.206149	0.206149	0.145887	145887 0.057916 (0.009282 0.014626 0.042627 (0.042627	0.002929	0.002929 0.001905	0.006409 0.001553 0.001236	0.001553	0.001236

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

CO2e		38.8777	38.8777	19.5205	19.5205
N20			3.6000e- 004	3.6000e- 1 004	3.6000e- 1 004
CH4	/yr	0.0000 38.7260 38.7260 1.7500e- 3.6000e- 003 004	,	3.7000e- 3. 004	3.7000e- 004
Total CO2	MT/yr	38.7260	38.7260	19.4052	
Bio- CO2 NBio- CO2 Total CO2		38.7260	38.7260	19.4052	19.4052 19.4052
Bio- CO2		0.0000	0.0000	0.0000	0.0000
PM2.5 Total		0.0000	0.0000	1.3500e-	1.3500e- 003
Exhaust PM2.5		0.000.0	0.0000	1.3500e- 003	1.3500e- 003
Fugitive PM2.5					
PM10 Total		0.000.0	0.0000	1.3500e- 003	1.3500e- 003
Exhaust PM10	tons/yr	0.0000	0.0000	1.3500e- 003	1.3500e- 003
Fugitive PM10	tons				
SO2				1.1000e- 004	-
00				0.0150	0.0150
NOX			• •	0.0178	0.0178
ROG				1.9600e- 003	1.9600e- 003
	Category	Electricity Mitigated	Electricity Unmitigated	NaturalGas Mitigated	NaturalGas Unmitigated

5.2 Energy by Land Use - NaturalGas

Unmitigated

CO2e		19.5205	19.5205
N20		3.6000e- 004	3.6000e- 004
CH4	/yr	3.7000e- 004	3.7000e- 004
Total CO2	MT/yr	19.4052	19.4052
Bio- CO2 NBio- CO2 Total CO2		0.0000 19.4052 19.4052 3.7000e- 3.6000e- 19.5205 004	19.4052
Bio- CO2		0.0000	0.0000
PM2.5 Total		1.3500e- 1.3500e- 003 003	1.3500e- 003
Exhaust PM2.5		1.3500e- 003	1.3500e- 003
Fugitive PM2.5			
PM10 Total		1.3500e- 1.3500e- 003 003	1.3500e- 003
Exhaust PM10	ons/yr	1.3500e- 003	1.3500e- 003
Fugitive PM10	ton		
SO2		1.1000e- 004	1.1000e- 004
00		0.0150	0.0150
XON		0.0178	0.0178
ROG		363639 1 1.9600e- 0.0178 0.0150 1.1000e- 0.04	1.9600e- 003
NaturalGa s Use	kBTU/yr	363639	
	Land Use	Hotel	Total

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5.2 Energy by Land Use - NaturalGas

Mitigated

CO2e		19.5205	19.5205
N20		3.6000e- 004	3.6000e- 004
CH4	/yr	0.0000 19.4052 19.4052 3.7000e- 3.6000e- 004	3.7000e- 004
Total CO2	MT/yr	19.4052	19.40
Bio- CO2 NBio- CO2 Total CO2		19.4052	19.4052
Bio- CO2		0.0000	0.0000
PM2.5 Total		1.3500e- (1.3500e- 003
Exhaust PM2.5	tons/yr	1.3500e- 003	1.3500e- 003
Fugitive PM2.5			
PM10 Total		1.3500e- 003	1.3500e- 003
Exhaust PM10		1.3500e- 003	1.3500e- 1. 003
Fugitive PM10	ton		
s02		1.1000e- 004	1.1000e- 004
9		0.0150	0.0150
XON		0.0178	0.0178
ROG		363639 1.3600e- 0.0178 0.0150 1.1000e- 0.04	1.9600e- 0.
NaturalGa s Use	kBTU/yr	363639	
	Land Use	Hotel	Total

5.3 Energy by Land Use - Electricity

Unmitigated

	MT/yr	3.6000e- 38.8777 004	3.6000e- 38.8777 004
CH4	M	1.7500e- 003	1.7500e- 003
Electricity Total CO2 Use		133119 138.7260 1.7500e-	38.7260
Electricity Use	kWh/yr	133119	
	Land Use	Hotel	Total

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5.3 Energy by Land Use - Electricity

Mitigated

2e		777	777
C02e		38.8777	38.8777
NZO	MT/yr	3.6000e- 004	3.6000e- 004
CH4	M	1.7500e- 003	1.7500e- 003
Electricity Total CO2 Use		133119 38.7260 1.7500e- 3.6000e-	38.7260
Electricity Use	kWh/yr	133119	
	Land Use	Hotel	Total

6.0 Area Detail

6.1 Mitigation Measures Area

		1.	
CO2e		1.9100e- 003	1.9100e- 003
NZO		0.0000	0.0000
CH4	/yr		0000.0
Total CO2	MT/yr	1.7900e- 003	1.7900e- 003
Bio- CO2 NBio- CO2 Total CO2		0.0000 1.7900e- 1.7900e- 003 003	1.7900e- 1.7900e- 003 003
Bio- CO2			0.0000 1.7900e- 1.7900e- 003 003
PM2.5 Total		0.0000	0.000.0
Exhaust PM2.5		0.0000	0.000.0
Fugitive PM2.5			
PM10 Total		0.0000	0.0000
Exhaust PM10	s/yr	0.0000	0.0000
Fugitive PM10	tons/yr		
S02		0.0000	0.0000
00		9.3000e- 004	9.3000e- 004
×ON		1.0000e- 005	1.0000e- 005
ROG		0.0883 1.0000e- 9.3000e- 0.0000 005 004	0.0883 1.0000e- 9.3000e- 005 004
	Category	Mitigated	Unmitigated

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6.2 Area by SubCategory

Unmitigated

Φ		00	0	-b	-b
CO2e		0.0000	0.0000	1.9100e- 003	1.9100e- 003
N2O		0.0000 0.0000 0.0000	0.0000	0.0000	0.0000
CH4	MT/yr	0.0000	0.0000	0.0000	0.0000
Total CO2	M	0.0000	0.0000	1.7900e- 003	1.7900e- 0.
Bio- CO2 NBio- CO2 Total CO2		0.000.0	0.0000	0.0000 1.7900e- 1.7900e- 003 003	1.7900e- 003
Bio- CO2		0.000.0	0.0000	0.0000	0.0000
PM2.5 Total		0.0000 0.00000	0.000.0	0.0000	0.0000
Exhaust PM2.5		0.0000		0.0000	0.0000
Fugitive PM2.5					
PM10 Total		0.0000	0.0000	0.0000	0.0000
Exhaust PM10	tons/yr	0.0000	0.0000	0.0000	0.000.0
Fugitive PM10	ton				
802				0.0000	0000'0
CO				9.3000e- 004	9.3000e- 004
×ON				9.0000e- 1.0000e- 9.3000e- 0.0000 005 005 004	0.0883 1.0000e- 9.3000e- 0.0000 005 004
ROG		0.0202	0.0681	9.0000e- 005	0.0883
	SubCategory	Architectural Coating		Landscaping	Total

Mitigated

CO2e		0.0000	0.0000	1.9100e- 003	1.9100e- 003
NZO			0.000.0	0.000.0	0.0000
CH4	'yr	0.0000	0.0000	0.0000	0.0000
Total CO2	MT/yr	0.0000			1.7900e- 0 003
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000	0.0000	0.0000 1.7900e- 1.7900e- 003 003	1.7900e- 1.7 003
Bio- CO2		0.000.0	0.000.0		0.0000
PM2.5 Total			0.0000	0.0000	0.0000
Exhaust PM2.5		0.000.0	i	0.000.0	0.0000
Fugitive PM2.5			r 	r 	
PM10 Total		0.0000	0.0000	0.0000	0.0000
Exhaust PM10	tons/yr	0.0000	0.0000	0.0000	0.0000
Fugitive PM10	ton				
S02				0.0000	0.0000
00				9.3000e- 004	9.3000e- 004
NOx				1.0000e- 005	1.0000e- 9.3000e- 005 004
ROG		0.0202	0.0681	9.0000e- 1.0000e- 9.3000e- (005 005 004	0.0883
	SubCategory	Architectural Coating	Consumer Products	_	Total

7.0 Water Detail

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7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

CO2e		6.2573	7.7496
N20	MT/yr	1.5900e- 003	1.9900e- 003
CH4	M	0.0663	0.0829
Total CO2		4.1252	5.0848
	Category	Mitigated	Unmitigated

COze			7.7496
NZO	MT/yr	0.0663 1.5900e- 003	1.9900e- 003
CH4	M	0.0663	0.0829
lotal COZ		4.1252	5.0848
	Category		Unmitigated

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7.2 Water by Land Use

Unmitigated

7.7496	1.9900e- 003	0.0829	5.0848		Total
7.7496	0.0829 1.9900e- 003	0.0829	5.0848	2.53668 / 0.281853	Hotel
	MT/yr	M		Mgal	Land Use
CO2e	N2O	CH4	ndoor/Out Total CO2 door Use	Indoor/Out door Use	

Mitigated

C02e		6.2573	6.2573
N20	MT/yr	1.5900e- 003	1.5900e- 003
CH4	M	0.0663	0.0663
ndoor/Out Total CO2 door Use		2.02934 / 4.1252 0.281853	4.1252
Indoor/Out door Use	Mgal	2.02934 / 0.281853	
	Land Use	Hotel	Total

8.0 Waste Detail

8.1 Mitigation Measures Waste

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Category/Year

CO2e		27.5339	27.5339
N20	MT/yr	0.0000 27.5339	0.0000
CH4	M	0.6568	0.6568
Total CO2		11.1138 0.6568	11.1138
			Unmitigated

8.2 Waste by Land Use

Unmitigated

CO2e		0.0000 27.5339	27.5339
N20	MT/yr	0.0000	0.0000
CH4	M	0.6568	0.6568
Total CO2		54.75 11.1138	11.1138
Waste Disposed	tons	54.75	
	Land Use	Hotel	Total

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	MT/yr	
Hotel	54.75	54.75 1 11.1138 0.6568	0.6568	0.0000 27.5339	27.5339
Total		11.1138	0.6568	0.0000	27.5339

9.0 Operational Offroad

Year	Hours/Day Days/Year	y Days
	Hours/Day Days	Number Hours/Day Days

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Fuel Type	
Load Factor	
Horse Power	
Hours/Year	
Hours/Day	
Number	
Equipment Type	

Boilers

Fuel Type
Boiler Rating
Heat Input/Year
Heat Input/Day
Number
Equipment Type

User Defined Equipment

quipment Type

11.0 Vegetation

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TREDC Hotel Project

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	100.00	Room	0.40	17,424.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Fred (Days)	103
Climate Zone	_			Operational Year	2040
Utility Company	Pacific Gas & Electric Company	ompany			
CO2 Intensity (Ib/MWhr)	641.35	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity (Ib/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Refer to Project Description

Construction Phase -

Demolition -

Vehicle Trips - Refer to CalEEMod input table

Construction Off-road Equipment Mitigation - Refer to CalEEMod tables

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15

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tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	AQC	No Change	Level 3
tblConstEquipMitigation	440	No Change	Level 3
tblConstEquipMitigation	440	No Change	Level 3
tblConstEquipMitigation	440	No Change	Level 3
tblConstEquipMitigation	AdO	No Change	Level 3
tblConstEquipMitigation	AdO	No Change	Level 3
tblConstEquipMitigation	440	No Change	Level 3
tblConstEquipMitigation	440	No Change	Level 3
tblConstEquipMitigation	440	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

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Tier 3	Tier 3	Tier 3	17,424.00	17,424.00	0.40	2040	Rural	24.00	24.00	24.00	5.73	4.17	5.72
No Change	No Change	No Change	145,200.00	145,200.00	3.33	2018	Urban	09.9	09.9	14.70	8.19	5.95	8.17
Tier	Tier	Tier	BuildingSpaceSquareFeet	LandUseSquareFeet	LotAcreage	OperationalYear	UrbanizationLevel		CNW_TL	CW_TL	ST_TR	SU_TR	WD_TR
tblConstEquipMitigation	tblConstEquipMitigation	tblConstEquipMitigation	tblLandUse	tblLandUse	tblLandUse	tblProjectCharacteristics	tblProjectCharacteristics	tbIVehicleTrips	tbIVehicleTrips	tbIVehicleTrips	tbIVehicleTrips	tbIVehicleTrips	tbIVehicleTrips

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Bio- CO2 NBio- CO2 Total CO2	CH4	NZO	CO2e
Year					ton	tons/yr							MT/yr	/yr		
2017	0.2876	0.8370	0.5523	0.2876 0.8370 0.5523 9.2000e- 0.0475 0.0475		0.0506 0.0982 8.5900e-	0.0982	8.5900e- 003	0.0468 0.0554	0.0554	0.0000	85.3120	0.0000 85.3120 85.3120 0.0196 0.0000 85.8012	0.0196	0.000.0	85.8012
Maximum	0.2876	0.8370		0.5523 9.2000e- 004	0.0475	0.0506	0.0982	8.5900e- 0 003	0.0468	0.0554	0.0000	85.3120	85.3120 85.3120	0.0196	0.0000	85.8012

Mitigated Construction

C02e		85.8011	85.8011
NZO		0.0000	0.0000
CH4	'yr	0.0196	0.0196
Total CO2	MT/yr	85.3120	85.3120
Bio- CO2 NBio- CO2 Total CO2		0.0000 85.3120 85.3120 0.0196 0.0000 85.8011	85.3120 85.3120
Bio- CO2		0.000.0	0.000.0
PM2.5 Total		9.7100e- 003	9.7100e- 003
Exhaust PM2.5		4.4700e- 003	4.4700e- 003
Fugitive PM2.5	s/yr	4.5200e- 0.0310 5.2400e- 4.4700e- 9.7100e- 003 003 003 003	5.2400e- 4.4700e- 003 003
PM10 Total		0.0310	0.0310
Exhaust PM10		4.5200e- 003	4.5200e- 003
Fugitive PM10	tons/yr	0.0265	0.0265
S02		9.2000e- 004	0.5466 9.2000e- 004
00		0.5466	0.5466
×ON		0.2287 0.4604 0.5466 9.2000e- 0.0265 0.02	0.4604
ROG		0.2287	0.2287
	Year	2017	Maximum

C02e	00:00
N20	0.00
CH4	0.00
Total CO2	0.00
NBio-CO2 Total CO2	0.00
Bio- CO2	00.00
PM2.5 Total	82.47
Exhaust PM2.5	90.45
Fugitive PM2.5	39.00
PM10 Total	68.46
Exhaust PM10	91.07
Fugitive PM10	44.33
S02	00:0
00	1.03
NOx	44.99
ROG	20.46
	Percent Reduction

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2017	8-31-2017	0.5375	0.3010
2	9-1-2017	9-30-2017	0.1577	0.0759
		Highest	0.5375	0.3010

2.2 Overall Operational

Unmitigated Operational

CO2e		1.9000e- 003	58.3982	1,485.597 6	27.5339	7.7496	1,579.281 1	
NZO		0.0000	7.2000e- 004	0.0000	0.0000	1.9900e- 003	2.7100e- 003	
CH4	/yr	0.0000	2.1200e- 003	0.0815	0.6568	0.0829	0.8233	
Total CO2	MT/yr	1.7900e- 003	58.1311	1,483.560 5	11.1138	5.0848	1,557.892 0	
Bio- CO2 NBio- CO2 Total CO2		1.7900e- 003	58.1311	1,483.560 1,483.560 5	0.000.0	4.2800	1,545.973 5	
Bio- CO2		0.0000	0.0000	0.000.0	11.1138	0.8048	11.9185	
PM2.5 Total		0.0000	1.3500e- 003	0.3450	0.0000	0.0000	0.3463	
Exhaust PM2.5		0.0000	1.3500e- 003	0.0286	0.000.0	0.0000	0.0300	
Fugitive PM2.5	tons/yr			 	0.3163			0.3163
PM10 Total		0.0000	1.3500e- 003	1.2082	0.0000	0.0000	1.2095	
Exhaust PM10		0.000.0	1.3500e- 003	0.0302	0.0000	0.0000	0.0316	
Fugitive PM10				1.1780			1.1780	
S02		0.000.0	1.1000e- 004	0.0163			0.0164	
00		9.1000e- 004	0.0150	7.5618			7.5777	
×ON		1.0000e- 005	0.0178	3.1400			3.1578	
ROG		0.0883	1.9600e- 003	0.4794			0.5696	
	Category	Area	Energy	Mobile	Waste	Water	Total	

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2.2 Overall Operational

Mitigated Operational

CO2e		1.9000e- 003	58.3982	1,485.597 6	27.5339	6.2573	1,577.788 8		
NZO		0.000.0	7.2000e- 004	0.0000	0.0000	1.5900e- 003	2.3100e- 003		
CH4	'yr	0.0000	2.1200e- 7 003	0.0815	0.6568	0.0663	0.8067		
Total CO2	MT/yr	1.7900e- 003	58.1311	1,483.560 5	11.1138	4.1252	1,556.932 4		
NBio- CO2 Total CO2			58.1311	1,483.560 5	0.0000	3.4814	1,545.174 1,556.932 8 4		
Bio- CO2		0.000.0	0.000.0	0.000.0	11.1138	0.6438	11.7576		
PM2.5 Total		0.0000	1.3500e- 003	0.3450	0.0000	0.0000	0.3463		
Exhaust PM2.5		0.000.0	1.3500e- 003	0.0286	0.000.0	0.000.0	0.0300		
Fugitive PM2.5	tons/yr				r 	0.3163	r 	r	0.3163
PM10 Total			1.3500e- 003	1.2082	0.000	0.000.0	1.2095		
Exhaust PM10		0.000.0	1.3500e- 003	0.0302	0.0000	0.0000	0.0316		
Fugitive PM10			r 	1.1780	r 		1.1780		
S02		0.000.0	1.1000e- 004	0.0163	 		0.0164		
00			9.1000e- 004	0.0150	7.5618			7.5777	
×ON		.00000e- 005	0.0178	3.1400			3.1578		
ROG		0.0883	1.9600e- 003	0.4794	r • • • • • • • • • • • • • • • • • • •		0.5696		
	Category	Area	:	Mobile	Waste	Water	Total		

C02e 0.09 14.76 N20 CH4 2.01 Bio- CO2 NBio-CO2 Total CO2 90.0 0.05 1.35 PM2.5 Total 0.00 Exhaust PM2.5 0.00 Fugitive PM2.5 0.00 PM10 Total 0.00 Exhaust PM10 0.00 Fugitive PM10 0.00 802 0.00 0.00 ဝ္ပ Ň 0.00 ROG 0.00 Percent Reduction

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
7			6/1/2017	6/14/2017	5	10	
7	ration	paration	 	6/15/2017	5		
3		Grading		6/19/2017	5	2	
4	Construction	Construction	 	11/6/2017	5	100	
5				11/13/2017	5	5	
9	Architectural Coating	Architectural Coating	11/14/2017	11/20/2017	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 26,136; Non-Residential Outdoor: 8,712; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws		8.00	81	0.73
Demolition	Rubber Tired Dozers		1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	0.00	26	0.37
Site Preparation	Graders		8.00	187	0.41
ation	Tractors/Loaders/Backhoes		8.00	26	0.37
	Concrete/Industrial Saws		8.00	81	0.73
	Rubber Tired Dozers		1.00	247	0.40
	Tractors/Loaders/Backhoes	2	0.00	26	0.37
Building Construction	Cranes		4.00	231	0.29
Building Construction	Forklifts	2	0.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	26	0.37
Architectural Coating	Air Compressors		0.00	78	0.48
	Cement and Mortar Mixers	1	0.00	6	0.56
	Pavers		7.00	130	0.42
	Rollers		7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Offroad Equipment Worker Trip Vendor Trip Count Number Number 10.00 0.00	Worker Trip Number 10.00	 	Hauling Trip Number 344.00	Worker Trip Length 16.80	Vendor Trip Length 6.60	Hauling	Trip Worker Vehicle Class 20.00 LD_Mix 20.00 LD_Mix	Vehicle Class HDT_Mix HDT_Mix	Hauling Vehicle Class HHDT HHDT
0.00			0.00	`	09:9	20.00	20.00 LD_Mix	HDT_Mix	HHDT
3.00			00.00	16.80	9.90		20.00 LD_Mix		ННОТ
1.00			0.00	16.80	09:9	20.00	20.00 LD_Mix	HDT_Mix	HHDT
7 18.00 0.00			0.00		09:9		20.00 LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

CO2e		0.0000	5.3755	5.3755		
N20		0.0000	0.000	0.000		
CH4	MT/yr	yr	/r	0.000.0 0.000.0	1.0500e- 003	1.0500e- 003
Bio- CO2 NBio- CO2 Total CO2			5.3493	5.3493		
NBio- CO2		r	5.3493	5.3493		
Bio- CO2		0.0000	0.0000	0.0000		
PM2.5 Total		5.6400e- 003	3.4900e- 003	9.1300e- 003		
Exhaust PM2.5		5.6400e- 0.0000 5.6400e- 003 003	3.4900e- 003	3.4900e- 003		
Fugitive PM2.5	tons/yr	5.6400e- 003		5.6400e- 003		
PM10 Total		0.0373	3.6600e- 003	0.0409		
Exhaust PM10		tons/yr	ns/yr	0.0000	3.6600e- 003	3.6600e- 003
Fugitive PM10			0.0373		0.0373	
S02			6.0000e- 005	6.0000e- 005		
00			0.0396	0.0396		
NOx			0.0525	0.0525		
ROG			6.0500e- 0.0525 0.0396 003	6.0500e- 003		
	Category	Fugitive Dust	Off-Road	Total		

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3.2 Demolition - 2017
Unmitigated Construction Off-Site

CO2e		13.3690	0.0000	0.5905	13.9595
N20		0.0000	0.0000	0.0000	0.0000
CH4	yr	4.9000e- 004	0.0000	5.0000e- 005	5.4000e- 004
Total CO2	MT/yr	13.3567	0.0000	0.5892	13.9459
Bio- CO2 NBio- CO2 Total CO2		0.0000 13.3567 13.3567 4.9000e-	0.0000	0.5892	13.9459
Bio- CO2		0.0000	0.0000	0.0000	0.0000
PM2.5 Total		1.4900e- 003	0000.0	1.7000e- 004	1.6600e- 003
Exhaust PM2.5		7.1000e- 004	0.0000	1.0000e- 005	7.2000e- 004
Fugitive PM2.5		7.8000e- 004	0.0000	1.6000e- 004	9.4000e- 004
PM10 Total		3.5700e- 003	0.0000	e- 6.1000e- 004	4.1800e- 003
Exhaust PM10	s/yr	7.5000e- 3.5700e- 004 003	0.0000	1.0000e- 005	7.6000e- 004
Fugitive PM10	tons/yr	2.8300e- 003	0.0000	6.0000e- 004	3.4300e- 003
S02		1.4000e- 004	0.000	1.0000e- 005	0.0203 1.5000e- 3
00		0.0145	0.0000	5.7700e- 003	0.0203
×ON		0.0703	0.000.0	7.3000e- 004	0.0710
ROG		2.7100e- 0.0703 0.0145 1.4000e- 2.8300e- 0.03	0.000 0.0000	7.0000e- 7.3000e- 5.7700e- 1.0000e- 6.0000e- 004 004 003 005 004	3.4100e- 003
	Category	Hauling		Worker	Total

Mitigated Construction On-Site

CO2e		0.0000	5.3755	5.3755
N20		0.0000	0.0000	0.0000
CH4	'yr	0.000.0	1.0500e- 003	1.0500e- 003
Total CO2	MT/yr		5.3492	5.3492
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000	5.3492	5.3492
Bio- CO2		0.0000	0.0000	0.0000
PM2.5 Total		2.5400e- 003	3.0000e- 004	2.8400e- 003
Exhaust PM2.5			3.0000e- 004	3.0000e- 2.
Fugitive PM2.5		2.5400e- 003		2.5400e- 003
PM10 Total		0.0168	3.0000e- 004	0.0171
Exhaust PM10	s/yr	0.0000	3.0000e- 3.0000e- 004 004	3.0000e- 004
Fugitive PM10	tons/yr	0.0168		0.0168
SO2			6.0000e- 005	6.0000e- 005
00			0.0397	0.0397
×ON			1.3300e- 0.0298 0.0397 6.0000e- 003 005	0.0298
ROG			1.3300e- 003	1.3300e- 0.0298 003
	Category	Fugitive Dust	Off-Road	Total

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3.2 Demolition - 2017
Mitigated Construction Off-Site

C02e		13.3690	0.0000	0.5905	13.9595
N20		0.0000	0.0000	0.0000	0.0000
CH4	yr	4.9000e- 004		5.0000e- 005	5.4000e- 004
Total CO2	MT/yr	13.3567	0.0000	0.5892	13.9459
Bio- CO2 NBio- CO2 Total CO2		0.0000 13.3567 13.3567 4.9000e- 0.0000 13.3690	0.0000	0.5892	13.9459
Bio- CO2		0.000.0	0.0000	0.0000	0.0000
PM2.5 Total		1.4900e- 003	0000.0	1.7000e- 004	1.6600e- 003
Exhaust PM2.5		7.1000e- 004	0.0000	1.0000e- 005	7.2000e- 004
Fugitive PM2.5			0.0000	1.6000e- 1. 004	9.4000e- 004
PM10 Total		3.5700e- 003	0.0000	6.1000e- 004	4.1800e- 003
Exhaust PM10	s/yr	,	0.0000	1.0000e- 005	7.6000e- 004
Fugitive PM10	tons/yr	2.8300e- 003	0.0000	6.0000e- 004	3.4300e- 003
S02		1.4000e- 004	0.0000 0.0000	1.0000e- 005	0.0203 1.5000e-
00		0.0145	0.000.0	5.7700e- 003	0.0203
XON		0.0703	0.0000 0.0000	7.3000e- 004	0710
ROG		2.7100e- 0.0703 0.0145 1.4000e- 2.8300e- 003	0.0000	7.0000e- 7.3000e- 5.7700e- 1.0000e- 6.0000e- 004 003 005 004	3.4100e- 0. 003
	Category		Vendor	Worker	Total

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

				_
CO2e		0.0000	0.4569	0.4569
N2O		0.000.0	0.0000	0.000
CH4	MT/yr	0.0000	0.4534 1.4000e- 0	1.4000e- 004
Total CO2	TM	0.000.0	0.4534	0.4534
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000 0.0000	0.0000 0.4534	0.4534
Bio- CO2		0.0000	! *	0.0000
PM2.5 Total		3.0000e-	2.2000e- 004	e- 2.5000e- 004
Exhaust PM2.5		0.0000 2.7000e- 3.0000e- 0.0000 004 005	2.2000e- 004	2000 004
Fugitive PM2.5		3.0000e- 005		3.0000e- 2. 005
PM10 Total		2.7000e- 004	2.4000e- 004	5.1000e- 004
Exhaust PM10	tons/yr	0.0000	2.4000e- 2.4000e- 004 004	4000e- 004
Fugitive PM10	ton	2.7000e- 004		0.0000 2.7000e- 2 004
S02			0.0000	0.000
00			2.1800e- 003	2.1800e- 003
NOx			4.3000e- 5.2600e- 2.1800e- 0.0000 004 003 003	4.3000e- 5.2600e- 2.1800e- 004 003
ROG			4.3000e- 004	4.3000e- 004
	Category	Fugitive Dust	Off-Road	Total

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3.3 Site Preparation - 2017
Unmitigated Construction Off-Site

N2O CO2e		0.0000 0.0000 0.0000 0.0000 0.0000	0.0000 0.0000	0.0000 0.0295	0.0000 0.0295
CH4	ʻyr	0.0000	0.000.0	0.000.0	0.000.0
Bio- CO2 NBio- CO2 Total CO2	MT/yr	0.000.0	0.000.0	0.0295	0.0295
NBio- CO2		0.0000	0.0000	0.0295	0.0295
Bio- CO2		0.0000	00000	0.0000	0.0000
PM2.5 Total			000000	1.0000e- 005	1.0000e-
Exhaust PM2.5		0.0000	0.0000	0.0000	0.000
Fugitive PM2.5		0.0000	0.0000 0.0000	1.0000e- 005	1.0000e-
PM10 Total		0.0000 0.0000 0.0000	0.0000	3.0000e- 005	3.0000e- 1.0
Exhaust PM10	ons/yr	0.0000	0.0000	0.0000	0.0000
Fugitive PM10	ton	0.0000	0.0000	3.0000e- 005	3.0000e-
SO2		0.0000	0.0000	0.0000	0.0000 3.0000e-
00		0.0000	0.0000	2.9000e- 004	3.0000e- 4.0000e- 2.9000e-
XON		0.0000 0.0000 0.0000 0.0000	L	3.0000e- 4.0000e- 2.9000e- 005 005 004	4.0000e-
ROG		0.0000	0.0000	3.0000e- 005	3.0000e-
	Category	Hauling	Vendor	Worker	Total

Mitigated Construction On-Site

			•	
CO2e		0.0000	0.4569	0.4569
N20		0.0000	0.0000	0.000
CH4	/yr	0.000.0	1.4000e- 004	1.4000e- 0
Total CO2	MT/yr	0.000.0	0.4534	0.4534
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000 0.0000	0.0000 0.4534 0.4534 1.4000e-	0.4534
Bio- CO2		0.0000	0.0000	0.0000
PM2.5 Total		1.0000e- 005	2.0000e- 0 005	3.0000e- 005
Exhaust PM2.5		0.0000 1.0000e- 005	2.0000e- 005	2.0000e- 005
Fugitive PM2.5		.0000e- 005		1.0000e- 005
PM10 Total		1.2000e- 004	2.0000e- 005	1.4000e- 004
Exhaust PM10	ns/yr	0.0000	2.0000e- 2.0000e- 005 005	.0000e- 005
Fugitive PM10	ton	1.2000e- 004		0.0000 1.2000e- 2 004
802			0.0000	0.0000
00			2.9300e- 003	2.9300e- 003
XON			1.2000e- 2.4400e- 2.9300e- 004 003 003	1.2000e- 2.4400e- 2.9300e- 004 003
ROG			1.2000e- 004	1.2000e- 004
	Category	Fugitive Dust	Off-Road	Total

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3.3 Site Preparation - 2017
Mitigated Construction Off-Site

CO2e		0.0000	0.0000	0.0295	0.0295
N20		0.0000	0.0000	0.0000	0.000
CH4	ýr	0.000.0	0.000.0	0.000.0	0.0000
Total CO2	MT/yr	0.000.0	0.0000	0.0295	0.0295
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000 0.0000	0.0000	0.0295	0.0295
Bio- CO2		0.000.0	0.0000	0.0000	0.0000
PM2.5 Total		0.0000	0000.0	1.0000e- 005	1.0000e- 005
Exhaust PM2.5			0.0000	0.000.0	0.000
Fugitive PM2.5		0.000.0	0.0000	1.0000e- 005	1.0000e- 005
PM10 Total		0.0000 0.0000 0.0000	0.0000	3.0000e- 005	3.0000e- 005
Exhaust PM10	ons/yr	0.0000	0.0000	0.0000	0.0000
Fugitive PM10	tons	0.0000	0.0000	3.0000e- 005	3.0000e- 005
SO2		0.0000	0.0000	0.0000	0.0000
00		0.000.0	0.0000 0.0000	2.9000e- 004	2.9000e- 004
×ON		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000	4.0000e- 005	3.0000e- 005 005
ROG		0.0000	0.0000	3.0000e- 4.0000e- 2.9000e- 0.0000 3.0000e- 005 005 005	3.0000e- 005
	Category	Hauling	Vendor	Worker	Total

3.4 Grading - 2017

Unmitigated Construction On-Site

			•	
CO2e		0.0000	1.0751	1.0751
N20		0.0000	0.0000	0.0000
CH4	/yr	0.0000	39 2.1000e- C 004	2.1000e- 0 004
Total CO2	MT/yr	0.0000	1.0699	1.0699
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000 0.0000	1.0699	1.0699
Bio- CO2		0.0000	0.0000	0.0000
PM2.5 Total		4.1000e- 004	7.0000e- 004	1.1100e- 003
Exhaust PM2.5		0.0000	7.0000e- 004	000e- 004
Fugitive PM2.5		0.0000 7.5000e- 4.1000e- 004 004		000e- 004
PM10 Total		7.5000e- 004	7.3000e- 004	1.4800e- 003
Exhaust PM10	tons/yr	0.0000	7.3000e- 004	7.3000e- 004
Fugitive PM10	tons	7.5000e- 004		7.5000e- 004
S02			1.0000e- 005	1.0000e- 005
00			7.9200e- 003	7.9200e- 003 005
×ON			1.2100e- 0.0105 7.9200e- 1.0000e- 003 005	0.0105
ROG			1.2100e- 003	1.2100e- 0.0105 003
	Category	Fugitive Dust	Off-Road	Total

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3.4 Grading - 2017 Unmitigated Construction Off-Site

CO2e		0.0000	0.0000	0.1181	0.1181
N20		0.0000	0.0000	0.0000	0.0000
CH4	/yr	0.0000	0.0000	1.0000e- 005	1.0000e- 0 005
Total CO2	MT/yr	0.000 0.0000 0.0000	0.0000	0.1178	0.1178
Bio- CO2 NBio- CO2 Total CO2 CH4			0.0000	0.1178	0.1178
Bio- CO2		0.0000	0.0000	0.0000.	0.0000
PM2.5 Total		0.0000	0.0000	3.0000e- 005	3.0000e- 005
Exhaust PM2.5		0.000.0	0.0000	0.0000	0.000
Fugitive PM2.5		0.0000 0.0000	0000	000e- 305	3.0000e- 005
PM10 Total		0.0000	0.0000	1.2000e- 3.0 004 (1.2000e- 3.0 004
Exhaust PM10	ons/yr	0.0000	0.0000	0.0000	0.0000
Fugitive PM10	tons	0.0000	0.0000	1.2000e- 004	1.2000e- 004
S02		0.0000	0.0000	0.0000	0.0000 1.2000e-
00		0.000.0	0.000.0	1.1500e- 003	1.1500e- 003
XON		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000 0.0000	1,4000e- 1,5000e- 1,1500e- 0,0000 1,2000e- 004 004 003 0.000	1.4000e- 1.5000e- 1.1500e- 004 003
ROG		0.0000	0.0000	1.4000e- 004	1.4000e- 004
	Category	Hauling	Vendor	Worker	Total

Mitigated Construction On-Site

CO2e		0.0000	1.0751	1.0751
N20		0.0000	0.0000	0.0000
CH4	/yr	0.0000	2.1000e- 004	2.1000e- 004
Total CO2	MT/yr	0.000.0	1.0699	1.0699
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000 0.0000	0.0000 1.0699	1.0699
Bio- CO2		0.0000		0.0000
PM2.5 Total		1.9000e- 004	- 6.0000e- 005	2.5000e- 004
Exhaust PM2.5		0.0000	6.0000e- 005	0000e-
Fugitive PM2.5		0.0000 3.4000e- 1.9000e- 004 004		1.9000e- 004
PM10 Total		3.4000e- 004	6.0000e- 005	4.0000e- 004
Exhaust PM10	tons/yr	0.0000	6.0000e- 005	6.0000e- 005
Fugitive PM10	ton	3.4000e- 004		3.4000e- 004
SO2			1.0000e- 005	1.0000e- 005
00			7.9400e- 003	7.9400e- 003
XON			5.9600e- 003	2.7000e- 5.9600e- 7.9400e- 1.0000e- 004 005
ROG		- -	2.7000e- 5.9600e- 7.9400e- 1.0000e- 004 003 003 005	2.7000e- 004
	Category	Fugitive Dust	Off-Road	Total

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3.4 Grading - 2017
Mitigated Construction Off-Site

	ROG	XON	8	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
Category					tons/yr	s/yr							MT/yr	۲,		
Hauling	0.0000	0.0000 0.0000 0.0000 0.0000 0.0000	0.000.0	0.000.0	0.0000	0.0000	0.000.0	0.0000 0.0000 0.0000	0.0000	0.0000	0.0000	0.0000 0.0000 0.0000 0.0000 0.0000	0.000.0	0.000.0		0.0000
Vendor	0.0000	0.0000 0.0000 0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000.0	0.0000	0.0000	0.0000
Worker	1.4000e- 1.5000e- 1.1500e- 0.0000 1.2000e- 004 003 004	1.5000e- 004	1.1500e- 003	0.000	1.2000e- 004	0.000.0	1.2000e- 3.0 004	3.0000e- 0.0000 005	0.0000	3.0000e- 005	0.0000	0.1178	0.1178	1.0000e- 0 005	0.0000	0.1181
Total	1.4000e- 004	1.4000e- 1.5000e- 1.1500e- 0.0000 1.2000e- 004 004 009	1.1500e- 003	0.0000	1.2000e- 004	0.0000	1.2000e- 004	3.0000e- 005	0000	3.0000e- 005	0.0000	0.1178	0.1178	1.0000e- 005	0.000	0.1181

3.5 Building Construction - 2017

Unmitigated Construction On-Site

CO2e		53.2902	53.2902
N20		0.0000	0.0000
CH4	ʻyr	0.0162	0.0162
Total CO2	MT/yr	52.8851	52.8851
Bio- CO2 NBio- CO2 Total CO2		0.0000 52.8851 52.8851 0.0162 0.0000 53.2902	52.8851
Bio- CO2		0.0000	0.0000
PM2.5 Total		0.0395	0.0395
Exhaust PM2.5		0.0395	0.0395
Fugitive PM2.5			
PM10 Total		0.0430	0.0430
Exhaust PM10	s/yr	0.0430	0.0430
Fugitive PM10	tons/yr		
S02		5.7000e- 004	5.7000e- 004
00		0.4035	0.6380 0.4035 5.7000e-
XON		0.6380	0.6380
ROG		0.0641 0.6380 0.4035 5.7000e- 004	0.0641
	Category	Off-Road	Total

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3.5 Building Construction - 2017 Unmitigated Construction Off-Site

CO2e		0.0000	3.6837	4.1336	7.8173
N20		0.000.0	0.0000	0.0000	0.0000
CH4	'yr	0.000.0	2.4000e- 004	3.6000e- 004	6.0000e- 004
Total CO2	MT/yr	0.0000 0.0000 0.0000	3.6777	4.1245	7.8022
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000	3.6777	4.1245	7.8022
Bio- CO2			0.0000	0.0000	0.0000
PM2.5 Total		0.0000	5.3000e- 004	1.1600e- 003	1.6900e- 003
Exhaust PM2.5			2.8000e- 004	5.0000e- 1 005	3.3000e- 004
Fugitive PM2.5		0.0000 0.0000 0.0000	e- 2.5000e- 004	1200e- 003	1.3700e- 3.
PM10 Total		0.0000	1.1600e- 003	4.2500e- 1.	5.4100e- 003
Exhaust PM10	ons/yr	0.0000	i .	5.0000e- 005	3.4000e- 004
Fugitive PM10	tons	0.0000	8.7000e- 004	4.2000e- 003	5.0700e- 003
S02		0.0000	4.0000e- 8.7000e- 005 004	5.0000e- 4.2000e- 005 003	9.0000e- 005 5.0700e- 005
00		0.000.0	8.4100e- 003	0.0404	0.0488
XON		0.0000 0.0000 0.0000 0.0000	1.3400e- 0.0234 8.4100e- 003 003	5.1200e- 003	0.0285
ROG		0.0000	1.3400e- 003	4.8700e- 5.1200e- 0.0404 003 003	6.2100e- C
	Category	Hauling	Vendor	Worker	Total

Mitigated Construction On-Site

ROG	ŋ	×ON	8	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	NBio- CO2 Total CO2	CH4	N20	CO2e
						tons/yr							MT/yr	, ,		
	0.0140	0.3065	0.3981	0.0140 0.3065 0.3981 5.7000e-		2.8900e- 003	2.8900e- 003		2.8900e- 003	2.8900e- 003	0.0000	52.8850	0.0000 52.8850 52.8850 0.0162 0.0000 53.2901	0.0162	0.0000	53.2901
	0.0140	0.0140 0.3065	0.3981	5.7000e- 004		2.8900e- 003	2.8900e- 003		2.8900e- 003	2.8900e- 003	0.0000	52.8850	52.8850	0.0162	0.0000	53.2901

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3.5 Building Construction - 2017
Mitigated Construction Off-Site

CO2e		0.0000	3.6837	4.1336	7.8173
N20		0.0000	0.0000	0.0000	0.0000
CH4	ýr	0.000.0	2.4000e- 004	3.6000e- 004	6.0000e- 004
Total CO2	MT/yr	0.000.0		4.1245	7.8022
NBio- CO2			3.6777	4.1245	7.8022
Bio- CO2 NBio- CO2 Total CO2		0.0000	0.0000	0.0000	0.0000
PM2.5 Total		0.0000	5.3000e- 004	1.1600e- 003	1.6900e- 003
Exhaust PM2.5				5.0000e- 005	3.3000e- 004
Fugitive PM2.5		0.0000 0.0000 0.0000		1.1200e- 003	1.3700e- 3. 003
PM10 Total		0.000.0	1.1600e- 003	4.2500e- 003	5.4100e- 003
Exhaust PM10	s/yr	0.0000	2.9000e- 004	5.0000e- 005	3.4000e- 004
Fugitive PM10	tons/yr	0.0000	8.7000e- 004	4.2000e- 003	5.0700e- 003
S02		0.0000 0.0000 0.0000 0.0000	1.3400e- 0.0234 8.4100e- 4.0000e- 8.7000e- 003 005 004	5.0000e- 4.2000e- 005 003	9.0000e- 5.0700e- 005 003
00		0.0000	8.4100e- 003	0.0404	0.0488
×ON		0.0000	0.0234	5.1200e- 003	6.2100e- 0.0285 003
ROG		0.0000	1.3400e- 003	4.8700e- 5.1200e- 0.0404 5 003 003	6.2100e- 003
	Category	Hauling	Vendor	Worker	Total

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	XON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
Category					tons/yr	s/yr							MT/yr	/yr		
l	2.6300e- 003	2.6300e- 0.0249 0.0184 3.0000e- 003 005	0.0184	3.0000e- 005		1.5200e- 1.5200e- 003 003	1.5200e- 003		1.4100e- 003		0.0000	2.4610	2.4610	6.8000e- 004	0.0000	2.4781
Paving	0.0000		•			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000 0.0000	0.0000	0.0000 0.0000	0.0000	0.0000
Total	2.6300e- 003	0.0249		0.0184 3.0000e-		1.5200e- 003	1.5200e- 003		1.4100e- 003	1.4100e- 003	0.0000	2.4610	2.4610	6.8000e- 004	0.0000	2.4781

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Unmitigated Construction Off-Site 3.6 Paving - 2017

CO2e		0.0000	0.0000	0.5315	0.5315
N20		0.0000	0.0000	0.0000	0.0000
CH4	'yr	0.000.0	0.000.0	5.0000e- 005	5.0000e- 005
Total CO2	MT/yr	0.000.0	0.0000	0.5303	0.5303
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000		0.5303	0.5303
Bio- CO2		0.0000	0.0000	0.0000	0.0000
PM2.5 Total		0000.0	0000.0	1.5000e- 004	1.5000e- 004
Exhaust PM2.5		0.000.0	0.0000	1.4000e- 1.0000e- 004 005	0000e- 005
Fugitive PM2.5		0.0000 0.0000 0.0000	0.000.0	1.4000e- 004	1.4000e- 1.
PM10 Total		0.000.0	0.000.0	e- 5.5000e- 004	5.5000e- 004
Exhaust PM10	s/yr	0.0000	0.0000	1.0000e- 005	1.0000e- 005
Fugitive PM10	tons/yr	0.0000	0.0000	5.4000e- 004	5.4000e- 004
SO2		0.000.0	0.0000	1.0000e- 005	1.0000e- 005
00		0.000.0	0.000.0	5.2000e- 003	5.2000e- 1.0000e- 003 005
×ON		0.000.0	0.0000 0.0000 0.0000 0.0000	6.6000e- 004	6.3000e- 004 0.004
ROG		0.0000 0.0000 0.0000 0.0000	0.0000	6.3000e- 6.6000e- 5.2000e- 5.4000e- 0.4000e- 0.04	6.3000e- 004
	Category	Hauling	:	Worker	Total

Mitigated Construction On-Site

2.4781	0.0000	6.8000e- 004	2.4610	2.4610	0.0000	1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		000e- 105	8.0	0.0173 3.0000e-	0.0119 0.0173 3.0	5.6000e- 0.0119 0.0173 3.00
0.0000	0.0000	0.0000	0.0000	0.0000 0.0000 0.0000	0.0000	0.0000	0.0000		0.0000	0.0000						0.0000
2.4781	0.0000	6.8000e- 004	2.4610	0.0000 2.4610 2.4610 6.8000e- 004	0.0000	1.1000e- C 004	1.1000e- 004		1.1000e- 1.1000e- 004 004	1.1000e- 004			3.0000e- 005	0.0173 3.0000e- 005	0.0119 0.0173 3.0000e-	0.0119
		ýr	MT/yr							ns/yr		tons	ton	ton	ton	ton
CO2e	N20	CH4	Total CO2	NBio- CO2 Total CO2	Bio- CO2	PM2.5 Total	Exhaust PM2.5	Fugitive PM2.5	PM10 Total	Exhaust PM10	ЩG	Fugitive ExI		Fugitive PM10	SO2 Fugitive PM10	CO SO2 Fugitive

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3.6 Paving - 2017
Mitigated Construction Off-Site

e e		00		15	15
CO2e		0.000	0.0000	0.5315	0.5315
N20			0.0000	0.0000	0.000
CH4	/yr	0.0000	0.0000	5.0000e- 005	5.0000e- 005
Total CO2	MT/yr	0.000.0	0.000.0	0.5303	0.5303
Bio- CO2 NBio- CO2 Total CO2		0.0000	r	0.5303	0.5303
Bio- CO2		0.0000	0.0000	0.0000	0.0000
PM2.5 Total		0.0000	0.0000	1.5000e- 004	1.5000e- 004
Exhaust PM2.5			0.0000	1.4000e- 1.0000e- 004 005	1.0000e- 005
Fugitive PM2.5		0.0000 0.0000 0.0000	0.000 0.0000	1.4000e- 004	1.4000e- 004
PM10 Total		0.000.0	0.0000	5.5000e- 004	5.5000e- 004
Exhaust PM10	ons/yr	0.0000	0.0000	1.0000e- 005	1.0000e- 005
Fugitive PM10	ton	0.0000	0.0000	5.4000e- 004	5.4000e- 004
SO2		0.0000	0.0000	1.0000e- 005	1.0000e- 005
00		0.0000	0.0000	5.2000e- 003	5.2000e- 003
XON		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000 0.0000 0.0000	6.3000e- 6.6000e- 5.2000e- 1.0000e- 5.4000e- 0.04 003 005 004	6.3000e- 6.6000e- 5.2000e- 1.0000e- 5.4000e- 004 003 005 004
ROG		0.0000	0.0000	6.3000e- 004	6.3000e- 004
	Category	Hauling	Vendor	Worker	Total

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

CO2e		0.0000	0.6400	0.6400
N20		0.0000	.0000	0.0000
CH4	/yr	0.000.0	33 7.0000e- 0 005	7.0000e- 005
Total CO2	MT/yr	0.000.0	0.6383	0.6383
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000 0.0000	0.0000 0.6383	0.6383
Bio- CO2		0.0000	0.0000	0.0000
PM2.5 Total		0.0000 0.0000	4.3000e- 004	4.3000e- 004
Exhaust PM2.5		0.0000	4.3000e- 004	4.3000e- 4
Fugitive PM2.5				
PM10 Total		0.0000	4.3000e- 004	4.3000e- 004
Exhaust PM10	tons/yr	0.0000	4.3000e- 4.3000e- 004 004	4.3000e- 004
Fugitive PM10	ton			
SO2			1.0000e- 005	1.0000e- 005
00			4.6700e- 003	4.6700e- 003
NOX			5.4600e- 003	0.2027 5.4600e- 4.6700e- 1.0000e- 003 003 005
ROG		0.2019	8.3000e- 5.4600e- 4.6700e- 1.0000e- 004 003 003 005	0.2027
	Category	Archit. Coating 0.2019	Off-Road	Total

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3.7 Architectural Coating - 2017 Unmitigated Construction Off-Site

CO2e		0.0000	0.0000	0.0295	0.0295
N20		0.0000	0.0000	0.0000	0.000
CH4	ýr	0.000.0	0.000.0	0.000.0	0.0000
Total CO2	MT/yr	0.000.0	0.0000	0.0295	0.0295
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000 0.0000	0.0000	0.0295	0.0295
Bio- CO2		0.000.0	0.0000	0.0000	0.0000
PM2.5 Total		0.0000	0000.0	1.0000e- 005	1.0000e- 005
Exhaust PM2.5			0.0000	0.000.0	0.000
Fugitive PM2.5		0.000.0	0.0000	1.0000e- 005	1.0000e- 005
PM10 Total		0.0000 0.0000 0.0000	0.0000	3.0000e- 005	3.0000e- 005
Exhaust PM10	ons/yr	0.0000	0.0000	0.0000	0.0000
Fugitive PM10	tons	0.0000	0.0000	3.0000e- 005	3.0000e- 005
SO2		0.0000	0.0000	0.0000	0.0000
00		0.000.0	0.0000 0.0000	2.9000e- 004	2.9000e- 004
×ON		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000	4.0000e- 005	3.0000e- 005 005
ROG		0.0000	0.0000	3.0000e- 4.0000e- 2.9000e- 0.0000 3.0000e- 005 005 005	3.0000e- 005
	Category	Hauling	Vendor	Worker	Total

Mitigated Construction On-Site

CO2e		0.0000	0.6400	0.6400
N20		0.0000	0.0000	0.000
CH4	/yr	0.0000	7.0000e- 005	7.0000e- 005
Total CO2	MT/yr	0.000.0	0.6383	0.6383
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000 0.0000	0.0000 0.6383 0.6383	0.6383
Bio- CO2				0.0000
PM2.5 Total		0.0000	4.0000e- 005	4.0000e- 005
Exhaust PM2.5			4.0000e- 005	4.0000e- 005
Fugitive PM2.5				
PM10 Total		0.0000	4.0000e- 005	4.0000e- 005
Exhaust PM10	tons/yr	0.0000	4.0000e- 005	4.0000e- 005
Fugitive PM10	ton			
SO2			1.0000e- 005	1.0000e- 005
00			4.5800e- 003	4.5800e- 003
XON			1.5000e- 3.3900e- 4.5800e- 1.0000e- 004 003 003 005	0.2021 3.3900e- 4.5800e- 1.0000e- 003 003 005
ROG		0.2019	1.5000e- 004	0.2021
	Category	Archit. Coating 9.2019	Off-Road	Total

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3.7 Architectural Coating - 2017
Mitigated Construction Off-Site

CO2e		0.0000	0.0000	0.0295	0.0295
N20		0.0000	0.0000	0.0000	0.0000
CH4	ýr	0.000.0	0.000.0	0.0000	0.0000
Total CO2	MT/yr	0.000.0	0.0000	0.0295	0.0295
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000 0.0000 0.0000	0.0000	0.0295	0.0295
Bio- CO2		0.000.0	0.0000	0.0000	0.0000
PM2.5 Total		0.0000	*	1.0000e- 005	1.0000e- 005
Exhaust PM2.5			0.000	0.0000	0.0000
Fugitive PM2.5		0.000.0	0.000.0	1.0000e- 005	1.0000e- 005
PM10 Total		0.0000 0.0000 0.0000	0.000.0	3.0000e- 005	3.0000e- 005
Exhaust PM10	ons/yr	0.0000	0.0000	0.0000	0.0000
Fugitive PM10	tons	0.0000	0.0000	3.0000e- 005	3.0000e- 005
SO2		0.0000	0.0000	0.0000	0.0000 3.0000e-
00		0.000.0	0.0000 0.0000	2.9000e- 004	2.9000e- 004
×ON		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000.0	4.0000e- 005	3.0000e- 4.0000e- 005 005
ROG		0.0000	0.000	3.0000e- 4.0000e- 2.9000e- 0.0000 3.0000e- 005 005 005	3.0000e- 005
	Category	Hauling	:	Worker	Total

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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CO2e		485.597 6	485.597 6
N20		.0000	.0000
CH4		815 0.	815 0.
	MT/yr	30.0 C	0.0
Total CO	2	1,483.560 5	1,483.56
Bio- CO2 NBio- CO2 Total CO2		1,483.560 5	1,483.560 5
Bio- CO2		0.0000	0.0000
PM2.5 Total		0.3450	0.0302 1.2082 0.3163 0.0286 0.3450 0.0000 1,483,560 1,483,560 0.0815 0.0000 1,485,597 6
Exhaust PM2.5		0.0286	0.0286
Fugitive PM2.5	tons/yr	0.3163	0.3163
PM10 Total		1.2082	1.2082
Exhaust PM10		0.0302	0.0302
Fugitive PM10	ton	1.1780	1.1780
S02		0.0163	0.0163
00		7.5618	7.5618
XON		3.1400	3.1400
ROG		0.4794	0.4794 3.1400 7.5618 0.0163 1.1780
	Category	Mitigated 0.4794 3.1400 7.5618 0.0163 1.1780 0.0302 1.2082 0.3163 0.0286 0.3450 0.0000 1,483.560 1,483.560 0.0815 0.0000 1,485.597	Unmitigated

4.2 Trip Summary Information

	Aver	Average Daily Trip Rate	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	572.00	573.00	417.00	3,244,041	3,244,041
Total	572.00	573.00	417.00	3,244,041	3,244,041

4.3 Trip Type Information

Trip Purpose %	Diverted Pass-by
	Primary
	H-O or C-NW H-W or C-W H-S or C-C H-O or C-NW
Trip %	H-S or C-C
	H-W or C-W
	H-O or C-NW
Miles	H-S or C-C
	H-W or C-W H-S or C-C
	Land Use

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	NBUS	MCY	SBUS	MH
Hotel	0.555197	0.027252	0.217244	0.114264	0.010253 0	0.002787	0.002787 0.012651	0.049427 0.004514	0.004514	0.000798	0.003917	0.003917 0.001338 0	0.000357

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

2e		777	777	205	205
CO2e		38.8777	38.8777	19.5205	19.5205
N20		3.6000e- 004	3.6000e- 004	3.6000e- 004	3.6000e- 004
CH4	/yr	1.7500e- 003	1.7500e- 003	3.7000e- 004	3.7000e- 3. 004
Total CO2	MT/yr	38.7260	38.7260	19.4052	19.4052
Bio- CO2 NBio- CO2 Total CO2		0.0000 38.7260 38.7260 1.7500e- 3.6000e- 0.000	38.7260	19.4052	19.4052
Bio- CO2		0.0000	0.0000	0.0000	0.0000
PM2.5 Total		0.000	0.000.0	1.3500e- 003	1.3500e- 003
Exhaust PM2.5		0.0000 0.0000	0.000.0	1.3500e- 003	1.3500e- 003
Fugitive PM2.5					
PM10 Total		0.000.0	0.0000	1.3500e- 003	1.3500e- 003
Exhaust PM10	tons/yr	0.0000	0.0000	1.3500e- 003	1.3500e- 003
Fugitive PM10	tons				
S02				1.1000e- 004	1.1000e- 004
00				0.0150	0.0150
×ON				0.0178	0.0178
ROG				1.9600e- 003	1.9600e- 003
	Category	Electricity Mitigated	Electricity Unmitigated	NaturalGas Mitigated	NaturalGas Unmitigated

5.2 Energy by Land Use - NaturalGas

Unmitigated

CO2e		19.5205	19.5205
N20		3.6000e- 004	3.6000e- 004
CH4	/yr	3.7000e- 004	3.7000e- 004
Total CO2	MT/yr	19.4052	19.4052
Bio- CO2 NBio- CO2 Total CO2		0.0000 19.4052 19.4052 3.7000e- 3.6000e- 19.5205 004	19.4052
Bio- CO2		0.0000	0.0000
PM2.5 Total		1.3500e- 1.3500e- 003 003	1.3500e- 003
Exhaust PM2.5		1.3500e- 003	1.3500e- 003
Fugitive PM2.5			
PM10 Total		1.3500e- 1.3500e- 003 003	1.3500e- 003
Exhaust PM10	ons/yr	1.3500e- 003	1.3500e- 003
Fugitive PM10	ton		
SO2		1.1000e- 004	1.1000e- 004
00		0.0150	0.0150
XON		0.0178	0.0178
ROG		363639 1 1.9600e- 0.0178 0.0150 1.1000e- 0.04	1.9600e- 003
NaturalGa s Use	kBTU/yr	363639	
	Land Use	Hotel	Total

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5.2 Energy by Land Use - NaturalGas

Mitigated

CO2e		19.5205	19.5205
N20		3.6000e- 004	3.6000e- 19 004
CH4	MT/yr	3.7000e- 004	3.7000e- 004
Total CO2	TM	19.4052	19.4052
Bio- CO2 NBio- CO2 Total CO2		0.0000 19.4052 19.4052 3.7000e- 3.6000e- 19.5205	19.4052
Bio- CO2		0.0000	0.0000
PM2.5 Total		1.3500e- 1.3500e- 003 003	1.3500e- 003
Exhaust PM2.5		1.3500e- 003	1.3500e- 1 003
Fugitive PM2.5			
PM10 Total		1.3500e- 1.3500e- 003 003	1.3500e- 003
Exhaust PM10	tons/yr	1.3500e- 003	1.3500e- 003
Fugitive PM10	ton		
SO2		1.1000e- 004	1.1000e- 004
00		0.0150	0.0150
XON		1.9600e- 0.0178 0.0150 1.1000e- 003 004	0.0178
ROG		1.9600e- 003	1.9600e- 003
NaturalGa s Use	kBTU/yr	363639	
	Land Use	Hotel	Total

5.3 Energy by Land Use - Electricity

Unmitigated

CO2e		38.8777	38.8777
N2O	MT/yr	3.6000e- 004	3.6000e- 004
CH4	LM	1.7500e- 003	1.7500e- 003
Total CO2		133119 38.7260 1.7500e- 3.6000e-	38.7260
Electricity Use	kWh/yr	133119	
	Land Use	Hotel	Total

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5.3 Energy by Land Use - Electricity

Mitigated

C02e		38.8777	38.8777
N2O	MT/yr	3.6000e- 004	3.6000e- 004
CH4	M	1.7500e- 003	1.7500e- 003
Total CO2		133119 1 38.7260 1.7500e- 3.6000e-	38.7260
Electricity Use	kWh/yr	133119	
	Land Use	Hotel	Total

6.0 Area Detail

6.1 Mitigation Measures Area

CO2e		l`	1.9000e- 003
N20		0.000.0	0.000.0
CH4	'yr	0.0000	0.000.0
Total CO2	MT/yr	1.7900e- 003	1.7900e- 003
Bio- CO2 NBio- CO2 Total CO2		1.7900e- 003	1.7900e- 003
Bio- CO2		0.0000 1.7900e- 1.7900e- 0.0000 1.9000e- 0.0000 0.0000 0.000	0.000.0
PM2.5 Total		0.0000 0.00000	0.0000 0.0000 0.0000 1.7900e- 1.7900e- 0.0000 0.0000 0.0000
Exhaust PM2.5		0.0000	0.000.0
Fugitive PM2.5			
PM10 Total	tons/yr	0.0000	0.0000
Exhaust PM10			0.0000 0.0000
Fugitive PM10	tons		
802		0.0000	0.000.0
00		9.1000e- 004	9.1000e- 004
×ON		1.0000e- 005	1.0000e- 005
ROG		0.0883 1.0000e- 9.1000e- 0.0000	0.0883
	Category	Mitigated	Unmitigated 0.0883 1.0000e- 9.1000e- 0.0000

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6.2 Area by SubCategory

Unmitigated

	ROG	×ON	00	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	NZO	CO2e
SubCategory					tons/yr	s/yr							MT/yr	/yr		
Architectural Coating	0.0202					0.000.0	0.0000		0.000.0	0.000.0	0.000.0	0.0000	0.0000 0.0000 0.0000	0.0000	0.0000	0.0000
	0.0681		r 	[0.000.0	0.0000	[0.000.0	0.000.0	0.0000	0.0000	!	L	0.000.0
Landscaping	8.0000e- 005	8.0000e- 1.0000e- 9.1000e- 0.0000 005 005	9.1000e- 004	0.0000		0.000.0	0.0000		0.0000	0.0000	0.000.0	0.0000 1.7900e- 1.7900e- 003 003	1.7900e- 003	0.0000	0.000.0	1.9000e- 003
Total	0.0883	0.0883 1.0000e- 9.1000e- 0.0000 0.0000 005	9.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e- 003	1.7900e- 0. 003	0.0000	0.0000	1.9000e- 003

Mitigated

CO2e		0.000.0	0.000.0	1.9000e- 003	1.9000e- 003
N20			0.000.0	0.000.0	0.0000
CH4	'yr	0.0000	0.0000	0.0000	0.0000
Total CO2	MT/yr	0.0000		1.7900e- 003	1.7900e- 003
Bio- CO2 NBio- CO2 Total CO2				0.0000 1.7900e- 1.7900e- 003 003	1.7900e- 003
Bio- CO2		0.000.0	0.000.0	0.000.0	0.000.0
PM2.5 Total		0.0000	0.000.0	0.0000	0.0000
Exhaust PM2.5				0.0000	0.0000
Fugitive PM2.5			 		
PM10 Total			0.0000	0.0000	0.0000
Exhaust PM10	s/yr		0.0000	0.0000	0.000
Fugitive PM10	tons/yr		r 		
S02				0.0000	0.000.0
00			r 	9.1000e- 004	9.1000e- 004
×ON		,		1.0000e- 005	1.0000e- 9.1000e- 005 004
ROG		0.0202	0.0681	8.0000e- 1.0000e- 9.1000e- 005 005 004	0.0883
	SubCategory	Architectural Coating		Landscaping	Total

7.0 Water Detail

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7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

CO2e		6.2573	7.7496
N20	/yr		<u> </u>
CH4	MT/yr	0.0663 1.5900e-	
Total CO2		4.1252	5.0848
	Category	Mitigated	Unmitigated

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7.2 Water by Land Use

Unmitigated

7.7496 7.7496	0.0829 1.9900e- 7.7496 003 0.0829 1.9900e- 7.7496 003	0.0829	5.0848 5.0848	2.53668 /	.,,
7.7496	1.9900e- 003	0.0829	5.0848	2.53668 / 0.281853	
	/yr	MT/yr		Mgal	
C02e	N20	CH4	Indoor/Out Total CO2 door Use	ndoor/Out door Use	느

Mitigated

6.2573	1.5900e- 003	0.0663	4.1252		Total
6.2573	1.5900e- 003	0.0663	4.1252	2.02934 / 4.1252 0.281853	Hotel
	MT/yr	M		Mgal	Land Use
CO2e	N20	CH4	ndoor/Out Total CO2 door Use	Indoor/Out door Use	

8.0 Waste Detail

8.1 Mitigation Measures Waste

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Category/Year

C02e		27	27.5339
N20	/yr	0.0000	0.0000
CH4	MT/yr	0.6568	0.6568
Total CO2		11.1138 0.6568	11.1138
			Unmitigated

8.2 Waste by Land Use

Unmitigated

CO2e		0.0000 27.5339	27.5339
N20	MT/yr	0.0000	0.0000
CH4	M	0.6568	0.6568
Total CO2		11.1138	11.1138
Waste Disposed	tons	54.75	
	Land Use	Hotel	Total

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	MT/yr	
Hotel	54.75	54.75 111138 0.6568	0.6568	0.0000 27.5339	27.5339
Total		11.1138	0.6568	0.0000	27.5339

9.0 Operational Offroad

Fuel Type
Load Factor
Horse Power
Days/Year
Hours/Day
Number
Equipment Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Fuel Type	
Load Factor	
Horse Power	
Hours/Year	
Hours/Day	
Number	
Equipment Type	

Boilers

User Defined Equipment

Number
Equipment Type

11.0 Vegetation

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TREDC Hotel Project - Humboldt County, Summer

TREDC Hotel Project

Humboldt County, Summer

1.0 Project Characteristics

1.1 Land Usage

Population	0
Floor Surface Area	17,424.00
Lot Acreage	0.40
Metric	Room
Size	100.00
Land Uses	Hotel

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	103
Climate Zone	_			Operational Year	2018
Utility Company	Pacific Gas & Electric Company	npany			
CO2 Intensity (Ib/MWhr)	641.35	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity (Ib/MWhr)	9000

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Refer to Project Description

Construction Phase -

Vehicle Trips - Refer to CalEEMod input table

Demolition -

Construction Off-road Equipment Mitigation - Refer to CalEEMod tables

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15

TREDC Hotel Project - Humboldt County, Summer

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	AQC	No Change	Level 3
tblConstEquipMitigation	440	No Change	Level 3
tblConstEquipMitigation	440	No Change	Level 3
tblConstEquipMitigation	440	No Change	Level 3
tblConstEquipMitigation	AdO	No Change	Level 3
tblConstEquipMitigation	AdO	No Change	Level 3
tblConstEquipMitigation	440	No Change	Level 3
tblConstEquipMitigation	440	No Change	Level 3
tblConstEquipMitigation	440	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

TREDC Hotel Project - Humboldt County, Summer

_												
Tier 3	Tier 3	Tier 3	17,424.00	17,424.00	0.40	Rural	24.00	24.00	24.00	5.73	4.17	5.72
No Change	No Change	No Change	145,200.00	145,200.00	3.33	Urban	09.9	6.60	14.70	8.19	5.95	8.17
Tier	Tier	Tier	BuildingSpaceSquareFeet	LandUseSquareFeet	LotAcreage	UrbanizationLevel	CC_TL	CNW_TL	CW_TL	ST_TR	SU_TR	WD_TR
tblConstEquipMitigation	tblConstEquipMitigation	tblConstEquipMitigation	tblLandUse	tblLandUse	tblLandUse	tblProjectCharacteristics	tblVehicleTrips	tblVehicleTrips	tblVehicleTrips	tblVehicleTrips	tblVehicleTrips	tblVehicleTrips

2.0 Emissions Summary

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TREDC Hotel Project - Humboldt County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	×ON	00	205	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2		CH4	N2O	CO2e
Year)/qI	lb/day							lb/day	ay		
2017	81.1053 24.6354 11.8194 0.0416 8.1808	24.6354	11.8194	0.0416	8.1808	0.8815	9.0623	1.3262	0.8815 9.0623 1.3262 0.8410 2.1671		0.000.0	4,273.620 5	0.0000 4,273.620 4,273.620 0.3702 0.0000 4,282.297	0.3702	0.000.0	4,282.297 7
Maximum	81.1053	81.1053 24.6354 11.8194 0.0416	11.8194	0.0416	8.1808	0.8815	9.0623	1.3262	0.8410	2.1671	0.0000	4,273.620 5	0.0000 4,273.620 4,273.620 0.3702 5	0.3702	0.0000 4,282.297	4,282.297 7

Mitigated Construction

C02e		4,282.297 7	4,282.297 7			
NZO		0.000.0	0.0000 4,282.297			
CH4	lb/day	lb/day	ау	ау	0.3702	0.3702
Total CO2			4,273.620 5	4,273.620 5		
Bio- CO2 NBio- CO2 Total CO2		4,273.620 5	0.0000 4,273.620 4,273.620 5 5 5			
Bio- CO2		lb/day 0.0000 4,273.620 4,273.620 0.3702 0.0000 4,282.297		0.000		
PM2.5 Total		0.9088	0.9088			
Exhaust PM2.5			0.2100 4.2903 0.7053 0.2035 0.9088	0.2035		
Fugitive PM2.5		0.7053	0.7053			
PM10 Total		4.2903	4.2903			
Exhaust PM10	lay	0.2100	0.2100			
Fugitive PM10	lb/day	4.0803	4.0803			
SO2		80.8324 20.1020 11.8392 0.0416 4.0803	0.0416			
00		11.8392	11.8392			
×ON		20.1020	80.8324 20.1020 11.8392 0.0416			
ROG		80.8324	80.8324			
	Year	2017	Maximum			

ø.	
C02e	0.00
N20	0.00
CH4	0.00
NBio-CO2 Total CO2	0.00
NBio-CO2	0.00
Bio- CO2	0.00
PM2.5 Total	58.06
Exhaust PM2.5	75.81
Fugitive PM2.5	46.82
PM10 Total	52.66
Exhaust PM10	76.18
Fugitive PM10	50.12
S02	0.00
00	-0.17
NOx	18.40
ROG	0.34
	Percent Reduction

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2.2 Overall Operational Unmitigated Operational

CO2e		0.0234	117.9049	9,828.881	9,946.809 2		
N20			2.1500e- 003		2.1500e- 9,946.809 003 2		
CH4	lay	6.0000e- 005		0.6002	0.6025		
Bio- CO2 NBio- CO2 Total CO2	lb/day	p/qI	o/ql	0.0219 0.0219 6.0000e-	117.2083 117.2083 2.2500e-	9,813.877 9,813.877 2	9,931.107 9,931.107 4 4
NBio- CO2		0.0219	117.2083	9,813.877 2	9,931.107 4		
Bio- CO2							
PM2.5 Total		4.0000e- 005	7.4200e- 003	2.1454	2.1528		
Exhaust PM2.5		4.0000e- 005	7.4200e- 003	0.2034	0.2109		
Fugitive PM2.5			 	1.9420	1.9420		
PM10 Total		4.0000e- 005	7.4200e- 003	7.4481	7.4556		
Exhaust PM10	tay	4.0000e- 005	7.4200e- 003	0.2144	0.2218		
Fugitive PM10	lb/day			7.2338	7.2338		
S02		0.000.0	5.9000e- 004	0.0975	0.0981		
00		0.0104	0.0821 5.9000e- 004	48.6571	48.7495		
×ON		0.4845 1.0000e- 0.0104 0.0000 004	0.0977	21.7434 48.6571 0.0975	3.8462 21.8411 48.7495 0.0981		
ROG		0.4845		3.3509	3.8462		
	Category	Area	Energy	Mobile	Total		

Mitigated Operational

CO2e		0.0234	117.9049	9,828.881 0	9,946.809 2
NZO			2.1500e- 003	•	2.1500e- 9,9 003
CH4	ay	6.0000e- 005	2.2500e- 003	0.6002	0.6025
Total CO2	lb/day	0.0219	117.2083 117.2083	9,813.877 2	9,931.107 9,931.107 4 4
Bio- CO2 NBio- CO2 Total CO2		0.0219	117.2083	9,813.877 9,813.877 2	9,931.107 4
Bio- CO2			· · · · · · · · · · · · · · · · · · ·		
PM2.5 Total		4.0000e- 005	7.4200e- 003	2.1454	2.1528
Exhaust PM2.5		4.0000e- 005	7.4200e- 003	0.2034	0.2109
Fugitive PM2.5			r 	1.9420	1.9420
PM10 Total		4.0000e- 005	7.4200e- 003	7.4481	7.4556
Exhaust PM10	lb/day	4.0000e- 005	7.4200e- 003	0.2144	0.2218
Fugitive PM10	o/qI			7.2338	7.2338
SO2		0.000.0	5.9000e- 004	0.0975	0.0981
00		0.0104	0.0821	48.6571	48.7495
×ON		0.4845 1.0000e- 0.0104 0.0000 004	0.0977	21.7434 48.6571 0.0975	21.8411 48.7495 0.0981
ROG		0.4845	0.0107	3.3509	3.8462
	Category	Area	Energy	Mobile	Total

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CH4 N20 CO2e	0.00 0.00 0.00
NBio-CO2 Total CO2	0.00
NBio-CO2	0.00
Bio- CO2	0.00
PM2.5 Total	0.00
Exhaust PM2.5	0.00
Fugitive PM2.5	0.00
PM10 Total	0.00
Exhaust PM10	0.00
Fugitive PM10	0.00
so ₂	00.00
oo	00.00
NOX	0.00
ROG	00:00
	Percent Reduction

3.0 Construction Detail

Construction Phase

Phase Description						
Num Days Num Days Week	10		8	100	2	5
Num Days Week	5	5	5	5	5	5
End Date	6/14/2017	6/15/2017	6/19/2017	11/6/2017	11/20/2017	11/13/2017
Start Date	6/1/2017	6/15/2017	6/16/2017	6/20/2017	7	11/7/2017
Phase Type		ration			Architectural Coating	Paving
Phase Name	Demolition	paration			Architectural Coating	Paving
Phase Number	_	8	_e	4	5	9

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 26,136; Non-Residential Outdoor: 8,712; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

TREDC Hotel Project - Humboldt County, Summer

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws		8.00	81	0.73
Demolition	Rubber Tired Dozers		1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	00.9	76	0.37
Site Preparation	Graders		8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes		8.00	76	0.37
Grading	Concrete/Industrial Saws		8.00	81	0.73
	Rubber Tired Dozers		1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	00.9	26	0.37
Building Construction	Cranes		4.00	231	0.29
Building Construction	Forklifts	2	90.9	68	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	26	0.37
Paving	Cement and Mortar Mixers	4	9.00	6	0.56
Paving	Pavers		7.00	130	0.42
Paving	Rollers		7.00	80	0.38
Paving	Tractors/Loaders/Backhoes		7.00	26	0.37
Architectural Coating	Air Compressors	1	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Worker Trip Vendor Trip Count Number	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Hauling Trip Length Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	00.0	34		09.9		20.00 LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	00.0	0.00	16.80	09.9		20.00 LD_Mix	HDT_Mix	HHDT
Grading	1	10.00	00.0			 ! ! ! !	· · · · · · · · · · · · · · · · · ·	Mix	HDT_Mix	HHDT
Building Construction	 	7.00	3.00	~ 		9		Mix	HDT_Mix	HHDT
Paving		18.00	00.0	00.0	16.80	09.9		20.00 LD_Mix	HDT_Mix	HHDT
Architectural Coating		1.00	00.0	0.00	16.80	09.9		LD_Mix	HDT_Mix	HTDT

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TREDC Hotel Project - Humboldt County, Summer

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2017

		_		
CO2e		0.0000	1,185.104 7	1,185.104 7
N20				
CH4	>		0.2319	0.2319
otal CO2	lb/day	0.000.0	,179.307 5	,179.307 5
√Bio- CO2			1,179.307 1,179.307 0.2319 5 5	1,179.307 1,179.307 5 5
Bio- CO2 NBio- CO2 Total CO2				`
PM2.5 Total		1.1288	0.6978	1.8266
Exhaust PM2.5			0.6978	0.6978
Fugitive PM2.5		1.1288 0.0000	 	1.1288
PM10 Total		7.4554	0.7318	8.1872
Exhaust PM10	ay	0.0000	0.7318	0.7318
Fugitive PM10	lb/day	7.4554		7.4554
S02			0.0120	0.0120
8			7.9182	7.9182
×ON			1.2100 10.4978 7.9182 0.0120	1.2100 10.4978 7.9182
ROG			1.2100	1.2100
	Category	Fugitive Dust	Off-Road	Total

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3.2 Demolition - 2017
Unmitigated Construction Off-Site

ROG	XON	8	802	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Bio- CO2 NBio- CO2 Total CO2	CH4	N20	CO2e
				lb/day	lay							lb/day	ау		
14	.0022	2.7854	0.5350 14.0022 2.7854 0.0283 0.5977		0.1483	0.7460	0.1483 0.7460 0.1635 0.1419	0.1419	0.3054		2,964.485 3	2,964.485 2,964.485 0.1039 3 3	0.1039		2,967.083 5
	0000	0.0000	0.0000 0.0000 0.0000 0.0000	; I	0.0000	0.000.0	0.0000 0.0000		0.0000		000	0.0000	0.000.0		0.0000
0.1273 0	0.1354	1.115	8 1.3100e- (003	0.1277	1.4000e- 003	0.1291	0.0339	1.3000e- 003	0.0352		129.8277	129.8277	0.0113		130.1095
-	4.1376	0.6623 14.1376 3.9011	0.0296	0.7254	0.1497	0.8751	0.1974	0.1432	0.3406		3,094.313 0	3,094.313 3,094.313 0 0	0.1152		3,097.192 9

		0.0000	1,185.104 7	1,185.104 7
CH4 N2O	1 <i>y</i>		0.2319	0.2319
Total CO2	lb/day	0.000.0	0.0000 1,179.307 1,179.307 0.2319 5	
Bio- CO2 NBio- CO2 Total CO2			1,179.307 5	0.0000 1,179.307 1,179.307 5 5 5
Bio- CO2		1-8-8-8-8	0.0000	0.0000
PM2.5 Total		0.5080	0.0603	0.5682
Exhaust PM2.5		0.0000 3.3549 0.5080 0.0000 0.5080	0.0603	0.0603
Fugitive PM2.5		0.5080		0.5080
PM10 Total		3.3549	0.0603	3.4152
Exhaust PM10	b/day	0.0000	0.0603	0.0603
Fugitive PM10	/qı	l"		3.3549
S02			0.0120	0.2652 5.9644 7.9381 0.0120 3.3549
0			7.9381	7.9381
×ON			0.2652 5.9644 7.9381	5.9644
ROG			0.2652	0.2652
	Category	Fugitive Dust	Off-Road	Total

TREDC Hotel Project - Humboldt County, Summer

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3.2 Demolition - 2017
Mitigated Construction Off-Site

	ROG	XON	8	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
Category					lb/day	lay							lb/day	lay		
Hauling	0.5350 14.0022 2.7854 0.0283 0.5977	14.0022	2.7854	0.0283		0.1483	0.7460	0.1483 0.7460 0.1635 0.1419		0.3054		2,964.485 3	2,964.485 2,964.485 0.1039 3 3	0.1039		2,967.083
Vendor	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.000.0	0.0000	0.0000	0.0000	0.0000	0.000	0.0000		0.0000	0.0000 0.0000	0.0000	• • • • • • • • • • • • • • • • • • •	0.0000
Worker	0.1273	0.1354	1.1158 1.3100e- 003	1.3100e- 003	0.1277	1.4000e- 003	0.1291	0.0339	1.3000e- 003	0.0352		129.8277	129.8277 129.8277	0.0113		130.1095
Total	0.6623	0.6623 14.1376 3.9011 0.0296	3.9011		0.7254	0.1497	0.8751	0.1974	0.1432	0.3406		3,094.313 0	3,094.313 3,094.313 0 0	0.1152		3,097.192 9

3.3 Site Preparation - 2017

		0.0000	1,007.176 4	1,007.176
CH4 N20			0.3063	0.3063
Total CO2	lb/day	0.0000	999.5201 999.5201	999.5201 999.5201
Bio- CO2 NBio- CO2 Total CO2			999.5201	999.5201
Bio- CO2		1-8-8-8-8	 	
PM2.5 Total		0.0573	0.4347	0.4920
Exhaust PM2.5		0.0000 0.5303 0.0573 0.0000 0.0573	0.4347	0.4347
Fugitive PM2.5		0.0573		0.0573
PM10 Total		0.5303	0.4726 0.4726	1.0028
Exhaust PM10	b/day	0.0000	0.4726	0.4726
Fugitive PM10	/qı	ö		0.5303
802			3 9.7700e- 003	9.7700e- 003
8			4.3533	4.3533
X O N			0.8524 10.5148 4.3533	0.8524 10.5148 4.3533 9.7700e- 0.5303 003
ROG			0.8524	0.8524
	Category	Fugitive Dust	Off-Road	Total

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3.3 Site Preparation - 2017 Unmitigated Construction Off-Site

ROG	XON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
				lb/day	day							lb/day	lay		
	0.000.0 0.000.0 0.000.0 0.000.0	0.0000	0.0000	0.0000	0.0000	0.000.0	0.0000	0.0000	0.0000		0.0000	0.000.0	0.0000		0.0000
	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
	0.0637 0.0677	0.5579	0.5579 6.6000e- 0.0639 004	0.0639	7.0000e- 004	0.0646	0.0169	6.5000e- 004	0.0176		64.9139	64.9139	5.6400e- 003		65.0547
	0.0637 0.0677 0.5579 6.6000e-	0.5579	6.6000e- 004	0.0639	7.0000e- 004	0.0646	0.0169	6.5000e- (0.0176		64.9139	64.9139	5.6400e- 003		65.0547

CO2e		0.0000	1,007.176 4	1,007.176 4
NZO			- -	
CH4	ay		0.3063	0.3063
Total CO2	lb/day	0.000.0	999.5201	999.5201
Bio- CO2 NBio- CO2 Total CO2			0.0000 999.5201 999.5201	999.5201
Bio- CO2			0.0000	0.0000
PM2.5 Total		0.0258	0.0361	0.0618
Exhaust PM2.5		0.0000	0.0361	0.0361
Fugitive PM2.5		0.0000 0.2386 0.0258 0.0000		0.0258
PM10 Total		0.2386	0.0361	0.2747
Exhaust PM10	b/day	0.0000	0.0361	0.0361
Fugitive PM10)/ql	0.2386		0.2386
S02			9.7700e- 003	9.7700e- 003
00			5.8579	5.8579 9.7700e- 0
XON			0.2382 4.8716	4.8716
ROG			0.2382	0.2382
	Category	Fugitive Dust	Off-Road	Total

TREDC Hotel Project - Humboldt County, Summer

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3.3 Site Preparation - 2017
Mitigated Construction Off-Site

CO2e		0.0000	0.0000	65.0547	65.0547
N20					
CH4	tay	0.0000	0.0000	5.6400e- 003	5.6400e- 003
Total CO2	lb/day	0.0000 0.0000 0.0000	0.0000	64.9139	64.9139
Bio- CO2 NBio- CO2 Total CO2		0.0000		64.9139	64.9139
Bio- CO2					
PM2.5 Total		0.0000	0.0000	0.0176	0.0176
Exhaust PM2.5		0.0000	0.0000	6.5000e- 004	6.5000e- 004
Fugitive PM2.5		0.0000	:	0.0169	0.0169
PM10 Total		0.000.0	0.000.0	0.0646	0.0646
Exhaust PM10	lb/day	0.0000	0.0000	7.0000e- 004	7.0000e- 004
Fugitive PM10)/qı	0.0000	0.0000	0.0639	0.0639
802		0.0000	0.0000	0.5579 6.6000e- 004	6.6000e- 004
00		0.0000	0.0000	0.5579	0.5579
XON		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000 0.0000 0.0000	0.0637 0.0677	0.0637 0.0677 0.5579 6.6000e-
ROG		0.0000	0.0000	0.0637	0.0637
	Category	Hauling	Vendor	Worker	Total

3.4 Grading - 2017

CO2e		0.0000	1,185.104 7	1,185.104 7
N20				
CH4	ay		0.2319	0.2319
Total CO2	lb/day	0.000.0	1,179.307 5	1,179.307
Bio- CO2 NBio- CO2 Total CO2			1,179.307 1,179.307 0.2319 5 5	1,179.307 1,179.307 5 5
Bio- CO2				
PM2.5 Total		0.4138	0.6978	1.1115
Exhaust PM2.5		0.0000	0.6978	0.6978
Fugitive PM2.5		0.0000 0.7528 0.4138 0.0000		0.4138
PM10 Total		0.7528	0.7318	1.4845
Exhaust PM10	day	0.0000	0.7318	0.7318
Fugitive PM10	lb/day	0.7528		0.7528
SO2			0.0120	0.0120
00			7.9182	7.9182
×ON			10.4978	10.4978 7.9182
ROG			1.2100 10.4978 7.9182 0.0120	1.2100
	Category	+ ,	Off-Road	Total

TREDC Hotel Project - Humboldt County, Summer

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3.4 Grading - 2017 Unmitigated Construction Off-Site

	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	C02e
Category					lb/day	lay							lb/day	ау		
Hauling	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	l	0.0000	0.0000	0.0000 0.0000 0.0000		0.0000		0.0000	0.0000 0.0000 0.00000	0.000.0		0.0000
• • • • • •	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	i _	0.0000	0.0000	:	0.0000	0.0000	 		0.0000	0.000.0	• • • • • • • • • • • • • • • • • • •	0.0000
Worker	0.1273	0.1273 0.1354 1.1158 1.3100e- 0.1277 003	1.1158	1.3100e- 003	i.	1.4000e- 003	0.1291	0.0339	1.3000e- 003	0.0352		129.8277	129.8277 129.8277	0.0113		130.1095
Total	0.1273	0.1273 0.1354 1.1158 1.3100e-	1.1158	1.3100e- 003	0.1277	1.4000e- 003	0.1291	0.0339	1.3000e- 003	0.0352		129.8277	129.8277 129.8277	0.0113		130.1095

CO2e		0.0000	1,185.104 7	1,185.104 7
N20				
CH4	эу		0.2319	0.2319
Total CO2	lb/day	0.000.0	1,179.307 5	1,179.307
Bio- CO2 NBio- CO2 Total CO2			0.0000 1,179.307 1,179.307 0.2319 5 5	0.0000 1,179.307 1,179.307 5
Bio- CO2			0.0000	0.0000
PM2.5 Total		0.1862	0.0603	0.2465
Exhaust PM2.5			0.0603	0.0603
Fugitive PM2.5		0.0000 0.3387 0.1862 0.0000		0.1862
PM10 Total		0.3387	0.0603	0:3990
Exhaust PM10	b/day	0.0000	0.0603 0.0603	0.0603
Fugitive PM10)/q			0.3387
805			0.0120	0.0120
00			7.9381	7.9381
×ON			0.2652 5.9644 7.9381 0.0120	0.2652 5.9644 7.9381 0.0120 0.3387
ROG			0.2652	0.2652
	Category	Fugitive Dust	Off-Road	Total

TREDC Hotel Project - Humboldt County, Summer

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3.4 Grading - 2017 Mitigated Construction Off-Site

CO2e		0.0000	0.0000	130.1095	130.1095
N20					
CH4	ay	0.000.0	0.0000	0.0113	0.0113
Total CO2	lb/day	0.000.0	0.0000	129.8277	
Bio- CO2 NBio- CO2 Total CO2			r	129.8277 129.8277	129.8277 129.8277
Bio- CO2					
PM2.5 Total		0.0000	0.0000	0.0352	0.0352
Exhaust PM2.5		0.000.0		1.3000e- 003	1.3000e- 003
Fugitive PM2.5		0.0000 0.0000 0.0000	0.0000 0.0000	0.0339	0.0339
PM10 Total		0.000.0	0.0000	0.1291	0.1291
Exhaust PM10	lay	0.0000	0.0000	1.4000e- 003	1.4000e- 003
Fugitive PM10	lb/day	0.0000	0.0000	0.1277	0.1277
SO2		0.0000	0.0000	1.3100e- 003	1.3100e- 003
00		0.0000	0.0000	1.1158	1.1158
×ON		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000 0.0000 0.0000	0.1354 1.1158 1.3100e- 0.1277 003	0.1273 0.1354 1.1158 1.3100e-
ROG		0.0000	0.0000	0.1273	0.1273
	Category	Hauling	Vendor	Worker	Total

3.5 Building Construction - 2017

CO2e		1,174.847 3	1,174.847 3
N20			
CH4	ay	0.3572	0.3572
Total CO2	lb/day	1,165.916 4	1,165.916 4
Bio- CO2 NBio- CO2 Total CO2		1,165.916 1,165.916 0.3572 4 4	1,165.916 1,165.916 0.3572 4 4
Bio- CO2			
PM2.5 Total		0.7904	0.7904
Exhaust PM2.5		0.7904	0.7904
Fugitive PM2.5			
PM10 Total		0.8591	
Exhaust PM10	b/day	0.8591	
Fugitive PM10	o/qı		
S02		0.0114	0.0114
00		8.0700	8.0700 0.0114
×ON		12.7589	1.2812 12.7589
ROG		1.2812 12.7589 8.0700 0.0114	1.2812
	Category	Off-Road	Total

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3.5 Building Construction - 2017 Unmitigated Construction Off-Site

CO2e		0.0000	82.1023	91.0766	173.1789
Ö		0.0	82.	91.	173
N20					
CH4	ay	0.0000	5.1100e- 003	7.8900e- 003	0.0130
Total CO2	lb/day	0.000.0	81.9745	90.8794	172.8539
Bio- CO2 NBio- CO2 Total CO2		0.0000	<u> </u>	90.8794	172.8539
Bio- CO2			 		
PM2.5 Total		0.0000	0.0108	0.0246	0.0354
Exhaust PM2.5		0000	5.5000e- 003	9.1000e- 004	6.4100e- C
Fugitive PM2.5		0.0000	5.2700e- 5. 003	0.0237	0.0290
PM10 Total		0.0000	0.0241	0.0904	0.1145
Exhaust PM10	lb/day	0.0000	5.7400e- 003	9.8000e- 004	6.7200e- 003
Fugitive PM10	o/qı	0.0000	0.0183	0.0894	0.1077
S02		0.000.0	0.1585 7.9000e- 0.0183 004	0.7811 9.2000e- 0.0894 004	0.9396 1.7100e- 0.1077 003
00		0.000.0	0.1585	0.7811	0.9396
×ON		0.0000	0.0261 0.4675	0.0891 0.0948	0.5622
ROG		0.0000 0.0000 0.0000 0.0000	0.0261	0.0891	0.1152
	Category	Hauling	Vendor	Worker	Total

CO2e		1,174.847 3	1,174.847 3
N20			
CH4	ау	0.3572	0.3572
Total CO2	lb/day	1,165.916 4	1,165.916 4
Bio- CO2 NBio- CO2 Total CO2		0.0000 1,165.916 1,165.916 0.3572	0.0000 1,165.916 1,165.916 4 4
Bio- CO2		0.0000	0.0000
PM2.5 Total		0.0578	0.0578
Exhaust PM2.5		0.0578	0.0578
Fugitive PM2.5			
PM10 Total		0.0578	0.0578
Exhaust PM10	lb/day	0.0578 0.0578	0.0578
Fugitive PM10)/qI		
S02		0.0114	0.0114
00		7.9624	7.9624
NOx		6.1296	0.2793 6.1296 7.9624
ROG		0.2793 6.1296 7.9624 0.0114	0.2793
	Category	Off-Road	Total

TREDC Hotel Project - Humboldt County, Summer

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3.5 Building Construction - 2017
Mitigated Construction Off-Site

ROG NOx CO SO2 Fugitive E	SO2 Fugitive PM10	Fugitive PM10			Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
)/qI	lb/day							lb/day	ау		
0.0000 0.0000 0.0000 0.0000	0.0000		0.000.0	0.0000	0.0000	0.0000	0.000 0.0000 0.0000		0.0000		0.0000	0.0000 0.0000 0.0000	0.0000		0.0000
0.0261 0.4675 0.1585 7.9000e- 0.0183	0.1585 7.90 0	7.90	000e- 04	0.0183	5.7400e- 003	0.0241	5.2700e- 003	5.5000e- 003	0.0108		81.9745	81.9745	5.1100e- 003		82.1023
0.0891 0.0948 0.7811 9.2000e- 0.0894 0.0894	0.7811 9.200	9.200	90e-	0.0894	9.8000e- 004	0.0904	0.0237	9.1000e- 004	0.0246		90.8794	90.8794	7.8900e- 003		91.0766
0.1152 0.5622 0.9396 1.7100e- 0.1077 0.03	0.9396 1.710	1.710	3 3	0.1077	6.7200e- 003	0.1145	0.0290	6.4100e- 003	0.0354		172.8539	172.8539 172.8539	0.0130		173.1789

3.6 Architectural Coating - 2017 Unmitigated Construction On-Site

			•	_
CO2e		0.0000	282.1909	282.1909
N20				
CH4	ау		0.0297	0.0297
Total CO2	lb/day	0.0000		281.4481
NBio- CO2 Total CO2			281.4481 281.4481	281.4481 281.4481
Bio- CO2				
PM2.5 Total		0.0000	0.1733	0.1733
Exhaust PM2.5			0.1733	0.1733
Fugitive PM2.5				
PM10 Total		0.0000	0.1733	0.1733
Exhaust PM10	lb/day	0.0000	0.1733	0.1733
Fugitive PM10	/qı			
SO2			2.9700e- 003	2.9700e- 003
00			1.8681	1.8681
XON			2.1850	81.0926 2.1850 1.8681 2.9700e-
ROG		80.7602	0.3323 2.1850 1.8681 2.9700e- 003	81.0926
	Category	D	Off-Road	Total

TREDC Hotel Project - Humboldt County, Summer

3.6 Architectural Coating - 2017
Unmitigated Construction Off-Site

CO2e		0.0000	0.0000	13.0110	13.0110
N2O				_	
CH4	lay	0.0000	0.0000	1.1300e- 003	1.1300e- 003
Total CO2	lb/day	0.000.0	0.000.0	12.9828	12.9828
Bio- CO2 NBio- CO2 Total CO2		0.0000	0.0000	12.9828	12.9828
Bio- CO2					
PM2.5 Total		0.0000	0.0000	3.5200e- 003	3.5200e- 003
Exhaust PM2.5		0.0000		1.3000e- 004	1.3000e- 004
Fugitive PM2.5		0.0000	0.0000	3.3900e- 1.3000e- 003 004	3.3900e- 003
PM10 Total		0.000.0	0.0000	0.0129	0.0129
Exhaust PM10	lb/day	0.0000	0.0000	1.4000e- 004	1.4000e- 004
Fugitive PM10)/q	0.0000			0.0128
S02		0.0000	0.0000	1.3000e- 004	1.3000e- 004
00		0.000.0	0.000.0	0.1116	0.1116
XON		0.0000	0.0000 0.0000 0.0000 0.0000	0.0127 0.0135 0.1116 1.3000e- 0.0128 004	0.0127 0.0135 0.1116 1.3000e- 0.0128
ROG		0.0000 0.0000 0.0000 0.0000	0.0000	0.0127	0.0127
	Category	Hauling	Vendor	Worker	Total

			. n	0
CO2e		0.0000	282.1909	282.1909
N20				
CH4	ay		0.0297	0.0297
Total CO2	lb/day	0.000.0	281.4481	281.4481
Bio- CO2 NBio- CO2 Total CO2			0.0000 281.4481 281.4481	0.0000 281.4481 281.4481
Bio- CO2			0.0000	0.0000
PM2.5 Total		0.0000	0.0143	0.0143
Exhaust PM2.5		0.0000 0.0000	0.0143	0.0143
Fugitive PM2.5				
PM10 Total		0.000.0	0.0143	0.0143
Exhaust PM10	b/day	0.0000 0.0000	0.0143	0.0143
Fugitive PM10)/q			
805			2.9700e- 003	2.9700e- 003
00			1.8324	80.8197 1.3570 1.8324 2.9700e- 003
XON			1.3570	1.3570
ROG		80.7602	0.0594 1.3570 1.8324 2.9700e- 003	80.8197
	Category	ō	Off-Road	Total

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3.6 Architectural Coating - 2017 Mitigated Construction Off-Site

CO2e		0.0000	0.0000	13.0110	13.0110
N20					
CH4	ay	0.0000	0.0000	1.1300e- 003	1.1300e- 003
Total CO2	lb/day	0.000.0	0.0000	12.9828	12.9828
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000	0.0000	12.9828	12.9828
Bio- CO2					
PM2.5 Total		0.0000	0.0000	3.5200e- 003	3.5200e- 003
Exhaust PM2.5		0.0000 0.0000 0.0000	0.0000	1.3000e- 004	1.3000e- 004
Fugitive PM2.5		0.0000	0.0000	3.3900e- 003	3.3900e- 003
PM10 Total		0.0000	0.0000	0.0129	0.0129
Exhaust PM10	lay	0.0000	0.0000	1.4000e- 004	1.4000e- 004
Fugitive PM10	lb/day		0.0000	0.0128	0.0128
S02		0.0000	0.0000	0.1116 1.3000e- 0.0128 004	1.3000e- 004
00		0.0000	0.0000	0.1116	0.1116
×ON		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000 0.0000 0.0000	0.0135	0.0127 0.0135 0.1116 1.3000e- 0.0128 0.0128
ROG		0.0000	0.0000	0.0127	0.0127
	Category	Hauling	Vendor	Worker	Total

3.7 Paving - 2017

CO2e		1,092.651 5	0.0000	1,092.651 5
N20				
CH4	ay	0.3018		0.3018
Total CO2	lb/day	1,085.107 1	0.0000	1,085.107 1,085.107
Bio- CO2 NBio- CO2 Total CO2		1,085.107 1,085.107 0.3018		1,085.107 1
Bio- CO2				
PM2.5 Total		0.5636	0.0000	0.5636
Exhaust PM2.5		0.5636	0.0000	0.5636
Fugitive PM2.5				
PM10 Total		0.6087	0.0000	0.6087
Exhaust PM10	day	0.6087	0.0000	0.6087
Fugitive PM10	lb/day			
802		0.0113		0.0113
00		7.3425		7.3425
XON		9.9754		1.0532 9.9754
ROG		1.0532 9.9754 7.3425 0.0113	0.0000	1.0532
	Category	Off-Road	Paving	Total

TREDC Hotel Project - Humboldt County, Summer

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3.7 Paving - 2017 Unmitigated Construction Off-Site

	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Bio- CO2 NBio- CO2 Total CO2	CH4	N20	CO2e
Category					lb/day	lay							lb/day	lay		
Hauling	0.0000 0.0000 0.0000 0.0000	0.0000	0.000.0	0.0000		0.0000	0.0000	0.0000 0.0000 0.0000		0.0000		0.0000	0.0000 0.0000 0.0000	0.0000		0.0000
Vendor	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000		0.0000	! _		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2291	0.2291 0.2437 2.0084 2.3700e- 0.2299 003	2.0084	2.3700e- 003		2.5300e- 003	0.2324	0.0610	2.3400e- 003	0.0633		233.6899	233.6899 233.6899	0.0203		234.1970
Total	0.2291	0.2291 0.2437 2.0084 2.3700e- 003	2.0084	2.3700e- 003	0.2299	2.5300e- 003	0.2324	0.0610	2.3400e- 003	0.0633		233.6899	233.6899 233.6899	0.0203		234.1970

CO2e		1,092.651 5	0.0000	1,092.651 5
N20				
CH4	ay	0.3018		0.3018
Total CO2	lb/day	1,085.107 1	0.0000	1,085.107
Bio- CO2 NBio- CO2 Total CO2		0.0000 1,085.107 1,085.107 0.3018		0.0000 1,085.107 1,085.107
Bio- CO2		0.0000		0.0000
PM2.5 Total		0.0436	0.0000	0.0436
Exhaust PM2.5			0.0000	0.0436
Fugitive PM2.5				
PM10 Total		0.0436	0.0000	0.0436
Exhaust PM10	lb/day	0.0436 0.0436	0.0000	0.0436
Fugitive PM10)/qI			
805		0.0113		0.0113
00		6.9028		6.9028
XON		4	!	4.7579
ROG		0.2239	0.0000	0.2239
	Category	Off-Road	Paving	Total

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3.7 Paving - 2017
Mitigated Construction Off-Site

CO2e		0.0000	0.0000	234.1970	234.1970
N2O					
CH4	ay	0.0000	0.0000	0.0203	0.0203
Total CO2	lb/day	0.000.0	0.000.0	233.6899	233.6899
Bio- CO2 NBio- CO2 Total CO2			0.0000	233.6899	233.6899
Bio- CO2		1-8-8-8-8	1 1 1 1 1 1	 	
PM2.5 Total		0.0000	0.0000	0.0633	0.0633
Exhaust PM2.5		0.000.0	0.0000	2.3400e- 003	2.3400e- 003
Fugitive PM2.5			0.0000		0.0610
PM10 Total		0.0000	0.0000	0.2324	0.2324
Exhaust PM10	lb/day	0.0000	0.0000	2.5300e- 003	2.5300e- 003
Fugitive PM10	/qI	0.0000	0.0000	0.2299	0.2299
SO2		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000 0.0000 0.0000	3.2291 0.2437 2.0084 2.3700e- 0.2299 003	2.0084 2.3700e- 003
00		0.0000	0.0000	2.0084	2.0084
XON		0.0000	0.0000	0.2437	0.2291 0.2437
ROG		0.0000	0.0000	0.2291	0.2291
	Category	Hauling	Vendor	Worker	Total

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Bio- CO2 NBio- CO2 Total CO2	CH4	N2O	C02e
Category)/ql	lb/day							lb/day	ay		
Mitigated	3.3509	3.3509 21.7434 48.6571 0.0975 7.2338	48.6571	0.0975	7.2338	0.2144	7.4481	1.9420	0.2144 7.4481 1.9420 0.2034	2.1454		9,813.877 2	9,813.877 9,813.877 0.6002 2 2	0.6002		9,828.881
Unmitigated	3.3509	3.3509 21.7434 48.6571 0.0975 7.2338	48.6571	0.0975	7.2338	0.2144	7.4481	1.9420	0.2144 7.4481 1.9420 0.2034	2.1454		9,813.877	9,813.877 9,813.877 0.6002 2 2	0.6002		9,828.881

4.2 Trip Summary Information

	Aver	Average Daily Trip Rate	ıte	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	572.00	573.00	417.00	3,244,041	3,244,041
Total	572.00	573.00	417.00	3,244,041	3,244,041

4.3 Trip Type Information

	Pass-by	4
Trip Purpose %		ļ.
Trip Pu	Diverted	38
	Primary	58
	H-O or C-NW H-W or C-W H-S or C-C H-O or C-NW	19.00
Trip %	H-S or C-C	61.60
	H-W or C-W	19.40
	H-O or C-NW	24.00
Miles	H-S or C-C	24.00
	H-W or C-W H-S or C-C	24.00
	Land Use	Hotel

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	NBUS	MCY	SBUS	MH
Hotel	0.448795	0.060687	0.206149	0.145887	45887 0.057916	0	0.014626	.009282 0.014626 0.042627 (0.002929	0.002929 0.001905	0.006409	0.006409 0.001553 0.001236	0.001236

5.0 Energy Detail

Historical Energy Use: N

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TREDC Hotel Project - Humboldt County, Summer

5.1 Mitigation Measures Energy

	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	NZO	CO2e
Category					lb/day	lay							lb/day	ау		
NaturalGas Mitigated	0.0107	0.0977	0.0821	0.0107 0.0977 0.0821 5.9000e-		7.4200e- 7.4200e- 003 003	7.4200e- 003		7.4200e- 7.4200e- 003 003	7.4200e- 003		117.2083	117.2083 117.2083 2.2500e- 2.1500e- 117.9049 003 003	2.2500e- 003	2.1500e- 003	117.9049
NaturalGas Unmitigated	0.0107	0.0977	0.0821	0.0107 0.0977 0.0821 5.9000e-		7.4200e- 7.4200e- 003 003	7.4200e- 003		7.4200e- 003	7.4200e- 003		117.2083	117.2083 117.2083 2.2500e- 2.1500e- 117.9049 003 003	2.2500e- 003	2.1500e- 003	117.9049

5.2 Energy by Land Use - NaturalGas

Unmitigated

CO2e		117.9049	117.9049
N20		2.1500e- 003	2.1500e- 117 003
CH4	lay	2.2500e- 003	2.2500e- 003
Total CO2	lb/day	117.2083	117.2083 117.2083 2.2500e-
Bio- CO2 NBio- CO2 Total CO2		117.2083 117.2083 2.2500e- 2.1500e- 117.9049 003	117.2083
Bio- CO2			
PM2.5 Total		7.4200e- 003	7.4200e- 003
Exhaust PM2.5		7.4200e- 7.4200e- 003 003	7.4200e- 003
Fugitive PM2.5			
PM10 Total		7.4200e- 7.4200e- 003 003	7.4200e- 003 003
Exhaust PM10	lb/day	7.4200e- 003	7.4200e- 003
Fugitive PM10			
802		5.9000e- 004	5.9000e- 004
8		0.0821	0.0821
NOX		0.0977	0.0977
ROG		0.0107 0.0977 0.0821 5.9000e-	0.0107
NaturalGa s Use	kBTU/yr	996.271	
	Land Use	Hotel	Total

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5.2 Energy by Land Use - NaturalGas

Mitigated

CO2e		117.9049	117.9049
N20		2.1500e- 003	2.1500e- 11: 003
CH4	ay	2.2500e- 003	2.2500e- 003
Total CO2	lb/day	117.2083	117.2083
Bio- CO2 NBio- CO2 Total CO2		117.2083 117.2083 2.2500e- 2.1500e- 117.9049 003 003	117.2083 117.2083 2.2500e-
Bio- CO2			
PM2.5 Total		7.4200e- 003	7.4200e- 003
Exhaust PM2.5		7.4200e- 7.4200e- 003 003	7.4200e- 7 003
Fugitive PM2.5			
PM10 Total		7.4200e- 003	7.4200e- 003
Exhaust PM10	lb/day	7.4200e- 7.4200e- 003 003	7.4200e- 7.
Fugitive PM10	II		
SO2		0.996271 0.0107 0.0977 0.0821 5.9000e-	5.9000e- 004
00		0.0821	0.0821
XON		0.0977	0.0977
ROG		0.0107	0.0107
NaturalGa s Use	kBTU/yr	0.996271	
	Land Use	Hotel	Total

6.0 Area Detail

6.1 Mitigation Measures Area

CO2e		0.0234	0.0234
N20			! ! ! !
CH4	ay	6.0000e- 005	6.0000e- 005
Total CO2	lb/day	0.0219 6.0000e- 005	0.0219
Bio- CO2 NBio- CO2 Total CO2		0.0219	0.0219 0.0219 6.0000e-
Bio- CO2			
PM2.5 Total		4.0000e- 005	4.0000e- 005
Exhaust PM2.5		4.0000e- 4.0000e- 005 005	4.0000e- 4.0000e- 005 005
Fugitive PM2.5			
PM10 Total		4.0000e- 005	4.0000e- 005
Exhaust PM10	lay	4.0000e- 005	4.0000e- 005
Fugitive PM10	lb/day		
S02		0.000.0	0.000.0
00		0.0104	0.0104
×ON		1.0000e- 004	1.0000e- 004
ROG		0.4845 1.0000e- 0.0104 0.0000 004	0.4845
	Category	Mitigated	Unmitigated

TREDC Hotel Project - Humboldt County, Summer

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6.2 Area by SubCategory

Unmitigated

	ROG	×ON	00	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/day	ay							lb/day	lay		
I	0.1106	l				0.000.0	0.0000			0.0000			0.0000			0.0000
	0.3729	 	 	 	 		0.0000	 		0.000.0		·	İ	 	• • • • • • • • • • • • • • • • • • •	0.0000
Landscaping	9.9000e- 1.0000e- 0.0104 004 004	1.0000e- 004	0.0104	0.000.0	 	4.0000e- 005	4.0000e- 005		4.0000e- 005	4.0000e- 005		0.0219	0.0219	6.0000e- 005		0.0234
Total	0.4845	1.0000e- 0.0104 0.0000 004	0.0104	0.0000		4.0000e- 005	4.0000e- 005		4.0000e- 005	4.0000e- 005		0.0219	0.0219	6.0000e- 005		0.0234

Mitigated

			_		
CO2e		0.0000	0.0000	0.0234	0.0234
N20					
CH4	ay		r 	6.0000e- 005	6.0000e- 005
Total CO2	lb/day	0.000.0	0.0000	0.0219	0.0219
Bio- CO2 NBio- CO2 Total CO2			 	0.0219	0.0219
Bio- CO2					
PM2.5 Total		0.0000	0.000.0	4.0000e- 005	4.0000e- 005
Exhaust PM2.5		0.0000	0.0000	4.0000e- 005	4.0000e- 005
Fugitive PM2.5			r 		
PM10 Total		0.0000	0.0000	4.0000e- 005	4.0000e- 005
Exhaust PM10	day	0.0000		4.0000e- 005	4.0000e- 005
Fugitive PM10	lb/day				
SO2				0.0000	0.0000
00				0.0104	0.0104
×ON				1.0000e- 004	0.4845 1.0000e- 004
ROG		0.1106	0.3729	9.9000e- 1.0000e- 0.0104 004 004	0.4845
	SubCategory	Architectural Coating		Landscaping	Total

7.0 Water Detail

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TREDC Hotel Project - Humboldt County, Summer

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Fuel Type	
Load Factor	
Horse Power	
Days/Year	
Hours/Day	
Number	
Equipment Type	

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Boilers

Fuel Type

Load Factor

Horse Power

Hours/Year

Hours/Day

Number

Equipment Type

Fuel Type
Boiler Rating
Heat Input/Year
Heat Input/Day
Number
Equipment Type

User Defined Equipment

Number	
Equipment Type	

11.0 Vegetation

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TREDC Hotel Project - Humboldt County, Summer

TREDC Hotel Project

Humboldt County, Summer

1.0 Project Characteristics

1.1 Land Usage

Population	0
Floor Surface Area	17,424.00
Lot Acreage	0.40
Metric	Room
Size	100.00
Land Uses	Hotel

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	103
Climate Zone	_			Operational Year	2040
Utility Company	Pacific Gas & Electric Company	mpany			
CO2 Intensity (Ib/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (Ib/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Refer to Project Description

Construction Phase -

Demolition -

Vehicle Trips - Refer to CalEEMod input table

Construction Off-road Equipment Mitigation - Refer to CalEEMod tables

Water Mitigation -

1				
	Table Name	Column Name	Default Value	New Value
	tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15

TREDC Hotel Project - Humboldt County, Summer

tblConstEquipMitigation			
Mitigation	DPF	No Change	Level 3
	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

TREDC Hotel Project - Humboldt County, Summer

	:	:	_	_	_	_		_	_	_	_		
Tier 3	Tier 3	Tier 3	17,424.00	17,424.00	0.40	2040	Rural	24.00	24.00	24.00	5.73	4.17	5.72
No Change	No Change	No Change	145,200.00	145,200.00	3.33	2018	Urban	09.9	09.9	14.70	8.19	5.95	8.17
Tier	Tier	Tier	BuildingSpaceSquareFeet	LandUseSquareFeet	LotAcreage	OperationalYear	UrbanizationLevel	TL_00	CNW_TL	CW_TL	ST_TR	SU_TR	WD_TR
tblConstEquipMitigation	tblConstEquipMitigation	tblConstEquipMitigation	tblLandUse	tblLandUse	tblLandUse	tblProjectCharacteristics	tblProjectCharacteristics	tbIVehicleTrips	tbIVehicleTrips	tbIVehicleTrips	tbIVehicleTrips	tbIVehicleTrips	tbIVehicleTrips

2.0 Emissions Summary

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TREDC Hotel Project - Humboldt County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

CO2e		4,282.297 7	4,282.297 7
NZO		0.0000 4,273.620 4,273.620 0.3702 0.0000 4,282.297	0.0000 4,282.297
CH4	lay	0.3702	0.3702
Total CO2	lb/day	4,273.620 5	4,273.620 5
Bio- CO2 NBio- CO2 Total CO2		4,273.620 5	0.0000 4,273.620 4,273.620 0.3702 5
Bio- CO2		0.000.0	0.0000
PM2.5 Total		2.1671	2.1671
Exhaust PM2.5		0.8815 9.0623 1.3262 0.8410 2.1671	0.8410
Fugitive PM2.5		1.3262	1.3262
PM10 Total		9.0623	9.0623
Exhaust PM10	lb/day	0.8815	0.8815
Fugitive PM10		8.1808	8.1808
S02		0.0416	0.0416
00		11.8194	11.8194
×ON		24.6354	81.1053 24.6354 11.8194 0.0416
ROG		81.1053 24.6354 11.8194 0.0416 8.1808	81.1053
	Year	2017	Maximum

Mitigated Construction

CO2e		282.297 7	282.297 7
NZO		0.0000	0.0000 4,282.297
CH4	٨	0.3702	0.3702
Total CO2	lb/day	4,273.620 5	4,273.620 5
Bio- CO2 NBio- CO2 Total CO2		4,273.620 5	0.0000 4,273.620 4,273.620 5 5
Bio- CO2		0.000.0	0.000.0
PM2.5 Total		0.9088	0.9088
Exhaust PM2.5		0.2035	0.2035
Fugitive PM2.5		0.7053	0.7053
PM10 Total	lb/day	4.2903	4.2903
Exhaust PM10		0.2100	
Fugitive PM10		4.0803	4.0803
802		0.0416	0.0416
00		11.8392	11.8392
×ON		20.1020	80.8324 20.1020 11.8392 0.0416
ROG		80.8324	80.8324
	Year	2017	Maximum

CO2e	0.00
N20	0.00
CH4	0.00
NBio-CO2 Total CO2	0.00
NBio-CO2	0.00
Bio- CO2	0.00
PM2.5 Total	58.06
Exhaust PM2.5	75.81
Fugitive PM2.5	46.82
PM10 Total	52.66
Exhaust PM10	76.18
Fugitive PM10	50.12
S02	0.00
00	-0.17
NOx	18.40
ROG	0.34
	Percent Reduction

TREDC Hotel Project - Humboldt County, Summer

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2.2 Overall Operational Unmitigated Operational

CO2e		0.0233	117.9049	9,398.749 4	9,516.677 5
NZO			2.1500e- 003		2.1500e- 9,516.677 003 5
CH4	lay	6.0000e- 005	2.2500e- 003	0.5076	0.5099
Bio- CO2 NBio- CO2 Total CO2	lb/day	0.0219 6.0000e- 005	117.2083 117.2083	9,386.060 9,386.060 0	9,503.290 9,503.290 2 2 2
NBio- CO2		0.0219	117.2083	9,386.060 0	9,503.290 2
Bio- CO2					
PM2.5 Total		4.0000e- 005	7.4200e- 003	2.0803	2.0878
Exhaust PM2.5		7	7.4200e- 003	0.1632	0.1707
Fugitive PM2.5				1.9171	1.9171
PM10 Total		4.0000e- 005	7.4200e- 003	7.3483	7.3558
Exhaust PM10	lb/day	4.0000e- 005		0.1723	0.1797
Fugitive PM10)/qI			7.1760	7.1760
S02		0.000.0	5.9000e- 004	0.0932	0.0938
00		0.0101	0.0821 5.9000e- 004	17.5289 41.8999 0.0932	41.9921
×ON		0.4844 9.0000e- 0.0101 0.0000 005			3.2145 17.6267 41.9921 0.0938
ROG		0.4844	0.0107	2.7193	3.2145
	Category	Area	Energy	Mobile	Total

Mitigated Operational

C02e		0.0233	117.9049	9,398.749 4	9,516.677 5
NZO			2.1500e- 003	60 	2.1500e- 9 003
CH4	ıy	6.0000e- 005	2.2500e- 003	0.5076	0.5099
Total CO2	lb/day	0.0219	117.2083		
Bio- CO2 NBio- CO2 Total CO2			117.2083 117.2083	9,386.060 9,386.060 0	9,503.290 9,503.290 2 2
Bio- CO2					
PM2.5 Total		4.0000e- 005	7.4200e- 003	2.0803	2.0878
Exhaust PM2.5		4.0000e- 005	7.4200e- 003	0.1632	0.1707
Fugitive PM2.5				1.9171	1.9171
PM10 Total		4.0000e- 005	7.4200e- 003	7.3483	7.3558
Exhaust PM10	lb/day	4.0000e- 005	7.4200e- 003	0.1723	0.1797
Fugitive PM10)/qI			7.1760	7.1760
S02		0.0000	5.9000e- 004	0.0932	0.0938
00		0.0101	0.0821	17.5289 41.8999	17.6267 41.9921
×ON		0.4844 9.0000e- 0.0101 0.0000 005	0.0977	17.5289	
ROG		0.4844	0.0107	2.7193	3.2145
	Category	Area	Energy	Mobile	Total

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TREDC Hotel Project - Humboldt County, Summer

CO2e	00:0
N20	00:0
CH4	0.00
Total CO2	0.00
Bio- CO2 NBio-CO2 Total CO2	00:00
Bio- CO2	0.00
PM2.5 Total	0.00
Exhaust PM2.5	0.00
Fugitive PM2.5	0.00
PM10 Total	0.00
Exhaust PM10	0.00
Fugitive PM10	0.00
802	0.00
00	0.00
NOx	0.00
ROG	0.00
	Percent Reduction

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Num Days Week	Num Days	Phase Description
_	Demolition	Demolition		6/14/2017	5	10	
2	oaration	paration		6/15/2017	5		
8				6/19/2017	5	2	
4	Building Construction	Building Construction	 	11/6/2017	5	100	
2	Paving			11/13/2017	5	5	
9	Architectural Coating	Architectural Coating	11/14/2017	11/20/2017	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 26,136; Non-Residential Outdoor: 8,712; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

TREDC Hotel Project - Humboldt County, Summer

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws		8.00	81	0.73
Demolition	Rubber Tired Dozers		1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	0.00	26	0.37
Site Preparation	Graders		8.00	187	0.41
ation	Tractors/Loaders/Backhoes		8.00	26	0.37
	Concrete/Industrial Saws		8.00	81	0.73
	Rubber Tired Dozers		1.00	247	0.40
	Tractors/Loaders/Backhoes	2	0.00	26	0.37
Building Construction	Cranes		4.00	231	0.29
Building Construction	Forklifts	2	0.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	26	0.37
Architectural Coating	Air Compressors		0.00	78	0.48
	Cement and Mortar Mixers	1	0.00	6	0.56
	Pavers		7.00	130	0.42
	Rollers		7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Worker Trip Vendor Trip Count Number Number	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	00.00	34	16.80	09:9				HHDT
Site Preparation	2	5.00	00.0	00.0	16.80	09.9			HDT_Mix	HHDT
Grading	4	10.00	00.0	0.00	16.80	9.90		! ! !		HHDT
Building Construction	1	7.00	3.00	0.00	16.80	9.90	! ! !	20.00 LD_Mix		HHDT
Architectural Coating		1.00		.) ! ! !		09.9		Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	16.80	09.9		_Mix	HDT_Mix	HHDT

TREDC Hotel Project - Humboldt County, Summer

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2017

CO2e		0.0000	1,185.104 7	1,185.104 7
N20				
CH4	ay.		0.2319	0.2319
Total CO2	lb/day	0.000.0	1,179.307 5	1,179.307
Bio- CO2 NBio- CO2 Total CO2			1,179.307 1,179.307 0.2319 5 5	1,179.307 1,179.307 5 5
Bio- CO2				
PM2.5 Total		1.1288	0.6978	1.8266
Exhaust PM2.5		0.000.0	0.6978	0.6978
Fugitive PM2.5		0.0000 7.4554 1.1288 0.0000		1.1288
PM10 Total		7.4554	0.7318	8.1872
Exhaust PM10	lay	0.0000	0.7318	0.7318
Fugitive PM10	lb/day	7.4554	 	7.4554
SO2			0.0120	0.0120
00			7.9182	7.9182
XON			1.2100 10.4978 7.9182 0.0120	1.2100 10.4978 7.9182
ROG			1.2100	1.2100
	Category	Fugitive Dust	Off-Road	Total

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3.2 Demolition - 2017
Unmitigated Construction Off-Site

0		83	. 0	95	92				
CO2e		2,967.083 5	0.0000	130.1095	3,097.192 9				
N20									
CH4	lay	0.1039	0.0000	0.0113	0.1152				
Total CO2	lb/day	2,964.485 2,964.485 0.1039 3	0.000.0	129.8277 129.8277	3,094.313 3,094.313 0 0				
Bio- CO2 NBio- CO2 Total CO2		2,964.485 3	0.0000	129.8277	3,094.313 0				
Bio- CO2		1-8-8-8-8	 						
PM2.5 Total		0.3054	0.0000	0.0352	0.3406				
Exhaust PM2.5		0.1419	0.0000	1.3000e- 003	0.1432				
Fugitive PM2.5							0.0000	0.0339	0.1974
PM10 Total		0.7460 0.1635	0.000.0	0.1291	0.8751				
Exhaust PM10	lb/day	0.1483	0.0000	1.4000e- 003	0.1497				
Fugitive PM10)/q	0.5977	0.0000	0.1277	0.7254				
S02		0.0283	0.0000	1.3100e- 003	0.0296				
00		2.7854	0.000.0	1.1158	3.9011				
XON		14.0022	0.0000 0.0000 0.0000 0.0000	0.1273 0.1354 1.1158 1.3100e- 0.1277 003	0.6623 14.1376 3.9011 0.0296				
ROG		0.5350 14.0022 2.7854 0.0283 0.5977	0.0000	0.1273	0.6623				
	Category	Hauling	Vendor	Worker	Total				

		_	' -		
CO2e		0.0000	1,185.104 7	1,185.104 7	
N20					
CH4	ay		0.2319	0.2319	
Total CO2	lb/day	0.000.0	1,179.307 5	1,179.307	
Bio- CO2 NBio- CO2 Total CO2			0.0000 1,179.307 1,179.307 0.2319	0.0000 1,179.307 1,179.307 5 5	
Bio- CO2			0.0000	0.0000	
PM2.5 Total		0.5080	0.0603	0.5682	
Exhaust PM2.5		0.0000 3.3549 0.5080 0.0000 0.5080	0.0603	0.0603	
Fugitive PM2.5		0.5080		0.5080	
PM10 Total			3.3549	0.0603	3.4152
Exhaust PM10	b/day	0.0000	0.0603	0.0603	
Fugitive PM10)/qI	(1)		3.3549	
805			0.0120	0.0120	
00			7.9381	7.9381	
XON			0.2652 5.9644 7.9381	5.9644	
ROG			0.2652	0.2652	
	Category	Fugitive Dust	Off-Road	Total	

TREDC Hotel Project - Humboldt County, Summer

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3.2 Demolition - 2017

Mitigated Construction Off-Site

ROG	(D	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Bio- CO2 NBio- CO2 Total CO2	CH4	NZO	CO2e
	1				lb/day	lay							lb/day	ay		
0.535	0	0.5350 14.0022 2.7854 0.0283 0.5977	2.7854	0.0283		0.1483	0.7460	0.1483 0.7460 0.1635 0.1419	0.1419	0.3054		2,964.485 3	2,964.485 2,964.485 0.1039 3 3	0.1039		2,967.083 5
0.000		0.0000 0.0000 0.0000 0.0000	0.0000	0.000.0	; I	0.0000	0.0000	0.0000 0.0000		0.0000		000	0.0000	0.000.0		0.0000
0.1273		0.1354	1.1158	8 1.3100e- (003	0.1277	1.4000e- 003	0.1291	0.0339	1.3000e- 003	0.0352		129.8277	129.8277	0.0113		130.1095
99.0	23	0.6623 14.1376 3.9011	3.9011	0.0296	0.7254	0.1497	0.8751	0.1974	0.1432	0.3406		3,094.313 0	3,094.313 3,094.313 0 0	0.1152		3,097.192 9

3.3 Site Preparation - 2017

CO2e		0.0000	1,007.176 4	1,007.176 4			
N20							
CH4	ay		0.3063	0.3063			
Total CO2	lb/day	0.000.0	999.5201	999.5201			
Bio- CO2 NBio- CO2 Total CO2			999.5201 999.5201 0.3063	999.5201			
Bio- CO2							
PM2.5 Total		0.0573	0.4347	0.4920			
Exhaust PM2.5			0.4347	0.4347			
Fugitive PM2.5	Jay	0.0000 0.5303 0.0573 0.0000		0.0573			
PM10 Total		lay	0.5303	0.4726	1.0028		
Exhaust PM10			day	day	day	lb/day	0.0000
Fugitive PM10)/qI	0.5303		0.5303			
S02			9.7700e- 003	9.7700e- 003			
00			4.3533	4.3533			
×ON			10.5148	0.8524 10.5148 4.3533 9.7700e-			
ROG			0.8524 10.5148 4.3533 9.7700e-	0.8524			
	Category	پہ	Off-Road	Total			

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TREDC Hotel Project - Humboldt County, Summer

3.3 Site Preparation - 2017 Unmitigated Construction Off-Site

CO2e		0.0000	0.0000	65.0547	65.0547
N20					
CH4	эу	0.0000	0.000	5.6400e- 003	5.6400e- 003
Total CO2	lb/day	0.0000	0.0000	64.9139	64.9139
Bio- CO2 NBio- CO2 Total CO2		0.0000	0.0000	64.9139	64.9139
Bio- CO2			 		
PM2.5 Total		0000.0	1 0000:0	0.0176	0.0176
Exhaust PM2.5			0.0000	6.5000e- 004	6.5000e- 004
Fugitive PM2.5		0.0000 0.0000 0.0000 0.0000	0.0000	0.0169	0.0169
PM10 Total		0.000.0	0.000.0	0.0646	0.0646
Exhaust PM10	lay	0.0000	0.0000	7.0000e- 004	7.0000e- 004
Fugitive PM10	lb/day	0.0000	0.0000	0.0639	0.0639
SO2		0.0000	0.0000	6.6000e- 004	6.6000e- 004
00		0.0000	0.0000	0.5579	0.5579
NOx		0.0000	0.0000 0.0000 0.0000 0.0000	0.0637 0.0677 0.5579 6.6000e- 0.0639 004	0.0677
ROG		0.0000 0.0000 0.0000 0.0000	0.000	0.0637	0.0637
	Category	Hauling	Vendor	Worker	Total

CO2e		0.0000	1,007.176 4	1,007.176 4
N20				
CH4	ay		0.3063	0.3063
Total CO2	lb/day	0.000.0	999.5201	999.5201
Bio- CO2 NBio- CO2 Total CO2			0.0000 999.5201 999.5201	999.5201
Bio- CO2			0.0000	0.0000
PM2.5 Total		0.0258	0.0361	0.0618
Exhaust PM2.5			0.0361	0.0361
Fugitive PM2.5		0.0000 0.2386 0.0258 0.0000		0.0258
PM10 Total		0.2386	0.0361	0.2747
Exhaust PM10	b/day	0.0000	0.0361	0.0361
Fugitive PM10)/q	0		0.2386
SO2			9 9.7700e- 003	5.8579 9.7700e- 0.2386 003
00			5.8579	5.8579
XON			0.2382 4.8716	0.2382 4.8716
ROG			0.2382	0.2382
	Category	Fugitive Dust	Off-Road	Total

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3.3 Site Preparation - 2017
Mitigated Construction Off-Site

CO2e		0.0000	0.0000	65.0547	65.0547
N20					
CH4	tay	0.0000	0.0000	5.6400e- 003	5.6400e- 003
Bio- CO2 NBio- CO2 Total CO2	lb/day	0.0000 0.0000 0.0000	0.0000 0.0000	64.9139 5.6400e- 003	64.9139
NBio- CO2		0.0000	0.0000	64.9139	64.9139
Bio- CO2					
PM2.5 Total		0.0000	0.000.0	0.0176	0.0176
Exhaust PM2.5			,	6.5000e- 004	6.5000e- 004
Fugitive PM2.5		0.0000	0.000 0.0000	0.0169	0.0169
PM10 Total		0.0000	0.0000	0.0646	0.0646
Exhaust PM10	lb/day		0.0000	7.0000e- 004	7.0000e- 004
Fugitive PM10)/qI	0.0000	0.0000		0.0639
802		0.0000	0.0000	6.6000e- 004	6.6000e- 004
00		0.000.0	0.000.0	0.0677 0.5579 6.6000e- 0.0639 004	0.0637 0.0677 0.5579 6.6000e-
×ON		0.000.0	0.000.0	0.0677	0.0677
ROG		0.0000	0.0000 0.0000 0.0000 0.0000	0.0637	0.0637
	Category	l	Vendor	Worker	Total

3.4 Grading - 2017

CO2e		0.0000	1,185.104 7	1,185.104 7
		0.0	1,18	1,18
N20				
CH4	ay		0.2319	0.2319
Total CO2	lb/day	0.000.0	1,179.307 5	1,179.307 5
Bio- CO2 NBio- CO2 Total CO2			1,179.307 1,179.307 0.2319 5	1,179.307 1,179.307 5
Bio- CO2				
PM2.5 Total		0.4138	0.6978	1.1115
Exhaust PM2.5		0.0000 0.7528 0.4138 0.0000 0.4138	0.6978	0.6978
Fugitive PM2.5		0.4138		0.4138
PM10 Total		0.7528	0.7318	1.4845
Exhaust PM10	b/day	0.0000	0.7318	0.7318
Fugitive PM10)/q			0.7528
805			0.0120	0.0120
00			7.9182	7.9182
XON			10.4978	1.2100 10.4978 7.9182 0.0120 0.7528
ROG			1.2100 10.4978 7.9182	1.2100
	Category		Off-Road	Total

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3.4 Grading - 2017 Unmitigated Construction Off-Site

	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	C02e
Category					lb/day	lay							lb/day	ау		
Hauling	0.0000	0.0000 0.0000 0.0000 0.0000	0.000.0	0.0000	l	0.0000	0.0000	0.0000 0.0000 0.0000		0.0000		0.0000	0.0000 0.0000 0.00000	0.000.0		0.0000
• • • • • •	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	i _	0.0000	0.0000	:	0.0000	0.0000	 		0.0000	0.000.0	• • • • • • • • • • • • • • • • • • •	0.0000
Worker	0.1273	0.1273 0.1354 1.1158 1.3100e- 0.1277 003	1.1158	1.3100e- 003	i.	1.4000e- 003	0.1291	0.0339	1.3000e- 003	0.0352		129.8277	129.8277 129.8277	0.0113		130.1095
Total	0.1273	0.1273 0.1354 1.1158 1.3100e-	1.1158	1.3100e- 003	0.1277	1.4000e- 003	0.1291	0.0339	1.3000e- 003	0.0352		129.8277	129.8277 129.8277	0.0113		130.1095

CO2e		0.0000	1,185.104 7	1,185.104 7
N20 0			1,1	1,1
			6	6
CH4	lb/day		0.231	0.2319
Total CO2)/q	0.0000	1,179.307 5	1,179.307 5
NBio- CO2 Total CO2			0.0000 1,179.307 1,179.307 0.2319	0.0000 1,179.307 1,179.307 5 5 5
Bio- CO2			0.0000	0.0000
PM2.5 Total		0.1862	0.0603	0.2465
Exhaust PM2.5			0.0603	0.0603
Fugitive PM2.5		0.1862		0.1862
PM10 Total		0.3387	0.0603	0.3990
Exhaust PM10	day	0.0000	0.0603	0.0603
Fugitive PM10	lb/day	0.3387		0.3387
SO2			0.0120	0.2652 5.9644 7.9381 0.0120 0.3387
00			7.9381	7.9381
NOx			5.9644	5.9644
ROG			0.2652 5.9644 7.9381 0.0120	0.2652
	Category	ļ	Off-Road	Total

TREDC Hotel Project - Humboldt County, Summer

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3.4 Grading - 2017
Mitigated Construction Off-Site

CO2e		0.0000	0.0000	130.1095	130.1095
N20					
CH4	ау	0.0000	0.0000	0.0113	0.0113
Total CO2	lb/day	0.000.0	0.0000	129.8277	129.8277 129.8277
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000	0.0000	129.8277 129.8277	129.8277
Bio- CO2					
PM2.5 Total		0.0000	0000:0	0.0352	0.0352
Exhaust PM2.5		0.000.0	0.000.0	1.3000e- 003	1.3000e- 003
Fugitive PM2.5		0.0000 0.0000 0.0000	0.0000 0.0000	0.0339	0.0339
PM10 Total		0.000.0	0.000.0	0.1291	0.1291
Exhaust PM10	day	0.0000	0.0000	1.4000e- 003	1.4000e- 003
Fugitive PM10	lb/day	0.0000	0.0000	0.1277	0.1277
SO2		0.0000	0.0000	1.1158 1.3100e- 003	1.3100e- 003
00		0.000.0	0.000.0	1.1158	1.1158
×ON		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000 0.0000 0.0000	0.1354	0.1273 0.1354 1.1158 1.3100e-
ROG		0.0000	0.0000	0.1273	0.1273
	Category	Hauling	Vendor	Worker	Total

3.5 Building Construction - 2017

CO2e		1,174.847 3	1,174.847 3
N20			
CH4	ay	0.3572	0.3572
Total CO2	lb/day	1,165.916 4	1,165.916 1,165.916 0.3572 4 4
Bio- CO2 NBio- CO2 Total CO2		1,165.916 1,165.916 0.3572 4 4	1,165.916 4
Bio- CO2			
PM2.5 Total		0.7904	0.7904
Exhaust PM2.5		0.7904	0.7904
Fugitive PM2.5			
PM10 Total		0.8591	0.8591
Exhaust PM10	b/day	0.8591	0.8591
Fugitive PM10	o/qı		
S02		0.0114	0.0114
00		8.0700	8.0700 0.0114
XON		12.7589	1.2812 12.7589
ROG		1.2812 12.7589 8.0700 0.0114	1.2812
	Category	Off-Road	Total

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3.5 Building Construction - 2017 Unmitigated Construction Off-Site

CO2e		0.0000	82.1023	91.0766	173.1789
Ö		0.0	82.	91.	173
N20					
CH4	ay	0.0000	5.1100e- 003	7.8900e- 003	0.0130
Total CO2	lb/day	0.000.0	81.9745	90.8794	172.8539
Bio- CO2 NBio- CO2 Total CO2		0.0000	<u> </u>	90.8794	172.8539
Bio- CO2			 		
PM2.5 Total		0.0000	0.0108	0.0246	0.0354
Exhaust PM2.5		0000	5.5000e- 003	9.1000e- 004	6.4100e- C
Fugitive PM2.5		0.0000	5.2700e- 5. 003	0.0237	0.0290
PM10 Total		0.0000	0.0241	0.0904	0.1145
Exhaust PM10	lb/day	0.0000	5.7400e- 003	9.8000e- 004	6.7200e- 003
Fugitive PM10	o/qı	0.0000	0.0183	0.0894	0.1077
S02		0.000.0	0.1585 7.9000e- 0.0183 004	0.7811 9.2000e- 0.0894 004	0.9396 1.7100e- 0.1077 003
00		0.000.0	0.1585	0.7811	0.9396
×ON		0.0000	0.0261 0.4675	0.0891 0.0948	0.5622
ROG		0.0000 0.0000 0.0000 0.0000	0.0261	0.0891	0.1152
	Category	Hauling	Vendor	Worker	Total

CO2e		1,174.847 3	1,174.847 3
N20			
CH4	ay	0.3572	0.3572
Total CO2	lb/day	1,165.916 4	1,165.916 4
Bio- CO2 NBio- CO2 Total CO2		0.0000 1,165.916 1,165.916 0.3572	0.0000 1,165.916 1,165.916 0.3572
Bio- CO2		0.0000	0.0000
PM2.5 Total		0.0578	0.0578
Exhaust PM2.5		0.0578	0.0578
Fugitive PM2.5			
PM10 Total		0.0578	0.0578
Exhaust PM10	day	0.0578	0.0578
Fugitive PM10	lb/day		
S02		0.0114	0.0114
00		7.9624	7.9624
XON		6.1296	0.2793 6.1296
ROG		0.2793 6.1296 7.9624 0.0114	0.2793
	Category	Off-Road	Total

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3.5 Building Construction - 2017
Mitigated Construction Off-Site

)2 CH4 N2O CO2e	lb/day	0.0000	5 5.1100e- 003	1 7.8900e- 003	9 0.0130 173.1789
Bio- CO2 NBio- CO2 Total CO2	ı	0.0000 0.0000 0.0000	81.9745 81.9745 5.1100e-	90.8794 90.8794	172.8539 172.8539
Exhaust PM2.5 PM2.5 Total		0000 0000	5.5000e- 0.0108 003	9.1000e- 0.0246 004	6.4100e- 0.0354 003
Fugitive Exh		0.0000 0.0000 0.0000	0.0241 5.2700e- 5.50 003 003	0.0237 9.10	0.0290
st PM10		0.0000	e- 0.0241	e- 0.0904	e- 0.1145
tive Exhaust 10 PM10	lb/day		183 5.7400e- 003	394 9.8000e- 004	077 6.7200e- 003
SO2 Fugitive PM10		0.0000 0.0000 0.0000 0.0000	7.9000e- 0.0183 004	9.2000e- 0.0894 004	0.1152 0.5622 0.9396 1.7100e- 0.107
8		0.0000	0.0261 0.4675 0.1585 7.9000e-	0.7811 9.2000e- 004	0.9396
XON		0.0000	0.4675	0.0948	0.5622
ROG		0.0000	0.0261	0.0891	0.1152
	Category	Hauling	Vendor	Worker	Total

3.6 Paving - 2017

		51		22
CO2e		1,092.651 5	0.0000	1,092.651 5
N20				
CH4	ay	0.3018		0.3018
Total CO2	lb/day	1,085.107	0.0000	1,085.107 1,085.107
Bio- CO2 NBio- CO2 Total CO2		1,085.107 1,085.107 0.3018	0.000	1,085.107 1
Bio- CO2				
PM2.5 Total		0.5636	0.0000	0.5636
Exhaust PM2.5		0.5636	0.0000	0.5636
Fugitive PM2.5				
PM10 Total			0.0000	0.6087
Exhaust PM10	b/day	0.6087	0.0000	0.6087
Fugitive PM10	/qı			
805		0.0113		0.0113
00		7.3425		9.9754 7.3425 0.0113
XON		1.0532 9.9754 7.3425 0.0113		9.9754
ROG		1.0532	0.0000	1.0532
	Category	Off-Road	Paving	Total

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3.6 Paving - 2017 Unmitigated Construction Off-Site

	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
Category					lb/day	lay							lb/day	lay		
Hauling	0.0000	0.0000 0.0000 0.0000 0.0000	0.000.0	0.000.0	0.0000	0.0000	0.000.0	0.000.0	0.0000	0.000		0.0000	0.000.0	0.000.0		0.0000
Vendor	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.000.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	 	0.0000
Worker	0.2291	0.2291 0.2437 2.0084 2.3700e- 0.2299 003	2.0084	2.3700e- 003	0.2299	2.5300e- 003	0.2324	0.0610	2.3400e- 003	0.0633		233.6899 233.6899		0.0203		234.1970
Total	0.2291	0.2437 2.0084 2.3700e-	2.0084	2.3700e- 003	0.2299	2.5300e- 003	0.2324	0.0610	2.3400e- 003	0.0633		233.6899	233.6899 233.6899	0.0203		234.1970

N2O CO2e	lb/day	1,092.651 5	0.0000	1,092.651 5
CH4 N2		0.3018		0.3018
Bio- CO2 NBio- CO2 Total CO2		0.0000 1,085.107 1,085.107 0.3018	0.0000	0.0000 1,085.107 1,085.107
NBio- CO2		1,085.107		1,085.107
Bio- CO2		0.0000	: : : : :	0.0000
PM2.5 Total	lb/day	0.0436	0.0000	0.0436
Exhaust PM2.5			0.0000	0.0436
Fugitive PM2.5				
PM10 Total		0.0436 0.0436	0.0000	0.0436
Exhaust PM10		0.0436	0.0000	0.0436
Fugitive PM10				
SO2		0.0113		0.0113
00		6.9028		6.9028
XON		4	!	4.7579
ROG		0.2239	0.0000	0.2239
	Category	Off-Road	Paving	Total

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3.6 Paving - 2017
Mitigated Construction Off-Site

	ROG	NOX	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
Category					lb/day	day							lb/day	ay		
	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000 0.0000 0.0000		0.0000		0.0000	0.0000 0.0000 0.0000	0.0000		0.0000
:	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	İ	0.0000	0.000.0		0.0000	0.000		0.0000	0.0000	0.0000		0.0000
Worker	0.2291	0.2437 2.0084 2.3700e- 0.2299 003	2.0084	2.3700e- 003	i 1	2.5300e- 003	0.2324	0.0610	2.3400e- 003	0.0633		233.6899 233.6	233.6899 233.6899	0.0203		234.1970
Total	0.2291	0.2291 0.2437 2.0084 2.3700e- 003	2.0084	2.3700e- 003	0.2299	2.5300e- 003	0.2324	0.0610	2.3400e- 003	0.0633		233.6899	233.6899	0.0203		234.1970

3.7 Architectural Coating - 2017 Unmitigated Construction On-Site

CO2e		0.0000	282.1909	282.1909
N20				
CH4	ay		0.0297	0.0297
Total CO2	lb/day	0.000.0	281.4481 281.4481	281.4481 281.4481
Bio- CO2 NBio- CO2 Total CO2			281.4481	281.4481
Bio- CO2				
PM2.5 Total		0.0000	0.1733	0.1733
Exhaust PM2.5			0.1733	0.1733
Fugitive PM2.5				
PM10 Total		0.000.0	0.1733	0.1733
Exhaust PM10	lb/day	0.0000	0.1733	0.1733
Fugitive PM10	o/qı			
SO2			2.9700e- 003	2.9700e- 003
00			1.8681	1.8681
XON			2.1850 1.8681	81.0926 2.1850
ROG			0.3323	81.0926
	Category	Archit. Coating 80.7602	Off-Road	Total

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3.7 Architectural Coating - 2017 Unmitigated Construction Off-Site

			:		
CO2e		0.0000	0.0000	13.0110	13.0110
N2O				_	
CH4	lay	0.0000	0.0000	1.1300e- 003	1.1300e- 003
Total CO2	lb/day	0.000.0	0.000.0	12.9828	12.9828
Bio- CO2 NBio- CO2 Total CO2		0.0000	0.0000	12.9828	12.9828
Bio- CO2					
PM2.5 Total		0.0000	0.0000	3.5200e- 003	3.5200e- 003
Exhaust PM2.5		0.0000		1.3000e- 004	1.3000e- 004
Fugitive PM2.5		0.0000	0.0000	3.3900e- 1.3000e- 003 004	3.3900e- 003
PM10 Total		0.000.0	0.0000	0.0129	0.0129
Exhaust PM10	lb/day	0.0000	0.0000	1.4000e- 004	1.4000e- 004
Fugitive PM10)/q	0.0000			0.0128
S02		0.0000	0.0000	1.3000e- 004	1.3000e- 004
00		0.0000	0.0000	0.1116	0.1116
XON		00000 00000 00000 00000 00000	0.0000 0.0000 0.0000 0.0000	0.0127 0.0135 0.1116 1.3000e- 0.0128 004	0.0127 0.0135 0.1116 1.3000e- 0.0128
ROG		0.0000	0.0000	0.0127	0.0127
	Category	Hauling	Vendor	Worker	Total

			. n	0
CO2e		0.0000	282.1909	282.1909
N20				
CH4	ay		0.0297	0.0297
Total CO2	lb/day	0.000.0	281.4481	281.4481
Bio- CO2 NBio- CO2 Total CO2			0.0000 281.4481 281.4481	0.0000 281.4481 281.4481
Bio- CO2			0.0000	0.0000
PM2.5 Total		0.0000	0.0143	0.0143
Exhaust PM2.5		0.0000 0.0000	0.0143	0.0143
Fugitive PM2.5				
PM10 Total		0.000.0	0.0143	0.0143
Exhaust PM10	b/day	0.0000 0.0000	0.0143	0.0143
Fugitive PM10)/q			
805			2.9700e- 003	2.9700e- 003
00			1.8324	80.8197 1.3570 1.8324 2.9700e- 003
XON			1.3570	1.3570
ROG		80.7602	0.0594 1.3570 1.8324 2.9700e- 003	80.8197
	Category	ō	Off-Road	Total

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3.7 Architectural Coating - 2017
Mitigated Construction Off-Site

CO2e		0.0000	0.0000	13.0110	13.0110
N20					
CH4	ay	0.000.0	0.0000	1.1300e- 003	1.1300e- 003
Total CO2	lb/day	0.0000 0.00000 0.00000	0.000.0	12.9828 1.1300e- 003	12.9828
Bio- CO2 NBio- CO2 Total CO2		0.0000	0.0000	12.9828	12.9828
Bio- CO2			 		
PM2.5 Total		0.0000	0000.0	3.5200e- 003	3.5200e- 003
Exhaust PM2.5			0.000.0	1.3000e- 004	1.3000e- 004
Fugitive PM2.5		0.0000 0.0000 0.0000	0.0000	3.3900e- 003	3.3900e- 003
PM10 Total		0.0000	0.0000	0.0129	0.0129
Exhaust PM10	day	0.0000	0.0000	3 1.4000e- 004	1.4000e- 004
Fugitive PM10	lb/day	0.0000	0.0000	0.0128	0.0128
SO2		0.0000	0.0000	1.3000e- 004	0.1116 1.3000e- 004
00		0.0000	0.0000	0.1116	0.1116
NOx		0.0000	0.0000 0.0000 0.0000 0.0000	0.0135	0.0135
ROG		0.0000 0.0000 0.0000 0.0000	0.0000	0.0127 0.0135 0.1116 1.3000e- 0.0128 004	0.0127
	Category	Hauling		Worker	Total

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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		6	0
CO2e		9,398.749 4	9,398.749 4
N20			
CH4	яу	0.5076	0.5076
Total CO2	lb/day	090.386.6	9,386.060
Bio- CO2 NBio- CO2 Total CO2		9,386.060 9,386.060 0.5076 0 0	9,386.060 9,386.060 0.5076 0 0
Bio- CO2			L
PM2.5 Total		2.0803	2.0803
Exhaust PM2.5		0.1723 7.3483 1.9171 0.1632 2.0803	0.1632
Fugitive PM2.5		1.9171	7.3483 1.9171 0.1632
PM10 Total		7.3483	7.3483
Exhaust PM10	day	0.1723	0.1723
Fugitive PM10	lb/day	7.1760	7.1760
SO2		0.0932	0.0932
00		41.8999	41.8999
NOX		2.7193 17.5289 41.8999 0.0932 7.1760	17.5289
ROG		2.7193	2.7193 17.5289 41.8999 0.0932 7.1760
	Category	Mitigated	Unmitigated

4.2 Trip Summary Information

	Aver	Average Daily Trip Rate	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	572.00	573.00	417.00	3,244,041	3,244,041
Total	572.00	573.00	417.00	3,244,041	3,244,041

4.3 Trip Type Information

	Pass-by	4
Trip Purpose %		ļ.
Trip Pu	Diverted	38
	Primary	58
	H-O or C-NW H-W or C-W H-S or C-C H-O or C-NW	19.00
Trip %	H-S or C-C	61.60
	H-W or C-W	19.40
	H-O or C-NW	24.00
Miles	H-S or C-C	24.00
	H-W or C-W H-S or C-C	24.00
	Land Use	Hotel

4.4 Fleet Mix

					MCY	SBUS	MH
Hotel 0.555197 0.027252 0.217244 0.114264 0.010253 0.002787 0.012651 0.0	0	12651 0.049427 0.	004514	0.000798	0.003917	0.001338 0	0.000357

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Bio- CO2 NBio- CO2 Total CO2	CH4	NZO	CO2e
Category					lb/day	day							lb/day	ay		
NaturalGas Mitigated	0.0107	0.0977	0.0821	0.0107 0.0977 0.0821 5.9000e-		7.4200e- 7.4200e- 003 003	7.4200e- 003		7.4200e- 7.4200e- 003 003	7.4200e- 003		117.2083	117.2083 117.2083 2.2500e- 2.1500e- 117.9049 003 003	2.2500e- 003	2.1500e- 003	117.9049
NaturalGas Unmitigated	0.0107	0.0977	0.0821	0.0107 0.0977 0.0821 5.9000e-		7.4200e- 7.4200e- 003 003	7.4200e- 003		7.4200e- 7.4 003	7.4200e- 003		117.2083	117.2083 117.2083 2.2500e- 2.1500e- 117.9049 003 003	2.2500e- 003	2.1500e- 003	117.9049

5.2 Energy by Land Use - NaturalGas

Unmitigated

		စ္	6
CO2e		117.904	117.9049
N20		117.2083 117.2083 2.2500e- 2.1500e- 117.9049 003 003	117.2083 117.2083 2.2500e- 2.1500e- 003
CH4	lay	2.2500e- 003	2.2500e- 003
Total CO2	lb/day	117.2083	117.2083
Bio- CO2 NBio- CO2 Total CO2		117.2083	117.2083
Bio- CO2		1-8-8-8-8	
PM2.5 Total		7.4200e- 003	7.4200e- 003
Exhaust PM2.5		7.4200e- 7.4200e- 003 003	7.4200e- 7.
Fugitive PM2.5			
PM10 Total		7.4200e- 7.4200e- 003 003	7.4200e- 003 003
Exhaust PM10	lb/day	7.4200e- 003	7.4200e- 003
Fugitive PM10			
S02		5.9000e- 004	5.9000e- 004
00		0.0821	0.0821
NOx		0.0977	0.0977
ROG		996.271 0.0107 0.0977 0.0821 5.9000e-	0.0107
NaturalGa s Use	kBTU/yr	996.271	
	Land Use	Hotel	Total

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5.2 Energy by Land Use - NaturalGas

Mitigated

CO2e		117.9049	117.9049
N20		2.1500e- 003	2.1500e- 11 003
CH4	ay	2.2500e- 003	2.2500e- 003
Total CO2	lb/day	117.2083	117.2083
Bio-CO2 NBio-CO2 Total CO2		117.2083 117.2083 2.2500e- 2.1500e- 117.9049 003 003	117.2083 117.2083 2.2500e- 3
Bio- CO2			
PM2.5 Total		7.4200e- 003	7.4200e- 003
Exhaust PM2.5		7.4200e- 7.4200e- 003 003	7.4200e- 003
Fugitive PM2.5			
PM10 Total		7.4200e- 003	7.4200e- 003
Exhaust PM10	lb/day	7.4200e- 7.4200e- 003 003	7.4200e- 003
Fugitive PM10			
SO2		5.9000e- 004	5.9000e- 004
00		0.0821	0.0821 5.9000e-
NOx		0.0977	0.0977
ROG		0.996271 0.0107 0.0977 0.0821 5.9000e-	0.0107
NaturalGa s Use	kBTU/yr	0.996271	
	Land Use	Hotel	Total

6.0 Area Detail

6.1 Mitigation Measures Area

CO2e		0.0233	0.0233
N20			
CH4	ay	6.0000e- 005	6.0000e- 005
Total CO2	lb/day	0.0219	0.0219
Bio- CO2 NBio- CO2 Total CO2		0.0219 0.0219 6.0000e-	0.0219 0.0219 6.0000e-
Bio- CO2			
PM2.5 Total		4.0000e- 005	4.0000e- 005
Exhaust PM2.5		4.0000e- 4.0000e- 005 005	4.0000e- 4.
Fugitive PM2.5			
PM10 Total		4.0000e- 005	4.0000e- 005
Exhaust PM10	lay	4.0000e- 005	4.0000e- 4.0000e- 005 005
Fugitive PM10	lb/day		
S02		0.0000	0.000.0
00		0.0101	0.0101
×ON		9.0000e- 005	9.0000e- 005
ROG		0.4844	0.4844 9.0000e- 0.0101 0.0000 005
	Category	Mitigated 0.4844 9.0000e- 0.0101 0.0000	Unmitigated

TREDC Hotel Project - Humboldt County, Summer

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6.2 Area by SubCategory

Unmitigated

	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	NZO	CO2e
SubCategory					lb/day	ay							o/ql	lb/day		
Architectural Coating	0.1106					0.0000	0.0000		0.0000	0.000			0.0000			0.0000
	0.3729		 	 		0.0000	0.000.0	 	·	0.000.0	· · · · · · · · · · · · · · · · · · ·					0.000.0
Landscaping	9.3000e- 004	9.3000e- 9.0000e- 0.0101 004 005	0.0101	0.0000		4.0000e- 005	4.0000e- 005	 	4.0000e- 005	4.0000e- 005		0.0219	0.0219	6.0000e- 005		0.0233
Total	0.4844	0.4844 9.0000e- 005	0.0000 0.0000	0.0000		4.0000e- 005	4.0000e- 005		4.0000e- 005	4.0000e- 005		0.0219	0.0219	6.0000e- 005		0.0233

Mitigated

CO2e		0.0000	0.000.0	0.0233	0.0233
N20					
CH4	ay		r 	6.0000e- 005	6.0000e- 005
Total CO2	lb/day	0.0000	0.0000	0.0219	0.0219
Bio- CO2 NBio- CO2 Total CO2			 	0.0219	0.0219
Bio- CO2					
PM2.5 Total		0.000.0	0.000.0	- 4.0000e- 005	4.0000e- 005
Exhaust PM2.5		0.000.0	0.000.0	4.0000e- 005	4.0000e- 005
Fugitive PM2.5					
PM10 Total		0.0000	0.0000	4.0000e- 005	4.0000e- 005
Exhaust PM10	lb/day	0.0000	0.0000	4.0000e- 4 005	4.0000e- 005
Fugitive PM10	/qI				
S02				0.0000	0.0000
00				0.0101	0.0101
NOx				9.0000e- 005	0.4844 9.0000e- 0.0101 005
ROG		0.1106	0.3729	9.3000e- 004	0.4844
	SubCategory	Architectural Coating	Consumer Products	Landscaping	Total

7.0 Water Detail

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TREDC Hotel Project - Humboldt County, Summer

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Fuel Type	
Load Factor	
Horse Power	
Days/Year	
Hours/Day	
Number	
Equipment Type	

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Boilers						

Fuel Type	
Boiler Rating	
Heat Input/Year	
Heat Input/Day	
Number	
Equipment Type	

User Defined Equipment

Number	
Equipment Type	

11.0 Vegetation

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TREDC Hotel Project - Humboldt County, Winter

TREDC Hotel Project

Humboldt County, Winter

1.0 Project Characteristics

1.1 Land Usage

Population	0
Floor Surface Area	17,424.00
Lot Acreage	0.40
Metric	Room
Size	100.00
Land Uses	Hotel

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	103
Climate Zone	_			Operational Year	2018
Utility Company	Pacific Gas & Electric Company	npany			
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity (Ib/MWhr)	9.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Refer to Project Description

Construction Phase -

Vehicle Trips - Refer to CalEEMod input table

Demolition -

Construction Off-road Equipment Mitigation - Refer to CalEEMod tables

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15

TREDC Hotel Project - Humboldt County, Winter

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	PPF	No Change	Level 3
tblConstEquipMitigation	ОРЕ	No Change	Level 3
tblConstEquipMitigation	PPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	PPF	No Change	Level 3
tblConstEquipMitigation	PPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

TREDC Hotel Project - Humboldt County, Winter

	:	:	:	:	_	:			_			
Tier 3	Tier 3	Tier 3	17,424.00	17,424.00	0.40	Rural	24.00	24.00	24.00	5.73	4.17	5.72
No Change	No Change	No Change	145,200.00	145,200.00	3.33	Urban	6.60	6.60	14.70	8.19	5.95	8.17
Tier	Tier	Tier	BuildingSpaceSquareFeet	LandUseSquareFeet	LotAcreage	UrbanizationLevel	TL_00	CNW_TL	CW_TL	ST_TR	SU_TR	WD_TR
tblConstEquipMitigation	tblConstEquipMitigation	tblConstEquipMitigation	tblLandUse	tblLandUse	tblLandUse	tblProjectCharacteristics	tblVehicleTrips	tblVehicleTrips	tblVehicleTrips	tblVehicleTrips	tblVehicleTrips	tblVehicleTrips

2.0 Emissions Summary

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TREDC Hotel Project - Humboldt County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

		Q	o o
CO2e		4,234.93 2	4,234.930 2
N20		0.0000	0.0000
CH4	lay	0.3709	0.3709
Total CO2	lb/day	4,225.998 6	4,225.998 6
Bio- CO2 NBio- CO2 Total CO2		0.0000 4,225.998 4,225.998 0.3709 0.0000 4,234.930 6 6 2	0.0000 4,225.998 4,225.998 6 6
Bio- CO2		0.0000	0.000
PM2.5 Total		2.1695	2.1695
Exhaust PM2.5		0.8433	0.8433
Fugitive PM2.5		0.8839 9.0647 1.3262 0.8433	1.3262
PM10 Total	lay	9.0647	9.0647
Exhaust PM10		0.8839	0.8839
Fugitive PM10	lb/day	8.1808	8.1808
802		0.0412	81.1082 24.9368 12.1834 0.0412
00		12.1834	12.1834
×ON		24.9368	24.9368
ROG		81.1082 24.9368 12.1834 0.0412 8.1808	81.1082
	Year	2017	Maximum

Mitigated Construction

C02e		4,234.930 2	4,234.930 2
N20		0.0000	0.0000
CH4	ay	0.3709	0.3709
Total CO2	lb/day	4,225.998 6	4,225.998 6
Bio- CO2 NBio- CO2 Total CO2		4,225.998 6	0.0000 4,225.998 4,225.998 6 6
Bio- CO2		0.0000	0.000.0
PM2.5 Total		0.2124 4.2928 0.7053 0.2058 0.9111 0.0000 4,225.998 4,225.998 0.3709 0.0000 4,234.930	0.9111
Exhaust PM2.5		0.2058	0.2058
Fugitive PM2.5		0.7053	0.7053
PM10 Total	lay	4.2928	4.2928
Exhaust PM10		0.2124	0.2124
Fugitive PM10	lb/day		4.0803
S02		80.8353 20.4034 12.2032 0.0412 4.0803	80.8353 20.4034 12.2032 0.0412
00		12.2032	12.2032
×ON		20.4034	20.4034
ROG		80.8353	80.8353
	Year	2017	Maximum

	ROG	XON	00	802	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio-CO2 Total CO2	Total CO2	CH4	N20	C02e
Percent Reduction	0.34	18.18	-0.16	00:0	50.12	75.97	52.64	46.82	75.60	58.00	00:00	0.00	0.00	0.00	0.00	0.00

TREDC Hotel Project - Humboldt County, Winter

2.2 Overall Operational Unmitigated Operational

CO2e		0.0234	117.9049	9,772.795 0	9,890.723 2
NZO			2.1500e- 003		2.1500e- 9,890.723 003 2
CH4	lb/day	6.0000e- 005	2.2500e- 003	0.6165	0.6189
Bio- CO2 NBio- CO2 Total CO2	o/qı	0.0219 0.0219 6.0000e-	117.2083 117.2083 2.2500e-	9,757.381 9,757.381 6 6	9,874.611 9,874.611 9 9
NBio- CO2		0.0219	117.2083	9,757.381 6	9,874.611 9
Bio- CO2					
PM2.5 Total		4.0000e- 005	7.4200e- 003	2.1469	2.1544
Exhaust PM2.5		4.0000e- 005	7.4200e- 003	0.2050	0.2124
Fugitive PM2.5				1.9420	1.9420
PM10 Total		4.0000e- 005	7.4200e- 003	7.4497	7.4572
Exhaust PM10	lb/day	4.0000e- 005	7.4200e- 003	0.2160	0.2234
Fugitive PM10)/qI			7.2338	7.2338
802		0.000.0	5.9000e- 004	0.0970	0.0976
00		0.0104	0.0821 5.9000e- 004	52.2040	52.2964
×ON		0.4845 1.0000e- 0.0104 0.0000 004	0.0977	23.3454 52.2040 0.0970 7.233	3.9406 23.4431 52.2964 0.0976
ROG		0.4845	0.0107	3.4454	3.9406
	Category	Area		Mobile	Total

Mitigated Operational

		_		1.0	
CO2e		0.0234		9,772.795 0	9,890.723 2
NZO			2.1500e- 003		2.1500e- 003
CH4	lb/day	6.0000e- 005	2.2500e- 003	0.6165	0.6189
Total CO2	o/ql	0.0219 6.0000e- 005	117.2083 117.2083	9,757.381 6	9,874.611 9,874.611 9 9
Bio- CO2 NBio- CO2 Total CO2		0.0219	117.2083	9,757.381 9,757.381 6 6	9,874.611
Bio- CO2					
PM2.5 Total		4.0000e- 005	-	2.1469	2.1544
Exhaust PM2.5		1:	7.4200e- 003	0.2050	0.2124
Fugitive PM2.5				1.9420	1.9420
PM10 Total		4.0000e- 005	7.4200e- 003	7.4497	7.4572
Exhaust PM10	/day		7.4200e- 003	0.2160	0.2234
Fugitive PM10)/qI			7.2338	7.2338
802		0.000.0	5.9000e- 004	0.0970	0.0976
00		0.0104	0.0821	23.3454 52.2040	52.2964
×ON		1.0000e- 004			3.9406 23.4431 52.2964
ROG		0.4845 1.0000e- 0.0104 0.0000 004	0.0107	3.4454	3.9406
	Category	Area	Energy	Mobile	Total

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TREDC Hotel Project - Humboldt County, Winter

C02e	00.0
N20	0.00
CH4	0.00
Total CO2	0.00
NBio-CO2 Total CO2	0.00
Bio- CO2	0.00
PM2.5 Total	0.00
Exhaust PM2.5	0.00
Fugitive PM2.5	0.00
PM10 Total	00:0
Exhaust PM10	00:0
Fugitive PM10	0.00
S02	0.00
00	0.00
NOX	0.00
ROG	0.00
	Percent Reduction

3.0 Construction Detail

Construction Phase

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 26,136; Non-Residential Outdoor: 8,712; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

TREDC Hotel Project - Humboldt County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws		8.00	81	0.73
Demolition	Rubber Tired Dozers		1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	00.9	26	0.37
Site Preparation	Graders		8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes		8.00	26	0.37
	Concrete/Industrial Saws		8.00	81	0.73
Grading	Rubber Tired Dozers		1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	00.9	26	0.37
Building Construction	Cranes		4.00	231	0.29
Building Construction	Forklifts	2	6.00	68	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	26	0.37
Paving	Cement and Mortar Mixers	4	6.00	o o	0.56
	Pavers		7.00	130	0.42
Paving	Rollers	_	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes		7.00	26	0.37
Architectural Coating	Air Compressors		00.9	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Worker Trip Vendor Trip Count Number	Worker Trip Number		Hauling Trip Number	Worker Trip Length	Vendor Trip Hauling Trip Length Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	00.0	344.00	16.80	09.9		20.00 LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	00.0	0.00	16.80	09.9		20.00 LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	00.0			09.9	· · · · · · · · · · · · · · · · · ·	Mix	HDT_Mix	HHDT
Building Construction	 	7.00	3.00	0.00	16.80	09.9		Mix	HDT_Mix	HHDT
Paving		18.00	00.0	00.0	16.80	09.9		20.00 LD_Mix	HDT_Mix	HHDT
Architectural Coating		1.00	0.00	0.00	16.80	09.9		20.00 LD_Mix	HDT_Mix	HHDT

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TREDC Hotel Project - Humboldt County, Winter

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2017

CO2e		0.0000	1,185.104 7	1,185.104 7	
N20					
CH4	λí		0.2319	0.2319	
otal CO2	lb/day	0.000.0	1,179.307 5	1,179.307 5	
NBio- CO2			1,179.307 1,179.307 0.2319 5 5	1,179.307 1,179.307 5 5	
Bio- CO2 NBio- CO2 Total CO2					
PM2.5 Total		1.1288	0.6978	1.8266	
Exhaust PM2.5			0.6978	0.6978	
Fugitive PM2.5		1.1288 0.0000	 	1.1288	
PM10 Total			7.4554	0.7318	8.1872
Exhaust PM10	lay	0.0000	0.7318	0.7318	
Fugitive PM10	lb/day	7.4554		7.4554	
SO2			0.0120	0.0120	
00			7.9182	7.9182	
×ON			1.2100 10.4978 7.9182 0.0120	1.2100 10.4978 7.9182	
ROG			1.2100	1.2100	
	Category	Fugitive Dust	Off-Road	Total	

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TREDC Hotel Project - Humboldt County, Winter

3.2 Demolition - 2017
Unmitigated Construction Off-Site

ROG NOx CO	00		302	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
lb/day	lb/day	lb/day	lb/day	ay								lb/day	ay		
0.5511 14.2759 3.0651 0.0279 0.5977 0.1508 0.7484 0.1635 0.1442 0.3077				0.1508 0.	0	7484	0.1635	0.1442	0.3077		2,917.265 2,917.265 0.1138 6 6	2,917.265 6	0.1138		2,920.110 8
0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000		0.0	0.0000	0.0000	0.0000	0.0000		0.0000	1	0.0000		0.0000
0.1561 0.1632 1.2000 1.3100e- 0.1277 1.4000e- 0.1291 003 003	0.1277 1.4000e- 003	0.1277 1.4000e- 003	1.4000e- 003		0.12		0.0339	1.3000e- 003	0.0352		129.4255	129.4255 129.4255	0.0116		129.7147
0.7072 14.4390 4.2652 0.0292 0.7254 0.1522 0.8776	0.1522	0.1522	0.1522		0.87	92	0.1974	0.1455	0.3429		3,046.691 3,046.691 1	3,046.691	0.1254		3,049.825 5

		0.0000	1,185.104 7	1,185.104 7
CH4 N2O	1 <i>y</i>		0.2319	0.2319
Total CO2	lb/day	0.000.0	0.0000 1,179.307 1,179.307 0.2319 5 5	
Bio- CO2 NBio- CO2 Total CO2			1,179.307 5	0.0000 1,179.307 1,179.307 5 5 5
Bio- CO2		1-8-8-8-8	0.0000	0.0000
PM2.5 Total		0.5080	0.0603	0.5682
Exhaust PM2.5		0.0000 3.3549 0.5080 0.0000 0.5080	0.0603	0.0603
Fugitive PM2.5		0.5080		0.5080
PM10 Total		3.3549	0.0603	3.4152
Exhaust PM10	b/day	0.0000	0.0603	0.0603
Fugitive PM10	/qı	l"		3.3549
S02			0.0120	0.2652 5.9644 7.9381 0.0120 3.3549
0			7.9381	7.9381
×ON			0.2652 5.9644 7.9381	5.9644
ROG			0.2652	0.2652
	Category	Fugitive Dust	Off-Road	Total

TREDC Hotel Project - Humboldt County, Winter

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3.2 Demolition - 2017
Mitigated Construction Off-Site

	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
Category					lb/day	day							lb/day	ay		
Hauling	0.5511 14.2759 3.0651 0.0279 0.5977	14.2759	3.0651	0.0279	ļ	0.1508	0.7484	0.1508 0.7484 0.1635 0.1442	0.1442	0.3077			2,917.265 6	0.1138		2,920.110 8
Vendor	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.000	0.0000	0.0000	0.0000	0.0000 0.0000	0.000.0	0.0000		0.0000 0.0000		0.0000		0.0000
Worker	0.1561	0.1632	1.2000 1.3100e- 003	1.3100e- 003	0.1277	1.4000e- 003	0.1291	0.0339	1.3000e- 003	0.0352		129.4255	129.4255 129.4255	0.0116	• • • • • • • • • • • • • • • • • • •	129.7147
Total	0.7072	0.7072 14.4390 4.2652 0.0292	4.2652		0.7254	0.1522	0.8776	0.1974	0.1455	0.3429		3,046.691 1	3,046.691 3,046.691 1 1	0.1254		3,049.825 5

3.3 Site Preparation - 2017

CO2e		0.0000	1,007.176 4	1,007.176 4
N20				
CH4	ay		0.3063	0.3063
Total CO2	lb/day	0.000.0	999.5201 999.5201 0.3063	999.5201
NBio- CO2 Total CO2			999.5201 999.5201	999.5201 999.5201
Bio- CO2				
PM2.5 Total		0.0573	0.4347	0.4920
Exhaust PM2.5		0.000.0	0.4347 0.4347	0.4347
Fugitive PM2.5		0.0000 0.5303 0.0573 0.0000		0.0573
PM10 Total		0.5303	0.4726	1.0028
Exhaust PM10	lb/day	0.0000	0.4726 0.4726	0.4726
Fugitive PM10	o/ql	0.5303		0.5303
802			9.7700e- 003	9.7700e- 003
00			4.3533	4.3533
XON			10.5148	0.8524 10.5148 4.3533 9.7700e- 0.5303 003
ROG			0.8524 10.5148 4.3533 9.7700e- 003	0.8524
	Category		Off-Road	Total

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TREDC Hotel Project - Humboldt County, Winter

3.3 Site Preparation - 2017 Unmitigated Construction Off-Site

	ROG	XON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
					lb/day	day							lb/day	lay		
	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000.0	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
:	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
	0.0780	0.0780 0.0816 0.6000 6.6000e- 0.0639	0.6000	6.6000e- 004		7.0000e- 004	0.0646	0.0169	6.5000e- 004	0.0176		64.7127	64.7127	5.7800e- 003		64.8574
	0.0780	0.0816 0.6000 6.6000e-	0.6000	6.6000e- 004	0.0639	7.0000e- 004	0.0646	0.0169	6.5000e- 004	0.0176		64.7127	64.7127	5.7800e- 003		64.8574

			·	
CO2e		0.0000	1,007.176 4	1,007.176 4
NZO				
CH4	ay		0.3063	0.3063
Total CO2	lb/day	0.000.0	999.5201	999.5201
Bio- CO2 NBio- CO2 Total CO2			0.0000 999.5201 999.5201	999.5201
Bio- CO2			0.000	0.0000
PM2.5 Total		0.0258	0.0361	0.0618
Exhaust PM2.5			0.0361	0.0361
Fugitive PM2.5		0.0000 0.2386 0.0258 0.0000		0.0258
PM10 Total		0.2386	0.0361	0.2747
Exhaust PM10	b/day	0.0000	0.0361	0.0361
Fugitive PM10)/qI	ö		0.2386
802			9.7700e- 003	5.8579 9.7700e- 0
00			5.8579	5.8579
XON			0.2382 4.8716	0.2382 4.8716
ROG			0.2382	0.2382
	Category	Fugitive Dust	Off-Road	Total

TREDC Hotel Project - Humboldt County, Winter

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3.3 Site Preparation - 2017
Mitigated Construction Off-Site

CO2e		0.0000	0.0000	64.8574	64.8574
N20					
CH4	ay	0.000.0	0.0000	5.7800e- 003	5.7800e- 003
Total CO2	lb/day	0.000.0	0.0000	64.7127	64.7127
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000	0.000.0	64.7127	64.7127 64.7127
Bio- CO2			 		
PM2.5 Total		0.0000	0000:0	0.0176	0.0176
Exhaust PM2.5			0.000.0	6.5000e- 004	6.5000e- 004
Fugitive PM2.5		0.0000 0.0000 0.0000	0.0000 0.0000	0.0169	0.0169
PM10 Total		0.000.0	0.000.0	0.0646	0.0646
Exhaust PM10	lb/day	0.0000	0.0000	7.0000e- 004	7.0000e- 004
Fugitive PM10	p/ql	0.0000	0.0000	0.0639	0.0639
SO2		0.0000	0.0000	0.6000 6.6000e- 004	6.6000e- 004
00		0.0000	0.0000	0.6000	0.6000
×ON		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000 0.0000 0.0000	0.0780 0.0816	0.0780 0.0816 0.6000 6.6000e-
ROG		0.0000	0.0000	0.0780	0.0780
	Category	Hauling	Vendor	Worker	Total

3.4 Grading - 2017

CO2e		0.0000	1,185.104 7	1,185.104 7
N20				
CH4	эу		0.2319	0.2319
Total CO2	lb/day	0.000.0	1,179.307 5	1,179.307 5
NBio- CO2			1,179.307 1,179.307 5 5	1,179.307 1,179.307 5 5
Bio- CO2 NBio- CO2 Total CO2			 - - - - -	
PM2.5 Total		0.4138	0.6978	1.1115
Exhaust PM2.5		0.000.0	0.6978	0.6978
Fugitive PM2.5		0.4138		0.4138
PM10 Total		0.0000 0.7528 0.4138	0.7318	1.4845
Exhaust PM10	lb/day	0.0000	0.7318	0.7318
Fugitive PM10	o/qı	0.7528		0.7528
S02			0.0120	0.0120
00			7.9182	7.9182
×ON			1.2100 10.4978 7.9182 0.0120	1.2100 10.4978 7.9182
ROG			1.2100	1.2100
	Category	Fugitive Dust	Off-Road	Total

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Unmitigated Construction Off-Site 3.4 Grading - 2017

		_		١-,	۲:
CO2e		0.0000	0.0000	129.7147	129.7147
NZO					
CH4	lb/day	0.0000	0.0000	0.0116	0.0116
Bio- CO2 NBio- CO2 Total CO2)/qI	0.0000 0.0000 0.0000	0.0000	129.4255 129.4255	129.4255 129.4255
NBio- CO2		0.0000	0.0000	129.4255	129.4255
Bio- CO2					
PM2.5 Total		0.0000	0.0000	0.0352	0.0352
Exhaust PM2.5			0.0000	1.3000e- 003	1.3000e- 003
Fugitive PM2.5		0.0000 0.0000 0.0000	0.0000	0.0339	0.0339
PM10 Total		0.000.0	0.0000	0.1291	0.1291
Exhaust PM10	lb/day	0.0000	0.0000	1.4000e- 003	1.4000e- 003
Fugitive PM10)/q	0.0000	i		0.1277
SO2		0.0000	0.0000	1.3100e- 003	1.3100e- 003
00		0.000.0	0.000.0	1.2000	1.2000
XON		0.0000	0.0000 0.0000 0.0000 0.0000	0.1632 1.2000 1.3100e- 0.1277 003	0.1561 0.1632 1.2000 1.3100e- 0.1277 003
ROG		0.0000 0.0000 0.0000 0.0000	0.0000	0.1561	0.1561
	Category	Hauling	Vendor	Worker	Total

TREDC Hotel Project - Humboldt County, Winter

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3.4 Grading - 2017
Mitigated Construction Off-Site

CO2e		0.0000	0.0000	129.7147	129.7147
N20					
CH4	y	0.000.0	0.000.0	0.0116	0.0116
Total CO2	lb/day		0.0000	129.4255	129.4255 129.4255
Bio- CO2 NBio- CO2 Total CO2		0.0000		129.4255 129.4255	129.4255
Bio- CO2					
PM2.5 Total		0.0000	0.0000	0.0352	0.0352
Exhaust PM2.5		0.000.0	0.0000	1.3000e- 003	1.3000e- 003
Fugitive PM2.5		0.0000 0.0000 0.0000	0.0000	0.0339	0.0339
PM10 Total		0.0000	0.0000	0.1291	0.1291
Exhaust PM10	lb/day	0.0000	0.0000	1.4000e- 003	1.4000e- 003
Fugitive PM10		0.0000	:	:	0.1277
SO2		0.0000	0.0000 0.0000 0.0000 0.0000	0.1561 0.1632 1.2000 1.3100e- 0.1277 003	0.1561 0.1632 1.2000 1.3100e-
00		0.000.0	0.000.0	1.2000	1.2000
XON		0.000.0	0.000.0	0.1632	0.1632
ROG		0.0000 0.0000 0.0000 0.0000	0.0000	0.1561	0.1561
	Category	Hauling	Vendor	Worker	Total

3.5 Building Construction - 2017

CO2e		1,174.847 3	1,174.847 3
N20			
CH4	ay	0.3572	0.3572
Total CO2	lb/day	1,165.916 4	1,165.916 1,165.916 0.3572 4 4
Bio- CO2 NBio- CO2 Total CO2		1,165.916 1,165.916 0.3572 4 4	1,165.916 4
Bio- CO2			
PM2.5 Total		0.7904	0.7904
Exhaust PM2.5		0.7904	0.7904
Fugitive PM2.5			
PM10 Total		0.8591	0.8591
Exhaust PM10	b/day	0.8591	0.8591
Fugitive PM10	o/qı		
S02		0.0114	0.0114
00		8.0700	8.0700 0.0114
XON		12.7589	1.2812 12.7589
ROG		1.2812 12.7589 8.0700 0.0114	1.2812
	Category	Off-Road	Total

TREDC Hotel Project - Humboldt County, Winter

3.5 Building Construction - 2017 Unmitigated Construction Off-Site

N2O CO2e		0.0000	79.9856	90.8003	170.7859
CH4	ау	0.000.0	5.6000e- 003	8.1000e- 003	0.0137
Total CO2	lb/day	0.000.0	r	90.5978	170.4434 170.4434
Bio- CO2 NBio- CO2 Total CO2		0.0000	79.8455	90.5978	170.4434
Bio- CO2		1-8-8-8-8	; ; ; ; ; ; ; ;	; ; ; ; ; ; ;	
PM2.5 Total		0.0000	0.0109	0.0246	0.0355
Exhaust PM2.5		0.0000	5.6100e- 003	9.1000e- 004	6.5200e- 003
Fugitive PM2.5		0.0000	5.2700e- 5. 003	0.0237	0.0290
PM10 Total		0.0000	0.0242	0.0904	0.1146
Exhaust PM10	lb/day	0.0000	5.8700e- 003	9.8000e- 004	6.8500e- 003
Fugitive PM10	/qI	0.0000	0.0183	0.0894	0.1077
SO2		0.0000	7.7000e- 004	9.2000e- 004	1.6900e- 003
00		0.0000 0.0000 0.0000 0.0000	0.0277 0.4726 0.1805 7.7000e- 0.0183 004	0.1093 0.1142 0.8400 9.2000e- 0.0894 004	0.5868 1.0205 1.6900e- 0.1077 003
NOX		0.0000	0.4726	0.1142	0.5868
ROG		0.0000	0.0277	0.1093	0.1369
	Category	Hauling	Vendor	Worker	Total

C02e		1,174.847 3	1,174.847 3
N20			
CH4	ay	0.3572	0.3572
Total CO2	lb/day	1,165.916 4	1,165.916 4
Bio- CO2 NBio- CO2 Total CO2		0.0000 1,165.916 1,165.916 0.3572	0.0000 1,165.916 1,165.916 0.3572
Bio- CO2		0.0000	0.0000
PM2.5 Total		0.0578	0.0578
Exhaust PM2.5		0.0578 0.0578	0.0578
Fugitive PM2.5			
PM10 Total		0.0578	0.0578
Exhaust PM10	lay	0.0578	0.0578
Fugitive PM10	lb/day		
802		0.0114	0.0114
00		7.9624	7.9624
×ON		6.1296	6.1296 7.9624
ROG		0.2793 6.1296 7.9624 0.0114	0.2793
	Category	Off-Road	Total

TREDC Hotel Project - Humboldt County, Winter

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3.5 Building Construction - 2017 Mitigated Construction Off-Site

CO2e		0.0000	79.9856	90.8003	170.7859
N20					
CH4	ау	0.0000	5.6000e- 003	8.1000e- 003	0.0137
Total CO2	lb/day	0.000.0	79.8455	90.5978	170.4434 170.4434
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000	79.8455	90.5978	170.4434
Bio- CO2					
PM2.5 Total		0.0000	0.0109	0.0246	0.0355
Exhaust PM2.5			5.6100e- 003	9.1000e- 004	6.5200e- 003
Fugitive PM2.5		0.0000 0.0000 0.0000	5.2700e- 003	0.0237	0.0290
PM10 Total		0.0000	0.0242	0.0904	0.1146
Exhaust PM10	lb/day	0.0000	5.8700e- 003	9.8000e- 004	6.8500e- 003
Fugitive PM10	o/qı	0.0000	0.0183	0.0894	0.1077
SO2		0.0000	7.7000e- 004	0.8400 9.2000e- 004	1.0205 1.6900e- 003
00		0.000.0	0.1805	0.8400	1.0205
×ON		0.0000 0.0000 0.0000 0.0000	0.0277 0.4726 0.1805 7.7000e- 0.0183 004	0.1142	0.5868
ROG		0.0000	0.0277	0.1093	0.1369
	Category	Hauling	Vendor	Worker	Total

3.6 Architectural Coating - 2017 Unmitigated Construction On-Site

CO2e		0.0000	282.1909	282.1909
N20				
CH4	ay		0.0297	0.0297
Total CO2	lb/day	0.000.0	1881	281.4481
Bio- CO2 NBio- CO2 Total CO2			281.4481 281.4	281.4481 281.4481
Bio- CO2				
PM2.5 Total		0.0000	0.1733	0.1733
Exhaust PM2.5		0.0000 0.0000	0.1733	0.1733
Fugitive PM2.5				
PM10 Total		0.0000	0.1733	0.1733
Exhaust PM10	b/day	0.0000 0.0000	0.1733 0.1733	0.1733
Fugitive PM10)/q			
S02			2.9700e- 003	2.9700e- 003
00			1.8681	1.8681
XON			2.1850	81.0926 2.1850 1.8681 2.9700e- 003
ROG		80.7602	0.3323 2.1850 1.8681 2.9700e- 003	81.0926
	Category	Archit. Coating 80.7602	Off-Road	Total

TREDC Hotel Project - Humboldt County, Winter

3.6 Architectural Coating - 2017
Unmitigated Construction Off-Site

		_		2	2
CO2e		0.0000	0.0000	12.9715	12.9715
N20					
CH4	lay	0.000.0	0.0000	1.1600e- 003	1.1600e- 003
Total CO2	lb/day	0.000.0	0.0000	12.9426	12.9426
Bio- CO2 NBio- CO2 Total CO2		0.0000	0.0000	12.9426	12.9426
Bio- CO2					
PM2.5 Total		0.0000	0.0000	3.5200e- 003	3.5200e- 003
Exhaust PM2.5		0.000.0		1.3000e- 004	1.3000e- 004
Fugitive PM2.5		0.0000	0.0000	3.3900e- 1.3000e- 003 004	3.3900e- 003
PM10 Total		0.0000	0.0000	0.0129	0.0129
Exhaust PM10	lb/day	0.0000	0.0000	1.4000e- 004	1.4000e- 004
Fugitive PM10	o/ql	0.0000			0.0128
S02		0.000.0	0.0000	1.3000e- 004	1.3000e- 004
00		0.000.0	0.000.0	0.1200	0.1200
XON		0.0000	0.0000 0.0000 0.0000 0.0000	0.0163 0.1200 1.3000e- 0.0128 004	0.0163 0.1200 1.3000e- 0.0128
ROG		00000 00000 00000 00000 00000	0.0000	0.0156	0.0156
	Category	Hauling	Vendor	Worker	Total

			. n	0
CO2e		0.0000	282.1909	282.1909
N20				
CH4	ay		0.0297	0.0297
Total CO2	lb/day	0.000.0	281.4481	281.4481
Bio- CO2 NBio- CO2 Total CO2			0.0000 281.4481 281.4481	0.0000 281.4481 281.4481
Bio- CO2			0.0000	0.0000
PM2.5 Total		0.0000	0.0143	0.0143
Exhaust PM2.5		0.0000 0.0000	0.0143	0.0143
Fugitive PM2.5				
PM10 Total		0.000.0	0.0143	0.0143
Exhaust PM10	b/day	0.0000 0.0000	0.0143	0.0143
Fugitive PM10)/q			
805			2.9700e- 003	2.9700e- 003
00			1.8324	80.8197 1.3570 1.8324 2.9700e- 003
XON			1.3570	1.3570
ROG		80.7602	0.0594 1.3570 1.8324 2.9700e- 003	80.8197
	Category	ō	Off-Road	Total

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3.6 Architectural Coating - 2017
Mitigated Construction Off-Site

~	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
)/qı	lb/day							lb/day	ay		
0.0	0000	0.0000 0.0000 0.0000 0.0000	0.000.0	0.0000		0.0000	0.000.0	0.0000 0.0000 0.0000	0.0000	0.0000		0.0000 0.0000 0.0000	0.000.0	0.000.0		0.0000
ö	0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
0.0	0.0156	0.0163	0.1200 1.3000e- 004	1.3000e- 004	0.0128	1.4000e- 004	0.0129	3.3900e- 003	1.3000e- 004	3.5200e- 003		12.9426	12.9426	1.1600e- 003	• • • • •	12.9715
o.	0156	0.0156 0.0163 0.1200 1.3000e- 0.0128 004	0.1200	1.3000e- 004	0.0128	1.4000e- 004	0.0129	3.3900e- 003	1.3000e- 004	3.5200e- 003		12.9426	12.9426	1.1600e- 003		12.9715

3.7 Paving - 2017

CO2e		1,092.651 5	0.0000	1,092.651 5
N20				
CH4	ay	0.3018		0.3018
Total CO2	lb/day	1,085.107 1	0.0000	1,085.107 1,085.107 0.3018
NBio- CO2 Total CO2		1,085.107 1,085.107 0.3018	0.000	1,085.107 1
Bio- CO2				
PM2.5 Total		0.5636	0.0000	0.5636
Exhaust PM2.5			0.0000	0.5636
Fugitive PM2.5				
PM10 Total		0.6087	0.0000	0.6087
Exhaust PM10	day	0.6087	0.0000	0.6087
Fugitive PM10	lb/day			
SO2		0.0113		0.0113
00		7.3425		7.3425
XON		9.9754		1.0532 9.9754 7.3425
ROG		1.0532 9.9754 7.3425 0.0113	0.0000	1.0532
	Category	Off-Road	Paving	Total

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Unmitigated Construction Off-Site 3.7 Paving - 2017

0		0	. 0	92	92
CO2e		0.0000	0.0000	233.4865	233.4865
N20					
CH4	lay	0.0000	0.0000	0.0208	0.0208
Total CO2	lb/day	0.0000 0.0000	0.000.0	232.9659	232.9659
Bio- CO2 NBio- CO2 Total CO2		0.0000	0.0000	232.9659	232.9659
Bio- CO2					
PM2.5 Total		0.0000	0.0000	0.0633	0.0633
Exhaust PM2.5		0.000.0	0.0000	0.0610 2.3400e- 003	0 2.3400e- 003
Fugitive PM2.5		0.000 0.0000 0.0000	0.0000	0.0610	0.0610
PM10 Total		0.000.0	0.0000	0.2324	0.2324
Exhaust PM10	lb/day	0.0000	0.0000	2.5300e- 003	2.5300e- 003
Fugitive PM10)/qI	0.0000	0.0000	0.2299	0.2299
S02		0.0000	0.0000	2.3600e- 003	2.3600e- 003
00		0.000.0	0.0000	2.1600	2.1600
XON		0.0000	0.0000 0.0000 0.0000 0.0000	0.2809 0.2937 2.1600 2.3600e- 0.2299 003	0.2809 0.2937 2.1600 2.3600e-
ROG		0.0000 0.0000 0.0000 0.0000	0.0000	0.2809	0.2809
	Category	Hauling		Worker	Total

1,092.651 5		0.3018	1,085.107	0.0000 1,085.107 1,085.107 0.3018	0.0000	0.0436	0.0436		0.0436	0.0436		0.0113	0.2239 4.7579 6.9028	4.7579	0.2239	Total
0.0000	0.0000		0.0000	0.0000		0.0000	0.0000 0.0000		0.0000	0.0000					0.0000	Paving
1,092.651 5			1,085.107 1	0.0000 1,085.107 1,085.107 0.3018	0.0000	0.0436	0.0436		0.0436	0.0436 0.0436		0.0113	6.9028	4.7579	0.2239 4.7579 6.9028 0.0113	Off-Road
		lay	lb/day							lb/day	/qı					Category
CO2e	N20	CH4	Total CO2	Bio- CO2 NBio- CO2 Total CO2	Bio- CO2	PM2.5 Total	Exhaust PM2.5	Fugitive PM2.5	PM10 Total	Exhaust PM10	Fugitive PM10	S02	00	NON	ROG	

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3.7 Paving - 2017

Mitigated Construction Off-Site

ROG	ŇON	00	802	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
				o/ql	lb/day							lb/day	ay		
000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000 0.0000 0.0000	0.0000	0.0000		0.0000	0.0000 0.0000	0.0000		0.0000
000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000 0.0000	0.0000	0.0000	 .	0.0000
0.2809	0.2937	2.1600	2.1600 2.3600e- 003	0.2299	2.5300e- 003	0.2324	: 1	2.3400e- 003	0.0633		232.9659		0.0208		233.4865
0.2809	0.2937	2.1600	2.1600 2.3600e- 003	0.2299	2.5300e- 003	0.2324	0.0610	2.3400e- 003	0.0633		232.9659	232.9659 232.9659	0.0208		233.4865

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	XON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Bio- CO2 NBio- CO2 Total CO2 CH4	CH4	N20	CO2e
Category)/qı	b/day							lb/day	ıy		
Mitigated	3.4454	23.3454	3.4454 23.3454 52.2040 0.0970 7.2338	0.0970	7.2338	0.2160 7.4497 1.9420 0.2050	7.4497	1.9420	0.2050	2.1469		9,757.381 6	9,757.381 9,757.381 0.6165 6	0.6165		9,772.795
Unmitigated	3.4454	23.3454	3.4454 23.3454 52.2040 0.0970 7.2338	0.0970	7.2338	0.2160	7.4497	1.9420	0.2160 7.4497 1.9420 0.2050 2.1469	2.1469		9,757.381 6	9,757.381 9,757.381 0.6165 6 6	0.6165	 	9,772.795 0

4.2 Trip Summary Information

	Aver	Average Daily Trip Rate	ıte	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	572.00	573.00	417.00	3,244,041	3,244,041
Total	572.00	573.00	417.00	3,244,041	3,244,041

4.3 Trip Type Information

		_
% €	Pass-by	4
Trip Purpose %	Diverted	38
	Primary	58
	H-O or C-NW	19.00
7rip %	H-S or C-C	61.60
	H-W or C-W	19.40
	H-O or C-NW H-W or C-W H-S or C-C H-O or C-NW	24.00
Miles	0	24.00
	H-W or C-W H-S or C-	24.00
	Land Use	Hotel

4.4 Fleet Mix

Land Use	LDT1	LDT2	MDV	LHD1	LHD2	MHD	НН	OBUS	NBUS	MCY	SBUS	MH
Hotel 0.448795 0.0	789090	0.206149	0.145887	0.057916	0.009282	0.014626	0.042627	0.002929	0.001905 0.	0.006409 0.001553	0.001553	0.001236

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

CO2e		117.9049	117.9049
N20		117.2083 117.2083 2.2500e- 2.1500e- 117.9049 003	500e- 103
CH4	lb/day	2.2500e- 003	2.2500e- 003
Total CO2)/qI	117.2083	117.2083
Bio- CO2 NBio- CO2 Total CO2		117.2083	117.2083 117.2083 2.2500e- 2.1 003 0
Bio- CO2			
PM2.5 Total		7.4200e- 003	7.4200e- 003
Exhaust PM2.5		7.4200e- 7.4200e- 003 003	7.4200e- 7. 003
Fugitive PM2.5			
PM10 Total		7.4200e- 003	- 7.4200e- 003
Exhaust PM10	b/day	7.4200e- 7.4200e- 003 003	7.4200e- 003
Fugitive PM10)/qI		
SO2		5.9000e- 004	5.9000e- 004
00		0.0821	0.0821
XON		0.0107 0.0977 0.0821 5.9000e-	0.0977 0.0821
ROG		0.0107	0.0107
	Category	NaturalGas Mitigated	NaturalGas Unmitigated

5.2 Energy by Land Use - NaturalGas

Unmitigated

2e		049	049
CO2e		117.9	117.9049
N20		2.1500e- 003	2.1500e- 003
CH4	ay	2.2500e- 003	2.2500e- 003
Total CO2	lb/day	117.2083	117.2083 117.2083 2.2500e- 2.1500e- 003
Bio- CO2 NBio- CO2 Total CO2		117.2083 117.2083 2.2500e- 2.1500e- 117.9049 003 003	117.2083
Bio- CO2			
PM2.5 Total		7.4200e- 003	7.4200e- 003
Exhaust PM2.5		7.4200e- 7.4200e- 003 003	7.4200e- 003
Fugitive PM2.5			
PM10 Total		7.4200e- 003	7.4200e- 003
Exhaust PM10	lb/day	7.4200e- 7.4200e- 003 003	7.4200e- 7.4
Fugitive PM10			
SO2		5.9000e- 004	5.9000e- 004
00		0.0821	0.0821 5.9000e-
XON		0.0977	0.0977
ROG		996.271 0.0107 0.0977 0.0821 5.9000e-	0.0107
NaturalGa s Use	kBTU/yr	996.271	
	Land Use	Hotel	Total

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5.2 Energy by Land Use - NaturalGas

Mitigated

CO2e		117.9049	117.9049			
N20		2.1500e- 003	2.1500e- 11 003			
CH4	ау	2.2500e- 003	2.2500e- 003			
Total CO2	lb/day	117.2083 117.2083 2.2500e- 2.1500e- 003 003	117.2083			
Bio- CO2 NBio- CO2 Total CO2		117.2083	117.2083 117.2083 2.2500e- 3			
Bio- CO2						
PM2.5 Total		7.4200e- 003	7.4200e- 003			
Exhaust PM2.5		7.4200e- 7.4200e- 003 003	7.4200e- 003			
Fugitive PM2.5						
PM10 Total		7.4200e- 7.4200e- 003 003	7.4200e- 003			
Exhaust PM10	lb/day	ау	lay	lay	7.4200e- 003	7.4200e- 7.4 003
Fugitive PM10						
805		5.9000e- 004	5.9000e- 004			
00		0.0821	0.0821 5.9000e-			
NOx		0.0977	0.0977			
ROG		0.996271 0.0107 0.0977 0.0821 5.9000e-	0.0107			
NaturalGa s Use	kBTU/yr	0.996271				
	Land Use	Hotel	Total			

6.0 Area Detail

6.1 Mitigation Measures Area

2e		534	34
C02e		0.0234	0.0234
NZO			
CH4	ay	6.0000e- 005	6.0000e- 005
Total CO2	lb/day	0.0219	0.0219
Bio- CO2 NBio- CO2 Total CO2		0.0219 0.0219 6.0000e-	0.0219 0.0219 6.0000e- 005
Bio- CO2			
PM2.5 Total		4.0000e-	- 4.0000e- 005
Exhaust PM2.5		4.0000e- 4.0000e- 005 005	4.0000e- 4.0
Fugitive PM2.5			
PM10 Total		4.0000e- 005	4.0000e- 4.0000e- 005 005
Exhaust PM10	lb/day	4.0000e- 005	4.0000e- 005
Fugitive PM10	o/qı		
S02		0.0000	0.000.0
00		0.0104	0.0104
×ON		1.0000e- 004	1.0000e- 004
ROG		0.4845	0.4845 1.0000e- 0.0104 0.0000 004
	Category	Mitigated 0.4845 1.0000e- 0.0104 0.0000 0.000	Unmitigated

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6.2 Area by SubCategory

Unmitigated

	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
SubCategory					lb/day	ay							lb/day	lay		
Architectural Coating	0.1106					0.000.0	0.000.0		0.0000	0.0000			0.0000			0.0000
	0.3729	 	 	 	 	0.000.0	0.000.0	 		0.000.0	· · · · · · · · · · · · · · · · · · ·	 		r 		0.000.0
Landscaping	9.9000e- 004	9.9000e- 1.0000e- 0.0104 004 004	0.0104	0.0000		4.0000e- 005	4.0000e- 005	r	4.0000e- 005	4.0000e- 005		0.0219	0.0219	6.0000e- 005	•	0.0234
	0.4845	0.4845 1.0000e- 004	0.0000	0.0000		4.0000e- 005	4.0000e- 005		4.0000e- 005	4.0000e- 005		0.0219	0.0219	6.0000e- 005		0.0234

Mitigated

			_		
CO2e		0.0000	0.0000	0.0234	0.0234
N20					
CH4	ay		r 	6.0000e- 005	6.0000e- 005
Total CO2	lb/day	0.000.0	0.0000	0.0219	0.0219
Bio- CO2 NBio- CO2 Total CO2			 	0.0219	0.0219
Bio- CO2					
PM2.5 Total		0.0000	0.000.0	4.0000e- 005	4.0000e- 005
Exhaust PM2.5		0.0000	0.0000	4.0000e- 005	4.0000e- 005
Fugitive PM2.5			r 		
PM10 Total		0.0000	0.0000	4.0000e- 005	4.0000e- 005
Exhaust PM10	day	0.0000		4.0000e- 005	4.0000e- 005
Fugitive PM10	lb/day				
SO2				0.0000	0.0000
00				0.0104	0.0104
×ON				1.0000e- 004	0.4845 1.0000e- 004
ROG		0.1106	0.3729	9.9000e- 1.0000e- 0.0104 004 004	0.4845
	SubCategory	Architectural Coating		Landscaping	Total

7.0 Water Detail

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TREDC Hotel Project - Humboldt County, Winter

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Fuel Type	
Load Factor	
Horse Power	
Days/Year	
Hours/Day	
Number	
Equipment Type	

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Fuel Type	
Load Factor	
Horse Power	
Hours/Year	
Hours/Day	
Number	
Equipment Type	

Boilers

User Defined Equipment

Number	
Equipment Type	

11.0 Vegetation

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TREDC Hotel Project - Humboldt County, Winter

TREDC Hotel Project

Humboldt County, Winter

1.0 Project Characteristics

1.1 Land Usage

Population	0
Floor Surface Area	17,424.00
Lot Acreage	0.40
Metric	Room
Size	100.00
Land Uses	Hotel

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	103	
Climate Zone	_			Operational Year	2040	
Utility Company	Pacific Gas & Electric (Company				
CO2 Intensity (Ib/MWhr)	641.35	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity (Ib/MWhr)	900.0	

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Refer to Project Description

Construction Phase -

Demolition -

Vehicle Trips - Refer to CalEEMod input table

Construction Off-road Equipment Mitigation - Refer to CalEEMod tables

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15

TREDC Hotel Project - Humboldt County, Winter

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	APC	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

TREDC Hotel Project - Humboldt County, Winter

	:	:	_	:	:	_	:	_	_	_	_	:	
Tier 3	Tier 3	Tier 3	17,424.00	17,424.00	0.40	2040	Rural	24.00	24.00	24.00	5.73	4.17	5.72
No Change	No Change	No Change	145,200.00	145,200.00	3.33	2018	Urban	6.60	6.60	14.70	8.19	5.95	8.17
Tier	Tier	Tier	BuildingSpaceSquareFeet	LandUseSquareFeet	LotAcreage	OperationalYear	UrbanizationLevel	CC_TL	CNW_TL	CW_TL	ST_TR	SU_TR	WD_TR
tblConstEquipMitigation	tblConstEquipMitigation	tblConstEquipMitigation	tblLandUse	tblLandUse	tblLandUse	tblProjectCharacteristics	tblProjectCharacteristics	tbIVehicleTrips	tbIVehicleTrips	tblVehicleTrips	tbIVehicleTrips	tbIVehicleTrips	tbIVehicleTrips

2.0 Emissions Summary

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TREDC Hotel Project - Humboldt County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOX	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2		CH4	NZO	CO2e
Year					o/qI	lb/day							lb/day	ay		
2017	81.1082 24.9368 12.1834 0.0412 8.1808	24.9368	12.1834	0.0412	8.1808	0.8839	9.0647	1.3262	0.8839 9.0647 1.3262 0.8433 2.1695	2.1695	0.000.0	4,225.998 6	0.0000 4,225.998 4,225.998 0.3709 0.0000 4,234.930	0.3709	0.000.0	4,234.930 2
Maximum	81.1082	81.1082 24.9368 12.1834 0.0412	12.1834	0.0412	8.1808	0.8839	9.0647	1.3262	0.8433	2.1695	0.0000	4,225.998 6	0.0000 4,225.998 4,225.998 6	0.3709		0.0000 4,234.930

Mitigated Construction

	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	NZO	CO2e
Year					lb/day	day							lb/day	lay		
2017	80.8353	80.8353 20.4034 12.2032 0.0412 4.0803	12.2032	0.0412	4.0803	0.2124	4.2928	0.7053	0.2124 4.2928 0.7053 0.2058 0.9111	0.9111	0.000.0	4,225.998 6	0.0000 4,225.998 4,225.998 0.3709 0.0000 4,234.930 6	0.3709	0.0000	4,234.930
Maximum	80.8353	80.8353 20.4034 12.2032 0.0412	12.2032	0.0412	4.0803	0.2124	4.2928	0.7053	0.2058	0.9111	0.0000	4,225.998 6	0.0000 4,225.998 4,225.998 6	0.3709	0.0000 4,234.930	4,234.930 2

	ROG	XON	00	802	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio-CO2 Total CO2	Total CO2	CH4	N20	C02e
Percent Reduction	0.34	18.18	-0.16	00:0	50.12	75.97	52.64	46.82	75.60	58.00	00:00	0.00	0.00	0.00	0.00	0.00

TREDC Hotel Project - Humboldt County, Winter

2.2 Overall Operational Unmitigated Operational

CO2e		0.0233	117.9049	9,336.496 3	9,454.424 4
NZO			2.1500e- 003		2.1500e- 9,454.424 003 4
CH4	lay	6.0000e- 005		0.5235	0.5259
Bio- CO2 NBio- CO2 Total CO2	lb/day	0.0219 0.0219 6.0000e-	117.2083 117.2083 2.2500e-	9,323.407 9,323.407 7 7	9,440.637 9,440.637 9 9
NBio- CO2		0.0219	117.2083	9,323.407 7	9,440.637 9
Bio- CO2					
PM2.5 Total		4.0000e- 005	!	2.0821	2.0896
Exhaust PM2.5		4.0000e- 005	7.4200e- 003	0.1650	0.1725
Fugitive PM2.5			 	1.9171	1.9171
PM10 Total		4.0000e- 005	7.4200e- 003	7.3501	7.3576
Exhaust PM10	lb/day	4.0000e- 005	7.4200e- 003	0.1741	0.1816
Fugitive PM10)/qI			7.1760	7.1760
802		0.000.0	5.9000e- 004	0.0927	0.0933
00		0.0101	0.0821 5.9000e- 004	45.0027	45.0949
×ON		0.4844 9.0000e- 0.0101 0.0000 005	0.0977	18.8207 45.0027 0.0927	3.2798 18.9184 45.0949 0.0933
ROG		0.4844	,	2.7847	3.2798
	Category	Area	Energy	Mobile	Total

Mitigated Operational

CO2e		0.0233	117.9049	9,336.496 3	9,454.424 4
NZO		ļ	2.1500e- 003		2.1500e- 003
CH4	lay	6.0000e- 005	2.2500e- 003	0.5235	0.5259
Total CO2	lb/day	0.0219 6.0000e- 005	117.2083	9,323.407 7	9,440.637 9
Bio- CO2 NBio- CO2 Total CO2			,	9,323.407 9,323.407 7	9,440.637 9,440.637 9 9
Bio- CO2			: : : : :	• • • • • • • • • • • • • • • • • • •	
PM2.5 Total		4.0000e- 005	7.4200e- 003	2.0821	2.0896
Exhaust PM2.5		4.0000e- 005	7.4200e- 003	0.1650	0.1725
Fugitive PM2.5			 	1.9171	1.9171
PM10 Total		4.	7.4200e- 003	7.3501	7.3576
Exhaust PM10	day	4.0000e- 005	7.4200e- 003	0.1741	0.1816
Fugitive PM10	lb/day			7.1760	7.1760
S02		0.000.0	5.9000e- 004	0.0927	0.0933
00		0.0101	0.0821	45.0027	
×ON		0.4844 9.0000e- 0.0101 0.0000 005	0.0977	18.8207 45.0027 0.0927	18.9184 45.0949
ROG		0.4844	0.0107	2.7847	3.2798
	Category	Area	Energy	Mobile	Total

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TREDC Hotel Project - Humboldt County, Winter

C02e	00.0
N20	0.00
CH4	0.00
Total CO2	0.00
NBio-CO2 Total CO2	00:0
Bio- CO2	0.00
PM2.5 Total	0.00
Exhaust PM2.5	0.00
Fugitive PM2.5	0.00
PM10 Total	0.00
Exhaust PM10	0.00
Fugitive PM10	0.00
802	0.00
00	0.00
NOX	0.00
ROG	0.00
	Percent Reduction

3.0 Construction Detail

Construction Phase

Phase Description						
Num Days	10	-	2	100	5	5
Num Days Num Days Week	5	5	5	5	5	5
End Date	6/14/2017	6/15/2017	6/19/2017	11/6/2017	11/13/2017	11/20/2017
Start Date	6/1/2017	6/15/2017	6/16/2017	6/20/2017	11/7/2017	11/14/2017
Phase Type		aration		Building Construction		Architectural Coating
Phase Name	Demolition	aration	Grading	Construction	Paving	Architectural Coating
Phase Number	_	2	က	4	5	9

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 26,136; Non-Residential Outdoor: 8,712; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

TREDC Hotel Project - Humboldt County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws		8.00	81	0.73
Demolition	Rubber Tired Dozers		1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	0.09	26	0.37
Site Preparation	Graders		8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes		8.00	76	0.37
	Concrete/Industrial Saws		8.00	81	0.73
Grading	Rubber Tired Dozers		1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	9.00	26	0.37
Building Construction	Cranes		4.00	231	0.29
Building Construction	Forklifts	2	9.00	68	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	26	0.37
Architectural Coating	Air Compressors		9.00	78	0.48
	Cement and Mortar Mixers	4	90.9	6	0.56
Paving	Pavers		7.00	130	0.42
	Rollers		7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Worker Trip Vendor Trip Count Number	Worker Trip Number		Hauling Trip Number	Worker Trip Length	Vendor Trip Hauling Trip Length Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	34	16.80	09.9				HHDT
Site Preparation	2	5.00	00.0	0.00	16.80	09.9	! ! !	20.00 LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	00.0	0.00	16.80	09:9			:	HEDT
Building Construction	2	7.00	3.00	0.00	16.80	09.9	! ! !	20.00 LD_Mix		HHDT
Architectural Coating		1.00	00.0	0		09.9		/lix	HDT_Mix	HEDT
Paving	7	18.00	0.00	0.00	16.80	09.9	20.00	20.00 LD_Mix	HDT_Mix	HHDT

TREDC Hotel Project - Humboldt County, Winter

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

CO2e		0.0000	1,185.104 7	1,185.104 7
NZO				
CH4	эу		0.2319	0.2319
Total CO2	lb/day	0.000.0	1,179.307 5	1,179.307
Bio-CO2 NBio-CO2 Total CO2			1,179.307 1,179.307 5	1,179.307 1,179.307 5
Bio- CO2				
PM2.5 Total		1.1288	0.6978	1.8266
Exhaust PM2.5			0.6978	0.6978
Fugitive PM2.5		1.1288 0.0000	 	1.1288
PM10 Total		0.0000 7.4554	0.7318	8.1872
Exhaust PM10	b/day	0.0000	0.7318	0.7318
Fugitive PM10	o/qı	7.4554		7.4554
S02			0.0120	0.0120
00			7.9182	7.9182
XON			1.2100 10.4978 7.9182	1.2100 10.4978 7.9182 0.0120 7.4554
ROG			1.2100	1.2100
	Category	Fugitive Dust	Off-Road	Total

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TREDC Hotel Project - Humboldt County, Winter

3.2 Demolition - 2017
Unmitigated Construction Off-Site

CO2e		2,920.110 8	0.0000	129.7147	3,049.825 5
NZO					
CH4	lb/day	0.1138	0.0000	0.0116	0.1254
Bio- CO2 NBio- CO2 Total CO2)/qI	2,917.265 2,917.265 0.1138 6 6	0.0000	129.4255 129.4255 0.0116	3,046.691 3,046.691
NBio- CO2		2,917.265 6	0.0000	129.4255	3,046.691 1
Bio- CO2		1-8-8-8-8			
PM2.5 Total		0.3077	0.0000	0.0352	0.3429
Exhaust PM2.5		0.1442	0.0000	1.3000e- 003	0.1455
Fugitive PM2.5		0.1508 0.7484 0.1635 0.1442	0.0000	0.0339	0.1974
PM10 Total		0.7484	0.0000	0.1291	0.8776
Exhaust PM10	lb/day	0.1508	0.0000	1.4000e- 003	0.1522
Fugitive PM10)/qI	0.5977	0.0000	0.1277	0.7254
SO2		0.0279	0.0000	1.3100e- 003	0.0292
00		3.0651	0.0000	1.2000	4.2652
XON		14.2759	0.0000	0.1632	0.7072 14.4390 4.2652
ROG		0.5511 14.2759 3.0651 0.0279	0.0000 0.0000 0.0000	0.1561 0.1632 1.2000 1.3100e- 003	0.7072
	Category	Hauling		Worker	Total

Mitigated Construction On-Site

		_	' -	
CO2e		0.0000	1,185.104 7	1,185.104 7
N20				
CH4	ay		0.2319	0.2319
Total CO2	lb/day	0.000.0	1,179.307 5	1,179.307
Bio- CO2 NBio- CO2 Total CO2			0.0000 1,179.307 1,179.307 0.2319 5 5	0.0000 1,179.307 1,179.307 5 5
Bio- CO2			0.0000	0.0000
PM2.5 Total		0.5080	0.0603	0.5682
Exhaust PM2.5		0.0000 3.3549 0.5080 0.0000 0.5080	0.0603	0.0603
Fugitive PM2.5		0.5080		0.5080
PM10 Total		3.3549	0.0603	3.4152
Exhaust PM10	b/day	0.0000	0.0603	0.0603
Fugitive PM10)/qI	(1)		3.3549
805			0.0120	0.0120
00			7.9381	7.9381
XON			0.2652 5.9644 7.9381	5.9644
ROG			0.2652	0.2652
	Category	Fugitive Dust	Off-Road	Total

TREDC Hotel Project - Humboldt County, Winter

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3.2 Demolition - 2017
Mitigated Construction Off-Site

	ROG	Ň	00	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Bio- CO2 NBio- CO2 Total CO2	CH4	N20	CO2e
Category					lb/day	lay							lb/day	ay		
l	0.5511	0.5511 14.2759 3.0651 0.0279 0.5977	3.0651	0.0279		0.1508	0.7484	0.1508 0.7484 0.1635 0.1442 0.3077	0.1442	0.3077		2,917.265 6	2,917.265 2,917.265 0.1138 6 6	0.1138		2,920.110 8
Vendor	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000 0.0000 0.0000		0.0000		0.0000 0.0000	0.0000	0.0000		0.0000
Worker	0.1561	0.1632	1.2000 1.3100e- 003	1.3100e- 003	0.1277	1.4000e- 003	0.1291	0.0339	1.3000e- 003	0.0352		129.4255 129.4	129.4255 129.4255	0.0116		129.7147
Total	0.7072	0.7072 14.4390 4.2652 0.0292	4.2652		0.7254	0.1522	0.8776	0.1974	0.1455	0.3429		3,046.691 1	3,046.691 3,046.691	0.1254		3,049.825 5

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

CO2e		0.0000	1,007.176 4	1,007.176 4
N20				
CH4	ау		0.3063	0.3063
Total CO2	lb/day	0.000.0	999.5201 999.5201 0.3063	999.5201 999.5201
Bio- CO2 NBio- CO2 Total CO2			999.5201	999.5201
Bio- CO2				
PM2.5 Total		0.0573	0.4347	0.4920
Exhaust PM2.5		0.000.0	0.4347 0.4347	0.4347
Fugitive PM2.5		0.0000 0.5303 0.0573 0.0000		0.0573
PM10 Total		0.5303	0.4726	1.0028
Exhaust PM10	lb/day	0.0000	0.4726 0.4726	0.4726
Fugitive PM10)/q	0.5303		0.5303
S02			9.7700e- 003	9.7700e- 003
00			4.3533	4.3533
XON			10.5148	0.8524 10.5148 4.3533 9.7700e-
ROG			0.8524 10.5148 4.3533 9.7700e-	0.8524
	Category	L_	Off-Road	Total

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TREDC Hotel Project - Humboldt County, Winter

3.3 Site Preparation - 2017
Unmitigated Construction Off-Site

xhaust PM2.5 Bio- CO2 NBio- CO2 Total CO2 CH4 N2O CO2e PM2.5 Total Total N2O CO2e	lb/day	0.0000 0.0000	0.0000 0.0000 0.0000 0.0000	0.0176 64.7127 64.7127 5.
N20				
	day	0.0000	0.0000	
Total CO2	/qı	0.0000	0.0000	
NBio- CO2		0.0000	0.0000	64.7127
Bio- CO2		1-8-8-8-8	: : : : : :	: : : : : :
PM2.5 Total		0.0000	0.000.0	0.0176
Exhaust PM2.5		0.000.0	0.0000	6.5000e- 004
Fugitive PM2.5		0.0000	0.0000	0.0169
PM10 Total		0.000.0	0.0000	0.0646
Exhaust PM10	lb/day	0.0000	0.0000	7.0000e- 004
Fugitive PM10)/q	0.0000	0.0000	0.0639
S02		0.0000	0.0000	0.6000 6.6000e- 004
co		0.000.0	0.000.0	0.6000
×ON		0.0000	0.0000 0.0000 0.0000 0.0000	0.0816
ROG		00000 00000 00000 00000 00000	0.0000	0.0780
	Category	Hauling	Vendor	Worker

Mitigated Construction On-Site

C02e		0.0000	1,007.176 4	1,007.176 4
NZO				
CH4	ay		0.3063	0.3063
Total CO2	lb/day	0.000.0	999.5201	999.5201
Bio- CO2 NBio- CO2 Total CO2			0.0000 999.5201 999.5201	999.5201
Bio- CO2			0.0000	0.0000
PM2.5 Total		0.0258	0.0361	0.0618
Exhaust PM2.5		0.000.0	0.0361	0.0361
Fugitive PM2.5		0.0000 0.2386 0.0258 0.0000		0.0258
PM10 Total		0.2386	0.0361	0.2747
Exhaust PM10	b/day	0.0000	0.0361	0.0361
Fugitive PM10)/ql	0.2386		0.2386
S02			9.7700e- 003	9.7700e- 003
00			5.8579	5.8579 9.7700e- 0
XON			0.2382 4.8716	0.2382 4.8716
ROG			0.2382	0.2382
	Category	Fugitive Dust	Off-Road	Total

TREDC Hotel Project - Humboldt County, Winter

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3.3 Site Preparation - 2017
Mitigated Construction Off-Site

ROG NOx CO SO2 Fugitive E	CO SO2 Fugitive	Fugitive PM10	Fugitive PM10		Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
0.0000 0.0000 0.00000 0.00000	0.0000	0.000	9		0.0000	0.0000	0.0000	0.0000 0.0000 0.00000	0.0000		0.0000 0.00000	0.0000	0.0000		0.0000
0.0000 0.0000 0.0000 0.0000	0.0000 0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		
0.0780 0.0816 0.6000 6.6000e-	0.6000 6.6000 004	6.6000	ф	0.0639	7.0000e- 004	0.0646	0.0169	6.5000e- 004	0.0176		64.7127	64.7127	5.7800e- 003		64.8574
0.0780 0.0816 0.6000 6.6000e- 0.0639	0.6000 6.60006	6.60006	4	0.0639	7.0000e- 004	0.0646	0.0169	6.5000e- 004	0.0176		64.7127	64.7127	5.7800e- 003		64.8574

3.4 Grading - 2017

Unmitigated Construction On-Site

fitive Exhaust PM10 Fuglitive Exhaust PM2.5 Bio- CO2 NBio- CO2 Total CO2 CH4 N2O CO2e 410 PM10 Total PM2.5 Total Total PM2.5 Total Total	lb/day lb/day	0.0000 0.7528 0.4138 0.0000 0.4138	0.7318 0.6978 0.6978 1,179.307 1,179.307 0.2319 1,185.104	528 0.7318 1.4845 0.4138 0.6978 1.1115 1,179.307 1,179.307 0.2319 1,185.104
PM2.5 Total		0.4138		1.1115
		0.0000	0.6978	0.6978
		0.4138		0.4138
PM10 Total		0.7528	0.7318	1.4845
Exhaust PM10	day	0.0000	0.7318	
Fugitive PM10)/ql	0.7528		0.7528
SO2			0.0120	0.0120
00			7.9182	7.9182
XON			10.4978	1.2100 10.4978 7.9182
ROG			1.2100 10.4978 7.9182 0.0120	1.2100
	Category	Fugitive Dust	Off-Road	Total

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TREDC Hotel Project - Humboldt County, Winter

Unmitigated Construction Off-Site 3.4 Grading - 2017

		_		21	21		
CO2e		0.0000	0.0000	129.7147	129.7147		
N2O							
CH4	ау	lb/day	day	0.0000	0.0000	0.0116	0.0116
Total CO2	p/qI	0.0000 0.0000 0.0000	0.000.0	129.4255 129.4255	129.4255 129.4255		
Bio- CO2 NBio- CO2 Total CO2		0.0000	0.0000	129.4255	129.4255		
Bio- CO2							
PM2.5 Total		0.0000	0.0000	0.0352	0.0352		
Exhaust PM2.5			0.0000	1.3000e- 003	1.3000e- 003		
Fugitive PM2.5		0.0000 0.0000 0.0000	0.0000	0.0339 1.3000e- 003	0.0339		
PM10 Total		0.000.0	0.0000	0.1291	0.1291		
Exhaust PM10	day	0.0000	0.0000	1.4000e- 003	1.4000e- 003		
Fugitive PM10	lb/day	0.0000	0.0000	0.1277	0.1277		
S02		0.0000	0.0000 0.0000 0.0000 0.0000	1.2000 1.3100e- 0.1277 003	0.1561 0.1632 1.2000 1.3100e- 0.1277 003		
00		0.000.0	0.000.0	1.2000	1.2000		
XON		0.000.0	0.000.0	0.1561 0.1632	0.1632		
ROG		00000 00000 00000 00000 00000	0.0000	0.1561	0.1561		
	Category	Hauling	Vendor	Worker	Total		

Mitigated Construction On-Site

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3.4 Grading - 2017
Mitigated Construction Off-Site

	ROG	X O N	8	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
Category					lb/day	lay							lb/day	ay		
Hauling	0.0000	0.0000 0.0000 0.0000 0.0000	0.000.0	0.0000	l	0.0000 0.0000 0.0000 0.0000 0.0000	0.000.0	0.0000	0.0000	0.0000		0.0000 0.0000 0.0000	0.000.0	0.000.0		0.0000
Vendor	0.0000	0.0000 0.0000 0.0000 0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000.0	0.0000		<u> </u>	0.000.0	0.0000	• • • • • • • • • • • • • • • • • • •	0.0000
Worker	0.1561	0.1632	1.2000 1.3100e- 003	1.3100e- 003	0.1277	1.4000e- 003	0.1291	0.0339	1.3000e- 003	0.0352	_	129.4255	129.4255 129.4255	0.0116		129.7147
Total	0.1561	0.1561 0.1632 1.2000 1.3100e- 0.1277 003	1.2000	1.3100e- 003	0.1277	1.4000e- 003	0.1291	0.0339	1.3000e- 003	0.0352		129.4255	129.4255 129.4255	0.0116		129.7147

3.5 Building Construction - 2017

Unmitigated Construction On-Site

		1 4	21
CO2e		1,174.847 3	1,174.847 3
N20			
CH4	ay	0.3572	0.3572
Total CO2	lb/day	1,165.916 4	1,165.916 4
Bio- CO2 NBio- CO2 Total CO2		1,165.916 1,165.916 0.3572 4 4	1,165.916 1,165.916 4 4
Bio- CO2			
PM2.5 Total		0.7904	0.7904
Exhaust PM2.5		0.7904	0.7904
Fugitive PM2.5			
PM10 Total		0.8591	0.8591
Exhaust PM10	day	0.8591	0.8591
Fugitive PM10	lb/day		
802		0.0114	0.0114
00		8.0700	8.0700
XON		12.7589	1.2812 12.7589
ROG		1.2812 12.7589 8.0700 0.0114	1.2812
	Category	Off-Road	Total

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3.5 Building Construction - 2017 Unmitigated Construction Off-Site

N2O CO2e		0.0000	79.9856	90.8003	170.7859	
CH4	ау	0.000.0	5.6000e- 003	8.1000e- 003	0.0137	
Total CO2	lb/day	0.000.0	r	90.5978	170.4434 170.4434	
Bio- CO2 NBio- CO2 Total CO2			0.0000	79.8455	90.5978	170.4434
Bio- CO2		1-8-8-8-8	; ; ; ; ; ; ; ;	; ; ; ; ; ; ;		
PM2.5 Total		0.0000	0.0109	0.0246	0.0355	
Exhaust PM2.5		0.0000	5.6100e- 003	9.1000e- 004	6.5200e- 003	
Fugitive PM2.5		0.0000	5.2700e- 5. 003	0.0237	0.0290	
PM10 Total		0.0000	0.0242	0.0904	0.1146	
Exhaust PM10	day	0.0000	5.8700e- 003	9.8000e- 004	6.8500e- 003	
Fugitive PM10	lb/day	0.0000	0.0183	0.0894	0.1077	
SO2		0.0000	7.7000e- 004	9.2000e- 004	1.6900e- 003	
00		0.0000 0.0000 0.0000 0.0000	0.0277 0.4726 0.1805 7.7000e- 0.0183 004	0.1093 0.1142 0.8400 9.2000e- 0.0894 004	0.5868 1.0205 1.6900e- 0.1077 003	
NOX		0.0000	0.4726	0.1142	0.5868	
ROG		0.0000	0.0277	0.1093	0.1369	
	Category	Hauling	Vendor	Worker	Total	

Mitigated Construction On-Site

CO2e		1,174.847 3	1,174.847 3
N20			
CH4	ау	0.3572	0.3572
Total CO2	lb/day	1,165.916 4	1,165.916 4
Bio- CO2 NBio- CO2 Total CO2		0.0000 1,165.916 1,165.916 0.3572	0.0000 1,165.916 1,165.916 4 4
Bio- CO2		0.0000	0.0000
PM2.5 Total		0.0578	0.0578
Exhaust PM2.5		0.0578	0.0578
Fugitive PM2.5			
PM10 Total		0.0578	0.0578
Exhaust PM10	day	0.0578	0.0578
Fugitive PM10	lb/day		
S02		0.0114	0.0114
CO		7.9624	7.9624
×ON		6.1296	0.2793 6.1296 7.9624
ROG		0.2793 6.1296 7.9624 0.0114	0.2793
	Category	Off-Road	Total

TREDC Hotel Project - Humboldt County, Winter

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3.5 Building Construction - 2017
Mitigated Construction Off-Site

ROG NOx CO	\blacksquare		s02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
lb/day	lb/day	lb/day	lb/day	day								lb/day	ay		
0.0000 0.0000 0.0000 0.0000 0.0000				0.0000	 	0.0000	0.0000	0.0000 0.0000 0.0000	0.0000		0.0000 0.0000 0.0000	0.0000	0.0000		0.0000
0.0277 0.4726 0.1805 7.7000e- 0.0183 5.8700e- 004 003	0.0183	0.0183	0.0183	5.8700e- 003		0.0242	5.2700e- 5.6100e- 003 003	5.6100e- 003	0.0109			79.8455	5.6000e- 003		79.9856
0.1093 0.1142 0.8400 9.2000e- 0.0894 9.8000e- 004	0.8400 9.2000e- 0.0894 004	0.0894	0.0894	9.8000e- 004		0.0904	0.0237	9.1000e- 004	0.0246		90.5978	90.5978	8.1000e- 003		90.8003
0.1369 0.5868 1.0205 1.6900e- 0.1077 6.8500e- 003	6.8500e- 003	6.8500e- 003	6.8500e- 003			0.1146	0.0290	6.5200e- 003	0.0355		170.4434 170.4434	170.4434	0.0137		170.7859

3.6 Paving - 2017

Unmitigated Construction On-Site

		51		22
CO2e		1,092.651 5	0.0000	1,092.651 5
N20				
CH4	ay	0.3018		0.3018
Total CO2	lb/day	1,085.107	0.0000	1,085.107 1,085.107
Bio- CO2 NBio- CO2 Total CO2		1,085.107 1,085.107 0.3018	0.000	1,085.107 1
Bio- CO2				
PM2.5 Total		0.5636	0.0000	0.5636
Exhaust PM2.5		0.5636	0.0000	0.5636
Fugitive PM2.5				
PM10 Total			0.0000	0.6087
Exhaust PM10	b/day	0.6087	0.0000	0.6087
Fugitive PM10	/qı			
805		0.0113		0.0113
00		7.3425		9.9754 7.3425 0.0113
XON		1.0532 9.9754 7.3425 0.0113		9.9754
ROG		1.0532	0.0000	1.0532
	Category	Off-Road	Paving	Total

TREDC Hotel Project - Humboldt County, Winter

3.6 Paving - 2017 Unmitigated Construction Off-Site

				. 10	ю
CO2e		0.0000	0.0000	233.4865	233.4865
N20					
CH4	ay	0.0000	0.0000	0.0208	0.0208
Total CO2	lb/day	0.000.0	0.0000	232.9659	232.9659 232.9659
Bio- CO2 NBio- CO2 Total CO2		0.0000 0.0000 0.0000	ř	232.9659 232.9659	232.9659
Bio- CO2					
PM2.5 Total		0.0000	0.0000	0.0633	0.0633
Exhaust PM2.5		0.0000	0.0000	2.3400e- 003	2.3400e- 003
Fugitive PM2.5		0.0000	0.0000	0.0610	0.0610
PM10 Total		0.0000	0.0000	0.2324	0.2324
Exhaust PM10	lb/day	0.0000	0.0000	2.5300e- 003	2.5300e- 003
Fugitive PM10	o/qı	0.0000	0.0000	0.2299	0.2299
802		0.000.0	0.0000	2.1600 2.3600e- 003	2.3600e- 003
00		0.000.0	0.000.0	2.1600	2.1600
XON		0.0000 0.0000 0.0000 0.0000	0.0000 0.0000 0.0000 0.0000	0.2937	0.2809 0.2937 2.1600 2.3600e- 0.2299 003
ROG		0.0000	0.0000	0.2809	0.2809
	Category	Hauling	Vendor	Worker	Total

Mitigated Construction On-Site

PM2.5 Bio- CO2 NBio- CO2 Total CO2 CH4 N2O CO2e Total	lb/day	0.0000 1,085.107 1,085.107 0.3018	0.0000	0.0436 0.0000 1,085.107 1,085.107 0.3018 1,092.651
Fugitive Exhaust PM2.5			0.0000	0.0436
PM10 Total		0.0436	0.0000	3 0.0436
Fugitive Exhaust PM10	lb/day	0.0436	0.0000	0.0436
S02		0.0113		0.0113
00		6.9028		6.9028
XON		4.7579		0.2239 4.7579
ROG		0.2239 4.7579 6.9028 0.0113	0.0000	0.2239
	Category	Off-Road	Paving	Total

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3.6 Paving - 2017
Mitigated Construction Off-Site

ROG NOx		00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	N20	CO2e
lb/day	lb/day	lb/day	lb/day	lay								lb/day	ау		
				0	0000	0.0000	0.0000 0.0000 0.0000	0.0000	0.0000		0.0000	0.0000 0.0000 0.0000	0.0000		0.0000
0.0000 0.0000				Ö	0.0000	0.0000	0.000 0.0000	0.0000	0.0000		0.0000 0.0000	0.0000	0.0000		0.0000
0.2809 0.2937 2.1600 2.3600e- 0.2299 2. 003	2.1600 2.3600e- 0.2299 003	0.2299	0.2299	2	2.5300e- 003	0.2324	0.0610	2.3400e- 003	0.0633		232.9659	232.9659	0.0208		233.4865
0.2809 0.2937 2.1600 2.3600e- 0.2299 2.5 003	0.2299	0.2299	0.2299	2.5	2.5300e- 003	0.2324	0.0610	2.3400e- 003	0.0633		232.9659 232.9659	232.9659	0.0208		233.4865

3.7 Architectural Coating - 2017 Unmitigated Construction On-Site

CO2e		0.0000	282.1909	282.1909
N20				
CH4	ay		0.0297	0.0297
Total CO2	lb/day	0.000.0	281.4481	281.4481
Bio- CO2 NBio- CO2 Total CO2			281.4481 281.4481 0.02	281.4481 281.4481
Bio- CO2				
PM2.5 Total		0.0000	0.1733	0.1733
Exhaust PM2.5			0.1733	0.1733
Fugitive PM2.5				
PM10 Total		0.000.0	0.1733	0.1733
Exhaust PM10	day	0.0000 0.0000	0.1733	0.1733
Fugitive PM10	lb/day			
802			2.9700e- 003	2.9700e- 003
co			1.8681	1.8681
×ON			2.1850	81.0926 2.1850 1.8681 2.9700e- 003
ROG		80.7602	0.3323 2.1850 1.8681 2.9700e-	81.0926
	Category	0	Off-Road	Total

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3.7 Architectural Coating - 2017 **Unmitigated Construction Off-Site**

CO2e		0.0000	0.0000	12.9715	12.9715
N20					
CH4	ay	0.0000	0.000.0	1.1600e- 003	1.1600e- 003
Total CO2	lb/day	0.0000 0.0000	0.0000	12.9426	12.9426
Bio- CO2 NBio- CO2 Total CO2		0.0000	0.0000	12.9426	12.9426
Bio- CO2					
PM2.5 Total		0.0000	0.0000	3.5200e- 003	3.5200e- 003
Exhaust PM2.5		0.0000	0.0000	1.3000e- 004	1.3000e- 004
Fugitive PM2.5		0.000 0.0000	0.000(3.3900 003	3.3900e- 003
PM10 Total		0.000.0	0.000.0	0.0129	.0129
Exhaust PM10	lb/day	0.0000	0.0000	1.4000e- 004	1.4000e- 0 004
Fugitive PM10)/q	0.0000	0.0000		0.0128
S02		0.000.0	0.0000	1.3000e- 004	1.3000e- 004
00		0.000.0	0.000.0	0.1200	0.1200
×ON		0.000.0	0.0000 0.0000 0.0000 0.0000	0.0156 0.0163 0.1200 1.3000e- 0.0128	0.0163 0.1200 1.3000e-
ROG		0.0000 0.0000 0.0000 0.0000	0.0000	0.0156	0.0156
	Category	Hauling		Worker	Total

Mitigated Construction On-Site

282.1909		0.0297	281.4481	281.4481 281.4481	0.0000	0.0143	0.0143		0.0143	0.0143		2.9700e- 003	80.8197 1.3570 1.8324 2.9700e-	1.3570	80.8197	Total
282.1909		0.0297	281.4481	0.0000 281.4481 281.4481 0.0297	0.0000	0.0143	0.0143		0.0143	0.0143		2.9700e- 003	1.8324	1.3570	0.0594 1.3570 1.8324 2.9700e-	Off-Road
0.0000			0.000.0		1-8-8-8-8	0.0000	0.0000			0.0000					80.7602	g
		lay	lb/day							lb/day	/qı					Category
CO2e	N20	CH4	Total CO2	NBio- CO2 Total CO2	Bio- CO2	PM2.5 Total	Exhaust PM2.5	Fugitive PM2.5	PM10 Total	Exhaust PM10	Fugitive PM10	S02	00	NON	ROG	

TREDC Hotel Project - Humboldt County, Winter

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3.7 Architectural Coating - 2017
Mitigated Construction Off-Site

				•	
CO2e		0.0000	0.0000	12.9715	12.9715
N20					
CH4	ay	0.0000	0.000.0	1.1600e- 003	1.1600e- 003
Total CO2	lb/day	0.000 0.0000	0.0000	12.9426	12.9426
Bio- CO2 NBio- CO2 Total CO2		0.000.0	0.0000	12.9426	12.9426
Bio- CO2					
PM2.5 Total		0.0000		3.5200e- 003	3.5200e- 003
Exhaust PM2.5			0.000.0		1.3000e- 004
Fugitive PM2.5		0.0000 0.0000	0.0000	3.3900e- 1.3000e- 003 004	3.3900e- 003
PM10 Total		0.0000	0.0000	0.0129	0.0129
Exhaust PM10	lb/day	0.0000	0.0000	1.4000e- 004	1.4000e- 004
Fugitive PM10	o/qı	0.0000	I		0.0128
SO2		0.000.0	0.0000	1.3000e- 004	0.1200 1.3000e-
00		0.000.0	0.000.0	0.1200	0.1200
×ON		0.000.0	0.0000 0.0000 0.0000 0.0000	0.0163 0.1200 1.3000e- 0.0128 004	0.0163
ROG		0.0000 0.0000 0.0000 0.0000	0.0000	0.0156	0.0156
	Category	Hauling	Vendor	Worker	Total

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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CO2e		9,336.496 3	9,336.496 3
N20			
CH4	ay	0.5235	0.5235
Total CO2	lb/day	9,323.407 7	9,323.407 7
Bio- CO2 NBio- CO2 Total CO2		9,323.407 9,323.407 0.5235 7 7	9,323.407 9,323.407 0.5235 7 7
Bio- CO2			
PM2.5 Total		2.0821	2.0821
Exhaust PM2.5		0.1650	0.1650
Fugitive PM2.5		1.9171	0.1741 7.3501 1.9171 0.1650
PM10 Total		7.3501	7.3501
Exhaust PM10	ay	0.1741 7.3501 1.9171 0.1650	0.1741
Fugitive PM10	lb/day		7.1760
S02		0.0927	0.0927
00		45.0027	45.0027
XON		18.8207	2.7847 18.8207 45.0027 0.0927
ROG		2.7847 18.8207 45.0027 0.0927 7.1760	2.7847
	Category	Mitigated	Unmitigated

4.2 Trip Summary Information

	Aver	verage Daily Trip Rate	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	572.00	573.00	417.00	3,244,041	3,244,041
Total	572.00	573.00	417.00	3,244,041	3,244,041

4.3 Trip Type Information

		_
% €	Pass-by	4
Trip Purpose %	Diverted	38
	Primary	58
	H-O or C-NW	19.00
Trip %	H-S or C-C	61.60
	H-W or C-W	19.40
	H-O or C-NW H-W or C-W H-S or C-C H-O or C-NW	24.00
Miles	0	24.00
	H-W or C-W H-S or C-	24.00
	Land Use	Hotel

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	NBUS	MCY	SBUS	MH
Hotel	0.555197	0.555197 0.027252 0.217244	0.217244	0.114264	0.010253 (0.002787	0.012651	0.049427	0.002787 0.012651 0.049427 0.004514 0.000798 C	0.000798	0.003917 0.001338 0.000357	0.001338	0.000357

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

			_
CO2e		117.9049	117.9049
N2O		117.2083 117.2083 2.2500e- 2.1500e- 117.9049 003 003	500e- 2.1500e- 117.9049 303 003
CH4	ау	2.2500e- 003	2.2500e- 003
Total CO2	lb/day	117.2083	117.2083
Bio- CO2 NBio- CO2 Total CO2		117.2083	117.2083 117.2083 2.25606- 2 003
Bio- CO2			
PM2.5 Total		7.4200e- 003	7.4200e- 003
Exhaust PM2.5		7.4200e- 7.4200e- 003 003	7.4200e- 7 003
Fugitive PM2.5	lb/day		
PM10 Total		7.4200e- 7.4200e- 003 003	э- 7.4200e- 003
Exhaust PM10		7.4200e- 003	7.4200e- 7.4 003
Fugitive PM10			
SO2		5.9000e- 004	5.9000e- 004
00		0.0821	0.0821
XON		0.0107 0.0977 0.0821 5.9000e-	0.0977 0.0821
ROG		0.0107	0.0107
	Category	NaturalGas Mitigated	NaturalGas Unmitigated

5.2 Energy by Land Use - NaturalGas

Unmitigated

Φ		946	949
CO2e		117.90	117.9049
N2O		2.1500e- 003	2.1500e- 11 003
CH4	lay	2.2500e- 003	2.2500e- 003
Total CO2	lb/day	117.2083 117.2083 2.2500e- 2.1500e- 117.9049	117.2083
Bio- CO2 NBio- CO2 Total CO2		117.2083	117.2083 117.2083 2.2500e- 003
Bio- CO2			
PM2.5 Total		7.4200e- 003	7.4200e- 003
Exhaust PM2.5		7.4200e- 7.4200e- 003 003	7.4200e- 003
Fugitive PM2.5			
PM10 Total		7.4200e- 7.4200e- 003 003	7.4200e- 003
Exhaust PM10	lb/day	7.4200e- 003	7.4200e- 003
Fugitive PM10	/qı		
S02		5.9000e- 004	5.9000e- 004
00		0.0821	0.0821
NOX		0.0977	0.0977
ROG		996.271 0.0107 0.0977 0.0821 5.9000e-	0.0107
NaturalGa s Use	kBTU/yr	996.271	
	Land Use	Hotel	Total

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5.2 Energy by Land Use - NaturalGas

Mitigated

CO2e		117.9049	117.9049
N20		2.1500e- 1 003	2.1500e- 1 003
CH4	ıy	117.2083 117.2083 2.2500e- 2.1500e- 003 003	2.2500e- 2.1500e- 003 003
Total CO2	lb/day	117.2083	117.2083 117.2083
Bio- CO2 NBio- CO2 Total CO2		117.2083	117.2083
Bio- CO2			
PM2.5 Total		7.4200e- 003	7.4200e- 003
Exhaust PM2.5		7.4200e- 7.4200e- 003 003	7.4200e- 003
Fugitive PM2.5			
PM10 Total		7.4200e- 7.4200e- 003 003	7.4200e- 003
Exhaust PM10	lb/day	7.4200e- 003	7.4200e- 7.4 003
Fugitive PM10			
SO2		5.9000e- 004	0.0821 5.9000e- 004
8		0.0821	
XON		0.0977	0.0977
ROG		0.996271 0.0107 0.0977 0.0821 5.9000e-	0.0107
NaturalGa s Use	kBTU/yr	0.996271	
	Land Use	Hotel	Total

6.0 Area Detail

6.1 Mitigation Measures Area

CO2e		0.0233	0.0233
NZO			
CH4	ay	6.0000e- 005	6.0000e- 005
Total CO2	lb/day	0.0219	0.0219
Bio- CO2 NBio- CO2 Total CO2		0.0219 0.0219 6.0000e-	0.0219 0.0219 6.0000e-
Bio- CO2			
PM2.5 Total		4.0000e- 005	4.0000e- 005
Exhaust PM2.5		4.0000e- 4.0000e- 005 005	4.0000e- 4.
Fugitive PM2.5			
PM10 Total	lb/day	4.0000e- 005	4.0000e- 005
Exhaust PM10		4.0000e- 005	4.0000e- ²
Fugitive PM10)/qI		
S02		0.0000	0.0000
00		0.0101	0.0101
NOX		9.0000e- 005	9.0000e- 005
ROG		0.4844 9.0000e- 0.0101 0.0000	0.4844 9.0000e- 0.0101 0.0000
	Category	Mitigated	Unmitigated

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6.2 Area by SubCategory

Unmitigated

	ROG	×ON	00	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Bio- CO2 NBio- CO2 Total CO2	Total CO2	CH4	NZO	CO2e
SubCategory					lb/day	ay							o/ql	lb/day		
Architectural Coating	0.1106					0.0000	0.0000		0.0000	0.000			0.0000			0.0000
	0.3729			 		0.0000	0.000.0	 	·	0.000.0	· · · · · · · · · · · · · · · · · · ·					0.000.0
Landscaping	9.3000e- 004	9.3000e- 9.0000e- 0.0101 004 005	0.0101	0.0000		4.0000e- 005	4.0000e- 005	 	4.0000e- 005	4.0000e- 005		0.0219	0.0219	6.0000e- 005		0.0233
Total	0.4844	0.4844 9.0000e- 005	0.0000 0.0000	0.0000		4.0000e- 005	4.0000e- 005		4.0000e- 005	4.0000e- 005		0.0219	0.0219	6.0000e- 005		0.0233

Mitigated

CO2e		0.0000	0.000.0	0.0233	0.0233
N20					
CH4	ay		r 	6.0000e- 005	6.0000e- 005
Total CO2	lb/day	0.0000	0.0000	0.0219	0.0219
Bio- CO2 NBio- CO2 Total CO2			 	0.0219	0.0219
Bio- CO2					
PM2.5 Total		0.000.0	0.000.0	- 4.0000e- 005	4.0000e- 005
Exhaust PM2.5		0.000.0	0.000.0	4.0000e- 005	4.0000e- 005
Fugitive PM2.5					
PM10 Total		0.0000	0.0000	4.0000e- 005	4.0000e- 005
Exhaust PM10	lb/day	0.0000	0.0000	4.0000e- 4 005	4.0000e- 005
Fugitive PM10	/qI				
SO2				0.0000	0.0000
00				0.0101	0.0101
NOx				9.0000e- 005	0.4844 9.0000e- 0.0101 005
ROG		0.1106	0.3729	9.3000e- 004	0.4844
	SubCategory	Architectural Coating	Consumer Products	Landscaping	Total

7.0 Water Detail

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7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Fuel Type	
Load Factor	
Horse Power	
Days/Year	
Hours/Day	
Number	
Equipment Type	

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Fuel Type	
Load Factor	
Horse Power	
Hours/Year	
Hours/Day	
Number	
Equipment Type	

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Number	
Equipment Type	

11.0 Vegetation

APPENDIX F

SPECIAL STATUS SPECIES



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Arcata Fish and Wildlife Office 1655 HEINDON ROAD ARCATA, CA 95521

PHONE: (707)822-7201 FAX: (707)822-8411



December 29, 2016

Consultation Code: 08EACT00-2017-SLI-0047

Event Code: 08EACT00-2017-E-00070

Project Name: 216561

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having

similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan

(http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and

http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment





United States Department of Interior Fish and Wildlife Service

Project name: 216561

Official Species List

Provided by:

Arcata Fish and Wildlife Office 1655 HEINDON ROAD ARCATA, CA 95521 (707) 822-7201

Consultation Code: 08EACT00-2017-SLI-0047

Event Code: 08EACT00-2017-E-00070

Project Type: DEVELOPMENT

Project Name: 216561

Project Description: Trinidad Hotel EA

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.





United States Department of Interior Fish and Wildlife Service

Project name: 216561

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-124.1292804479599 41.05361425219491, -124.1295328437627 41.05328545080284, -124.12954775692013 41.05319556410634, -124.12950602175442 41.05312812884963, -124.128862291509 41.052730351993844, -124.12861791548495 41.05267416230282, -124.12852253613893 41.05272808661494, -124.12859407077121 41.05289665565274, -124.12870731355724 41.052919127409616, -124.12878777982769 41.05287642901565, -124.128901049462 41.052892165275665, -124.12944642306684 41.053251733229196, -124.12920564127488 41.0535958259594, -124.1292804479599 41.05361425219491)))

Project Counties: Humboldt, CA



Endangered Species Act Species List

There are a total of 6 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Marbled murrelet (Brachyramphus marmoratus) Population: U.S.A. (CA, OR, WA)	Threatened	Final designated	
Northern Spotted owl (Strix occidentalis caurina) Population: Wherever found	Threatened	Final designated	
Short-Tailed albatross (<i>Phoebastria</i> (=diomedea) albatrus) Population: Wherever found	Endangered		
western snowy plover (Charadrius nivosus ssp. nivosus) Population: Pacific Coast population DPS- U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast)	Threatened	Final designated	
Yellow-Billed Cuckoo (Coccyzus americanus) Population: Western U.S. DPS	Threatened	Proposed	
Fishes			
Tidewater goby (Eucyclogobius	Endangered	Final designated	





United States Department of Interior Fish and Wildlife Service

Project name: 216561

newberryi)		
Population: Wherever found		





United States Department of Interior Fish and Wildlife Service

Project name: 216561

Critical habitats that lie within your project area

There are no critical habitats within your project area.



Selected Elements by Scientific Name

California Department of Fish and Wildlife California Natural Diversity Database



Query Criteria:

Taxonomic Group IS (Dune OR Scrub OR Herbaceous OR Marsh OR Riparian OR Modland OR Horbaceous OR Riparian OR Estuarine OR Riparian<span style='co

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Charadrius alexandrinus nivosus	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
western snowy plover						
Eucyclogobius newberryi	AFCQN04010	Endangered	None	G3	S3	SSC
tidewater goby						
Spirinchus thaleichthys	AFCHB03010	Candidate	Threatened	G5	S1	SSC
longfin smelt						

Record Count: 3

FEDERAL SPECIAL-STATUS SPECIES

SCIENTIFIC	T A CITATA			TO GOIGIA
NAME COMMON NAME	STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	IDENTIFICATION
ANIMALS				
BIRDS				
Brachyramphus			Outside of the breeding season, found in coastal areas, mainly in salt	
Marmoratus	FT	CA, OR, WA	water within 2 km of shore, including bays and sounds. Nests in	Year-Round
Marbled Murrelet			trees in terrestrial habitat including alpine, conifer forest, and tundra.	
			Resides in mixed conifer, redwood, and Douglas fir habitats, from	
			sea level up to approximately 2,300 meters. Appear to prefer old-	
2:1-21-21-15-15-15-15-15-15-15-15-15-15-15-15-15		CA, OR, WA into	growth forests, but use of managed (previously logged) lands is not	
Sirix Occidentalis		BC and Cascade	uncommon. Owls do not appear to use logged habitat until	
Vaurina Nouthous Crottod	FT	Mountains, forests	approximately 60 years after logging unless some larger trees or	Year-Round
Noturem Sported		and Sierra Nevada	snags remain after logging. Nesting habitat is a tree or snag cavity,	
Į.		old growth forests.	or the broken top of a large tree. Requires a nearby, permanent	
			source of water. Foraging habitat consists of any forest habitat with	
			sufficient prey (e.g. flying squirrels, mice, and voles).	
Dhoobartiic		Nests on islands off	Requires remote islands for breeding habitat; nests in open, treeless	
r Roebastria A Retinis		southern Japan and	areas with low, or no, vegetation. Spend much of their time feeding	
Short Tailed	FE	very rare visitor	in shelf-break areas of the Bering Sea, Aleutian chain and in other	December Through July
Albetrage		along western coast	Alaskan, Japanese, and Russian waters, as they require nutrient-rich	
Albanoss		California.	areas of ocean upwelling for their foraging habitat.	
			Snowy plovers (pacific coast population) breed primarily above the	
			high tide line on coastal beaches, sand spits, dune-backed beaches,	
Charadrius Nivosus		CA OP WA Doors	sparsely vegetated dunes, beaches at creek and river mouths, and	
Western Snowy	FT	CA, OK, WA, I acme	saltpans at lagoons and estuaries. In winter, snowy plovers are	May Through October
Plover		COASI	found on many of the beaches used for nesting as well as on beaches	
			where they do not nest, in manmade salt ponds, and on estuarine	
			sand and mud flats.	

SCIENTIFIC NAME COMMON NAME	FEDERAL STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION
Cooccyzus Americanus Yellow-Billed Cuckoo	FT	AZ, CA, CO, ID, MT, NM, NV, OR, TX, UT, WA, WY, Canada, Mexico	wooded habitat with dense cover and water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes. Nests are often placed in willows along streams and rivers, with nearby cottonwoods serving as foraging sites.	Year-Round
fishes				
Eucyclogobius Newberryi Tidewater Goby	王王	CA Coast	Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water & high oxygen levels	Consult Agency
Spirinchus Thaleichthys Longfin Smelt	Candidate	CA Coast	Occurs in benthic habitat within medium and large low-grade river systems. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	Consult Agency
Notes:				

Notes:

Federal Status Codes (U.S. Fish And Wildlife Service Or National Marine Fisheries Service)

Fe = Listed As Endangered By The Federal Government

 $Ft = Listed \ As \ Threatened \ By \ The \ Federal \ Government$

Source: USFWS, 2016

APPENDIX G

TRINIDAD AREA FREEWAY MASTER PLAN STUDY

Trinidad Area Freeway Master Plan Study Report

Prepared for:

The Trinidad Rancheria

Prepared by:



TRINIDAD AREA FREEWAY MASTER PLAN STUDY

PREPARED FOR: THE TRINIDAD RANCHERIA 1 CHER-AE LANE TRINIDAD, CA 95570

PREPARED JOINTLY BY:

OMNI-MEANS, LTD. ENGINEERS & PLANNERS 943 RESERVE DRIVE SACRAMENTO CA 95678 (916) 782-8688

AND

SHN CONSULTING ENGINEERS & GEOLOGISTS, INC 812 W. WABASH EUREKA, CA 95501-2138

FEBRUARY 2014

45-6108-01 R1721RPT003.DOCX

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APPENDIX

FIGURES SYNCHRO REPORTS WARRANT WORKSHEETS WEAVING CALCULATIONS

INTRODUCTION

The Trinidad Rancheria (Rancheria) retained the team of SHN Consulting Engineers & Geologist Inc, (SHN) and OMNI-MEANS to complete a roadway improvement needs traffic study, in the vicinity of City of Trinidad in Humboldt County. **Figure 1** (in the appendix) shows the study area. With the planned growth of the Rancheria (per the Master Plan), City of Trinidad (per the General Plan) and other background growth in the County, planning an efficient transportation system is essential to support this growth. The focus of this study is to determine the circulation improvements on US 101 and the interchanges that provide access to the City of Trinidad and the Rancheria to support the future growth. Traffic operations have been quantified based upon weekday peak month AM and PM peak hour traffic operations at critical study intersections, and along US 101 freeway mainline segments, and at mainline/ramp junctions.

STUDY AREA ROADWAY

Roadways that provide the primary vehicle circulation within the study area include US 101, Main Street, Scenic Drive, and Westhaven Drive. Following is a brief description of the primary roadways within the study area:

US 101 is a major north-south freeway facility that provides regional connections to the cities on the north coast and Sacramento/ Los Angeles urban basin to the south. Within Humboldt County, US 101 serves as a vital north-south circulator, and is a general four lane divided freeway with a 65 mph posted speed limit in the immediate vicinity of the study area. Just south of the Main Street interchange (@ PM 98.067), US 101 currently carries an Annual Average Daily Traffic (AADT) of 10,600 vehicles. (Source: 2011 Caltrans Traffic Volumes.) Truck traffic on US 101 in the project area (@ PM 98.067) represents approximately 22% of the daily traffic. (Source: 2010 Caltrans Annual Average Daily Truck Traffic on the California State Highway System.)

Main Street is an east-west two lane primary collector street that extends west of US 101 SB ramps and continues through the City of Trinidad as Trinity Street and Edwards Street. Per the City of Trinidad draft General Plan Circulation Element, the Average Daily Traffic (ADT) on Main Street is 3,170 vehicles.

Scenic Drive is a north-south two lane secondary collector street that extends south of Main Street and provides access to the Rancheria. Per the City of Trinidad draft General Plan Circulation Element, the ADT on Scenic Drive is 870 vehicles.

Westhaven Drive is a north-south two lane primary collector street that extends east of US 101 SB ramps and provides a connection between the City of Trinidad and the unincorporated community of Westhaven in the county. Per the City of Trinidad draft General Plan Circulation Element, the ADT on Westhaven Drive east of US 101 is 865 vehicles.

STUDY LOCATIONS

Intersections

Based on consultation with Caltrans, weekday AM & PM traffic counts were collected for the following study intersections:

- 6th Avenue/Kay Avenue
 6th Avenue/Kahlstrom Avenue
- 3. Kay Avenue/US101 SB Ramps
- 4. Kahlstrom Avenue/7th Avenue
- 5. Main Street/Patricks Point Drive/Trinidad Scenic Drive
- 6. Main Street/US101 SB Ramps
- 7. Westhaven Drive/US101 NB Ramps
- 8. Westhaven Drive/Trinidad Frontage Road
- 9. Scenic Drive/Baker Ranch Road
- 10. Scenic Drive/Cher-Ae Heights Casino Driveway
- 11. Scenic Drive/Cher-Ae Lane
- 12. Scenic Drive/Lanford Road

The weekday AM and PM peak hour traffic counts were collected in May 2013. The AM peak hour is defined as one-hour of peak traffic flow counted between 7:00 AM and 9:00 AM and the PM peak hour is defined as one-hour of peak traffic flow counted between 4:00 PM and 6:00 PM.

Based on the data obtained from Caltrans continuous count station located at PM 98.067 on US 101, August counts were observed to be 25% higher than the May counts. Therefore, the May counts were adjusted to reflect the peak August month counts. Although, it is unlikely that the local street intersections will experience this same growth, for the purposes of this study, this growth was utilized to reflect August peak month counts.

Figure 2 (in the Appendix) shows the existing lane geometrics and control at the study intersections. Figure 3 (in the Appendix) shows the existing peak hour volumes at these locations and Figure 4 (in the appendix) shows the existing ramp volumes.

US101 Mainline Segments

The following mainline segments have been analyzed in the study:

- 1. US101 Mainline NB north of Main Street Interchange
- 2. US101 Mainline SB north of Main Street Interchange
- 3. US101 Mainline NB south of Main Street Interchange
- 4. US101 Mainline SB south of Main Street Interchange

US101 Merge/Diverge

The following merge/diverge junctions have been analyzed in the study:

- 1) NB US101/Kahlstrom Avenue Ramp Diverge
- 2) SB US101/Kay Avenue Ramp Merge
- 3) NB US101/Kahlstrom Avenue Ramp Merge
- 4) SB US101/Kay Avenue Ramp Diverge
- 5) NB US101/Westhaven Drive Ramp Diverge
- 6) SB US101/Main Street Ramp Merge
- 7) NB US101/Westhaven Drive Ramp Merge
- 8) SB US101/Main Street Ramp Diverge

ANALYSIS METHODOLOGIES AND PARAMETERS

Level-of-Service Methodologies

Traffic operations will be quantified through the determination of "Level of Service" (LOS). Level of Service is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection or roadway segment representing progressively worsening traffic conditions. Levels of Service have been calculated for all intersection control types using the methods documented in the Transportation Research Board Publication *Highway Capacity Manual, Fourth Edition, 2010 (HCM-2010)*. For signalized intersections and all-way-stop-controlled (AWSC) intersections, the intersection delays and levels of service are average values for all intersection movements. For two-way-stop-controlled (TWSC) intersections, the intersection delays and levels of service are representative of those for the worst-case movement.

LOS Policies

The Caltrans published *Guide for the Preparation of Traffic Impact Studies* (dated December 2002) states the following:

"Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities."

LOS Threshold

Based on the above policy, LOS 'C' has been assumed as the minimum acceptable for all study intersections, mainline segments and ramp merge diverge and weave junctions.

Warrant Analysis

A supplemental traffic signal "warrant" analysis has been completed on unsignalized intersections determined to be operating at unacceptable LOS. The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the need for installation of a traffic signal at an unsignalized intersection. The signal warrant criteria are based upon several factors, including the volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The criteria is published in the California Manual of Traffic Control Devices (MUTCD).

This study utilizes the peak hour volume-based Warrant 3 as one representative type of traffic signal warrant analysis. It should be noted that the Peak-Hour-Volume Warrant was only applied when the intersection was found to be operating at unacceptable LOS. Therefore, there may be instances when the unsignalized intersection operates at acceptable LOS conditions or better but still meets the Peak-Hour-Volume Warrant.

Technical Analysis Parameters - Intersections

The traffic study would generally provide a "preliminary operational level" evaluation of traffic operating conditions, which is considered sufficient for California Environmental Quality Act (CEQA) and National Environmental Quality Act (NEPA) purposes. The Synchro 8.0 (Trafficware) integrated computer software program has been used to implement the HCM-2010 analysis methodologies at intersections. The specific intersections related technical analysis parameters that have been used for this study are presented below.

Parameters	Existing Conditions	Future Conditions			
Peak Hour factor (PHF)	from data collection	0.88			
Heavy Vehicle Percentage	5%	5%			
# of Conflicting Pedestrian/Hour	5	5			
Ideal Saturated Flow ¹	1500 vphpl 1500 vphpl				
1. Ideal Saturated Flow assumed as	per Caltrans District 1 recor	mmedation.			

Technical Analysis Parameters – Mainline and Ramps

The Highway Capacity Software integrated computer software program has been used to implement the HCM-2010 analysis methodologies at freeways and ramps. The specific mainline, ramp related technical analysis parameters that have been used for this study are presented below.

Parameters	Existing Conditions	Future Conditions
Free Flow Speed	55 MPH	55 MPH
Mainline Peak Hour Factor (PHF)	0.88	0.88
Ramp Peak Hour Factor (PHF)	from existing counts	0.88
Mainline Heavy Vehicle Percentage ¹	22%	22%
Ramp Heavy Vehicle Percentage	5%	5%
Terrain	Level	Level
Driver Population	0.86	0.86
Mainline AM peak Hour Volume (Northbound) ²	317 vph	1% growth rate
Mainline AM peak Hour Volume (Southbound) ²	287 vph	1% growth rate
Mainline PM peak Hour Volume (Northbound) ²	541 vph	1% growth rate
Mainline PM peak Hour Volume (Southbound) ²	486 vph	1% growth rate
Ramp Volumes	from data collection	1% growth rate
1. Mainline Heavy Vehicle Percentage obtained from Caltra	ns Published 2011 Data.	
2. Data abtained from Caltrans' Performance Measurement	System (PEMS) database for	

Thursday in August 2012 (peak month and day).

EXISTING CONDITIONS

This section provides a summary of intersection, mainline and ramp merge/diverge analysis for Existing conditions. **Figure 3** (in the appendix) depicts the intersection volumes and **Figure 4** (in the appendix) depicts the freeway mainline and ramp volumes.

Intersections

"Existing" peak-hour traffic operations were quantified for the study intersections. **Table 1A** summarizes Existing AM and PM peak hour intersection LOS values with existing traffic volumes (shown on **Figure 3**) and lane geometrics and control (shown on **Figure 2**).

TABLE 1A EXISTING CONDITIONS: INTERSECTIONS LEVEL OF SERVICE

				AM Peak Hour			P	M Peak	Hour
		Control	Target			Warrant			Warrant
#	Intersection	Type ^{1,2}	LOS	Delay	LOS	Met? ³	Delay	LOS	Met? ³
1	6th Avenue & Kay Avenue	TWSC	С	8.9	A	-	8.9	A	-
2	6th Avenue & Kahlstrom Avenue	TWSC	С	9.0	A	-	8.8	A	-
3	Kay Avenue & US 101 SB Ramps	TWSC	С	9.5	A	-	9.1	A	-
4	Kahlstrom Avenue & 7th Avenue	TWSC	С	9.0	A	-	0.4	A	-
5	Scenic Drive & Main Street	TWSC	С	12.4	В	-	13.6	В	-
6	Westhaven Drive & US 101 SB Ramps	TWSC	С	9.6	A	-	10.0	A	-
7	Westhaven Drive & US 101 NB Ramps	TWSC	C	10.7	В	-	11.2	В	-
8	Westhaven Drive & Frontage Road	TWSC	C	9.2	A	-	9.0	A	-
9	Scenic Drive & Baker Ranch Drive	TWSC	С	0.7	A	-	8.5	A	-
10	Scenic Drive & Cher-Ae Lane	TWSC	С	8.6	A	-	9.1	A	-
11	Scenic Drive & Cher-Ae Heights Casino	TWSC	С	8.6	A	-	8.6	A	-
12	Scenic Drive & Landford Road	TWSC	С	8.7	A	-	8.9	A	-
Not	es:								

^{1.} TWSC = Two Way Stop Control

As indicated in **Table 1A**, all of the study intersections are found to be operating at acceptable LOS under Existing conditions based on the intersection delay and the corresponding LOS.

Existing Freeway and Ramp Junction Operating Conditions

US 101 freeway mainline and ramp junction peak-hour traffic operations were also quantified applying methods documented in the *HCM-2010* with the existing conditions LOS presented in **Table 1B**. As shown in **Table 1B**, all freeway mainline segments and ramp junctions within the study area currently operate at LOS "C" or better for "Existing" AM and PM peak hour periods.

^{2.} LOS = Delay based on worst minor street approach for TWSC intersections

^{3.} Warrant = Based on California MUTCD Warrant 3

TABLE 1B EXISTING CONDITIONS: US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

			AM Peak Hour PM Peak Hour					•	
	No.	Target		Density,		Density,			
Freeway Mainline Segment	Lanes	LOS	Volume	(pc/mi/ln)	LOS	Volume	(pc/mi/ln)	LOS	
US 101 NB north of Main Street	2	C	204	2.7	A	368	4.9	A	
US 101 NB south of Main Street	2	С	343	5.1	A	539	7.2	A	
US 101 SB north of Main Street	2	С	164	2.2	A	366	4.9	A	
US 101 SB south of Main Street	2	С	282	3.8	A	496	6.6	A	

TABLE 1B (CONTINUED) EXISTING CONDITIONS: US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

			AM Peak	Hour	PM Peak l	Hour
	Target	Junction	Density		Density	
Interchange Location	LOS	Type	(pc/mi/ln)	LOS	(pc/mi/ln)	LOS
US 101 Ramps @ 6th Avenue I/C						
U.S. Route 101 Northbound On-Ramp	С	Merge	7.8	A	9.9	A
U.S. Route 101 Northbound Off-Ramp	C	Diverge	6.1	A	9.2	A
U.S. Route 101 Southbound On-Ramp	С	Merge	7.4	A	9.8	A
U.S. Route 101 Southbound Off-Ramp	С	Diverge	5.8	A	8.8	A
US 101 Ramps @ Main Street I/C						
U.S. Route 101 Northbound On-Ramp	C	Merge	5.9	A	7.8	A
U.S. Route 101 Northbound Off-Ramp	C	Diverge	6.8	A	9.3	A
U.S. Route 101 Southbound On-Ramp	C	Merge	7.0	A	9.6	A
U.S. Route 101 Southbound Off-Ramp	С	Diverge	4.1	A	7.2	A

DESIGN YEAR CONDITIONS

General

The Highway Design Manual (HDM) states that the geometric design of new facilities and reconstruction projects should normally be based on estimated traffic 20 years after completion of construction. As such, Caltrans has established that the cumulative year of analysis should be 2040. This is consistent with the Humboldt County Regional Planning efforts and the Humboldt County Regional Travel Demand model.

Year 2040 Traffic Volumes

The following sources of data were reviewed to establish background annual growth rate that will be applied to the study area facilities to derive Year 2040 Base traffic volumes:

- 1) Humboldt County Travel Demand Model Roadway volumes for Year 2010 and Year 2040 were compared on US 101. In the vicinity of the study area, the model projects approximately 6,100 ADT for Year 2010 and 7,000 ADT for Year 2040. This yields an annual growth rate of approximately 0.5% per year.
- 2) Historic ADT data available from Caltrans was reviewed for the Year 1992 and Year 2012. In the vicinity of the study area, the 1992 ADT was found to be 8,000 and the peak ADT was found to be 11,300. In 2012, the ADT was found to be 8,900 and the peak ADT was found to be 12,300. This yields an annual growth rate of approximately 0.6% per year.
- 3) California Department of Finance (DOF) projections for population in Humboldt County were reviewed for Year 2010 and Year 2040 conditions. The DOF estimate for population in Year 2010 was 134,663 and Year 2040 is 147,873. This yields an annual growth rate of approximately 0.6% per year.

Per direction from Caltrans District 1 Long Range Planning, a background growth rate of 1.3% per year has been utilized to derive Year 2040 Base traffic volumes.

Year 2020 Traffic Forecasts

Based on the planned development of the Rancheria and input from Caltrans, Year 2020 was established as the interim analysis year. A background growth rate of 1.3% per year has been utilized to derive Year 2020 Base traffic volumes.

YEAR 2020 BASE TRAFFIC OPERATIONS

This section provides a summary of intersection, mainline and ramp merge/diverge analysis for Year 2020 Base conditions. **Figure 5** (in the appendix) depicts the intersection volumes and **Figure 6** (in the appendix) depicts the freeway mainline and ramp volumes.

Intersections

Year 2020 Base peak-hour traffic operations were quantified for the study intersections. **Table 2A** summarizes Year 2020 Base AM and PM peak hour intersection LOS values with Year 2020 volumes (shown on **Figure 5**) and lane geometrics and control (shown on **Figure 2**).

TABLE 2A YEAR 2020 BASE CONDITIONS: INTERSECTIONS LEVEL OF SERVICE

				AM Peak Hour			AM Peak Hour PM F				PM Peak Ho		
		Control	Target			Warrant			Warrant				
#	Intersection	Type ^{1,2}	LOS	Delay	LOS	Met? ³	Delay	LOS	Met? ³				
1	6th Avenue & Kay Avenue	TWSC	С	9.1	A	-	9.2	A	-				
2	6th Avenue & Kahlstrom Avenue	TWSC	С	9.3	A	-	8.9	A	-				
3	Kay Avenue & US 101 SB Ramps	TWSC	С	9.7	A	-	9.2	A	-				
4	Kahlstrom Avenue & 7th Avenue	TWSC	С	9.4	A	-	1.9	A	-				
5	Scenic Drive & Main Street	TWSC	С	14.5	В	-	16.0	С	-				
6	Westhaven Drive & US 101 SB Ramps	TWSC	С	9.8	A	-	10.8	В	-				
7	Westhaven Drive & US 101 NB Ramps	TWSC	С	11.2	В	-	12.1	В	-				
8	Westhaven Drive & Frontage Road	TWSC	С	9.7	A	-	9.5	A	-				
9	Scenic Drive & Baker Ranch Drive	TWSC	С	2.5	A	-	8.6	A	-				
10	Scenic Drive & Cher-Ae Heights Casino	TWSC	С	8.7	A	-	9.0	A	-				
11	Scenic Drive & Cher-Ae Lane	TWSC	С	8.7	A	-	9.5	A	-				
12	Scenic Drive & Landford Road	TWSC	С	9.2	A	-	9.5	A	-				
Note	es:												
1 T	WSC = Two Way Stop Control												

^{1.} TWSC = Two Way Stop Control

As indicated in Table 2A, all of the study intersections are found to be operating at acceptable LOS under Year 2020 Base conditions based on the intersection delay and the corresponding LOS.

Year 2020 Base Freeway and Ramp Junction Operating Conditions

US 101 freeway mainline and ramp junction peak-hour traffic operations were also quantified applying methods documented in the HCM-2010 with the existing conditions LOS presented in Table 2B. As shown in Table 2B, all freeway mainline segments and ramp junctions within the study area currently operate at LOS "C" or better for Year 2020 Base AM and PM peak hour periods.

TABLE 2B YEAR 2020 BASE CONDITIONS: US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

			AN	I Peak Hour	r	PM Peak Hour			
	No.	Target		Density,			Density,		
Freeway Mainline Segment	Lanes	LOS	Volume	(pc/mi/ln)	LOS	Volume	(pc/mi/ln)	LOS	
US 101 NB north of Main Street	2	C	230	3.1	A	400	5.3	Α	
US 101 NB south of Main Street	2	С	380	5.1	A	580	7.7	A	
US 101 SB north of Main Street	2	С	170	2.3	A	410	5.5	A	
US 101 SB south of Main Street	2	С	300	4.0	A	540	7.2	A	

^{2.} LOS = Delay based on worst minor street approach for TWSC intersections

^{3.} Warrant = Based on California MUTCD Warrant 3

TABLE 2B (CONTINUED) YEAR 2020 BASE CONDITIONS:

US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

US 101 MAINLINE AI	12 12 17 17	0110111	AM Peak		PM Peak l	Hour
	Target	Junction	Density		Density	
Interchange Location	LOS	Type	(pc/mi/ln)	LOS	(pc/mi/ln)	LOS
US 101 Ramps @ 6th Avenue I/C						
U.S. Route 101 Northbound On-Ramp	С	Merge	8.3	A	10.4	В
U.S. Route 101 Northbound Off-Ramp	С	Diverge	5.6	A	8.5	A
U.S. Route 101 Southbound On-Ramp	С	Merge	6.9	A	9.2	A
U.S. Route 101 Southbound Off-Ramp	С	Diverge	5.6	A	8.3	A
US 101 Ramps @ Main Street I/C						
U.S. Route 101 Northbound On-Ramp	С	Merge	6.2	A	8.1	A
U.S. Route 101 Northbound Off-Ramp	С	Diverge	6.3	A	8.8	A
U.S. Route 101 Southbound On-Ramp	С	Merge	6.8	A	9.2	A
U.S. Route 101 Southbound Off-Ramp	С	Diverge	4.1	A	6.6	A

YEAR 2040 BASE TRAFFIC OPERATIONS

This section provides a summary of intersection, mainline and ramp merge/diverge analysis for Year 2040 Base conditions. **Figure 7** (in the appendix) depicts the intersection volumes and **Figure 8** (in the appendix) depicts the freeway mainline and ramp volumes.

Intersections

Year 2040 Base peak-hour traffic operations were quantified for the study intersections. **Table 3A** summarizes Year 2040 Base AM and PM peak hour intersection LOS values with Year 2040 traffic volumes (shown on **Figure 7**) and lane geometrics and control (shown on **Figure 2**).

TABLE 3A
YEAR 2040 BASE CONDITIONS: INTERSECTIONS LEVEL OF SERVICE

							M Peak	Hour	
		Control	Target			Warrant			Warrant
#	Intersection	Type ^{1,2}	LOS	Delay	LOS	Met? ³	Delay	LOS	Met? ³
1	6th Avenue & Kay Avenue	TWSC	С	9.1	A	-	9.1	A	-
2	6th Avenue & Kahlstrom Avenue	TWSC	С	9.1	A	-	8.9	A	-
3	Kay Avenue & US 101 SB Ramps	TWSC	С	9.8	A	-	9.3	A	-
4	Kahlstrom Avenue & 7th Avenue	TWSC	С	9.1	A	-	1.9	A	-
5	Scenic Drive & Main Street	TWSC	C	17.1	C	-	21.1	C	-
6	Westhaven Drive & US 101 SB Ramps	TWSC	С	11.3	В	-	11.8	В	-
7	Westhaven Drive & US 101 NB Ramps	TWSC	С	12.8	В	-	14.5	В	-
8	Westhaven Drive & Frontage Road	TWSC	С	10.0	A	-	9.6	A	-
9	Scenic Drive & Baker Ranch Drive	TWSC	С	2.5	A	-	8.6	A	-
10	Scenic Drive & Cher-Ae Heights Casino	TWSC	С	8.7	A	-	8.9	A	-
11	Scenic Drive & Cher-Ae Lane	TWSC	С	8.7	A	-	9.4	A	-
12	Scenic Drive & Landford Road	TWSC	С	9.1	A	-	9.6	A	-
Note	25:								

^{1.} TWSC = Two Way Stop Control

^{2.} LOS = Delay based on worst minor street approach for TWSC intersections

^{3.} Warrant = Based on California MUTCD Warrant 3

As indicated in **Table 3A**, all of the study intersections are found to be operating at acceptable LOS under Year 2040 Base conditions based on the intersection delay and the corresponding LOS.

Year 2040 Base Freeway and Ramp Junction Operating Conditions

US 101 freeway mainline and ramp junction peak-hour traffic operations were also quantified applying methods documented in the *HCM-2010* with the Year 2040 conditions LOS presented in **Table 3B**. As shown in **Table 3B**, all freeway mainline segments and ramp junctions within the study area currently operate at LOS "C" or better for Year 2040 Base AM and PM peak hour periods.

TABLE 3B
YEAR 2040 BASE CONDITIONS:
US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

			AN	I Peak Hou	r	PM Peak Hour			
	No.	Target		Density,			Density,		
Freeway Mainline Segment	Lanes	LOS	Volume	(pc/mi/ln)	LOS	Volume	(pc/mi/ln)	LOS	
US 101 NB north of Main Street	2	C	290	3.9	A	520	6.9	A	
US 101 NB south of Main Street	2	C	490	6.5	A	760	10.1	В	
US 101 SB north of Main Street	2	C	230	3.1	A	500	6.7	A	
US 101 SB south of Main Street	2	С	390	5.2	A	690	9.2	A	

TABLE 3B (CONTINUED) YEAR 2040 BASE CONDITIONS: US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

			AM Peak	Hour	PM Peak l	Hour
	Target	Junction	Density		Density	
Interchange Location	LOS	Type	(pc/mi/ln)	LOS	(pc/mi/ln)	LOS
US 101 Ramps @ 6th Avenue I/C						
U.S. Route 101 Northbound On-Ramp	С	Merge	7.8	A	9.9	A
U.S. Route 101 Northbound Off-Ramp	C	Diverge	6.1	A	9.2	A
U.S. Route 101 Southbound On-Ramp	С	Merge	7.4	A	9.8	A
U.S. Route 101 Southbound Off-Ramp	C	Diverge	5.8	A	8.8	A
US 101 Ramps @ Main Street I/C						
U.S. Route 101 Northbound On-Ramp	С	Merge	5.9	A	7.8	A
U.S. Route 101 Northbound Off-Ramp	С	Diverge	6.8	A	9.3	A
U.S. Route 101 Southbound On-Ramp	С	Merge	7.0	A	9.6	A
U.S. Route 101 Southbound Off-Ramp	С	Diverge	4.1	A	7.2	A

RANCHERIA MASTER PLAN DEVELOPMENT

The Trinidad Rancheria provided long range plans for development of the Rancheria (Master Plan Development). To assess the roadways improvements needs associated with the Master Plan Development, trips expected from the Master Plan Development will be added to the Base year traffic volumes. The general land use assumptions for the proposed Rancheria Master Plan development are presented below:

		Master
Uses	Existing	Plan
Casino	50,000 sq.ft.	150,000 sq.ft.
RV Spaces	22	50
Hotel	None	100 Rooms
Office Space	Minimal	100,000 sq.ft.
Retail	None	25,000 sq.ft.
Community Space	Minimal	50,000 sq.ft.
Gas Station	None	6 Pumps

Rancheria Master Plan Development Trip Generation

Table 4A provides the trip generation associated with the proposed Rancheria Master Plan development. Trip Generation estimates for other uses were obtained from the data published in the 9th edition of Institute of Transportation Engineers (ITE). Although the retail uses associated with the proposed Rancheria Master Plan development are expected to be "Specialty Retail" (ITE Use Code 814), a "Shopping Center" (ITE use code 820) was used to estimate trips for this land use. The data is limited for the Specialty Retail type uses and therefore, Shopping Center was used.

Traffic counts conducted at the entrance to the existing Trinidad Rancheria indicated that the existing Rancheria generates 67 trips during the AM peak period and 107 trips during the PM peak period. Based on the 50,000 square feet existing casino establishment, these trips translate to 1.34 trips/1,000 sq.ft. during the AM peak period and 2.14 trips/1,000 sq.ft. during the PM peak period. This data along with data from other Casino/Rancheria's was utilized in deriving trips for the proposed 150,000 square feet casino expansion.

Table 4B provides the trip generation associated with the proposed Rancheria Master Plan development for Year 2020 conditions.

TABLE 4A
RANCHERIA MASTER PLAN DEVELOPMENT - BUILT-OUT TRIP GENERATION

"Unadjusted" Pi	roject T	rip Ge	ne ratio	n ¹				
Land Use Category			AM PI	k Hr Tri	p Rate	PM Pk Hr Trip Rate		
(ITE Code)	Rate I	Jnit	Total	In %	Out %	Total	In %	Out %
Casino Trip Generation Rates ²	per	ksf	2.01	69%	31%	3.94	53%	47%
Hotel (310) ³	per	room	0.56	61%	39%	0.59	53%	47%
General Office (710) ³	per	ksf	1.92	88%	12%	1.91	17%	83%
Shopping Center (820) ³	per	ksf	0.96	62%	38%	3.71	48%	52%
Recreational Community Center (495) ³	per	ksf	2.05	66%	34%	2.74	49%	51%
Gas Station with Convenience Market (945) ³	per	FS	10.16	50%	50%	13.51	50%	50%
			AM Pk Hr Trips			PM Pk Hr Trips		
Land Use Description	Quan	tity	Total	In	Out	Total	In	Out
Proposed Casino Expansion	150.0	ksf	302	208	94	591	313	278
Hotel	100	rooms	56	34	22	59	31	28
Office	100	ksf	192	169	23	191	32	159
Retail	25	ksf	24	15	9	93	45	48
Recreational	50	ksf	103	68	35	137	67	70
Mini-Mart	6	FS	61	31	30	82	41	41
TOTAL "UNADJUSTED" PROPOSED PROJECT TRIPS	s		738	525	213	1,153	529	624

Notes: ksf = 1,000 square feet, FS - Fueling Stations

- 1) Unadjusted Trips include Internal Trips.
- 2) Trip generation volumes estimated using other sources, which are attached.
- 3) Trip generation volumes estimated using the ITE Trip Generation (9th Edition).
- 4) Based on professional engineering judgement.

Internal Trip Reductions⁴

			Peak H		PM Peak Hour			
Land Use Description			iternal '	<u>//o</u>	II.	nternal '	<u>//o</u>	
Hotel			30%			30%		
Office, Retail, Recreational and Mini-Mart			20%			20%		
				r Trips	PM Peak Hour Trips			
Land Use Description		Total	In	Out	Total	In	Out	
100 Room Hotel		16	10	6	17	9	8	
Office, Retail, Recreational and Mini-Mart		76	56	19	100	37	63	
TOTAL PROPOSED PROJECT INTERNAL TRIPS		92	66	26	117	46	71	

"Unadjusted" External Trip Generation

			ak Hou	r Trips	PM Peak Hour Trips		
Land Use Description		Total	In	Out	Total	In	Out
TOTAL "UNADJUSTED" PROJECT TRIPS		738	525	213	1,153	529	624
- Internal trips		-92	-66	-26	-117	-46	-71
TOTAL "UNADJUSTED" PROPOSED PROJECT EXTERNAL TRIPS			459	187	1,036	483	553

Full development of the proposed Rancheria Master Plan development is expected to generate 646 AM peak hour trips and 1,036 PM peak hour trips. Note that these are all net "new" trips that will be added to the study intersection in the analysis under Year 2040 Master Plan conditions.

The study includes analysis of proposed Rancheria Master Plan development conditions under Year 2020 conditions. It is not expected that full build-out of the proposed Rancheria Master Plan development will occur by Year 2020 conditions. Therefore, for trip generation purposes under Year 2020 conditions, it is assumed that the 100 room hotel and the 150,000 square feet casino expansion will be constructed.

TABLE 4B YEAR 2020 MASTER PLAN TRIP GENERATION

"Unadjusted" P	roject T	rip Ge	neratio	n ¹				
Land Use Category				k Hr Tri	p Rate	PM Pl	k Hr Tri	p Rate
(ITE Code)	Rate I	J nit	Total	In %	Out %	Total	In %	Out %
Casino Trip Generation Rates ²	per	ksf	2.01	69%	31%	3.94	53%	47%
Hotel (310) ³	per	room	0.56	61%	39%	0.59	53%	47%
	AM Pk Hr Trips PM P				Pk Hr T	<u>rips</u>		
Land Use Description	Quan	tity	Total	In	Out	Total	In	Out
Proposed Casino Expansion	150.0	ksf	302	208	94	591	313	278
Hotel	100	rooms	56	34	22	59	31	28
TOTAL "UNADJUSTED" PROPOSED PROJECT TRIF	PS		358	242	116	650	344	306
Notes: ksf = 1,000 square feet, FS - Fueling Stations								
1) Unadjusted Trips include Internal Trips.								
2) Trip generation volumes estimated using other sources, which are attack	hed.							
3) Trip generation volumes estimated using the ITE Trip Generation (9th E	dition).							
4) Based on professional engineering judgement.								
Internal	Trip Red	luction	IS ⁴					
			AM	Peak H	our	PM	Peak H	our
Land Use Description			Iı	nternal (%	Iı	nternal '	%
Hotel				30%			30%	
			AM Pe	eak Hou	r Trips	PM Po	eak Hou	<u>Trips</u>
Land Use Description			Total	In	Out	Total	In	Out
100 Room Hotel			16	10	6	17	9	8
TOTAL PROPOSED PROJECT INTERNAL TRIPS			16	10	6	17	9	8
"Unadjusted" Ex	kternal '	Trip (Gener	ation				
		AM Pe	eak Hou	r Trips	PM Peak Hour Trips			
Land Use Description			Total	In	Out	Total	In	Out
TOTAL "UNADJUSTED" PROJECT TRIPS			358	242	116	650	344	306
- Internal trips			-16	-10	-6	-17	-9	-8
TOTAL "UNADJUSTED" PROPOSED PROJECT EXT	ERNAL TI	RIPS	342	232	110	633	335	298

Year 2020 development of the proposed Rancheria Master Plan development is expected to generate 342 AM peak hour trips and 633 PM peak hour trips. Note that these are all net "new" trips that will be added to the study intersection in the analysis under Year 2020 Master Plan conditions.

Rancheria Master Plan development Trip Distribution and Assignment

The directional trip distribution and assignment of proposed Rancheria Master Plan development trips was largely based on the type of uses, demographics of the study area, travel patterns from the existing Rancheria derived thru traffic counts. The directional trip distribution for the proposed Rancheria Master Plan development is depicted graphically in **Figure 9** (in the Appendix).

YEAR 2020 RANCHERIA MASTER PLAN TRAFFIC OPERATIONS

This section provides a summary of intersection, mainline and ramp merge/diverge analysis for Year 2020 Rancheria Master Plan conditions. **Figure 10** (in the appendix) depicts the intersection volumes and **Figure 11** (in the appendix) depicts the freeway mainline and ramp volumes.

Intersections

2020 Rancheria Master Plan peak-hour traffic operations were quantified for the study intersections. **Table 5A** summarizes Year 2020 Rancheria Master Plan AM and PM peak hour intersection LOS values with Year 2020 traffic volumes (shown on **Figure 10**) and lane geometrics and control (shown on **Figure 2**).

TABLE 5A
YEAR 2020 RANCHERIA MASTER PLAN CONDITIONS: INTERSECTIONS LEVEL OF SERVICE

			A	M Peak	Hour	P	M Peak	Hour
	Control	Target			Warrant			Warrant
# Intersection	Type ^{1,2}	LOS	Delay	LOS	Met? ³	Delay	LOS	Met? ³
1 6th Avenue & Kay Avenue	TWSC	C	9.2	A	-	9.4	A	-
2 6th Avenue & Kahlstrom Avenue	TWSC	С	9.4	A	-	9.1	A	-
3 Kay Avenue & US 101 SB Ramps	TWSC	С	9.7	A	-	9.3	A	-
4 Kahlstrom Avenue & 7th Avenue	TWSC	С	9.4	A	-	1.9	A	-
5 Scenic Drive & Main Street	TWSC	C	54.3	F	No	OVR	F	Yes
6 Westhaven Drive & US 101 SB Ramps	TWSC	С	11.8	В	-	15.3	С	-
7 Westhaven Drive & US 101 NB Ramps	TWSC	C	16.3	С	-	39.0	E	Yes
8 Westhaven Drive & Frontage Road	TWSC	С	9.9	A	-	9.9	A	-
9 Scenic Drive & Baker Ranch Drive	TWSC	С	2.5	A	-	8.7	A	-
10 Scenic Drive & Cher-Ae Heights Casino	TWSC	С	9.1	A	-	9.5	A	-
11 Scenic Drive & Cher-Ae Lane	TWSC	С	10.2	В	-	24.1	С	-
12 Scenic Drive & Landford Road	TWSC	С	11.2	В	-	15.6	С	-
Notes:								

^{1.} TWSC = Two Way Stop Control

As indicated in **Table 5A**, all of the study intersections with the exception of Scenic Drive and Main Street and Westhaven Drive and US 101 NB Ramps intersections are found to be operating at acceptable LOS under Year 2020 Rancheria Master Plan conditions based on the intersection delay and the corresponding LOS. Furthermore, the Scenic Drive/Main Street and Westhaven Drive/US 101 NB Ramps intersections are projected to meet the peak hour warrant criteria during the PM peak period.

Year 2020 Rancheria Master Plan Freeway and Ramp Junction Operating Conditions

US 101 freeway mainline and ramp junction peak-hour traffic operations were also quantified applying methods documented in the HCM-2010 with the existing conditions LOS presented in **Table 5B**. As shown in **Table 5B**, all freeway mainline segments and ramp junctions within the study area currently operate at LOS "C" or better for Year 2020 Rancheria Master Plan AM and PM peak hour periods.

^{2.} LOS = Delay based on worst minor street approach for TWSC intersections

^{3.} Warrant = Based on California MUTCD Warrant 3

TABLE 5B YEAR 2020 RANCHERIA MASTER PLAN CONDITIONS: US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

			AN	I Peak Hou	•	PM Peak Hour			
	No.	Target		Density,			Density,		
Freeway Mainline Segment	Lanes	LOS	Volume	(pc/mi/ln)	LOS	Volume	(pc/mi/ln)	LOS	
US 101 NB north of Main Street	2	С	254	3.4	A	464	6.2	A	
US 101 NB south of Main Street	2	С	515	6.9	A	774	10.3	A	
US 101 SB north of Main Street	2	С	221	2.9	A	484	6.5	A	
US 101 SB south of Main Street	2	С	364	4.9	A	713	9.5	A	

TABLE 5B (CONTINUED) YEAR 2020 RANCHERIA MASTER PLAN CONDITIONS: US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

			AM Peak	Hour	PM Peak I	Hour
	Target	Junction	Density		Density	
Interchange Location	LOS	Type	(pc/mi/ln)	LOS	(pc/mi/ln)	LOS
US 101 Ramps @ 6th Avenue I/C						
U.S. Route 101 Northbound On-Ramp	C	Merge	9.9	A	12.6	В
U.S. Route 101 Northbound Off-Ramp	C	Diverge	7.5	A	11.3	В
U.S. Route 101 Southbound On-Ramp	С	Merge	8.0	A	11.5	В
U.S. Route 101 Southbound Off-Ramp	C	Diverge	6.6	A	11.0	В
US 101 Ramps @ Main Street I/C						
U.S. Route 101 Northbound On-Ramp	C	Merge	6.4	A	8.7	A
U.S. Route 101 Northbound Off-Ramp	С	Diverge	8.5	A	11.8	В
U.S. Route 101 Southbound On-Ramp	С	Merge	7.6	A	11.3	В
U.S. Route 101 Southbound Off-Ramp	С	Diverge	4.8	A	8.1	A

YEAR 2040 RANCHERIA MASTER PLAN TRAFFIC OPERATIONS

This section provides a summary of intersection, mainline and ramp merge/diverge analysis for Year 2040 Rancheria Master Plan conditions. **Figure 12** (in the appendix) depicts the intersection volumes and **Figure 13** (in the appendix) depicts the freeway mainline and ramp volumes.

Intersections

Year 2040 Rancheria Master Plan peak-hour traffic operations were quantified for the study intersections. **Table 6A** summarizes Year 2040 Rancheria Master Plan AM and PM peak hour intersection LOS values with Year 2040 traffic volumes (shown on **Figure 12**) and lane geometrics and control (shown on **Figure 2**).

TABLE 6A YEAR 2040 RANCHERIA MASTER PLAN CONDITIONS: INTERSECTIONS LEVEL OF SERVICE

			A	M Peak	Hour	P	M Peak	Hour	
#	Intersection	Control Type 1,2	Target LOS	Delay	LOS	Warrant Met? ³	Delay	LOS	Warrant Met? ³
1	6th Avenue & Kay Avenue	TWSC	С	9.3	A	-	9.4	A	-
2	6th Avenue & Kahlstrom Avenue	TWSC	С	9.3	A	-	9.2	A	-
3	Kay Avenue & US 101 SB Ramps	TWSC	С	9.9	A	-	9.5	A	-
4	Kahlstrom Avenue & 7th Avenue	TWSC	С	9.4	A	-	1.9	A	-
5	Scenic Drive & Main Street	TWSC	C	OVR	F	Yes	OVR	F	Yes
6	Westhaven Drive & US 101 SB Ramps	TWSC	С	18.6	С	-	23.7	C	-
7	Westhaven Drive & US 101 NB Ramps	TWSC	C	71.7	F	Yes	OVR	F	Yes
8	Westhaven Drive & Frontage Road	TWSC	С	10.5	В	-	10.4	В	-
9	Scenic Drive & Baker Ranch Drive	TWSC	С	2.5	A	-	8.7	A	-
10	Scenic Drive & Cher-Ae Heights Casino	TWSC	С	9.2	A	-	10.4	В	-
11	Scenic Drive & Cher-Ae Lane	TWSC	C	13.6	В	-	235.1	F	Yes
12	Scenic Drive & Landford Road	TWSC	C	13.4	В	-	22.7	С	-

Notes:

- $1.\ TWSC = Two\ Way\ Stop\ Control$
- 2. LOS = Delay based on worst minor street approach for TWSC intersections
- 3. Warrant = Based on California MUTCD Warrant 3

As indicated in **Table 6A**, the following study intersections are found to be operating at unacceptable LOS D or worse conditions under Year 2040 Rancheria Master Plan conditions based on the intersection delay and the corresponding LOS:

- Scenic Drive and Main Street (meets the peak hour warrant criteria during both peak periods)
- Westhaven Drive and US 101 NB Ramps (meets the peak hour warrant criteria during both peak periods)
- Scenic Drive and Cher-Ae Lane (meets the peak hour warrant criteria during the PM peak period)

Year 2040 Rancheria Master Plan Freeway and Ramp Junction Operating Conditions

US 101 freeway mainline and ramp junction peak-hour traffic operations were also quantified applying methods documented in the HCM-2010 with the existing conditions LOS presented in **Table 6B**. As shown in **Table 6B**, all freeway mainline segments and ramp junctions within the study area currently operate at LOS "C" or better for Year 2040 Rancheria Master Plan AM and PM peak hour periods.

TABLE 6B
YEAR 2040 RANCHERIA MASTER PLAN CONDITIONS:
US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

			AN	1 Peak Hou	•	PM Peak Hour			
	No.	Target		Density,			Density,		
Freeway Mainline Segment	Lanes	LOS	Volume	(pc/mi/ln)	LOS	Volume	(pc/mi/ln)	LOS	
US 101 NB north of Main Street	2	C	331	4.4	A	642	8.6	A	
US 101 NB south of Main Street	2	C	756	10.1	A	1,040	13.9	В	
US 101 SB north of Main Street	2	С	331	4.4	A	606	8.1	A	
US 101 SB south of Main Street	2	С	498	6.6	A	1,011	13.5	В	

TABLE 6B (CONTINUED) YEAR 2040 RANCHERIA MASTER PLAN CONDITIONS: US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

US 101 MAINLINE AND RAWL SUNCTION LEVEL OF SERVICE								
			AM Peak	Hour	PM Peak Hour			
	Target	Junction	Density		Density			
Interchange Location	LOS	Type	(pc/mi/ln)	LOS	(pc/mi/ln)	LOS		
US 101 Ramps @ 6th Avenue I/C								
U.S. Route 101 Northbound On-Ramp	С	Merge	12.2	В	15.5	В		
U.S. Route 101 Northbound Off-Ramp	С	Diverge	10.2	В	14.4	В		
U.S. Route 101 Southbound On-Ramp	C	Merge	9.4	A	14.7	В		
U.S. Route 101 Southbound Off-Ramp	С	Diverge	8.3	A	14.8	В		
US 101 Ramps @ Main Street I/C								
U.S. Route 101 Northbound On-Ramp	С	Merge	7.3	A	10.6	В		
U.S. Route 101 Northbound Off-Ramp	С	Diverge	11.5	A	15.1	В		
U.S. Route 101 Southbound On-Ramp	С	Merge	9.0	A	14.4	В		
U.S. Route 101 Southbound Off-Ramp	С	Diverge	6.2	A	9.6	A		

CHER-AE LANE INTERCHANGE

As noted in the previous analysis, with the addition of trips associated with the Rancheria Master Plan, the intersections on Main Street interchange are forecasted to operate at unacceptable LOS E or worse conditions under both Year 2020 and Year 2040 conditions. Without the Rancheria Master Plan trips, all of the study locations are projected to operate at acceptable LOS. Therefore, within this study, traffic operations analysis is evaluated with an interchange that provides direct access to the Rancheria and Westhaven Drive. This new interchange will be located approximately 0.7 miles south of the Main Street interchange.

For the purposes of the analysis a tight diamond interchange is assumed at the new interchange, which is referred to as the Cher-Ae Lane interchange. A two lane overcrossing is assumed with all-way stops at the two ramp locations. Easterly extension of Cher-Ae Lane past the interchange to intersect at a "T" intersection with Westhaven Drive is also assumed.

It should be noted that the spacing between the existing Main Street interchange and the proposed Cher-Ae Lane interchange does not meet the spacing requirements and a design exception would be necessary. However, the objective of this study is to analyze transportation operations associated with the new interchange and the design details and exceptions will be prepared in a Project Study Report, which will be prepared at a later time.

Weaving Analysis

Caltrans District 1 Traffic Operations performed a weaving analysis for the proposed Cher-Ae Lane Interchange on U.S. 101, approximately 0.7 miles south of the Trinidad interchange. The Leisch Method, referred to in Index 504.7 of the Caltrans Highway Design Manual (HDM), 6th Edition, was used in this analysis. Figure 504.7A from the HDM, which demonstrates this method, is provided in the appendix. The results of this analysis provided by Caltrans District 1 Traffic Operations are summarized below.

The overall conclusion from this analysis is that there is adequate distance on U.S. 101 between the proposed interchange ramps and the existing Trinidad interchange ramps to accommodate the interaction of entering and exiting traffic (current and projected) on U.S. 101 in both the north and south directions while maintaining acceptable Level of Service (LOS) on the freeway. Auxiliary lanes will not be needed on U.S. 101 if a new interchange is constructed near PM 100.2.

Using the post mile locations for the ramp connections of the Trinidad interchange and proposed Cher-Ae Lane interchange, the on and off ramps would be separated by approximately 2,600 feet (0.49 miles) and 2,500 feet (0.47 miles) for the northbound and southbound portions of the freeway, respectively. According to Index 504.5, Paragraph 2, of the HDM, "auxiliary lanes should be provided in all cases when the weaving distance is less than 2000 feet." Under these criteria, auxiliary lanes would not be required for northbound (NB) and southbound (SB) U.S. 101 between the Trinidad interchange and the proposed interchange.

The weaving analysis prepared by Caltrans District 1 Traffic Operations was based on the Year 2020 and 2040 volume information presented in the appendix. The data used was in the units of vehicles per hour (vph) and was taken from the afternoon PM peak hour. Year 2020 plus interchange northbound weaving volumes was calculated at 233 vph (80 vph NB onramp + 153 vph NB off ramp). Southbound weaving was calculated at 244 vph PM peak (151 vph SB onramp + 93 vph SB off ramp). Year 2040 plus interchange northbound weaving volumes was calculated at 292 vph (139 NB onramp + 153 vph NB off ramp). Southbound weaving was calculated at 339 vph (212 vph SB onramp + 127 vph SB off ramp).

HDM Section 504.7, Paragraph 3, gives a rough approximation for length of a weaving section, "one foot of length per weaving vehicle per hour (vph)." The largest weaving volume, 339 vph for Year 2040 in the southbound direction, would only require a 339 foot weaving section, which is much less than the 2500 and 2600 feet distances that exist between on and off ramps in the NB and SB directions, respectively. The distances between the ramps are more than adequate to accommodate the interaction of through traffic, traffic entering the freeway, and traffic exiting the freeway between the proposed and existing interchanges; therefore, auxiliary lanes would not be necessary.

The Leisch Method was used to determine Level of Service (LOS). The results from the method nomograph (HDM Figure 504.7A, provided in the appendix) show that the Year 2040 southbound weaving volume of 339 vph, or 401 passenger cars per hour (pcph), would result in LOS A. Being that the Year 2040 northbound weaving volume and the Year 2020 volumes are all less than 339 vph (401 pcph), LOS A would exist in both directions for the weaving section lengths between the interchanges for Year 2020 and 2040 conditions.

Design Exceptions

To promote uniform practice on a statewide basis, the Caltrans HDM identifies standards that shall be considered during project planning. When design features or elements deviate from HDM mandatory standards, approval from the appropriate Caltrans Design Coordinator shall be obtained. The authority to approve exceptions to advisory standards rests with the District Director (District 1).

Design exception approval must be obtained prior to Caltrans approval of a Project Study Report (PSR). When project development is initiated with approval of a Project Study Report – Project Development Support (PSR-PDS) document, approval of applicable design exceptions can be deferred to the Project Report (PR) phase.

Table 82.1A of the HDM lists mandatory standards subject to the above approval requirements. A screening-level review of the standards resulted in development of the below list of potential exceptions to mandatory standards for this project:

HDM Index	Standard	Comment
101.1	Selection of Design Speed	Local roads at interchanges may not meet standards.
201.1	Sight Distance Standards	Local roads at interchanges may not meet standards.
202.2	Superelevation	Local roads and ramp termini may not meet standards.
203.1	Horizontal Alignment	Local roads may not meet standards.
204.1	Local Facility Grades	Local road grades may not meet standards.
309.1	Clear Recovery Zone	Existing topographic features may not meet standards.
501.3	Interchange Spacing	A new interchange will require an exception.
504.3	Distance Between Ramp &	Not met at existing interchanges. May not be met
	Frontage Roads	at new interchange.

Table 82.1B of the HDM lists advisory standards subject to the above approval requirements. A screening-level review of the standards resulted in development of the below list of potential exceptions to advisory standards for this project:

HDM Index	Standard	Comment
101.1	Selection of Design Speed	Local roads at interchanges may not meet standards.
105.4	Two ADA Ramp Design	One access ramp is often appropriate at signalized
		freeway ramps.
203.1	Horizontal Alignment	Local roads may not meet standards.
204.1	Local Facility Grades	Local road grades may not meet standards.

304.1	Side Slopes 1:4 or Flatter	Existing and proposed slopes may exceed 1:4.
309.1	Clear Recovery Zone	Existing topographic features may not meet standards.
504.3	Distance Between Ramp &	Not met at existing interchanges. May not be met
	Frontage Roads	at new interchange.

YEAR 2020 RANCHERIA MASTER PLAN WITH CHER-AE LANE INTERCHANGE CONDITIONS (YEAR 2020 RANCHERIA MP WITH IC CONDITIONS)

Year 2020 proposed Rancheria Master Plan development trips identified in **Table 4B** have been added to Year 2020 Base traffic volumes based on the trip distribution presented in **Figure 9** to derive Year 2020 Rancheria Master Plan with Cher-Ae Lane Interchange Conditions (Year 2020 Rancheria Master Plan with IC conditions). Traffic volumes will be redistributed based on the addition of a new freeway interchange at the Trinidad Rancheria. **Figure 15** (in the appendix) depicts the intersection volumes and **Figure 16** (in the appendix) depicts the freeway mainline and ramp volumes.

Intersections

Year 2020 Rancheria MP with IC conditions peak-hour traffic operations were quantified for the study intersections. **Table 7A** summarizes Year 2020 Rancheria Master Plan with IC conditions AM and PM peak hour intersection LOS values with Year 2020 traffic volumes (shown on **Figure 15**) and lane geometrics and control (shown on **Figure 14**).

TABLE 7A
YEAR 2020 RANCHERIA MASTER PLAN WITH IC CONDITIONS: INTERSECTIONS LEVEL OF SERVICE

	YEAR 2020 RANCHERIA MASTER PLAN WITH IC CONDITIONS; INTERSECTIONS LEVEL OF SERVICE									
				AM Peak Hour			P	M Peak	Hour	
		Control Target			Warrant			W		
#	Intersection	Type ^{1,2}	LOS	Delay	LOS	Met? ³	Delay	LOS	Met? ³	
1	6th Avenue & Kay Avenue	TWSC	С	9.2	A	-	9.5	A	-	
2	6th Avenue & Kahlstrom Avenue	TWSC	C	9.6	A	-	9.1	A	-	
3	Kay Avenue & US 101 SB Ramps	TWSC	С	9.8	A	-	9.3	A	-	
4	Kahlstrom Avenue & 7th Avenue	TWSC	C	9.6	A	-	1.9	A	-	
5	Scenic Drive & Main Street	TWSC	C	13.2	В	-	14.4	В	-	
6	Westhaven Drive & US 101 SB Ramps	TWSC	С	9.7	A	-	9.8	A	-	
7	Westhaven Drive & US 101 NB Ramps	TWSC	С	10.9	В	-	11.5	В	-	
8	Westhaven Drive & Frontage Road	TWSC	С	9.8	A	-	9.7	A	-	
9	Scenic Drive & Baker Ranch Drive	TWSC	С	2.1	A	-	8.7	A	-	
10	Scenic Drive & Cheer-Ae Hieght Casino	TWSC	С	9.1	A	-	8.8	A	-	
11	Scenic Drive & Cher-AE Lane	TWSC	С	9.1	A	-	9.5	A	-	
12	Scenic Drive & Landford Road	TWSC	С	8.9	A	-	9.3	A	-	
13	Cher AE Lane & US 101 NB Ramps	AWSC	С	8.4	A	-	9.5	A	-	
14	Cher AE Lane & US 101 SB Ramps	AWSC	С	8.2	A	-	10.1	В	-	
15	Cher AE Lane & Westhaven Drive	TWSC	С	9.0	A	-	9.2	A	-	
Not	es:									

^{1.} TWSC = Two Way Stop Control

As indicated in **Table 7A**, all of the following study intersections are found to be operating at acceptable LOS C or better conditions under Year 2020 Rancheria MP with IC conditions based on the intersection delay and the corresponding LOS.

^{2.} LOS = Delay based on worst minor street approach for TWSC intersections

^{3.} Warrant = Based on California MUTCD Warrant 3

Year 2020 Rancheria Master Plan Freeway and Ramp Junction Operating Conditions

US 101 freeway mainline and ramp junction peak-hour traffic operations were also quantified applying methods documented in the HCM-2010 with the existing conditions LOS presented in **Table 7B**. As shown in **Table 7B**, all freeway mainline segments and ramp junctions within the study area currently operate at LOS "C" or better for Year 2020 Rancheria MP with IC conditions AM and PM peak hour periods.

TABLE 7B
YEAR 2020 RANCHERIA MASTER PLAN WITH IC CONDITIONS:
US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

			AN	I Peak Hou	ŗ.	PM Peak Hour			
	No.	Target		Density,			Density,		
Freeway Mainline Segment	Lanes	LOS	Volume	(pc/mi/ln)	LOS	Volume	(pc/mi/ln)	LOS	
US 101 NB north of Main Street	2	С	254	3.4	A	464	6.2	A	
US 101 NB south of Main Street	2	С	379	5.1	A	618	8.2	A	
US 101 SB north of Main Street	2	С	221	2.9	A	484	6.5	A	
US 101 SB south of Main Street	2	С	348	4.6	A	600	8.0	A	
US 101 NB south of Cher-Ae Lane	2	С	518	6.9	A	779	10.4	В	
US 101 SB south of Cher-Ae Lane	2	С	372	5.0	A	715	9.5	Α	

TABLE 7B (CONTINUED) YEAR 2020 RANCHERIA MASTER PLAN WITH IC CONDITIONS: US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

US 101 MAINLINE AP			AM Peak l		PM Peak I	Hour
	Target	Junction	Density		Density	
Interchange Location	LOS	Type	(pc/mi/ln)	LOS	(pc/mi/ln)	LOS
US 101 Ramps @ 6th Avenue I/C						
U.S. Route 101 Northbound On-Ramp	С	Merge	10.0	A	12.6	В
U.S. Route 101 Northbound Off-Ramp	C	Diverge	7.5	A	11.3	В
U.S. Route 101 Southbound On-Ramp	C	Merge	8.0	A	11.5	В
U.S. Route 101 Southbound Off-Ramp	C	Diverge	6.7	A	11.0	В
US 101 Ramps @ Cher-Ae Lane I/C						
U.S. Route 101 Northbound On-Ramp	C	Merge	8.2	A	10.9	В
U.S. Route 101 Northbound Off-Ramp	C	Diverge	8.5	A	11.8	A
U.S. Route 101 Southbound On-Ramp	С	Merge	8.0	A	10.3	В
U.S. Route 101 Southbound Off-Ramp	C	Diverge	6.4	A	9.6	A
US 101 Ramps @ Main Street I/C		•				
U.S. Route 101 Northbound On-Ramp	C	Merge	6.5	A	8.9	A
U.S. Route 101 Northbound Off-Ramp	С	Diverge	6.8	A	9.8	A
U.S. Route 101 Southbound On-Ramp	C	Merge	7.2	A	10.4	В
U.S. Route 101 Southbound Off-Ramp	С	Diverge	4.8	A	8.1	A

YEAR 2040 RANCHERIA MASTER PLAN WITH CHER-AE LANE INTERCHANGE CONDITIONS (YEAR 2040 RANCHERIA MASTER PLAN WITH IC CONDITIONS)

Year 2040 proposed Rancheria Master Plan development trips identified in **Table 4A** have been added to Year 2040 Base traffic volumes based on the trip distribution presented in **Figure 9** (in the Appendix) to derive Year 2040 Rancheria Master Plan with Cher-Ae Lane Interchange Conditions (Year 2040 Rancheria Master Plan with IC conditions). Traffic volumes will be redistributed based on the addition of

a new freeway interchange at the Trinidad Rancheria. **Figure 17** (in the appendix) depicts the intersection volumes and **Figure 18** (in the appendix) depicts the freeway mainline and ramp volumes.

Intersections

Year 2040 Rancheria MP with IC conditions peak-hour traffic operations were quantified for the study intersections. **Table 8A** summarizes Year 2040 Rancheria MP with IC conditions AM and PM peak hour intersection LOS values with Year 2040 traffic volumes (shown on **Figure 17**) and lane geometrics and control (shown on **Figure 14**).

TABLE 8A
YEAR 2040 RANCHERIA MASTER PLAN WITH IC CONDITIONS: INTERSECTIONS LEVEL OF SERVICE

				AM Peak Hour		PM Peak Hour			
		Control	Target		Warrant				Warrant
#	Intersection	Type ^{1,2}	LOS	Delay	LOS	Met? ³	Delay	LOS	Met? ³
1	6th Avenue & Kay Avenue	TWSC	С	9.3	A	-	9.5	A	-
2	6th Avenue & Kahlstrom Avenue	TWSC	С	9.3	A	-	9.2	A	-
3	Kay Avenue & US 101 SB Ramps	TWSC	С	9.9	A	-	9.6	A	-
4	Kahlstrom Avenue & 7th Avenue	TWSC	С	9.4	A	-	1.9	A	-
5	Scenic Drive & Main Street	TWSC	С	16.7	C	-	18.7	C	-
6	Westhaven Drive & US 101 SB Ramps	TWSC	С	10.1	В	-	10.4	В	-
7	Westhaven Drive & US 101 NB Ramps	TWSC	С	12.6	В	-	13.2	В	-
8	Westhaven Drive & Frontage Road	TWSC	С	10.2	В	-	10.1	В	-
9	Scenic Drive & Baker Ranch Drive	TWSC	С	2.1	A	-	8.8	A	-
10	Scenic Drive & Cheer-Ae Hieght Casino	TWSC	С	9.1	A	-	8.9	A	-
11	Scenic Drive & Cher-AE Lane	TWSC	С	9.5	A	-	10.0	A	-
12	Scenic Drive & Landford Road	TWSC	С	9.0	A	-	9.5	A	-
13	Cher AE Lane & US 101 NB Ramps	AWSC	С	10.3	В	-	11.6	В	-
14	Cher AE Lane & US 101 SB Ramps	AWSC	С	9.5	A	-	10.1	В	-
15	Cher AE Lane & Westhaven Drive	TWSC	С	9.3	A	-	9.5	A	-
Note	es:								

^{1.} TWSC = Two Way Stop Control

As indicated in **Table 8A**, all of the study intersections are found to be operating at acceptable LOS C or better conditions under Year 2040 Rancheria MP with IC conditions based on the intersection delay and the corresponding LOS.:

Year 2040 Rancheria Master Plan Freeway and Ramp Junction Operating Conditions

US 101 freeway mainline and ramp junction peak-hour traffic operations were also quantified applying methods documented in the HCM-2010 with the existing conditions LOS presented in **Table 8B**. As shown in **Table 8B**, all freeway mainline segments and ramp junctions within the study area currently operate at LOS "C" or better for Year 2040 Rancheria MP with IC conditions AM and PM peak hour periods.

^{2.} LOS = Delay based on worst minor street approach for TWSC intersections

^{3.} Warrant = Based on California MUTCD Warrant 3

TABLE 8B
YEAR 2040 RANCHERIA MASTER PLAN WITH IC CONDITIONS:
US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

			AN.	I Peak Hou	r	PM Peak Hour			
	No.	Target		Density,			Density,		
Freeway Mainline Segment	Lanes	LOS	Volume	(pc/mi/ln)	LOS	Volume	(pc/mi/ln)	LOS	
US 101 NB north of Main Street	2	C	331	4.4	A	642	8.6	A	
US 101 NB south of Main Street	2	С	494	6.6	Α	850	11.3	В	
US 101 SB north of Main Street	2	С	331	4.4	A	606	8.1	Α	
US 101 SB south of Main Street	2	С	488	6.5	A	783	10.4	A	
US 101 NB south of Cher-Ae Lane	2	С	759	10.1	В	1,045	13.9	В	
US 101 SB south of Cher-Ae Lane	2	С	501	6.7	A	1,015	13.5	В	

TABLE 8B (CONTINUED) YEAR 2040 RANCHERIA MASTER PLAN WITH IC CONDITIONS: US 101 MAINLINE AND RAMP JUNCTION LEVEL OF SERVICE

US 101 MAINLINE AND KAMP JUNCTION LEVEL OF SERVICE								
			AM Peak Hour		PM Peak I	Hour		
	Target	Junction	Density		Density			
Interchange Location	LOS	Type	(pc/mi/ln)	LOS	(pc/mi/ln)	LOS		
US 101 Ramps @ 6th Avenue I/C								
U.S. Route 101 Northbound On-Ramp	C	Merge	12.2	В	15.6	В		
U.S. Route 101 Northbound Off-Ramp	С	Diverge	10.2	В	14.4	В		
U.S. Route 101 Southbound On-Ramp	C	Merge	9.4	A	14.7	В		
U.S. Route 101 Southbound Off-Ramp	С	Diverge	8.3	A	14.8	В		
US 101 Ramps @ Cher-Ae Lane I/C								
U.S. Route 101 Northbound On-Ramp	C	Merge	9.6	A	13.5	В		
U.S. Route 101 Northbound Off-Ramp	C	Diverge	11.6	В	15.2	В		
U.S. Route 101 Southbound On-Ramp	С	Merge	9.5	A	14.6	В		
U.S. Route 101 Southbound Off-Ramp	С	Diverge	8.2	A	11.9	В		
US 101 Ramps @ Main Street I/C								
U.S. Route 101 Northbound On-Ramp	C	Merge	7.3	A	10.9	В		
U.S. Route 101 Northbound Off-Ramp	С	Diverge	8.2	A	12.7	В		
U.S. Route 101 Southbound On-Ramp	С	Merge	9.5	A	12.4	В		
U.S. Route 101 Southbound Off-Ramp	С	Diverge	6.2	A	9.6	A		

MAIN STREET INTERCHANGE IMPROVEMENTS WITHOUT CHER-AE LANE INTERCHANGE

As noted previously (Year 2020 and 2040 Rancheria Master Plan Conditions), with the addition of trips from the proposed Rancheria Master Plan, intersections on the Main Street corridor and the project entrance on Scenic Drive are forecasted to operate at unacceptable LOS. This section identifies intersection improvements that will provide acceptable operations through Year 2040 Rancheria Master Plan conditions.

While intersection delay, on which LOS is derived, is a valid measure of delay and congestion, the proposed improvements are unique. Due to the closely spaced nature of the intersections and signalization proposed on the Main Street Corridor intersections, operations at one intersection significantly impacts operations at adjacent intersections. Furthermore, the close proximity of the intersections within this area and short turn pocket lengths greatly increases the likelihood that a critical movement at an intersection will block adjacent intersections. This behavior is not captured within the isolated intersection analysis in Synchro and needs to be documented using microsimualtion analysis.

Synchro is bundled with microsimulation software, SimTraffic, which uses the Synchro network as the direct input data. The intersection operations for Main Street corridor intersections was performed in SimTraffic.

When compared to AM peak hour volumes, the PM peak hour volumes were significantly higher on the Main Street Corridor. Therefore, the analysis was performed for PM peak hour conditions. The proposed intersection improvements on the Main Street corridor are shown on **Figure 19** and the intersection LOS for Year 2020 and Year 2040 PM Peak hour conditions are provided in Table 9.

Figure 19 – Main Street Interchange Improvements to accommodate Year 2020 and 2040 Rancheria Master Plan Conditions Traffic Volumes



Main Street/Scenic Drive

• Signalize and coordinate the intersection with other Main Street corridor intersections

- Provide dual northbound right turns and one shared left-thru lane
- Provide left turn and right turn lanes and a shared left-thru lane in the southbound direction
- Provide a shared left-thru lane and a thru-right lane in the eastbound direction
- Provide dual left turn lanes and a thru-right lane in the westbound direction

Main Street/US 101 SB Ramps

- Signalize and coordinate the intersection with other Main Street corridor intersections
- Provide a left-right lane and right turn lanes in the southbound direction
- Provide a thru lane, a thru-right lane and an exclusive right turn lane in the eastbound direction
- Provide a shared left-thru lane, and dual thru lanes westbound direction

Main Street/US 101 NB Ramps

- Signalize and coordinate the intersection with other Main Street corridor intersections
- Provide dual left lanes and a shared left-right lane in the southbound direction
- Provide a left turn lane and a thru lane in the eastbound direction
- Provide a thru lane and a shared thru-right lane in the westbound direction

Westhaven Drive/Frontage Road

• Signalize and coordinate the intersection with other Main Street corridor intersections

Scenic Drive/Cher-Ae Lane

- Signalize the intersection
- Provide a 350 feet left turn lane and a left-thru lane in the southbound direction
- Provide a left turn and a right turn lane in the westbound direction

TABLE 9
RANCHERIA MASTER PLAN WITH MAIN STREET CORRIDOR IMPROVEMENTS: INTERSECTIONS
LEVEL OF SERVICE

				2020	2020 PM Peak Hour			2040 PM Peak Hour		
		Control	Target			Warrant			Warrant	
#	Intersection	Type ^{1,2}	LOS	Delay	LOS	Met? ³	Delay	LOS	Met? ³	
5	Scenic Drive & Main Street	Signal	C	12.3	В	-	21.8	С	-	
6	Westhaven Drive & US 101 SB Ramps	Signal	C	14.2	В	-	15.7	В	-	
7	Westhaven Drive & US 101 NB Ramps	Signal	C	15.8	В		18.6	В	-	
8	Westhaven Drive & Frontage Road	Signal	C	13.3	В	-	13.6	В	-	
11	Scenic Drive & Cher-Ae Lane	Signal	C	17.8	В	-	29.9	С	-	

As indicated in **Table 9**, all of the study intersections are found to be operating at acceptable LOS C or better conditions with the proposed Main Street corridor improvements based on the intersection delay and the corresponding LOS. All of the other intersections are projected to operate acceptable LOS under both Year 2030 and 2040 conditions. Please refer to Tables 5A and 6A for the intersection delay and the corresponding LOS for the other study intersections.

CHER-AE LANE INTERCHANGE IMPROVEMENTS

The analysis of Year 2020 and 2040 Rancheria Master Plan Conditions with the Cher-Ae Lane interchange has been documented in Tables **7A**, **7B**, **8A** and **8B**. This section reiterates the intersection improvements that were assumed for the Year 2020 and 2040 Rancheria Master Plan Conditions with the Cher-Ae Lane interchange and Figure **20** provides a schematic of these improvements. A modern

roundabout at these two locations will provide superior LOS compared to all-way stop. No additional improvements beyond those identified in Figure 20 are required for Cher-Ae Lane.

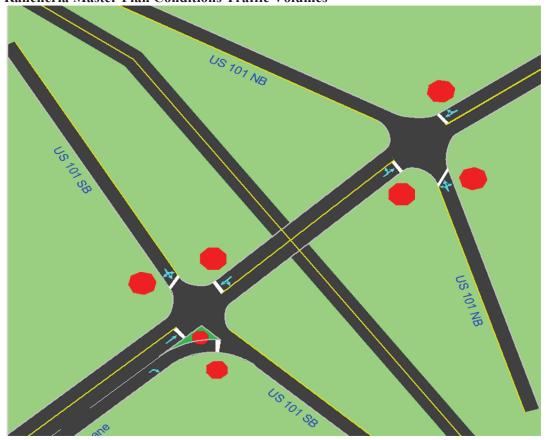
Cher-Ae Lane/US 101 NB Ramps

• All-way Stop Control at the intersection

Cher-Ae Lane/US 101 SB Ramps

- All-way Stop Control at the intersection
- Channelized eastbound right pocket

Figure 20 – Cher-Ae Lane Interchange Improvements to accommodate Year 2020 and 2040 Rancheria Master Plan Conditions Traffic Volumes



RECOMMENDATION

A Project Study Report - Project Development Support (PSR-PDS) should be prepared to define the cost, schedule, scope, impacts and benefits of the alternatives identified in this study.

Although improvements to Main Street corridor (as noted within the *Main Street Interchange Improvements Without Cher-Ae Lane Interchange* section) provide acceptable operations with the buildout of the area including the Rancheria Master Plan, we recommend the implementation of the Cher-Ae Lane interchange improvements for the following reasons:

- (1) Improving the Main Street Interchange will require significant right of way acquisition and change the character of the gateway to the coastal community of Trinidad
- (2) Geometry (Close spacing) of intersections on Main Street is undesirable
- (3) Cher-Ae Lane interchange improvements provide *superior operations* when compared to the Main Street Interchange Improvements
- (4) A new Cher-Ae Lane interchange will reduce travel times by providing a more efficient connection between the Trinidad Rancheria and the US101 corridor

APPENDIX

FIGURES

SYNCHRO REPORTS

WARRANT WORKSHEETS

WEAVING ANALYSIS

APPENDIX H

LIMITED EVALUATION OF WATER SUPPLY



019112.00

December 30, 2019

Ms. Jacque Hostler-Carmesin Chief Executive Officer Trinidad Rancheria 27 Scenic Drive Trinidad, CA 95570

Dear Ms. Hostler-Carmesin:

SUBJECT: LIMITED EVALUATION OF WATER-SUPPLY EVALUATION, TRINIDAD RANCHERIA HOTEL PROJECT, TRINIDAD, CALIFORNIA

Introduction

This letter presents the results of Lawrence & Associates (L&A) limited evaluation of potential well interference from pumping a new water-supply well for the Trinidad Rancheria's proposed hotel project (Project), near Trinidad, California. The work was conducted to evaluate whether operation of the new wells drilled and installed in November and December 2019 will adversely affect neighboring wells.

Per your email to me, dated November 15, 2019, the following tasks were performed:

- Review project documents.
- Review pertinent groundwater and geologic reports and area well logs.
- Consult with other Project consultants regarding the well test and data requirements.
- If needed to verify geologic conditions and locations of nearby wells, perform a site/area visit.
- Develop a rough groundwater balance, including local groundwater demand and estimate of annual recharge.
- Estimate the potential extent of pumping impact from the well using the pump-test data collected by others.
- Summarizing findings and conclusions in memo report.

All of the above work was conducted under the supervision of Bonnie E. Lampley, California Certified Hydrogeologist No. 626. The actual well testing and field work were conducted by others.

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SUMMARY

The long-term yield of Well #1 may be 3 gpm or less for the long term, although calculation of long-term yield using the pump testing data suggests the long-term yield is less than 1 gpm. It will not sustain pumping rates of 5 gpm or higher for the long term.

The long-term yield of Well #2 is approximately 5 to 6 gpm. Taken together, the two wells may be able to supply the Project's estimated demand of 9,500 gpd (6.6 gpm). If the demand is actually higher than this estimate or if groundwater levels are lower than observed during the testing period (November and December 2019), however, the two wells likely would not be able to supply the new Hotel. We recommend that the Project have a back-up water supply.

Neither well will cause interference with the other or on neighboring wells. Interference impacts from Well #1 will not be felt beyond approximately 20 feet from the well. Interference impacts from Well #2 will not be felt beyond approximately 50 feet from the well.

The new hotel demand will not exceed the probable annual recharge to the aquifer. The potential total annual demand for the new hotel is approximately 11 acre-feet/year (existing demand on the Rancheria is supplied by the City of Trinidad). Adding this to the assumed existing groundwater demand (approximately 20 acre-feet/year) gives a total groundwater demand of approximately 31 acre-feet/year. This is well below the estimated annual recharge volume of 174 acre-feet/year.

SITE DESCRIPTION

The Project site is located approximately 0.75 miles south of the town of Trinidad, Humboldt County, California (**Figure 1**). The Rancheria covers approximately 43 acres in Township 8 North, Range 1 West, Section 25 of the Humboldt Meridian.

The proposed hotel is planned to have 100 rooms. Water demand is estimated to be at least 9,500 gallons per day (gpd). This equates to approximately 11 acre-feet per year (9,500 gpd × 365 days/year ÷ 325851 gallons/acre-foot). L&A did not evaluate the potential water demand.

Figures 1 and **3** show the surface-water drainage area of the Rancheria site. The drainage area covers approximately 174 acres. Within this area, there appear to be 18 possible domestic wells, based on the presence of structures as seen on an aerial photo (**Figure 3**).

The site is located atop a coastal bluff. Geologic materials underlying the site were described as part of the Geotechnical Report for the Environmental Assessment: *The site is underlain by Pleistocene marine terrace sediments deposited on a wave-cut bench in rock of the Jura-Cretaceous Franciscan Complex. The marine terrace sediments are generally comprised of pebbly sand, silt and clay. The underlying Franciscan Complex is comprised of weathered/sheared shale.*²

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Pers. comm., Ms. Jacque Hostler-Carmesin, December 2019.

Bureau of Indian Affairs, September 2018, Environmental Assessment, Trinidad Rancheria Economic Development Corporation, Hotel Development Project, Appendix B: Crawford & Associates, Taber, November 2016, Draft Geotechnical Feasibility and Preliminary Design Report.

Drilling logs for the two new water-supply wells installed for the Project show a similar stratigraphy to the geotechnical borings. **Figure 2** shows the well locations; **Attachment A** contains the driller's logs. The boring for Well #1 showed nine feet of marine terrace sediment overlying bedrock to a total depth of 80 feet below ground surface (bgs); the boring for Well #2 showed 32 feet of marine terrace sediment overlying bedrock to a depth of 35 feet bgs. The driller's logs describe the bedrock as soft to hard blue or black shale, consistent with the previous geotechnical borings.

Well #1 ("Louie's Property") was completed at 80 feet bgs in August 2019. First water was at 26 feet bgs, within the Franciscan bedrock. Static water level in December was approximately 20 feet bgs. The driller test pumped Well #1 at 3 gpm, for 24 hours, upon its completion, although drawdown was not measured. Additional test pumping was conducted in December 2019, as described in the Results & Discussion section, below.

Well #2 ("Sundberg Property") was completed at 35 feet bgs in November 2019. First water was at 12 feet bgs, within the marine terrace deposits. Static water level in December was approximately 16 feet bgs. Test pumping of Well #2 is described in the Results & Discussion section, below.

RESULTS & DISCUSSION

Stepped- and constant-rate discharge tests were conducted on both wells. Rich Drilling, McKinleyville, California, conducted the testing. **Table 1** lists the testing conducted. **Figures 4** through **9** show graphs of data and interpretations of the above tests.

Well	Date	Test Type	Pumping Rate
	12/13/19	Stepped discharge	1, 2, & 3 gpm
	12/13/19	Constant discharge, 8 hours	2 gpm
Well 1	12/19/19	Stepped discharge	5 & 8 gpm (8 gpm not
(Louie's Property)	12/19/19	Stepped discharge	sustained for entire step)
	12/20/19	Constant discharge 24 hours	5 gpm (not sustained
	12/20/19	Constant discharge, 24 hours	for 24 hours)
Well 2	11/22/19	Stepped discharge	6, 10, & 13 gpm
(Sundberg's	11/25/19	Constant discharge, 8 hours	10 gpm
Property)	12/11/19	Constant discharge, 8 hours	7 gpm

Table 1. Summary of Well Tests

WELL #1

Two stepped-discharge tests were conducted on Well #1. The first (12/13/19) was at 1, 2, and 3 gpm, and the second (12/19/19) at 5 and 8 gpm. Two constant-discharge tests were conducted, at 2 gpm (12/13/19) and 5 gpm (12/20/19). **Figures 4** through **6** show the graphs and interpretation of these tests.

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For pumping rates of 3 gpm or less, the water levels showed an initial drop, but then began to rise (**Figure 4**). During the second stepped-discharge test (which had an initial pumping rate of 10 gpm because the valve was bumped), the water level declined gradually at 5 gpm and for the first portion of the 8 gpm step. Once the water level reached approximately 40 feet bgs, however, the rate of drawdown increased rapidly (**Figure 5**). The faster rate of drawdown at approximately 40 feet also was observed during the 24-hour constant discharge test at 5 gpm. During this test, the water level dropped to the pump intake after approximately 10 hours of pumping. The driller kept the pump on, however, and the well would recover enough to pump a bit, then drop, off and on for the remainder of the test. The driller reported an average pumping rate of 4.4 gpm for the latter part of the test.

At the completion of the constant-rate test, the water level returned to 90% of its static level within three hours, and to near full static level within 24 hours.

Figure 6 shows the calculation of aquifer parameters and long-term yield for Well #1. Using a simplified analytical solution to the Theis equation (a standard hydrogeologic equation often used to estimate aquifer parameters), the transmissivity³ of the water-bearing formation in Well #1 is estimated to be 91 gpd/foot. This is a relatively low value, showing that this bedrock aquifer is of low yield (high-yield aquifers can show values in the tens of thousands).

Using the data from the 12/20/19 test (at 5 gpm), the long-term yield of Well #1 is approximately 0.8 gpm. The long-term yield was calculated by extrapolating the drawdown curve out to 180 days (representing the dry season) to predict the theoretical drawdown if pumping had continued at the test-pumping rate (**Figure 6**). The theoretical drawdown is then used in the following equation to estimate the long-term yield at 180 days:

```
Long-term yield = (Maximum allowable drawdown ÷ predicted drawdown) × Test Discharge 
= (15 feet / 92 feet) × 5 gpm 
= 0.8 gpm
```

The foregoing analysis used the part of the test data from later in the test, but before the drawdown increased rapidly below approximately 40 feet bgs. The portion of the curve from earlier in the test was not used because it generally is assumed to not be representative of longer term pumping. Nonetheless, the tests at the lower pumping rates (less than 3 gpm) showed that water levels above approximately 40 feet could be maintained. It may be that this well will sustain pumping rates of 3 gpm or less for the long term. It will not sustain pumping rates of 5 gpm or higher for the long term.

WELL #2

One stepped-discharge tests was conducted on Well #2. On 11/22/19, Well #2 was pumped at 6, 10, and 13 gpm. Two constant-discharge tests were conducted, at 10 gpm (11/25/19) and 7

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³ Transmissivity is a measure of how much water an aquifer can transmit and it depends, in part, on the aquifer thickness (a thinner aquifer cannot transmit as much water as a thicker aquifer).

gpm (12/11/19), both for 8 hours. **Figures 7** through **9** show the graphs and interpretation of these tests.

During the stepped-discharge test, the water level declined gradually during the steps at 6 and 10 gpm; the water level declined rapidly during the 13 gpm step. Once the water level reached approximately 22 feet bgs, the rate of drawdown increased rapidly and fell below the pump intake at 32 feet (**Figure 7**).

During the two constant discharge tests, the water level remained above 20 to 25 feet, and the drawdown rate remained relatively steady.

Figures 8 and **9** show the calculation of aquifer parameters and long-term yield for Well #2, using data from both constant-discharge tests. Because transmissivity is dependent on the aquifer thickness (a thinner aquifer cannot transmit as much water as a thicker aquifer), the 10 gpm test showed a transmissivity of 249 gpd/foot, while the 7 gpm test showed 672 gpd/foot. Again, these are relatively low values, showing that the marine-terrace aquifer also is of low yield, although slightly higher than the bedrock aquifer supplying Well #1.

The long-term yield of Well #2 is approximately 5 to 6 gpm, using the same methodology described above (calculations shown in **Figures 8** and **9**).

WELL INTERFERENCE

Figures 10 and **11** show calculations for well interference at varying distances, using the Theis equation. Because both of the wells are of low yield and will not sustain high pumping rates, the radius of influence for both are small. Interference impacts from Well #1 will not be felt beyond approximately 20 feet from the well. Interference impacts from Well #2 will not be felt beyond approximately 50 feet from the well. Thus, neither well will cause interference with the other or on neighboring wells.

GROUNDWATER SUPPLY

To evaluate the overall groundwater supply, and whether there may be a sufficient groundwater supply for existing users and the new hotel, we developed an approximate groundwater balance. The groundwater balance includes inflows (mainly recharge from precipitation) and outflows (pumping by users and evapotranspiration by plants) for the area of the groundwater "basin".

We first assume that the groundwater "basin" is defined by the surface-water drainage area of the Rancheria property (**Figures 1** and **3**). Assuming that a groundwater basin is defined by the overlying surface-water drainage area is a common assumption in the absence of data that may more closely define the groundwater basin, especially for clastic aquifers. This may not be the case here, in that one of the wells is completed in the bedrock aquifer.

Within and near the groundwater "basin" as defined herein, there appear to be at least 20 structures or residences that may use groundwater (**Figure 3**). Typical water use for a residential property is less than one acre-foot per year (about 0.6 gpm; current estimates of

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HYDROGEOLOGIS

domestic water use are less than half of that)⁴. Thus, groundwater useage in the "basin" may be on the order of 20 acre-feet per year or less.

Recharge to groundwater is assumed to be mainly from percolation of precipitation. Average annual precipitation in the Trinidad area is approximately 52 inches. Not all of this precipitation is available for groundwater recharge. Some is used for evapotranspiration by plants and some runs off. Average annual evapotranspiration (ET) along the California coast is approximately 33 inches. Subtracting the annual ET from the precipitation leaves approximately 19 inches available for recharge and runoff. Research in other areas of the northern California coast has shown that there is approximately 12 inches of deep percolation of precipitation annually.

Assuming 12 inches of deep percolation to groundwater gives an annual recharge of approximately 174 acre-feet (174 acres of drainage area × 1 foot of deep percolation). The potential total annual demand for the new hotel is approximately 11 acre-feet/year (existing demand on the Rancheria is supplied by the City of Trinidad). Adding this to the assumed existing groundwater demand (approximately 20 acre-feet/year) gives a total groundwater demand of approximately 31 acre-feet/year. This is well below the assumed annual recharge volume of 174 acre-feet/year.

Please do not hesitate to contact me at (530) 275-4800 or <u>blampley@lwrnc.com</u> if you have any questions regarding this report.

Sincerely,

Bonnie E. Lampley

Principal Hydrogeologist, CHG 626

Sonnie E. Sampley

Attachments: Figure 1

Figure 1. Site Location Map

Figure 2. Site Plan

Figure 3. Drainage Area and Local Wells

Figure 4. Well #1, 12/13/19, Stepped- & Constant-Discharge Depth to Water

Figure 5. Well #1, 12/19-20/19, Stepped- & Constant-Discharge Depth to Water

Figure 6. Well #1, Calculation of Aquifer Parameters & Long-Term Yield

Figure 7. Well #2, 11/22-25/19, Stepped- & Constant-Discharge Depth to Water

Figure 8. Well #2, 11/25/19, Calculation of Aquifer Parameters & Long-Term Yield

Figure 9. Well #2, 12/11/19, Calculation of Aquifer Parameters & Long-Term Yield

Figure 10. Drawdown/Interference Calculations, Well #1 **Figure 11**. Drawdown/Interference Calculations, Well #2

Attachment A. Driller's Logs

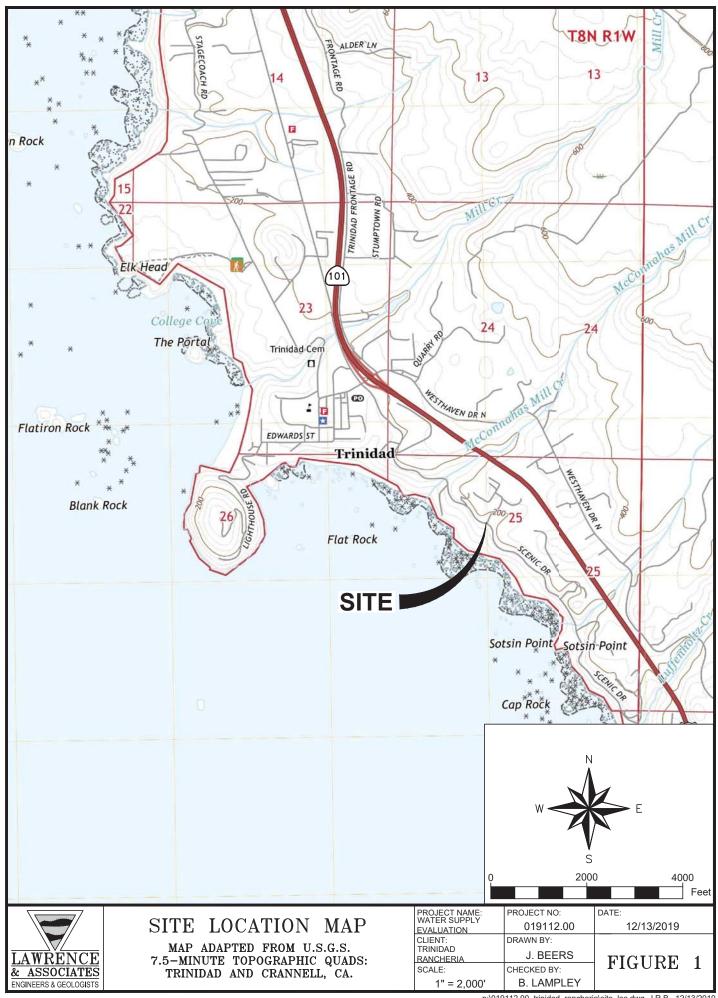
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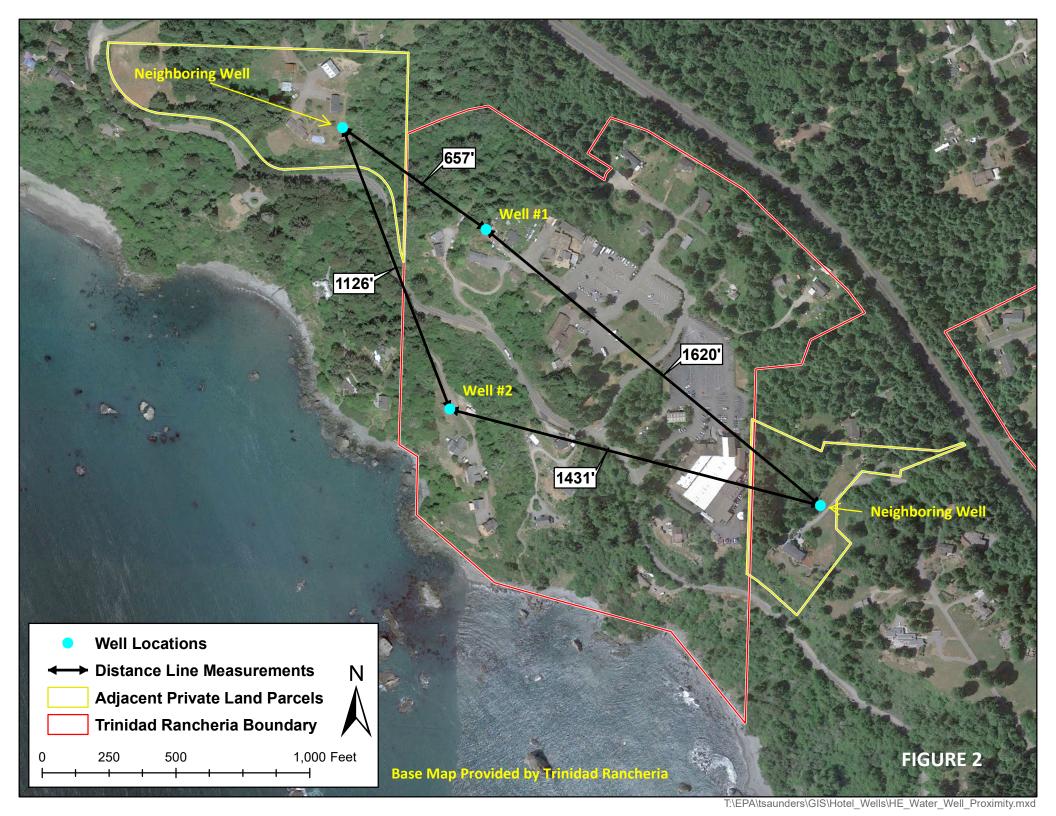
^{4 &}lt;a href="https://www.usgs.gov/special-topic/water-science-school/science/water-qa-how-much-water-do-i-use-home-each-day?qt-science center objects">https://www.usgs.gov/special-topic/water-science-school/science/water-qa-how-much-water-do-i-use-home-each-day?qt-science center objects

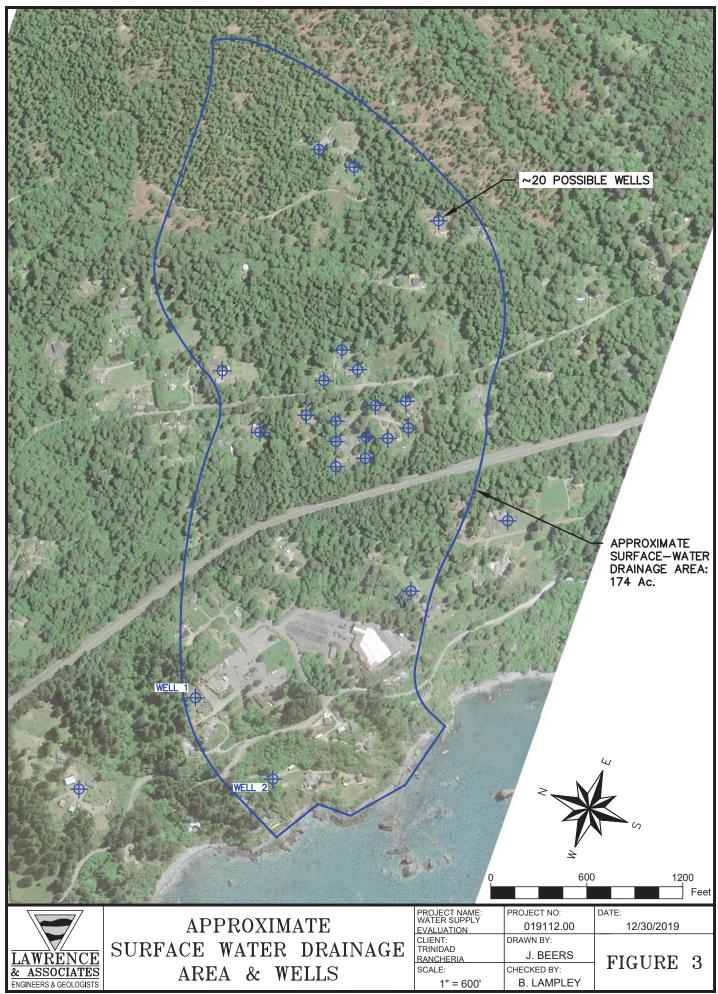
http://cdec.water.ca.gov/dynamicapp/QueryDaily?end=2019-12-30&s=ork

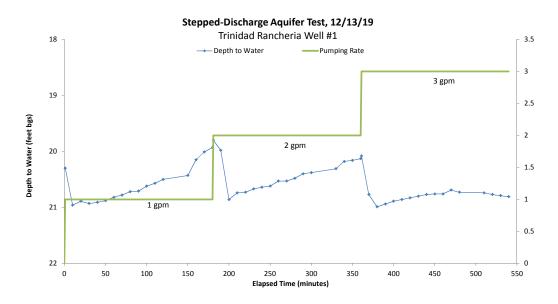
⁶ California Department of Water Resources, August 2000, *Estimating Irrigation Water Needs of Landscape Plantings in California*, *Appendix A – Table 1*.

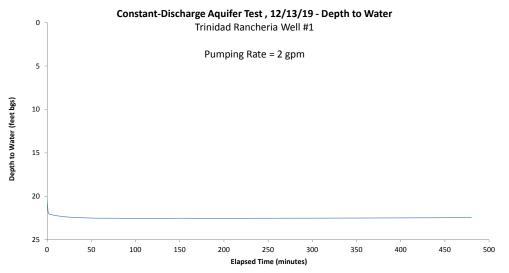
Questa Engineering, 2004, Groundwater Modeling Study of the Mendocino Headlands, Mendocino, California.

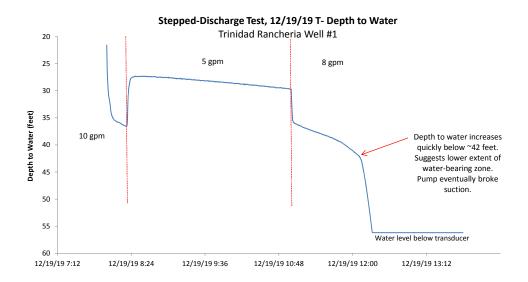


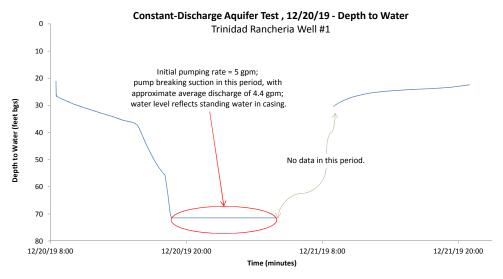


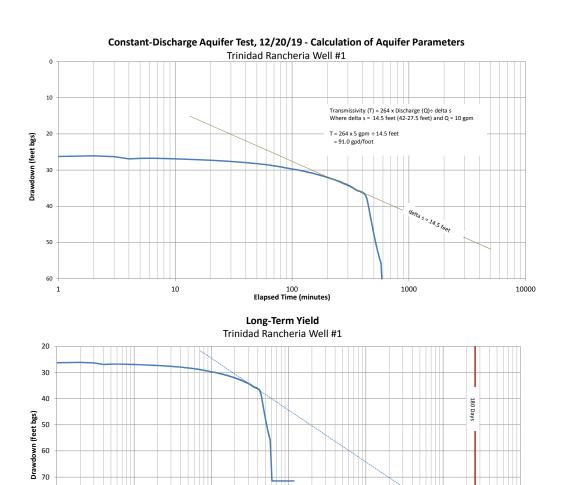












80

90

100

Long-term yield = (Maximum allowable drawdown / Predicted drawdown) x Test Discharge = (15 feet / 92 feet) x 5 gpm = 0.8 gpm

100

1000 Elapsed Time (minutes)

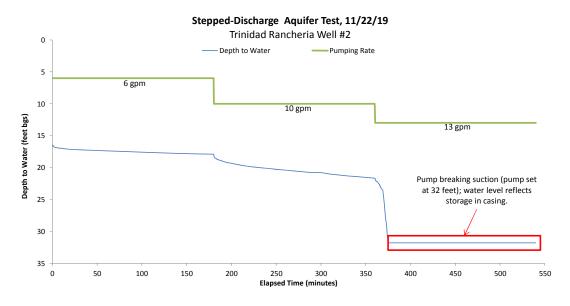
10

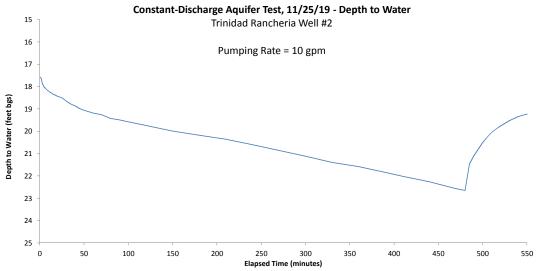
92 feet

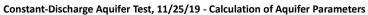
1000000

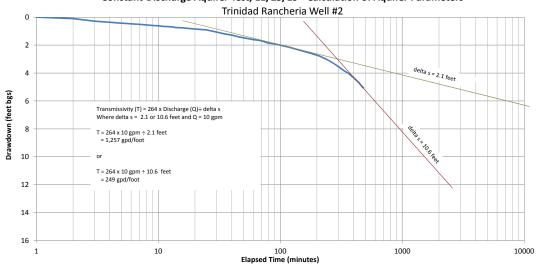
100000

10000

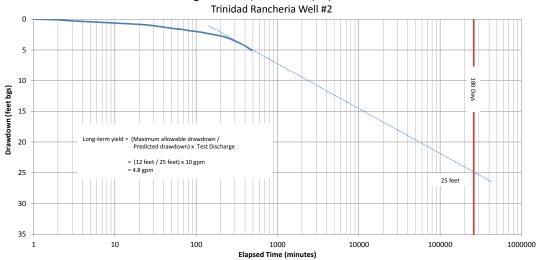




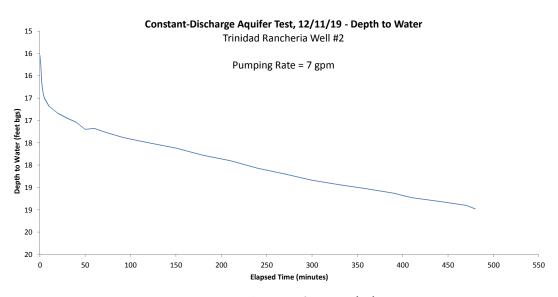




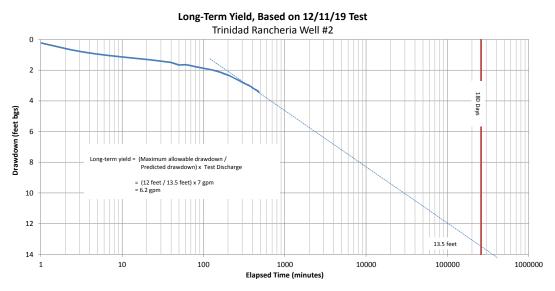
Long-Term Yield, Based on 11/25/19 Test



Trinidad Rancheria Well #2 Testing



Constant-Discharge Aquifer Test, 12/11/19 Trinidad Rancheria Well #2 0.0 0.5 1.0 Drawdown (feet bgs) 1.5 2.0 2.5 Transmissivity (T) = 264 x Discharge (Q)÷ delta s Where delta s = 2.75 feet and Q = 7 gpm T = 264 x 7 gpm ÷ 2.75 feet = 672 gpd/foot 3.0 3.5 4.0 1 10 100 1000 Elapsed Time (minutes)



TRINIDAD RANCHERIA WELL #1 (80 feet TD; Louie's Property) Drawdown at Distances

	Well #1,							
	Predicted	5 Feet	10 Feet	20 Feet	50 Feet	100 Feet	200 Feet	400 Feet
Transmissvity, in gpd/ft., T	91	91	91	91	91	91	91	91
Storage coefficient, unitless, S (assumed)	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01
Discharge, in gpm, Q	1	1	1	1	1	1	1	1
Length of pumping period, days	180	180	180	180	180	180	180	180

Parameter	Units	Pumping Well #1, Predicted	At 5 Feet	At 10 Feet	At 20 Feet	At 50 Feet	At 100 Feet	At 200 Feet	At 400 Feet
Distance from center of well	r, ft	0.2	5	10	20	50	100	200	400
Storage coefficient	S, di'less	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01
Transmissivity	T, gpd/ft	91	91.0	91.0	91.0	91.0	91.0	91.0	91.0
Pumping time	t, minutes	259200	259200	259200	259200	259200	259200	259200	259200
	t, days	180	3	3	3	3	3	3	3
Discharge	Q, gpm	1	1	1	1	1	1	1	1
u = [1.87r^2S/Tt]	u	1.49E-06	5.14E-02	2.05E-01	8.22E-01	5.14E+00	2.05E+01	8.22E+01	3.29E+02
Well function of u	W(u)	12.84	2.44	1.18	ERROR	ERROR	ERROR	ERROR	ERROR
Drawdown, theoretical = [s1=114.6QW(u)/T]	s1, ft	16.17	3.07	1.49	0.00	0.00	0.00	0.00	0.00
Well efficiency	eff., percent	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Calculated drawdown from pumping well	s2, ft	16.17	3.07	1.49	0.00	0.00	0.00	0.00	0.00

Note: ERROR indicates that the calculation is out of range; that is, the calculation indicates that there would be no effect at that distance.

TRINIDAD RANCHERIA WELL #2 (35 feet TD; Sundberg's Property) Drawdown at Distances

	Well #2, Predicted	5 Feet	10 Feet	20 Feet	50 Feet	100 Feet	200 Feet	400 Feet
Transmissvity, in gpd/ft., T	672	672	672	672	672	672	672	672
Storage coefficient, unitless, S (assumed)	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01
Discharge, in gpm, Q	6	6	6	6	6	6	6	6
Length of pumping period, days	180	180	180	180	180	180	180	180

Parameter	Units	Pumping Well #2, Predicted	At 5 Feet	At 10 Feet	At 20 Feet	At 50 Feet	At 100 Feet	At 200 Feet	At 400 Feet
Distance from center of well	r, ft	0.2	5	10	20	50	100	200	400
Storage coefficient	S, di'less	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01	3.00E-01
Transmissivity	T, gpd/ft	672	672.0	672.0	672.0	672.0	672.0	672.0	672.0
Pumping time	t, minutes	259200	259200	259200	259200	259200	259200	259200	259200
	t, days	180	3	3	3	3	3	3	3
Discharge	Q, gpm	6	6	6	6	6	6	6	6
u = [1.87r^2S/Tt]	u	2.01E-07	6.96E-03	2.78E-02	1.11E-01	6.96E-01	2.78E+00	1.11E+01	4.45E+01
Well function of u	W(u)	14.84	4.40	3.03	1.72	ERROR	ERROR	ERROR	ERROR
Drawdown, theoretical = [s1=114.6QW(u)/T]	s1, ft	15.19	4.50	3.10	1.76	0.00	0.00	0.00	0.00
Well efficiency	eff., percent	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Calculated drawdown from pumping well	s2, ft	15.19	4.50	3.10	1.76	0.00	0.00	0.00	0.00

Note: ERROR indicates that the calculation is out of range; that is, the calculation indicates that there would be no effect at that distance.

APPENDIX A DRILLER'S LOGS

State of California

Well Completion Report Form DWR 188 Submitted 11/14/2019 WCR2019-016273

Owner's	Well Num	ber 1	Date Work B	egan 08/21/2019	Date Work Ended 09/09/2019
Local Per	rmit Agen	y Humboldt County Departme	nt of Health & Human Se	rvices - Land Use Progr	am
Seconda	ry Permit	Agency	Permit Nu	ımber 00-000	Permit Date 08/02/2019
Well (Dwner	(must remain confident	ial pursuant to W	Vater Code 13752	2) Planned Use and Activity
Name	and state of the stage	D RANCHERIA,	<u> </u>		Activity New Well
Mailing A	\ddress	1 Cher-Ae Ln.	<u> </u>	·	
					Planned Use Water Supply Domestic
City Tr	inidad		State C	a Zip 95570	
No.		· ·	Well	Location	er versionen sitt et schap in 1905 det schap in 1906 det schap in 1906 det schap in 1906 det schap in 1906 det
Address	0 Che	r-Ae LN			APN 000-000-000-
City	Trinidad	Zip	95570 County	Humboldt	Township 08 N
Latitude	41		Longitude -124	7 55.27 W	Range 01 W
1	Deg.	Min. Sec.		Vin. Sec.	Section 25
Dec. Lat.	. 41.055	8583	Dec. Long124.13201		Baseline Meridian Humboldt
Vertical I	 Datum	Hori	zontai Datum WGS84		Ground Surface Elevation Elevation Accuracy
Location	Accuracy	Location I	Determination Method		Elevation Determination Method
Orientati		Borehole Information ical Direct Rotary Drilling Floring	Specify	Depth to first wate Depth to Static	
<u> </u>				Water Level Estimated Yield*	(Feet) Date Measured 3 (GPM) Test Type Pump
Total De	pth of Bor	ing 80	Feet	Test Length	3 (GPM) Test Type Pump 24 (Hours) Total Drawdown (feet)
Total De	pth of Cor	npleted Well 80	Feet		sentative of a well's long term yield.
			Geologic I.	og - Free Form	
Depth Suri Feet to	face			Description	
0	2	top Soil			
2	9	Soft Brown Silty Clay			
9	18	Hard Grey Rock			
18	26	Hard Blue Shale / Green Rock			
26	49	water and Hard Rock Grey			
49	53	Shale W/ Quartz			
53	57	Soft Shale			
57	60	Hard Black Shale			

60

80

Soft Shale

		al section			Casing	8				Barran Barran Barran Barran Barran Barran Barran Barran Barran Barran Barran Barran Barran Barran Barran Barra Barran Barran
Casing #		m Surface o Feet	Casing Type	Material	Casings Specifications	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	53	Blank	PVC	OD: 4.950 in. SDR: 17 Thickness: 0.291 in.	0.291	4.95			
1	53	73	Screen	PVC	OD: 4.950 in. SDR: 17 Thickness: 0.291 in.	0.291	4.95	Milled Slots	0.032	
1	73	80	Blank	PVC	OD: 4.950 in. SDR: 17 Thickness: 0.291 in.	0.291	4.95	-		W/ Cap On Bottom

			Annular Material		
Sur	n from face to Feet	Fill	Fill Type Details	Filter Pack Size	Description
0	0 20 Bentonite		Non Hydrated Bentonite		3/8 Hole Plug
20	80	Filter Pack	Other Gravel Pack	3/8	Pea Gravel

Other Observations:

		E	orehole Specifications
	Depth Surf Feet to	face	Borehole Dlameter (inches)
Γ	0	80	9

Certification S	tatement		
signed, certify that this report is complete and accu	rate to the best of my	knowledge a	ınd belief
RICH WELL DRILLING	& PUMP SERV	ICE INC	
Person, Firm or Corporation	··		,,,,,,,,,,
1251 RAILROAD DRIVE	MC	CA	95519
Address	City	State	Zip
electronic signature received	11/14/2019)2702
	RICH WELL DRILLING Person, Firm or Corporation 1251 RAILROAD DRIVE Address electronic signature received	RICH WELL DRILLING & PUMP SERV Person, Firm or Corporation 1251 RAILROAD DRIVE MC Address City electronic signature received 11/14/2019	RICH WELL DRILLING & PUMP SERVICE INC Person, Firm or Corporation 1251 RAILROAD DRIVE MC CA Address City State electronic signature received 11/14/2019 90

CSG#	CSG # State Well Number		State Well Number Site Code				Lo	cal Well	Numbe
:			N						w
Lat	titude De	eg/Min/Se	C _.		Lo	ngitu	de De	g/Min/S	Sec
TRS:									
APN:									

State of California

Well Completion Report Form DWR 188 Submitted 11/26/2019 WCR2019-016882

Owner's W	Vell Numb	er 2	-			Date Work	Began	11/20	/2019			Date Wo	rk Ended	11/21/2	2019	
Local Pern	mit Agenc	y Humbo	ldt County I	Departn	nent of Health	n & Human S	Services	s - Land (Use Prog	ram			•			
Secondary	y Permit A	gency				Permit	Number	r 00-00	00			Pe	ermit Date			
Well O)wner (must rei	main coi	nfide	ntial purs	uant to	Wate	r Code	e 1375	2)	200	Plann	ed Use a	and A	ctivi	y
Name 1	Trinidad F	Rancheria		16 to 16 296 20 17 Thur			THE PARTY OF THE P	20.0000 (10.000 (10.000)			ctivity	/ New	/ Well	34241FF 3784 58537	<u> </u>	
Mailing Ad	ddress	0 Cher-Ae	Ln									d Use	Water Su	pply Dor	nestic	
City Trir	nidad			• •		State	CA	Zip	95570	_				.,		
						Wel	l Loca	ation				Sec.	N. C.			
Address	0 Cher	-Ae LN								APN	00	0-000-00	0			
City Tr	rinidad			Zip	95570	County	Humb	boldt		Townsl	•	08 N				
Latitude	41	3	14.3809	N	Longitude	-124	7	57.1	45 W	Range		1 W				
-	Deg.	Min.	Sec.		•	Deg.	Min.	Sec		Section Baselin	_	25	Humboldt	•		
Dec. Lat.	41.0539	947			Dec. Long.	-124.1325	5403					ace Eleva				
Vertical Da	atum			Н	orizontal Datu	m WGS8	34	-		Elevation			10 Ft			
Location A	Accuracy		L	ocation	n Determinati	on Method						•	on Method			
	in a g	Borel	nole Info	rmat	ion			V	Vater	Level	and	Yield	of Comp	oleted	Wel	İ
Orientation	n Vertic	al		and the second	Spec	ifv	CONTRACT CONT	Depth to	first wat	∍r	1	12	(Feet belo	ow surfa	ice)	The second second
Drilling Me	ethod D	irect Rotary		Orilling I	 ·	· —	$-\parallel$	Depth to	Static							
							1	Water Le	_			(Feet)	Date Meas	ured	11/25	/2019
Total Dept	th of Borir	ng 35			Feet		- 11	Estimate			10	(GPM)	Test Type		Pum	·
Total Dept	th of Com	pleted Well	35		Feet		11	Test Len *May not		sentativ		(Hours) well's lo	Total Drawing term yield		4	(feet)
					G	eologic l	Log -	Free F	-orm							
Depth fi Surfa Feet to	ice							Descrip	tion						energy to a Maria	200 (10 Thu 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
0	12	Brown Clay							······································							
12	15	Sand w/ Sm	nall Gravels													

15

25

32

25

32

35

Gravels

Bedrock

Larger Gravel

					Casing	S		E grafica		
Casing #		m Surface o Feet	Casing Type	Material	Casings Specifications	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	22	Blank	Low Carbon Steel	N/A	0.188	8.625			other
1	22	32	Screen	Low Carbon Steel	N/A	0.188	8.625	Torched Slots	0.1875	other
1	32	35	Blank	Low Carbon Steel	N/A	0.188	8.625		·	other

Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	12	Bentonite	Other Bentonite	3/8	3/8 hole plug
12	35	Filter Pack	Other Gravel Pack		

Other Observations:

	100	orehole Specifications	(1) (i)
Depth Suri Feet to	face	Borehole Diameter (inches)	
0	35	12	

S (\$ 14)	Certification S	tatement		a property					
l, the under	signed, certify that this report is complete and acc	ırate to the best of m	y knowledge a	and belief					
Name RICH WELL DRILLING & PUMP SERVICE INC									
	Person, Firm or Corporation								
1	1251 RAILROAD DRIVE	MC	CA	95519					
	Address	City	State	Zip					
Signed	electronic signature received	11/26/2019	90	2702					
	C-57 Licensed Water Well Contractor	Date Signed	C-57 Lice	nse Number					

CSG#	3 # State Well Number			Site Code			Local Well Numbe					
				T	N							w
Lat	itude D	eg/N	/lin/Se	9C			L	ongit	ude	Deg	/Min/S	ec
ΓRS:												
NPN:												

APPENDIX I

TRAFFIC IMPACT ANALYSIS

2019 TRAFFIC IMPACT ANALYSIS TRINIDAD RANCHERIA HOTEL

Completed for the:

Cher-Ae Heights Indian Community

of the Trinidad Rancheria



Prepared by:





INTRODUCTION

Red Plains Professional, Inc. (RPP) was hired by the Cher-Ae Heights Indian Community of the Trinidad Rancheria to evaluate the traffic impacts of the proposed 100-Room Trinidad Rancheria Hotel. The Hotel is proposed for construction adjacent to and on the same site as the Cher-Ae Heights Casino and Bingo Facility. For this study Red Plains is utilizing a current year (2019) horizon date for this development. The analysis was performed independently from the 2014 Trinidad Area Freeway Master Plan Study Report and the Traffic Impact Analysis detailed in that report.

In January 2019, Red Plains Professional, Inc. performed mechanical traffic counts, manual peak-hour turning movement counts, trip generations and traffic analysis detailed herein representing the 2019 Traffic Impact Analysis (TIA). The 2019 TIA is focused solely on the impacts of the proposed hotel on the existing transportation network with the assumption made that the hotel construction and operation will pre-date any potential new interchange location. Per Caltrans "Guide for the Preparation of Traffic Impact

Studies", the Study Area has been identified as those intersections and transportation facilities, "upstream and downstream" of the development. The Traffic Impact Analysis Map details the Study Area and the transportation facilities and intersections impacted by the anticipated development.

Per Caltrans recommended analysis procedures this study will analyze and evaluate four (4) scenarios:

- Existing Conditions (current year)
- Forecast 1 Existing Conditions with Development Slated for 2019.
- 3. Forecast 2 20 Year Projection to 2039 with No Development
- 4. Forecast 3 20 Year Projection to 2039 with Development

The combination of forecasts will provide the true short and long-term impacts of the hotel development in relation to the baseline projected increased traffic demand on the intersections and roads forecasted based on area population growth and general traffic growth trends for the area.



The analysis herein will focus on the following roads and intersections within the study area:

Roadways:

- Patrick's Point Drive
- Main Street
- US 101 Exit 728 Ramps
- N Westhaven Drive
- S Westhaven Drive
- Trinidad Frontage Road
- Trinidad Scenic Drive
- Cher-Ae Lane

Intersections:

- Site #1 Patrick's Point Drive / Scenic Drive / Main Street
- Site #2 US101 Exit 728 Southbound Off-On Ramps / Main Street
- Site #3 US101 Exit 728 Northbound Off-On Ramps / S Westhaven Drive
- Site #4 US101 Exit 728 Northbound Off Ramp / Trinidad Frontage Road / N Westhaven Drive
- Site #5 Scenic Drive / Cher-Ae Lane
- Site #6 Scenic Drive / S Westhaven Drive
- Site #7 US101 Exit 726A Northbound Off Ramp / S Westhaven Drive



Intersection Descriptions

Site 1 – Intersection of Patrick's Point Dr to the north, Main St to the east and west and Scenic Dr to the south. There are stop signs eastbound on Main St, southbound on Patrick's Point Rd and northbound on Scenic Dr. No stop sign westbound on Main St as 101 South exit ramp is directly adjacent.



Site 2 – Intersection of 101 South off-ramp to the north, Main St to the east and west and 101 South onramp to the south. One stop sign at end of 101 South off-ramp at Main St.



Site 3 – Intersection of N Westhaven Dr to the east and west and on-ramp to 101 North.



Site 4 – Intersection of N Westhaven Dr to the east and west, 101 North off-ramp from the south, and Trinidad Frontage Rd to the north. No stop sign from westerly direction on N Westhaven Dr. Stop signs exist from the other three directions.



Site 5 - Three-way intersection of Scenic Dr to the north and south and Cher-Ae Ln from the east. Cher-Ae Ln is main access road to casino and Tribal Administration. One stop sign at Cher-Ae Ln from east at Scenic Dr.



Site 6 – Three-way intersection of Scenic Dr to the north and S Westhaven Dr from the east. Just to the east on S Westhaven Dr is the intersection of the off-ramp from 101 North (See Site 7). Further south on Scenic Dr is the on-ramp to 101 South.



Site 7 – Three-way intersection of S Westhaven Dr to the east and west and the off-ramp from 101 North. One stop sign at junction of off-ramp and S Westhaven Dr.



EXISTING CONDITION

It has been well documented in past traffic analysis, reports, roadway safety audits, and other studies prepared by the Cher-Ae Heights Indian Community of the Trinidad Rancheria, that Scenic Drive and the overall supporting transportation network in its existing condition, is in functional condition but is in need of significant improvements. As the areas continue to develop simply based on Population growth and other regional growth factors, the supporting transportation network of the Cher-Ae Heights Indian Community of the Trinidad Rancheria will be functionally obsolete within the next 20 years if significant engineering and roadway improvements are not realized. Alternative access must be considered due to the engineering and geotechnical challenges related to Scenic Drive, which presently acts as the main rural arterial providing ingress and egress to the Tribal Community.

MECHANICAL TRAFFIC COUNTS (MTC'S)

The traffic count locations (14 sites) and volumes are illustrated on the 24-Hour Mechanical Traffic Count Map. RPP utilized Jamar TraxMite pneumatic traffic counters and TraxPro software to collect and analyze the traffic volumes and the vehicular classifications of user vehicles. The raw counts were then adjusted using a seasonal adjustment factor which takes a 24-hour volume count and adjusts it to yield an Average Annual Daily Traffic volume (AADT). Specifically for this study, RPP utilized both a daily (day of the week) and Monthly (month of the year) combined adjustment factor. In the simplest of terms, the seasonal adjustment factors take into account the day of week and month of year and adjust a 24-hour count to reflect an average annual traffic volume on that road. For instance, in Trinidad, a rural destination

community on the Pacific Coast, a count collected in winter would likely need a multiplier to increase it for an annual average including the typically higher traffic volumes experienced during summer months. Likewise, traffic volumes vary from day to day within a week typically. A count on Friday will likely require a divisor to decrease it for a weekly average including the typical slower traffic days of Tuesday and Wednesdays. The seasonal adjustment factors used take into account both the month and day in which the 24-hour volumes were collected to yield the AADT at each location. The Trinidad Field data collection was performed in January 2019 during regular business days of the week (Monday through Friday). To responsibly estimate the average annual traffic volumes, Red Plains applied a multiplier to inflate these counts accordingly. Adjustment factors were applied to each specific MTC and TMC prior to analysis. Red Plains used a compounding 2% per year growth rate determined to be conservatively (overestimating) regional traffic pattern growth. Analysis of the traffic volumes in the region resulted in an average 0.6-1.0% per year growth rate.

		24-Hour Tr	raffic Count Sumn	nary Table		
Count Number	Raw Count	Day/Month Seasonal Adjustment Factor*	Average Annual Daily Traffic AADT	2019 AADT w/ Hotel	20-Year Projected AADT**	20-Yer Projected AADT w/ Hotel
1	1,225	1.20	1470	1535	2183	2279
2	2,279	1.20	2735	2863	4061	4252
3	269	1.20	323	354	479	526
4	2,957	1.20	3548	4158	5269	6175
5	1,975	1.20	2370	2577	3519	3827
6	230	1.20	276	292	410	434
7	1,996	1.20	2395	2629	3557	3904
8	820	1.19	976	1088	1449	1616
9	337	1.19	401	411	596	610
10	1,244	1.19	1480	2283	2198	3390
11	864	1.19	1028	1864	1527	2768
12	380	1.19	452	485	672	720
13	811	1.19	965	989	1433	1469
14	782	1.19	931	942	1382	1399

^{*} Day and Month Seasonal Adjustment Factors - All Counts in January (x1.179) on Tuesday (x1.02) or Wednesday (1.01)

TURNING MOVEMENT COUNTS (TMC'S)

The turning movement counts (7 intersections) were collected manually during AM and PM Peak Hours of traffic. The AM Peak Hour Count was collected between 7:00-9:00AM while the PM Peak Hour Count was collected between 4:00-6:00PM. The purpose of the TMC's are to measure and quantify the directional traffic flow through an intersection. The resulting data provides the support for Level of Service (LOS) analysis on the intersection's various movements while also providing detailed traffic flow patterns allowing for proper trip distribution through intersections. RPP utilized McTrans Highway Capacity Software Plus to perform LOS analysis on all seven (7) main intersection within the analysis area. Understanding the existing traffic patterns upstream and downstream of the proposed development allows to better model existing traffic patterns while also allowing for the analysis of how the future development will affect the transportation network.

^{*20-}Year Projected AADT assumes a compounding 2% per year population growth rate

Summary Table - Level of Service Intersection Analysis									
Intersection	Analysis	Turi	ning Move	ment LOS I	Rating				
intersection	Туре	Eastbound	Westbound	Northbound	Southbound				
Traffic Intersection Description w/Year									
TMC #1 - AM Peak Hour 2019	TWSC	C	Α	С	В				
TMC #1 - PM Peak Hour 2019	TWSC	С	Α	С	E				
TMC #1 - PM Peak Hour 2019 w/Development	TWSC	С	Α	С	F				
TMC #1 - PM Peak Hour 2039 Projection	TWSC	С	Α	F	F				
TMC #1 - PM Peak Hour 2039 Projection w/Development	TWSC	С	Α	F	F				
TMC #1 - PM Peak Hour 2019	AWSC	С	С	В	В				
TMC #1 - PM Peak Hour 2019 w/Development	AWSC	С	D	В	В				
TMC #1 - PM Peak Hour 2039 Projection	AWSC	F	F	С	С				
TMC #1 - PM Peak Hour 2039 Projection w/Development	AWSC	F	F	С	С				
TMC #2 - AM Peak Hour 2019	TWSC	Α	Α		В				
TMC #2 - PM Peak Hour 2019	TWSC	Α	Α		В				
TMC #2 - PM Peak Hour 2019 w/Development	TWSC	Α	Α		В				
TMC #2 - PM Peak Hour 2039 Projection	TWSC	Α	Α		С				
TMC #2 - PM Peak Hour 2039 Projection w/Development	TWSC	Α	Α		С				
TMC #3 - AM Peak Hour 2019	TWSC	Α	Α						
TMC #3 - PM Peak Hour 2019	TWSC	Α	Α						
TMC #3 - PM Peak Hour 2019 w/Development	TWSC	Α	Α						
TMC #3 - PM Peak Hour 2039 Projection	TWSC	Α	Α						
TMC #3 - PM Peak Hour 2039 Projection w/Development	TWSC	Α	Α						
TMC #4 - AM Peak Hour 2019	TWSC	Α	Α	В	Α				
TMC #4 - PM Peak Hour 2019	TWSC	Α	Α	С	В				
TMC #4 - PM Peak Hour 2019 w/Development	TWSC	Α	Α	С	В				
TMC #4 - PM Peak Hour 2039 Projection	TWSC	Α	Α	F	В				
TMC #4 - PM Peak Hour 2039 Projection w/Development	TWSC	Α	Α	F	В				
TMC #5 - AM Peak Hour 2019	TWSC		Α	Α	Α				
TMC #5 - PM Peak Hour 2019	TWSC		В	Α	Α				
TMC #5 - PM Peak Hour 2019 w/Development	TWSC		В	Α	Α				
TMC #5 - PM Peak Hour 2039 Projection	TWSC		В	Α	Α				
TMC #5 - PM Peak Hour 2039 Projection w/Development	TWSC		В	Α	Α				
TMC #6 - AM Peak Hour 2019	TWSC		Α	Α	Α				
TMC #6 - PM Peak Hour 2019	TWSC		Α	Α	Α				
TMC #6 - ALL PROJECTIONS	TWSC		Α	Α	Α				
TMC #7 - AM Peak Hour 2019	TWSC	Α	Α	Α					
TMC #7 - PM Peak Hour 2019	TWSC	Α	Α	Α					
TMC #7 - ALL PROJECTIONS	TWSC	Α	Α	Α					

TWSC - Two Way Stop Control

AWSC - All Way Stop Control (provided as an alternative analysis on TMC#1 Intersection)

Blue is a modified finding to account for the 3-way stop intersection

Green indicates and existing or projected issue with poor LOS rating WHICH ARE NOT RELATED TO THE PROPOSED DEVELOPMENT

Red indicates a degredation of LOS due to proposed hotel development

TRIP GENERATION ANALYSIS

For purposes of this study, RPP utilized the information provided by the Tribe to understand and size and scope of the proposed Hotel development. From the development plans, RPP performed trip generation analysis on the proposed land use to analyze and assign generated traffic trips. To do so RPP utilized the Institute of Traffic Engineers (ITE) Trip Generation Manuals, 10th Edition, Volumes 1-3 for this analysis. Analysis concluded that the proposed 100-Room Hotel will generate an estimated 836 trips per day, of which 60 of those trips would occur during the PM Peak Hour of traffic. The detailed analysis and land use break down is provided on the Trip Generation Table. Total Trips Generated is the total number of vehicle trips to and from the new development in a typical weekday. Trip Generation Analysis is an engineering planning tool and is the professional-discipline-approved method for understanding the potential impacts of a development on the existing transportation network. This allows the community and transportation stakeholders the ability to forecast transportation system improvements that will be needed in support of the development. Often times, traffic analysis also identifies system improvements which will be required in the future, regardless of the potential impacts of the development. It is recommended that post development analysis be performed to completely understand the actual impacts of a development of any kind.

Trip Generation Table - Trinidad Rancheria Hotel Development

Land Use	ITE Code*	ITE Description	Intensity	Units	Trip Generation Rate (Daily)	PM Peak Hour Average Rate	PM In	PM Out	Daily Trips Generated	PM Peak Hours	PM In	PM Out
Trinidad Rancheria Proposed Hotel	310	Lodging Hotel	100	Rooms	8.36	0.60	0.51	0.49	836	60	31	29
			Total I	Daily Trip	s Generated**				836			

^{*}Institute of Traffic Engineers (ITE) Trip Generation Manuals, 10th Edition, Volumes 1-3 were utilized for this analysis.

SEASONAL ADJUSTMENT FACTORS USED TO CONVERT ADT'S TO AADT'S

Day of Week Multiplier	
Monday	1.043
Tuesday	1.020
Wednesday	1.010
Thursday	1.000
Friday	0.940
•	

Month of Year Multiplier	
January February March April May June July August September October	1.179 1.161 1.133 1.083 1.064 1.009 1.015 1.000 1.037
	7.12.12

^{**} Total Trips Generated is the total number up vehicle trips to and from all of the planned development in a typical weekday. This calculation takes into consideration a 0.0% "internal capture" rate for those guests utilizing the hotel and casino simultaneously. It is possible with the development of the hotel, that the existing trips generated by the casino itself decreases for those guest remaining at the casino for extended overnight stays instead of commutting to and from the casino more frequestly. The opposing discussion can also be had in that, the Hotel may result in increased trip levels to the Casino's existing trips generated as more people will utilize the Casino now that it will have a hotel. For these

Trip Generation Analysis is for planning purposes only, it is recommended that follow up traffic studies be perfomred once the hotel is up and running to further verify the impacts of the development of the hotel and how the Hotel and Casino combine to impact the area traffic volumes and patterns.

CALTRANS 2016 AND 2017 AADT'S - REFERENCED FOR REGIONAL GROWTH ANALYSIS

2016 Traffic Volumes on California State Highways

Dist Route	County	Postmile	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
01 101	HUM	98.067	WESTHAVEN DRIVE	1300	14000	11000	1050	11900	9000
01 101	HUM	98.355	SIXTH STREET	1050	11900	9000	1150	12400	9100
01 101	HUM	100.705	TRINIDAD ROAD	1150	12400	9100	690	6600	4600
01 101	HUM F	R 103.378	SEAWOOD DRIVE	690	6600	4600	670	6600	4300
01 101	HUM F	R 106.069	PATRICKS POINT	670	6600	4300	700	7500	5000
01 101	HUM	108.22	BIG LAGOON PARK ROAD	700	7500	5000	570	5500	4100
01 101	HUM	109.55	GEORGIA PACIFIC ROAD	570	5500	4100	580	5500	4000







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2017 Volumes Home View

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2017 Traffic Volumes (for ALL vehicles on CA State Highways)

Return to Census Program or Jump to 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017

Dist	Rte	со	Post Mile	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT	
01	101	HUM R	91.473	MC KINLEYVILLE, SCHOOL ROAD	2300	23400	19300	1850	19500	16400	
01	101	HUM R	93.000	MC KINLEYVILLE, MURRAY ROAD	1850	19500	16400	1450	13300	12900	^
01	101	HUM R	93.852	MC KINLEYVILLE, AIRPORT ROAD	1450	13300	12900	1300	13200	11300	
01	101	HUM R	95.620	NORTH CENTRAL AVENUE	1300	13200	11300	1300	14000	11100	
01	101	HUM R	97.020	CRANNELL ROAD	1500	14000	11100	1500	13800	10800	
01	101	HUM	98.067	WESTHAVEN DRIVE	1500	14400	11300	1050	12200	9200	





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Dist	Rte	со	Post Mile	Description
01	101	LICINI	· 00.107	301. INIL. 200 LAGI
01	101	HUM I	R 91.473	MC KINLEYVILLE, SCHOOL ROAD
01	101	HUM I	R 93	MC KINLEYVILLE, MURRAY ROAD
01	101	HUM I	R 93.852	MC KINLEYVILLE, AIRPORT ROAD
01	101	HUM I	R 95.62	NORTH CENTRAL AVENUE
01	101	HUM I	R 97.02	CRANNELL ROAD
01	101	HUM	98.067	WESTHAVEN DRIVE

2016 Volumes Home ➤ View

Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT	
2250	23000	19000	1800	19000	16000	-
1800	19000	16000	1400	13000	12600	
1400	13000	12600	1350	13500	11600	
1350	13500	11600	1300	13100	11300	
1300	13100	11300	1300	14000	11000	
1300	14000	11000	1050	11900	9000	

CONCLUSIONS

The 2019 Cher-Ae Heights Indian Community of the Trinidad Rancheria – Hotel Traffic Impact Analysis has identified several notable findings in relation to both the existing and the proposed traffic patterns and conditions. They are as follows:

- 1. The Trinidad Rancheria Hotel has little to no impact on the existing transportation network and traffic patterns.
 - At the intersection #1 Main Street/Scenic Drive/Patrick's Point Drive the Level of Service for the intersection is already operating in relatively poor condition with LOS ratings of:
 - i. "C, A, C, E" from a two-way-stop-control analysis
 - ii. "C, C, B, B" from an all-way-stop-control analysis
 - At the Intersection #1 Main Street/Scenic Drive/Patrick's Point Drive the Level of
 Service for the intersection is minimally impacted by the proposed hotel development:
 - Two-way-stop-control analysis identifies the Southbound LOS reduces from an "E" already poor rating, to an "F" poor rating.
 - ii. All-way-stop-control analysis identifies the Southbound LOS reduced from a "C" average but acceptable to a "D" below average rating.
 - c. No other intersections or roadways show any reduced state of operation due to the proposed Hotel development.
- 2. Area Transportation Improvements not related to the Development project are needed to improve, or at a minimum, maintain the existing functionality of the transportation network.
 - a. 20-Year Projected LOS analysis, assuming a realistic 2% per year traffic growth rate and with no significant regional developments identifies the following issues:
 - Intersection #1 Main Street/Scenic Drive/ Patrick's Point Drive will be operating in failing condition in year 2039 regardless of development, if no improvements are made.
 - ii. Intersection #4 N Westhaven Drive/Trinidad Frontage Road/US101 northbound Off Ramp will be operating in failing condition in year 2039 regardless of development, if no improvements are made.
 - iii. All other intersections and roadways analyzed in this report, if maintained to their current condition, adequately serve the area from a LOS analysis perspective

APPENDIX A

MECHANICAL TRAFFIC COUNT RECORDS AND ANALYSIS



Prepared by:



	24-Hour Traffic Count Summary Table														
Count Number	Raw Count	Day/Month Seasonal Adjustment Factor*	Average Annual Daily Traffic AADT	2019 AADT w/ Hotel	20-Year Projected AADT**	20-Yer Projected AADT w/ Hotel									
1	1,225	1.20	1470	1535	2183	2279									
2	2,279	1.20	2735	2863	4061	4252									
3	269	1.20	323	354	479	526									
4	2,957	1.20	3548	4158	5269	6175									
5	1,975	1.20	2370	2577	3519	3827									
6	230	1.20	276	292	410	434									
7	1,996	1.20	2395	2629	3557	3904									
8	820	1.19	976	1088	1449	1616									
9	337	1.19	401	411	596	610									
10	1,244	1.19	1480	2283	2198	3390									
11	864	1.19	1028	1864	1527	2768									
12	380	1.19	452	485	672	720									
13	811	1.19	965	989	1433	1469									
14	782	1.19	931	942	1382	1399									

^{*} Day and Month Seasonal Adjustment Factors - All Counts in January (x1.179) on Tuesday (x1.02) or Wednesday (1.01)

^{**20-}Year Projected AADT assumes a compounding 2% per year population growth rate

Red Plains Professional, Inc. Start Date: 1/8/2019

Start Time: 11:00:00 AM

Site Code: 1 Intersection:

Number	Date	Time	Bikes	Cars &	2 Axle	Buses	2 Axle 6	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	Not	TOTALS
	. /0 /00 . 0	11.00.111	-	Trailers	Long		Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Classed	1011111
	1/8/2019		1	36	30	0	13	0	0	0	0	0	0	0	0	0	80
	, -,	12:00 PM	2	71	16	0	11	0	0	0	0	0	0	0	0	0	100
	, -,	01:00 PM	1	57	23	0	8	0	0	1	0	0	0	0	0	1	91
	1/8/2019		0	53	20	0	8	0	0	0	0	0	0	0	0	0	81
	1/8/2019		0	63	23	0	14	0	0	0	0	0	0	0	0	0	100
	, -,	04:00 PM	0	68	28	1	8	0	0	0	0	0	0	0	0	0	105
	, -,	05:00 PM	0	79	14	0	8	0	0	0	0	0	0	0	0	0	101
	, -,	06:00 PM	0	64	22	0	4	0	0	0	0	0	0	0	0	0	90
	1/8/2019		0	42	6	0	5	0	0	0	0	0	0	0	0	0	53
	· ·	08:00 PM	0	41	8	0	1	0	0	0	0	0	0	0	0	0	50
	, -,	09:00 PM	0	29	3	0	3	0	0	0	0	0	0	0	0	0	35
	, -,	10:00 PM	0	7	2	0	2	0	0	0	0	0	0	0	0	0	11
	1/8/2019		0	10	5	0	1	0	0	0	0	0	0	0	0	0	16
14	1/9/2019	12:00 AM	0	5	1	0	2	0	0	0	0	0	0	0	0	0	8
15	1/9/2019	01:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
-	, - ,	02:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
17	1/9/2019	03:00 AM	0	4	0	0	1	0	0	0	0	0	0	0	0	0	5
18	1/9/2019	04:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
19	1/9/2019	05:00 AM	0	5	0	0	4	0	0	0	0	0	0	0	0	0	9
20	1/9/2019	06:00 AM	0	8	10	0	6	0	0	0	0	0	0	0	0	0	24
21	1/9/2019	07:00 AM	0	28	8	1	7	0	0	0	0	0	0	0	0	1	45
22	1/9/2019	08:00 AM	0	45	16	0	8	0	0	2	0	0	0	0	0	0	71
23	1/9/2019	09:00 AM	3	43	13	0	13	1	0	3	0	0	0	0	0	0	76
24	1/9/2019	10:00 AM	1	37	9	0	14	0	0	0	0	0	0	0	0	1	62
TOTALS			8	807	257	2	141	1	0	6	0	0	0	0	0	3	
Percent Heavy Vehicles		12%				•		•	•	•	•			•	Raw ADT	1,225	
		<u>"</u>		•										Seaso	nal Adjustn	nent Factor	1.20
															-	AADT	1,470
															Annual G	rowth Rate	
														20	Year Proje	stad AADT	

20 Year Projected AADT

4,061

Red Plains Professional, Inc. Start Date: 1/8/2019

Start Time: 11:00:00 AM

Site Code: 2 Intersection:

Number	Date	Time	Bikes	Cars &	2 Axle	Buses	2 Axle 6	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	Not	
				Trailers	Long		Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Classed	TOTALS
1	1/8/2019	11:00 AM	3	76	38	5	18	2	1	4	0	0	0	0	1	12	160
2	1/8/2019	12:00 PM	2	115	38	1	15	2	0	3	2	0	0	0	0	11	189
3	1/8/2019	01:00 PM	1	89	39	3	12	4	0	0	1	0	0	0	0	18	167
4	1/8/2019	02:00 PM	4	113	32	2	6	2	0	0	0	0	0	0	0	19	178
5	1/8/2019	03:00 PM	1	142	41	1	11	1	0	1	0	0	0	0	0	19	217
6	1/8/2019	04:00 PM	5	152	48	1	15	1	0	0	0	0	0	0	0	17	239
7	1/8/2019	05:00 PM	3	105	24	4	7	1	0	0	0	0	0	0	0	24	168
8	1/8/2019	06:00 PM	1	44	12	1	5	1	0	0	0	0	0	0	0	9	73
9	1/8/2019	07:00 PM	2	37	6	0	2	0	0	0	0	0	0	0	0	2	49
10	1/8/2019	08:00 PM	4	20	7	0	3	0	0	0	0	0	0	0	0	3	37
11	1/8/2019	09:00 PM	0	13	3	0	2	0	0	0	0	0	0	0	0	1	19
12	1/8/2019	10:00 PM	0	5	4	0	0	0	0	0	0	0	0	0	0	3	12
13	1/8/2019	11:00 PM	0	3	4	0	0	0	0	0	0	0	0	0	0	1	8
14	1/9/2019	12:00 AM	0	1	1	0	0	1	0	0	0	0	0	0	0	2	5
15	1/9/2019	01:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	1	4
16	1/9/2019	02:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2
17	1/9/2019	03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	1/9/2019	04:00 AM	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3
19	1/9/2019	05:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3	6
20	1/9/2019	06:00 AM	4	16	3	1	1	2	0	0	0	0	0	0	0	5	32
21	1/9/2019	07:00 AM	5	56	20	3	4	0	0	0	0	0	0	0	0	8	96
22	1/9/2019	08:00 AM	17	209	48	9	12	5	2	2	0	0	0	0	0	31	335
23	1/9/2019	09:00 AM	3	83	37	5	15	3	0	2	0	0	0	0	0	10	158
24	1/9/2019	10:00 AM	3	79	22	4	6	0	1	1	0	0	0	0	0	6	122
TOTALS			59	1365	429	40	134	25	4	13	3	0	0	0	1	206	
Percent H	eavy Vehicl	es	10%													Raw ADT	2,279
				_										Seaso	nal Adjustn	nent Factor	1.20
															2,735		
															Annual G	rowth Rate	2.0%
																_	

Annual Growth Rate

20 Year Projected AADT

2.0%

479

Red Plains Professional, Inc. Start Date: 1/8/2019

Start Time: 12:00:00 PM

Site Code: 3 Intersection:

Number	Date	Time	Bikes	Cars &	2 Axle	Buses	2 Axle 6	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	Not	
				Trailers	Long		Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Classed	TOTALS
1	1/8/2019	12:00 PM	0	22	9	0	1	0	0	0	0	0	0	0	0	0	32
2	1/8/2019	01:00 PM	1	11	9	0	0	0	0	0	0	0	0	0	0	0	21
3	1/8/2019	02:00 PM	0	16	4	0	2	0	0	0	0	0	0	0	0	0	22
4	1/8/2019	03:00 PM	0	14	8	0	1	1	0	0	0	0	0	0	0	0	24
5	1/8/2019	04:00 PM	0	15	5	0	2	0	0	1	0	0	0	0	0	0	23
6	1/8/2019	05:00 PM	1	20	5	0	0	0	0	0	0	0	0	0	0	0	26
7	1/8/2019	06:00 PM	0	8	3	0	0	0	0	0	0	0	0	0	0	0	11
8	1/8/2019	07:00 PM	0	7	1	0	1	0	0	0	0	0	0	0	0	0	9
9	1/8/2019	08:00 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
10	1/8/2019	09:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
11	1/8/2019	10:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
12	1/8/2019	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	1/9/2019	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	1/9/2019	01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	1/9/2019	02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	1/9/2019	03:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
17	1/9/2019	04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	1/9/2019	05:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
19	1/9/2019	06:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
20	1/9/2019	07:00 AM	0	10	0	0	0	0	0	0	1	0	0	0	0	0	11
21	1/9/2019	08:00 AM	1	14	5	0	2	0	0	0	0	0	0	0	0	0	22
22	1/9/2019	09:00 AM	0	11	2	0	0	1	0	0	0	0	0	0	0	0	14
23	1/9/2019	10:00 AM	0	10	4	0	0	0	0	0	0	0	0	0	0	0	14
24	1/9/2019	11:00 AM	1	16	9	0	0	0	0	0	0	0	0	0	0	0	26
TOTALS	•	•	4	187	65	0	9	2	0	1	1	0	0	0	0	0	
Percent Ho	eavy Vehicl	es	5%													Raw ADT	269
														Seaso	nal Adjustn	nent Factor	1.20
															•	AADT	323

20 Year Projected AADT

5,269

Red Plains Professional, Inc. Start Date: 1/8/2019

Start Time: 1:00:00 PM

Site Code: 4 Intersection:

Number	Date	Time	Bikes	Cars &	2 Axle	Buses	2 Axle 6	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	Not	
				Trailers	Long		Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Classed	TOTALS
1	1/8/2019	01:00 PM	3	121	50	0	33	0	0	1	0	0	0	0	0	2	210
2	1/8/2019	02:00 PM	1	129	57	0	35	1	0	2	0	0	0	0	0	7	232
3	1/8/2019	03:00 PM	3	146	58	1	25	3	0	0	0	0	0	0	0	4	240
4	1/8/2019	04:00 PM	2	142	76	3	36	2	0	3	0	0	0	0	0	5	269
5	1/8/2019	05:00 PM	0	193	38	1	21	1	0	0	0	0	0	0	0	3	257
6	1/8/2019	06:00 PM	0	88	46	2	21	0	0	0	0	0	0	0	0	1	158
7	1/8/2019	07:00 PM	2	71	20	1	6	0	0	0	0	0	0	0	0	0	100
8	1/8/2019	08:00 PM	0	47	12	0	6	0	0	0	0	0	0	0	0	1	66
9	1/8/2019	09:00 PM	7	35	14	0	6	0	0	0	0	0	0	0	0	2	64
10	1/8/2019	10:00 PM	0	21	13	0	5	0	0	0	0	0	0	0	0	1	40
11	1/8/2019	11:00 PM	0	9	8	0	6	0	0	0	0	0	0	0	0	0	23
12	1/9/2019	12:00 AM	1	7	1	0	3	0	0	0	0	0	0	0	0	0	12
13	1/9/2019	01:00 AM	0	7	2	0	2	1	0	0	0	0	0	0	0	0	12
14	1/9/2019	02:00 AM	0	3	1	0	1	0	0	0	0	0	0	0	0	0	5
15	1/9/2019	03:00 AM	0	3	6	0	0	0	0	0	0	0	0	0	0	0	9
16	1/9/2019	04:00 AM	0	4	6	0	2	0	0	0	0	0	0	0	0	0	12
17	1/9/2019	05:00 AM	0	6	9	0	5	0	0	0	0	0	0	0	0	1	21
18	1/9/2019	06:00 AM	0	19	18	0	8	0	0	0	2	0	0	0	0	1	48
19		07:00 AM	6	58	38	3	16	0	0	1	1	0	0	0	0	0	123
20	1/9/2019	08:00 AM	2	140	97	0	34	1	0	4	1	0	0	0	0	1	280
21	1/9/2019	09:00 AM	2	92	59	2	39	4	0	4	0	0	0	0	0	7	209
22	1/9/2019	10:00 AM	0	74	50	0	22	5	0	1	1	0	0	0	0	2	155
23		11:00 AM	2	89	57	3	28	1	0	2	0	0	0	0	0	1	183
24	1/9/2019	12:00 PM	3	93	80	1	48	0	0	2	0	0	0	0	0	2	229
TOTALS			34	1597	816	17	408	19	0	20	5	0	0	0	0	41	
Percent H	eavy Vehicl	es	16%													Raw ADT	2,957
				_										Seaso	nal Adjustn	nent Factor	1.20
																AADT	3,548
															Annual G	rowth Rate	2.0%

20 Year Projected AADT

3,519

Red Plains Professional, Inc. Start Date: 1/8/2019

Start Time: 1:00:00 PM

Site Code: 5 Intersection:

Number	Date	Time	Bikes	Cars &	2 Axle	Buses	2 Axle 6	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	Not	
				Trailers	Long		Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Classed	TOTALS
1	1/8/2019	01:00 PM	1	90	35	1	16	1	0	2	0	0	0	0	0	0	146
2	1/8/2019	02:00 PM	2	70	37	0	14	0	0	0	0	0	0	0	0	2	125
3	1/8/2019	03:00 PM	0	101	35	1	22	0	0	1	0	0	0	0	0	4	164
4	1/8/2019	04:00 PM	0	97	47	1	10	1	0	2	0	0	0	0	0	1	159
5	1/8/2019	05:00 PM	1	105	35	0	12	0	0	1	0	0	0	0	0	5	159
6	1/8/2019	06:00 PM	0	60	14	0	9	0	0	0	0	0	0	0	0	1	84
7	1/8/2019	07:00 PM	0	34	6	0	8	1	0	0	0	0	0	0	0	2	51
8	1/8/2019	08:00 PM	0	37	11	1	1	0	0	0	0	0	0	0	0	0	50
9	1/8/2019	09:00 PM	0	24	6	0	0	0	0	0	0	0	0	0	0	2	32
10	1/8/2019	10:00 PM	0	43	14	2	5	1	0	0	0	0	0	0	0	1	66
11	1/8/2019	11:00 PM	0	18	7	0	1	0	0	0	0	0	0	0	0	2	28
12	1/9/2019	12:00 AM	2	16	6	0	1	0	0	0	0	0	0	0	0	0	25
13	1/9/2019	01:00 AM	0	5	2	0	2	0	0	0	0	0	0	0	0	1	10
14	1/9/2019	02:00 AM	0	6	2	0	1	0	0	0	0	0	0	0	0	0	9
15	1/9/2019	03:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
16	1/9/2019	04:00 AM	0	5	2	0	0	0	0	0	0	0	0	0	0	1	8
17	1/9/2019	05:00 AM	0	10	2	0	2	0	0	0	0	0	0	0	0	0	14
18	1/9/2019	06:00 AM	0	19	13	1	4	0	0	0	0	0	0	0	0	1	38
19	1/9/2019	07:00 AM	0	64	23	2	3	1	0	0	0	1	0	0	0	3	97
20	1/9/2019	08:00 AM	0	114	36	1	13	1	1	0	3	0	0	0	0	4	173
21	1/9/2019	09:00 AM	0	73	34	4	18	0	0	1	0	0	0	0	0	4	134
22	1/9/2019	10:00 AM	1	81	20	2	16	1	1	0	1	0	0	0	0	0	123
23	1/9/2019	11:00 AM	1	67	26	2	12	2	1	1	0	0	0	0	1	1	114
24	1/9/2019	12:00 PM	3	102	30	3	17	1	0	3	0	0	0	0	0	3	162
TOTALS	•	•	11	1244	444	21	187	10	3	11	4	1	0	0	1	38	
Percent He	eavy Vehicl	es	12%													Raw ADT	1,975
														Seaso	nal Adjustn	nent Factor	1.20
																AADT	2,370
															Annual G	rowth Rate	

Annual Growth Rate

20 Year Projected AADT

2.0%

410

Red Plains Professional, Inc. Start Date: 1/8/2019

Start Time: 12:00:00 PM

Site Code: 6 Intersection:

Number	Date	Time	Bikes	Cars &	2 Axle	Buses	2 Axle 6	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	Not	
				Trailers	Long		Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Classed	TOTALS
1	1/8/2019	12:00 PM	0	15	2	0	1	0	0	1	0	0	0	0	0	0	19
2	1/8/2019	01:00 PM	1	9	5	0	3	0	0	0	0	0	0	0	0	0	18
3	1/8/2019	02:00 PM	1	12	6	0	2	0	0	0	0	0	0	0	0	0	21
4	1/8/2019	03:00 PM	3	14	2	0	1	0	0	0	0	0	0	0	0	0	20
5	1/8/2019	04:00 PM	0	13	4	0	0	0	0	0	0	0	0	0	0	0	17
6	1/8/2019	05:00 PM	1	10	1	2	0	0	0	0	0	0	0	0	0	0	14
7	1/8/2019	06:00 PM	0	10	2	0	0	0	0	0	0	0	0	0	0	0	12
8	1/8/2019	07:00 PM	0	2	1	0	0	0	0	0	0	0	0	0	0	1	4
9	1/8/2019	08:00 PM	0	4	1	0	0	0	0	0	0	0	0	0	0	0	5
10	1/8/2019	09:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
11	1/8/2019	10:00 PM	0	4	0	0	1	0	0	0	0	0	0	0	0	0	5
12	1/8/2019	11:00 PM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
13	1/9/2019	12:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
14	1/9/2019	01:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
15	1/9/2019	02:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
16	1/9/2019	03:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
17	1/9/2019	04:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
18	1/9/2019	05:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
19	1/9/2019	06:00 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
20	1/9/2019	07:00 AM	0	7	1	0	2	0	0	0	1	0	0	0	0	0	11
21	1/9/2019	08:00 AM	0	11	3	0	0	0	0	0	0	0	0	0	0	0	14
22	1/9/2019	09:00 AM	1	12	3	0	2	0	0	1	0	0	0	0	0	0	19
23	1/9/2019	10:00 AM	0	7	4	1	1	0	0	0	0	0	0	0	0	0	13
24	1/9/2019	11:00 AM	1	9	7	1	2	0	0	1	0	0	0	0	0	0	21
TOTALS			8	149	48	4	16	0	0	3	1	0	0	0	0	1	
Percent H	eavy Vehicl	es	10%		•	•	•	•	•	•	•	•			•	Raw ADT	230
				•										Seaso	nal Adjustn	nent Factor	1.20
																AADT	

3,557

20 Year Projected AADT

Red Plains Professional, Inc. Start Date: 1/8/2019 Start Time: 2:00:00 PM

Site Code: 7 Intersection:

2 1	1/8/2019						2 Axle 6	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	Not	
2 1				Trailers	Long		Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Classed	TOTALS
		2:00 PM	1	62	77	1	30	0	0	1	0	0	0	0	0	1	173
3 1	1/8/2019	3:00 PM	0	62	61	1	22	0	0	0	0	0	0	0	0	0	146
J 1	1/8/2019	4:00 PM	1	75	67	1	32	0	0	0	1	0	0	0	0	4	181
4 1	1/8/2019	5:00 PM	1	94	70	1	20	1	0	1	0	0	0	0	0	1	189
5 1	1/8/2019	6:00 PM	0	54	51	0	16	0	0	0	0	0	0	0	0	2	123
5 1	1/8/2019	7:00 PM	0	33	25	1	4	0	0	0	0	0	0	0	0	0	63
7 1	1/8/2019	8:00 PM	0	20	13	0	6	0	0	1	0	0	0	0	0	0	40
	1/8/2019	9:00 PM	1	22	16	0	10	0	0	0	0	0	0	0	0	0	49
9 1	1/8/2019	10:00 PM	0	14	14	0	1	0	0	0	0	0	0	0	0	0	29
10 1	1/8/2019	11:00 PM	0	2	9	0	6	0	0	0	0	0	0	0	0	1	18
11 1	1/9/2019	12:00 AM	1	2	4	0	3	0	0	0	0	0	0	0	0	0	10
12 1	1/9/2019	1:00 AM	0	4	4	0	2	0	0	0	0	0	0	0	0	1	11
13 1	1/9/2019	2:00 AM	0	2	0	0	1	0	0	0	0	0	0	0	0	1	4
14 1	1/9/2019	3:00 AM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4
15 1	1/9/2019	4:00 AM	0	3	2	0	2	0	0	0	0	0	0	0	0	0	7
16 1	1/9/2019	5:00 AM	0	2	7	0	5	0	0	0	0	0	0	0	0	1	15
17 1	1/9/2019	6:00 AM	0	10	14	1	7	0	1	1	1	0	0	0	0	1	36
18 1	1/9/2019	7:00 AM	0	19	30	1	9	0	0	1	2	0	0	0	0	1	63
19 1	1/9/2019	8:00 AM	5	52	105	1	28	2	0	2	0	0	0	0	0	4	199
20 1	1/9/2019	9:00 AM	0	28	65	2	34	1	0	2	0	0	0	0	0	1	133
21 1	1/9/2019	10:00 AM	0	22	54	0	24	0	0	0	1	0	0	0	0	0	101
22 1	1/9/2019	11:00 AM	0	19	63	1	23	2	0	1	0	1	0	0	0	1	111
23 1	1/9/2019	12:00 PM	2	16	103	0	38	1	0	1	0	0	0	0	0	1	162
24 1	1/9/2019	1:00 PM	1	19	84	4	20	0	0	1	0	0	0	0	0	0	129
TOTALS			13	637	941	15	343	7	1	12	5	1	0	0	0	21	
Percent Heav	vy Vehicle	es .	19%													Raw ADT	1,996
				_										Seaso	nal Adjustm	ent Factor	1.20
																AADT	2,395
															Annual Gr	owth Rate	2.0%

Start Date: 1/9/2019 Start Time: 12:00:00 PM

Site Code: 8
Intersection:

Number	Date	Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 AxI Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	TOTALS
	1/9/2019	12:00 PM	2	32	14	0	6	0	0	0	0	0	0	0	0	3	57
2	1/9/2019	01:00 PM	1	38	12	0	3	0	0	0	0	0	0	0	0	1	55
3	1/9/2019	02:00 PM	2	54	18	0	6	0	0	0	0	0	0	0	0	1	81
ļ	1/9/2019	03:00 PM	0	56	12	0	5	0	0	1	0	0	0	0	0	3	77
5	1/9/2019	04:00 PM	0	72	19	0	5	0	0	0	0	0	0	0	0	1	97
3	1/9/2019	05:00 PM	0	38	16	0	3	0	0	0	0	0	0	0	0	2	59
7	1/9/2019	06:00 PM	0	18	6	0	3	0	0	0	0	0	0	0	0	1	28
3	1/9/2019	07:00 PM	0	25	2	0	3	0	0	0	0	0	0	0	0	1	31
)	1/9/2019	08:00 PM	2	20	6	0	0	0	0	0	0	0	0	0	0	1	29
10	1/9/2019	09:00 PM	0	12	2	0	0	0	0	0	0	0	0	0	0	0	14
11	1/9/2019	10:00 PM	0	10	2	0	0	0	0	0	0	0	0	0	0	0	12
12	1/9/2019	11:00 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
13	1/10/2019	12:00 AM	0	1	4	0	0	0	0	0	0	0	0	0	0	0	5
14	1/10/2019	01:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
15	1/10/2019	02:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
16	1/10/2019	03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	1/10/2019	04:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
18	1/10/2019	05:00 AM	0	2	1	0	1	0	0	0	0	0	0	0	0	0	4
19	1/10/2019	06:00 AM	0	10	1	0	0	0	0	0	0	0	0	0	0	1	12
20	1/10/2019	07:00 AM	1	19	6	1	0	1	0	0	1	0	0	0	0	1	30
21	1/10/2019	08:00 AM	0	40	15	0	3	1	0	0	0	0	0	0	0	3	62
22	1/10/2019	09:00 AM	2	27	13	0	5	0	0	0	0	0	0	0	0	5	52
23	1/10/2019	10:00 AM	0	38	16	0	3	0	0	0	0	0	0	0	0	1	58
24	1/10/2019	11:00 AM	0	29	15	0	2	0	0	1	0	0	0	0	0	0	47
TOTALS			10	548	183	1	48	2	0	2	1	0	0	0	0	25	
Percent He	eavy Vehic	les	7%													Raw ADT	820
				_										Seaso	nal Adjustn	nent Factor	1.19
																AADT	976
															Annual G	rowth Rate	2.0%
														20	Year Proje	ected AADT	1,449

Start Date: 1/9/2019 Start Time: 1:00:00 PM

Site Code: 9
Intersection:

Number	Date	Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 AxI Double	5 Axle Double	>6 AxI Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	TOTALS
1	1/9/2019	01:00 PM	0	5	5	0	4	0	0	0	0	0	0	0	0	0	14
2	1/9/2019	02:00 PM	0	20	11	0	4	0	0	0	0	0	0	0	0	2	37
3	1/9/2019	03:00 PM	0	20	4	0	2	0	0	0	0	0	0	0	0	1	27
4	1/9/2019	04:00 PM	0	20	8	0	4	0	0	0	0	0	0	0	0	0	32
5	1/9/2019	05:00 PM	0	10	6	0	3	0	0	0	0	0	0	0	0	0	19
6	1/9/2019	06:00 PM	0	13	3	0	3	0	0	0	0	0	0	0	0	0	19
7	1/9/2019	07:00 PM	0	10	3	0	5	0	0	0	0	0	0	0	0	0	18
8	1/9/2019	08:00 PM	0	2	5	0	2	0	0	0	0	0	0	0	0	0	9
9	1/9/2019	09:00 PM	0	1	3	0	2	0	0	0	0	0	0	0	0	0	6
10	1/9/2019	10:00 PM	0	4	1	0	1	0	0	0	0	0	0	0	0	0	6
11	1/9/2019	11:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
12	1/10/2019	12:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
13	1/10/2019	01:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
14	1/10/2019	02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	1/10/2019	03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	1/10/2019	04:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
17	1/10/2019	05:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
18	1/10/2019	06:00 AM	0	2	1	0	1	0	0	0	0	0	0	0	0	0	4
19	1/10/2019	07:00 AM	1	12	5	0	6	0	0	1	0	0	0	0	0	1	26
20	1/10/2019	08:00 AM	0	11	5	0	4	0	0	0	0	0	0	0	0	0	20
21	1/10/2019	09:00 AM	0	9	7	0	5	1	0	0	0	0	0	0	0	1	23
22	1/10/2019	10:00 AM	0	9	7	0	2	0	0	0	0	0	0	0	0	0	18
23	1/10/2019	11:00 AM	0	11	5	0	7	0	0	0	0	0	0	0	0	0	23
24	1/10/2019	12:00 PM	0	16	5	0	3	0	0	0	0	0	0	0	0	0	24
TOTALS			1	183	88	0	58	1	0	1	0	0	0	0	0	5	
Percent He	eavy Vehic	les	18%													Raw ADT	337
				_										Seaso	nal Adjustn	nent Factor	1.19
																AADT	401
															Annual G	rowth Rate	
														20	0 Year Proje	cted AADT	596

Start Date: 1/9/2019 Start Time: 2:00:00 PM

Site Code: 10
Intersection:

Number	Date	Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 AxI Double	5 Axle Double	>6 AxI Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	TOTALS
1	1/9/2019	02:00 PM	0	59	16	0	12	0	0	1	1	0	0	0	0	4	93
2	1/9/2019	03:00 PM	0	77	23	2	13	2	0	0	0	0	0	0	0	2	119
3	1/9/2019	04:00 PM	0	82	19	0	5	0	0	2	0	0	0	0	0	6	114
4	1/9/2019	05:00 PM	3	62	17	0	7	0	0	0	0	0	0	0	0	2	91
5	1/9/2019	06:00 PM	2	44	12	2	3	0	0	0	0	0	0	0	0	1	64
6	1/9/2019	07:00 PM	0	39	10	0	3	0	0	0	0	0	0	0	0	1	53
7	1/9/2019	08:00 PM	1	32	6	1	2	1	0	0	0	0	0	0	0	1	44
8	1/9/2019	09:00 PM	2	38	14	0	0	0	0	0	0	0	0	0	0	1	55
9	1/9/2019	10:00 PM	2	48	12	0	2	0	0	0	0	0	0	0	0	0	64
10	1/9/2019	11:00 PM	0	32	8	0	2	0	0	0	0	0	0	0	0	0	42
11	1/10/2019	12:00 AM	1	16	7	0	2	0	0	0	0	0	0	0	0	0	26
12	1/10/2019	01:00 AM	0	13	1	0	3	0	0	0	0	0	0	0	0	0	17
13	1/10/2019	02:00 AM	0	11	2	0	1	0	0	0	0	0	0	0	0	0	14
14	1/10/2019	03:00 AM	0	3	3	0	1	0	0	0	0	0	0	0	0	0	7
15	1/10/2019	04:00 AM	0	5	3	2	0	0	0	0	0	0	0	0	0	0	10
16	1/10/2019	05:00 AM	0	4	4	0	2	0	0	0	0	0	0	0	0	0	10
17	1/10/2019	06:00 AM	0	10	10	1	2	0	0	0	0	0	0	0	0	0	23
18	1/10/2019	07:00 AM	0	18	9	2	3	0	0	0	0	0	0	0	0	1	33
19	1/10/2019	08:00 AM	3	35	13	0	3	0	0	0	0	0	0	0	0	0	54
20	1/10/2019	09:00 AM	0	23	12	1	2	0	0	2	0	0	0	0	0	1	41
21	1/10/2019	10:00 AM	0	26	9	0	8	1	0	1	0	0	0	0	0	2	47
22	1/10/2019	11:00 AM	2	48	12	0	11	0	0	1	1	0	0	0	0	1	76
23	1/10/2019	12:00 PM	1	39	23	0	9	3	0	0	1	0	0	0	0	0	76
24	1/10/2020	12:00 PM	2	37	21	1	8	1	0	1	0	0	0	0	0	0	71
TOTALS			19	801	266	12	104	8	0	8	3	0	0	0	0	23	
Percent He	eavy Vehic	les	11%													Raw ADT	1,244
				_										Seaso	nal Adjustn	nent Factor	1.19
															•	AADT	1,480
															Annual G	rowth Rate	2.0%
														20	0 Year Proje	cted AADT	2,198

Start Date: 1/9/2019 Start Time: 2:00:00 PM

Site Code: 11
Intersection:

Number	Date	Time	Bikes	Cars &	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle	4 Axle	<5 AxI	5 Axle	>6 AxI	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	TOTALS
	1/9/2019	02:00 PM	2	Trailers 42	9	0	2	Single 1	Single	Double 1	Double	Double	0	0	0	0	
					-				0		1	0		0	0	0	58
	1/9/2019	03:00 PM	2	47	15	1	5	2	0	0	0	0	0	0	0	2	74
	1/9/2019	04:00 PM	4	51	12	0	6	0	0	0	0	0	0	0	0	3	76
	1/9/2019	05:00 PM	3	51	10	0	5	0	0	0	0	0	0	0	0	1	70
	1/9/2019	06:00 PM	0	38	8	2	1	0	0	0	0	0	0	0	0	3	52
i	1/9/2019	07:00 PM	1	31	8	0	1	0	0	0	0	0	0	0	0	0	41
•	1/9/2019	08:00 PM	1	25	5	0	1	0	0	0	0	0	0	0	0	0	32
1	1/9/2019	09:00 PM	2	30	7	0	0	0	0	0	0	0	0	0	0	4	43
1	1/9/2019	10:00 PM	0	29	6	4	0	0	0	0	0	0	0	0	0	6	45
0	1/9/2019	11:00 PM	0	21	3	2	3	0	0	0	0	0	0	0	0	1	30
1	1/10/2019	12:00 AM	0	14	5	0	1	1	0	0	0	0	0	0	0	1	22
2	1/10/2019	01:00 AM	0	6	1	0	2	0	0	0	0	0	0	0	0	0	9
3	1/10/2019	02:00 AM	0	7	1	0	1	0	0	0	0	0	0	0	0	2	11
4	1/10/2019	03:00 AM	0	4	2	0	0	1	0	0	0	0	0	0	0	0	7
5	1/10/2019	04:00 AM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
6	1/10/2019	05:00 AM	0	2	4	0	0	0	0	0	0	0	0	0	0	0	6
7	1/10/2019	06:00 AM	0	10	7	1	0	0	0	0	0	0	0	0	0	0	18
8	1/10/2019	07:00 AM	0	15	6	2	0	0	0	0	0	0	0	0	0	0	23
9	1/10/2019	08:00 AM	1	26	6	0	1	0	0	0	0	0	0	0	0	2	36
:0	1/10/2019	09:00 AM	1	11	7	1	1	0	0	2	0	0	0	0	0	2	25
11	1/10/2019	10:00 AM	1	20	6	0	5	0	0	0	0	0	0	0	0	1	33
2	1/10/2019	11:00 AM	1	34	11	0	2	2	0	0	0	0	0	0	0	3	53
3	1/10/2019	12:00 PM	0	21	14	2	5	2	0	0	1	0	0	0	0	5	50
4	1/10/2019	01:00 PM	2	28	17	0	0	0	0	0	0	0	0	0	0	0	47
OTALS			21	564	172	15	42	9	0	3	2	0	0	0	0	36	
Percent He	eavy Vehic	les	8%		I I				ı	I	ı	1	I		1	Raw ADT	864
	•			1										Seaso	nal Adiustn	nent Factor	
														70000	,	AADT	1,028
															Annual G	rowth Rate	
														- 2	Year Proje		

Start Date: 1/9/2019 Start Time: 3:00:00 PM

Site Code: 12 Intersection:

Number	Date	Time	Bikes	Cars &	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle	4 Axle	<5 AxI	5 Axle	>6 AxI	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	TOTALS
1	1/9/2019	03:00 PM	0	Trailers 32	6	0	2	Single 0	Single 0	Double 0	Double 0	Double 0	0	0	0	0	40
2	1/9/2019	04:00 PM	0	33	6	0	3	0	0	2	0	0	0	0	0	0	44
3	1/9/2019	05:00 PM	0	14	4	0	0	0	0	0	0	0	0	0	0	0	18
4	1/9/2019	06:00 PM	0	6	4	0	1	0	0	0	0	0	0	0	0	0	
5	1/9/2019	07:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	11 2
6	1/9/2019	08:00 PM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
7	1/9/2019	09:00 PM	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
8	1/9/2019	10:00 PM	0	5	4	0	0	0	0	0	0	0	0	0	0	0	9
9	1/9/2019	11:00 PM	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
10	1/10/2019	12:00 AM	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
11	1/10/2019	01:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
12	1/10/2019	02:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
13	1/10/2019	03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	1/10/2019	04:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
15	1/10/2019	05:00 AM	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5
16	1/10/2019	06:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
17	1/10/2019	07:00 AM	0	4	2	0	1	0	0	0	0	0	0	0	0	0	7
18	1/10/2019	08:00 AM	0	18	6	0	0	0	0	0	0	0	0	0	0	0	24
19	1/10/2019	09:00 AM	0	16	3	0	0	0	0	0	0	0	0	0	0	0	19
20	1/10/2019	10:00 AM	1	20	5	0	1	0	0	1	0	0	0	0	0	0	28
21	1/10/2019	11:00 AM	0	15	4	0	3	0	0	1	0	0	0	0	0	0	23
22	1/10/2019	12:00 PM	0	22	10	0	2	0	0	0	0	0	0	0	0	0	34
23	1/10/2019	01:00 PM	0	25	10	0	1	0	0	1	0	0	0	0	0	0	37
24	1/10/2020	01:00 PM	1	28	15	0	2	0	0	2	0	0	0	0	0	0	48
TOTALS			2	269	85	0	17	0	0	7	0	0	0	0	0	0	40
Percent He	ann Vobic	loc	6%	203	65		1/		U	,	U	U	U		U	Raw ADT	380
reiteilt ne	eavy veriic	162	070	1													
														Seaso	nai Adjustn	nent Factor	1.19 452
															A	AADT	
																rowth Rate	
														20	v Year Proje	cted AADT	672

Start Date: 1/9/2019 Start Time: 4:00:00 PM

Site Code: 13 Intersection:

Number	Date	Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 AxI Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	TOTALS
1	1/9/2019	04:00 PM	0	64	17	0	4	0	0	0	0	0	0	0	0	0	85
2	1/9/2019	05:00 PM	0	56	13	1	4	0	0	1	0	0	0	0	0	0	75
3	1/9/2019	06:00 PM	0	39	17	0	3	0	0	0	0	0	0	0	0	0	59
1	1/9/2019	07:00 PM	0	31	10	1	2	0	0	0	0	0	0	0	0	0	44
5	1/9/2019	08:00 PM	0	21	4	0	0	0	0	0	0	0	0	0	0	0	25
3	1/9/2019	09:00 PM	0	17	3	0	0	0	0	0	0	0	0	0	0	0	20
7	1/9/2019	10:00 PM	0	8	4	0	0	0	0	0	0	0	0	0	0	0	12
3	1/9/2019	11:00 PM	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
)	1/10/2019	12:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
10	1/10/2019	01:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
11	1/10/2019	02:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
12	1/10/2019	03:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
13	1/10/2019	04:00 AM	0	2	1	0	1	0	0	0	0	0	0	0	0	0	4
14	1/10/2019	05:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
15	1/10/2019	06:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
16	1/10/2019	07:00 AM	0	6	3	0	3	0	0	1	0	0	0	0	0	0	13
17	1/10/2019	08:00 AM	0	16	14	1	7	0	0	1	0	0	0	0	0	0	39
18	1/10/2019	09:00 AM	0	33	16	1	1	0	0	0	0	0	0	0	0	0	51
19	1/10/2019	10:00 AM	0	26	8	0	5	0	0	0	0	0	0	0	0	0	39
20	1/10/2019	11:00 AM	0	42	8	0	1	0	0	0	0	0	0	0	0	1	52
21	1/10/2019	12:00 PM	0	44	12	1	3	0	0	0	0	0	0	0	0	1	61
22	1/10/2019	01:00 PM	0	46	15	0	1	0	0	0	0	0	0	0	0	0	62
23	1/10/2019	02:00 PM	0	58	9	1	3	0	0	0	0	0	0	0	0	0	71
24	1/10/2020	02:00 PM	0	62	13	1	4	0	0	0	0	0	0	0	0	0	80
TOTALS			0	586	171	7	42	0	0	3	0	0	0	0	0	2	
Percent He	eavy Vehic	les	6%													Raw ADT	811
														Seaso	nal Adjustn	nent Factor	1.19
																AADT	965
															Annual G	rowth Rate	
														20	Year Proje	ected AADT	1,433

Start Date: 1/9/2019 Start Time: 4:00:00 PM

Site Code: 14 Intersection:

Number	Date	Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle	4 Axle	<5 Axl Double	5 Axle Double	>6 AxI Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	TOTALS
1	1/9/2019	04:00 PM	0	36	6	0	1	Single 0	Single 0	0 0	0 O	0 Double	0	0	0	0	43
2	1/9/2019	05:00 PM	0	42	9	0	3	0	0	0	0	0	0	0	0	0	54
3	1/9/2019	06:00 PM	0	22	7	0	1	0	0	0	0	0	0	0	0	0	30
4	1/9/2019	07:00 PM	0	16	1	1	0	0	0	0	0	0	0	0	0	0	18
5	1/9/2019	08:00 PM	0	4	0	1	0	0	0	0	0	0	0	0	0	0	5
6	1/9/2019	09:00 PM	0	13	2	0	1	0	0	0	0	0	0	0	0	0	16
7	1/9/2019	10:00 PM	0	13	2	0	0	0	0	0	0	0	0	0	0	0	15
8	1/9/2019	11:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
9	1/10/2019	12:00 AM	0	3	2	0	1	0	0	0	0	0	0	0	0	0	6
10	1/10/2019	01:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
11	1/10/2019	02:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
12	1/10/2019	03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	1/10/2019	04:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
14	1/10/2019	05:00 AM	0	4	2	0	0	0	0	0	0	0	0	0	0	0	6
15	1/10/2019	06:00 AM	0	14	2	1	1	0	0	0	0	0	0	0	0	0	18
16	1/10/2019	07:00 AM	0	43	10	1	4	0	0	0	0	0	0	0	0	0	58
17	1/10/2019	08:00 AM	0	62	13	0	2	1	0	1	0	0	0	0	0	1	80
18	1/10/2019	09:00 AM	0	46	8	2	6	0	0	0	0	0	0	0	0	0	62
19	1/10/2019	10:00 AM	0	37	9	0	4	0	0	0	0	0	0	0	0	0	50
20	1/10/2019	11:00 AM	0	50	11	0	3	0	0	0	0	0	0	0	0	0	64
21	1/10/2019	12:00 PM	0	39	14	1	5	0	0	0	0	0	0	0	0	0	59
22	1/10/2019	01:00 PM	0	43	17	0	2	0	0	1	0	0	0	0	0	0	63
23	1/10/2019	02:00 PM	0	50	16	0	2	0	0	1	0	0	0	0	0	0	69
24	1/10/2020	02:00 PM	0	46	12	0	1	0	0	0	0	0	0	0	0	0	59
TOTALS			0	587	145	7	38	1	0	3	0	0	0	0	0	1	
Percent He	avy Vehic	les	6%													Raw ADT	782
				_										Seaso	nal Adjustn	nent Factor	
																AADT	931
																rowth Rate	
														20	Year Proje	cted AADT	1,382

APPENDIX B

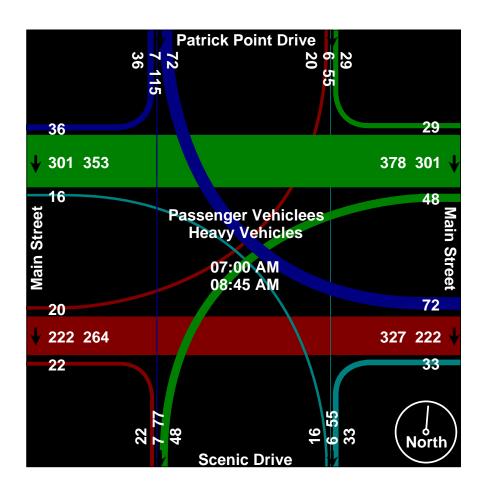
TURNING MOVEMENT COUNT RECORDS AND ANALYSIS



Prepared by:



File Name : Site 1 AM
Site Code : 00000001
Start Date : 1/8/2019
Page No : 1



__TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: AM Peak Hour

Intersection: Site #1

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Approach LOS

Analysis Year: 2019

Project ID: Trinidad Hotel TIA
East/West Street: Main Street

North/South Street: Patrick Point / Scenic Drive

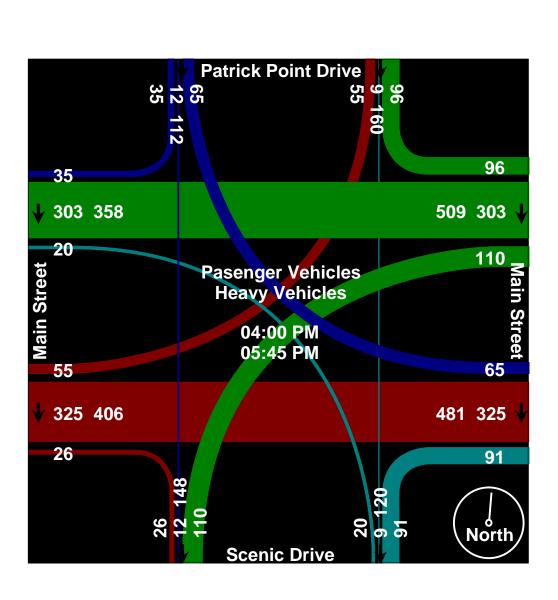
Intersection Orientation: EW Study period (hrs): 2.00

Movement	Intersection Orier	itation:	ĿW		St	udy	perio	ı (hrs)	2.00)
Movement		Vehi	.cle Volu	mes and	d Adjus	tme	nts			
L T R L T R L T R	Major Street: App	oroach	Eas	tbound			Wes	stbound	1	
Volume	roM	rement	1	2	3		4	5	6	
Peak-Hour Factor, PHF 1.00			L	Т	R		L	Т	R	
Hourly Flow Rate, HFR 20 222 22 48 301 29 Percent Heavy Vehicles 10 0 Median Type/Storage Undivided /	Volume		20	222	22		48	301	29	
Percent Heavy Vehicles 10 0 Median Type/Storage Undivided // RT Channelized? Lanes 0 1 0 0 1 0 LTR LTR UTR Double	Peak-Hour Factor,	PHF	1.00	1.00	1.00		1.00	1.00	1.00	
Median Type/Storage Undivided / RT Channelized? 0 1 0 0 1 0 1 TR Lanes 0 1 0 0 0 1 0 1 TR Configuration LTR LTR Upstream Signal? No No Minor Street: Approach Movement Northbound Southbound Movement Southbound Southbound Movement L T R L T Volume Movement 16 55 33 0 7 36 Peak Hour Factor, PHF 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Hourly Flow Rate,	HFR	20	222	22		48	301	29	
RT Channelized? Lanes	Percent Heavy Vehi	cles	10				0			
Configuration LTR	Median Type/StoragRT Channelized?	je	Undivi	ded			/			
No No No No Minor Street: Approach Northbound Southbound Movement 7	Lanes		0	1 ()		0	1	0	
No No No No Minor Street: Approach Northbound Southbound Movement 7	Configuration		LT	'R			L7	TR		
Movement 7 8 9 10 11 12 L T R L T R Volume Volume 16 55 33 0 7 36 Peak Hour Factor, PHF 1.00 1.00 1.00 1.00 1.00 1.00 Hourly Flow Rate, HFR 16 55 33 0 7 36 Percent Heavy Vehicles 0 0 0 0 0 0 0 Percent Grade (%) 0 0 0 0 0 0 Percent Grade (%) 0 0 0 0 0 0 0 Percent Grade (%) 0 0 0 0 0 0 0 Configuration LTR LTR Delay, Queue Length, and Level of Service Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Config LTR LTR LTR LTR V (vph) 20 48 104 43 C(m) (vph) 1186 1334 413 617 V/c 0.02 0.04 0.25 0.07 95% queue length 0.05 0.11 1.01 0.22 Control Delay 8.1 7.8 16.6 11.3 LOS A A C B	Upstream Signal?			No				No		
L T R L T R L T R Note	Minor Street: App	roach	Nor	thbound	 i		 Soi	thbour	 nd	
Volume 16 55 33 0 7 36 Peak Hour Factor, PHF 1.00 1.00 1.00 1.00 1.00 1.00 Hourly Flow Rate, HFR 16 55 33 0 7 36 Percent Heavy Vehicles 0 0 0 0 0 0 0 Percent Grade (%) 0 0 0 0 0 0 Flared Approach: Exists?/Storage No / No / Lanes 0 1 0 0 1 0 Configuration LTR LTR LTR Delay, Queue Length, and Level of Service Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Config LTR LTR LTR LTR LTR LTR V (vph) 20 48 104 43 C(m) (vph) 1186 1334 413 617 v/c 0.02 0.04 0.25 0.07 95% queue length 0.05 0.11 1.01 0.22 Control Delay 8.1 7.8 16.6 11.3 LOS A A C	roM	rement	7	8	9		10	11	12	
Peak Hour Factor, PHF 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0			L	Т	R		L	T	R	
Hourly Flow Rate, HFR 16 55 33 0 7 36 Percent Heavy Vehicles 0 0 0 0 0 0 0 Percent Grade (%) 0 0 0 0 0 0 Flared Approach: Exists?/Storage No / No / Lanes 0 1 0 0 1 0 Configuration LTR LTR Delay, Queue Length, and Level of Service Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Config LTR LTR LTR LTR V (vph) 20 48 104 43 C(m) (vph) 1186 1334 413 617 v/c 0.02 0.04 0.25 0.07 95% queue length 0.05 0.11 1.01 0.22 Control Delay 8.1 7.8 16.6 11.3 LOS A A C C B	Volume		16	55	33		0	7	36	
Percent Heavy Vehicles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			1.00	1.00	1.00		1.00	1.00		
Percent Grade (%) 0 0 No / No / Lanes 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 0 0 0	_		16	55	33		0	7	36	
Flared Approach: Exists?/Storage No / No / Lanes 0 1 0 0 1 0 Configuration LTR LTR Delay, Queue Length, and Level of Service Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Config LTR LTR LTR LTR LTR V (vph) 20 48 104 43 C(m) (vph) 1186 1334 413 617 v/c 0.02 0.04 0.25 0.07 95% queue length 0.05 0.11 1.01 0.22 Control Delay 8.1 7.8 16.6 11.3 LOS A A C	Percent Heavy Vehi	cles	0	0	0		0	0	0	
Delay, Queue Length, and Level of Service Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 LTR Percent Grade (%)			0				0			
Delay, Queue Length, and Level of Service Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Config LTR LTR LTR LTR LTR LTR LTR LTR C(m) (vph) 20 48 104 43 617 0.02 0.04 0.25 0.07 0.02 0.04 0.25 0.07 0.05 0.11 1.01 0.22 Control Delay 8.1 7.8 16.6 11.3 LOS A A C B	Flared Approach:	Exists?/	Storage		No	/			No	/
	Lanes		0	1 ()		0	1	0	
Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Config LTR LTR LTR LTR LTR LTR LTR LTR LTR LTR	Configuration			LTR				LTR		
Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Config LTR LTR LTR LTR LTR LTR LTR LTR LTR LTR		Delaw C),,e,,e T.en	ath ar	nd T.evre	1 0	f Servi	Ce		
Movement 1 4 7 8 9 10 11 12 Lane Config LTR LTR LTR LTR LTR LTR LTR v (vph) 20 48 104 43 C(m) (vph) 1186 1334 413 617 v/c 0.02 0.04 0.25 0.07 95% queue length 0.05 0.11 1.01 0.22 Control Delay 8.1 7.8 16.6 11.3 LOS A A C B	Approach	_					I DCIVI			
Lane Config LTR LTR LTR LTR LTR LTR LTR LTR LTR LTR							1			1 2
v (vph) 20 48 104 43 C(m) (vph) 1186 1334 413 617 v/c 0.02 0.04 0.25 0.07 95% queue length 0.05 0.11 1.01 0.22 Control Delay 8.1 7.8 16.6 11.3 LOS A A C B				1	_	9	-	. 0		14
C(m) (vph) 1186 1334 413 617 v/c 0.02 0.04 0.25 0.07 95% queue length 0.05 0.11 1.01 0.22 Control Delay 8.1 7.8 16.6 11.3 LOS A A C B			штк				 			
v/c 0.02 0.04 0.25 0.07 95% queue length 0.05 0.11 1.01 0.22 Control Delay 8.1 7.8 16.6 11.3 LOS A A C B	_									
95% queue length 0.05 0.11 1.01 0.22 Control Delay 8.1 7.8 16.6 11.3 LOS A A C B	_				_					
Control Delay 8.1 7.8 16.6 11.3 LOS A A C B	V/C	0.02	0.04		0.25				0.07	
LOS A A C B	95% queue length	0.05	0.11		1.01				0.22	
	Control Delay	8.1	7.8		16.6				11.3	
Approach Delay 16.6 11.3	LOS	A	A		C				В	
	Approach Delay				16.6				11.3	

C

В

File Name : Site 1 PM
Site Code : 00000001
Start Date : 1/8/2019
Page No : 1



___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: PM Peak Hour

Intersection: Site #1

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2019

Project ID: Trinidad Hotel TIA East/West Street: Main Street

North/South Street: Patrick Point / Scenic Drive

Intersection Orientation: EW Study period (hrs): 2.00

Major Street: Approach	Eas	stbound	f		Wes	stboun	d	
Movement	1	2	3		4	5	6	
	L	Т	R		L	Т	R	
 Volume	55	325	26		110	303	96	
Peak-Hour Factor, PHF	1.00	1.00	1.00		1.00	1.00	1.00	
Hourly Flow Rate, HFR	55	325	26		110	303	96	
Percent Heavy Vehicles	10				0			
Median Type/Storage	Undiv	ided			/			
RT Channelized?								
Lanes	0	1	0		0	1	0	
Configuration	L.	ΓR		LTR				
Upstream Signal?		No				No		
Minor Street: Approach	Noi	rthbou	 nd		Soı	ıthbou	 nd	
Movement	7	8	9		10	11	12	
	L	Т	R		L	Т	R	
 Volume	20	9	91		65	12	35	
Peak Hour Factor, PHF	1.00	1.00	1.00		1.00	1.00	1.00	
Hourly Flow Rate, HFR	20	9	91		65	12	35	
Percent Heavy Vehicles	0	0	0		0	0	0	
Percent Grade (%)		0				0		
Flared Approach: Exists?,	/Storage		No	/			No	/
Lanes	0	1	0		0	1	0	
Configuration		LTR				LTR		

	_Delay,	Queue Le	ngth, a	and Leve	el of	Service	e		
Approach	EB	WB	Nor	thbound	Southbound				
Movement	1	4	7	8	9	10	11	12	
Lane Config	LTR	LTR		LTR		ĺ	LTR		
v (vph)	55	110		120			112		
C(m) (vph)	1118	1219		402			201		
v/c	0.05	0.09		0.30			0.56		
95% queue length	0.16	0.30		1.27			3.63		
Control Delay	8.4	8.2		17.8			45.1		
LOS	A	A		С			E		
Approach Delay				17.8			45.1		
Approach LOS				С			E		

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: PM Peak Hour

Intersection: Site #1

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2019 w/Development

Project ID: Trinidad Hotel TIA
East/West Street: Main Street

North/South Street: Patrick Point / Scenic Drive

Intersection Orientation: EW Study period (hrs): 2.00

Major Street: Approach	Eas	stbound	E		Wes	stboun	d	
Movement	1	2	3		4	5	6	
	L	Т	R	İ	L	Т	R	
 Volume	55	325	32		134	303	96	
Peak-Hour Factor, PHF	1.00	1.00	1.00		1.00	1.00	1.00	
Hourly Flow Rate, HFR	55	325	32		134	303	96	
Percent Heavy Vehicles	10				0			
Median Type/Storage	Undivi	ided			/			
RT Channelized?								
Lanes	0	1	0		0	1	0	
Configuration	L	ΓR		LTR				
Upstream Signal?		No				No		
Minor Street: Approach	Noı	rthbour	 nd		Soı	ıthbou	 nd	
Movement	7	8	9		10	11	12	
	L	Т	R		L	T	R	
Volume	24	11	111		65	15	35	
Peak Hour Factor, PHF	1.00	1.00	1.00		1.00	1.00	1.00	
Hourly Flow Rate, HFR	24	11	111		65	15	35	
Percent Heavy Vehicles	0	0	0		0	0	0	
Percent Grade (%)		0				0		
Flared Approach: Exists?/	Storage		No	/			No	/
Lanes	0	1	0		0	1	0	
Configuration		LTR				LTR		

	_Delay,	Queue Le	ength,	and Lev	el of	Service		
Approach	EB	WB	N	orthboun	d	So	outhboun	d
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	55	134		146			115	
C(m) (vph)	1118	1213		377			174	
v/c	0.05	0.11		0.39			0.66	
95% queue length	0.16	0.37		1.88			5.36	
Control Delay	8.4	8.3		20.6			64.8	
LOS	A	A		С			F	
Approach Delay				20.6			64.8	
Approach LOS				С			F	

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: PM Peak Hour

Intersection: Site #1

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Approach LOS

Analysis Year: 2039

Project ID: Trinidad Hotel TIA East/West Street: Main Street

North/South Street: Patrick Point / Scenic Drive

Intersection Orientation: EW Study period (hrs): 2.00

	Veh:	icle Volu	ımes and	Adins	tme	nts			
Major Street: A	pproach		tbound	i majab	Cinc		 stbound		
	ovement	1	2	3	- 1	4	5	6	
1.1	o v cilicii c	L	T	R		L	T	R	
 Volume		82	483	 39		163	450	143	
Peak-Hour Factor	, PHF	1.00	1.00	1.00		1.00	1.00	1.00	
Hourly Flow Rate	, HFR	82	483	39		163	450	143	
Percent Heavy Ve	hicles	10				0			
Median Type/Stor RT Channelized?		Undivi	.ded			/			
Lanes		0	1 ()		0	1	0	
Configuration		LT	'R			L'	ΓR		
Jpstream Signal?			No				No		
 Minor Street: A	 pproach	 Nor	thbound	 3		 Soi	 uthboun	 d	
	ovement	7	8	9	- 1	10	11	12	
••	o v cincii	L	Т	R		L	T	R	
 /olume		30	13	135		97	 18	52	
Peak Hour Factor	. PHF	1.00	1.00	1.00		1.00	1.00	1.00	
Hourly Flow Rate		30	13	135		97	18	52	
Percent Heavy Ve		0	0	0		0	0	0	
Percent Grade (%		· ·	0	· ·		· ·	0	Ü	
Flared Approach:	•	/Storage	Ü	No	/		Ü	No	/
Lanes		0	1 (,	0	1	0	,
Configuration		· ·	LTR	,		Ü	LTR		
	 Delay, (Queue Len	 19th, ar	nd Leve	1 0	f Serv	 ice		
Approach	EB	WB	_	hbound				hbound	
Novement	1	4	7	8	9	1 :	10	11	12
ane Config	LTR	LTR		LTR			-	LTR	
v (vph)	82	163		178				167	
C(m) (vph)	945	1055		182				65	
7/C	0.09	0.15		0.98				2.57	
5% queue length	0.28	0.55		21.19				106.70	
Control Delay	9.2	9.0		252.1				5799	
LOS	A	A		F				F	
Approach Delay				252.1				5799	
1 - 0								_	

F

F

__TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: PM Peak Hour

Intersection: Site #1

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Approach Delay

Approach LOS

Analysis Year: 2039 w/ Development

Project ID: Trinidad Hotel TIA East/West Street: Main Street

North/South Street: Patrick Point / Scenic Drive

Intersection Orientation: EW Study period (hrs): 2.00

	J11 2		2000	.7 1 0 1 1 0	(111.0)		•
	Vehicle Volu	umes and	Adjustm	ents			
Major Street: Approac	h Eas	stbound		W∈	stbound	d	
Movemen	.t 1	2	3	4	5	6	
	L	Т	R	L	Т	R	
 7olume	82	483	45	187	450	143	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR	82	483	45	187	450	143	
Percent Heavy Vehicles	10			0			
Median Type/Storage	Undiv	ided		/			
Lanes	0	1 0		0	1	0	
Configuration	L'	ГR		I	ΔTR		
Jpstream Signal?		No			No		
	b NT						
Minor Street: Approac		rthbound	0 1		uthbour		
Movemen		8	9	10	11	12	
	L	Т	R	L	Т	R	
olume	34	15	155	97	21	52	
Peak Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR	34	15	155	97	21	52	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)		0			0		
Flared Approach: Exis	ts?/Storage		No	/		No	/
Lanes	0	1 0		0	1	0	
Configuration		LTR			LTR		
Dela Approach EB	_		d Level nbound	of Serv		hbound	
Movement 1	4		3 9	1	10	11	12
Lane Config LT	:	•	LTR		T 0	LTR	1
	т птк						
(vph) 82			204			170	
C(m) (vph) 94	5 1049	:	158			54	
7/C 0.	09 0.18		1.29			3.15	
95% queue length 0.	28 0.65	!	56.78			120.24	
Control Delay 9.	0 0		1160			7901	
control Delay 9.	2 9.2		1169			7901	

1169

F

7901

F

Phone: E-Mail: Fax:

_____ALL-WAY STOP CONTROL(AWSC) ANALYSIS______

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/7/2019

Analysis Time Period: PM Peak Hours

Intersection: Site #1

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary
Analysis Year: 2019

Project ID: Trindad Rancheria Hotel TIA

East/West Street: Main Street

North/South Street: Patrick Point / Scenic Drive

______Worksheet 2 - Volume Adjustments and Site Characteristics_____

	Ea	astbou	nd	We	Westbound			Northbound			Southbound		
	L	T	R	L	Т	R	L	Т	R	L	T	R	
	l			.						l			_
Volume	55	325	26	110	303	96	20	9	91	65	12	35	İ

% Thrus Left Lane

	Eastboun	d Westbo	und Northb	ound Southboun	ıd
	L1 L	2 ь1	L2 L1	L2 L1 L	2
Configuration	LTR	LTR	LTR	LTR	
PHF	1.00	1.00	1.00	1.00	
Flow Rate	406	509	120	112	
% Heavy Veh	0	0	0	0	
No. Lanes	1	1	1	. 1	
Opposing-Lanes	1	1	1	. 1	
Conflicting-lanes	1	1	1	. 1	
Geometry group	1	1	1	. 1	
Duration, T 2.00	hrs.				

_______Worksheet 3 - Saturation Headway Adjustment Worksheet_______

	Eastbound		Westk	oound	North	oound	Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	406		509		120		112	
Left-Turn	55		110		20		65	
Right-Turn	26		96		91		35	
Prop. Left-Turns	0.1		0.2		0.2		0.6	
Prop. Right-Turns	0.1		0.2		0.8		0.3	
Prop. Heavy Vehicl	e0.0		0.0		0.0		0.0	
Geometry Group	1	_	1	L	1	L		1
Adjustments Exhibi	t 17-33	3:						
hLT-adj	().2	C	0.2	(0.2		0.2

-0.6 1.7 -0.6 -0.6 1.7 -0.6 1.7 hRT-adj -0.4 hHV-adj 1.7 -0.1 -0.1 hadj, computed -0.0

Worksheet	4	_	Departure	Headway	and	Service	Time

	Eastbound		West	oound	North	oound	Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	406		509		120		112	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.36		0.45		0.11		0.10	
hd, final value	5.43		5.24		6.17		6.54	
x, final value	0.61		0.74		0.21		0.20	
Move-up time, m		2.0	2	2.0	2	2.0	2	2.0
Service Time	3.4		3.2		4.2		4.5	

__Worksheet 5 - Capacity and Level of Service_____

	Eastbo	und	Westb	ound	Northb	ound	Southbound		
	L1	L2	L1	L2	L1 L2		L1	L2	
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity	406 3.4 0.61 5.43		509 3.2 0.74 5.24 672		120 4.2 0.21 6.17 370		112 4.5 0.20 6.54 362		
Delay LOS	16.96 C		22.95 C		10.77 B		11.20 B	0	
Approach: Delay LOS Intersection Delay	16 C	.96	2 C	2.95	1 B	0.77	Б	11.20 B	

Phone: E-Mail: Fax:

_____ALL-WAY STOP CONTROL(AWSC) ANALYSIS______

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/7/2019

Analysis Time Period: PM Peak Hours

Intersection: Site #1

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2019 w/Development Project ID: Trindad Rancheria Hotel TIA

East/West Street: Main Street

North/South Street: Patrick Point / Scenic Drive

______Worksheet 2 - Volume Adjustments and Site Characteristics_____

	Eastbound		Westbound			Northbound			Southbound				
	L	T	R	L	T	R	L	T	R	L	T	R	
													_
Volume	55	325	32	134	303	96	24	11	111	65	15	35	ĺ

% Thrus Left Lane

	Eastbo	ound	Westb	ound	North	.bound	Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Configuration	LTR		LTR		LTR		LTR		
PHF	1.00		1.00		1.00		1.00		
Flow Rate	412		533		146		115		
% Heavy Veh	0		0		0		0		
No. Lanes	1		1			1		1	
Opposing-Lanes	1		1			1		1	
Conflicting-lanes	1		1			1		1	
Geometry group	1		1			1		1	
Duration, T 2.00	hrs.								

________Worksheet 3 - Saturation Headway Adjustment Worksheet_______

	Eastbound		Westbound		Northbound		South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	412		533		146		115	
Left-Turn	55		134		24		65	
Right-Turn	32		96		111		35	
Prop. Left-Turns	0.1		0.3		0.2		0.6	
Prop. Right-Turns	0.1		0.2		0.8		0.3	
Prop. Heavy Vehicl	e0.0		0.0		0.0		0.0	
Geometry Group	1		1	L	1	-		1
Adjustments Exhibi	t 17-33	:						
hLT-adj	C	. 2	C).2	C).2		0.2

hRT-adj -0.6 -0.6 -0.6 -0.6 hHV-adj 1.7 1.7 1.7 1.7 hadj, computed -0.0 -0.1 -0.4 -0.1

Worksheet	4	-	Departure	Headway	and	Service	Time
-----------	---	---	-----------	---------	-----	---------	------

	Eastbound		West	oound	North	oound	Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow rate	412		533		146		115		
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	
x, initial	0.37		0.47		0.13		0.10		
hd, final value	5.64		5.43		6.36		6.81		
x, final value	0.65		0.80		0.26		0.22		
Move-up time, m	:	2.0	2	2.0	2	2.0	2	2.0	
Service Time	3.6		3.4		4.4		4.8		

________Worksheet 5 - Capacity and Level of Service_____

	Eastbound		Westbound		Northb	ound	Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	412		533		146		115	
Service Time	3.6		3.4		4.4		4.8	
Utilization, x	0.65		0.80		0.26		0.22	
Dep. headway, hd	5.64		5.43		6.36		6.81	
Capacity	614		650		396		365	
Delay	18.85		30.08		11.58		11.70	
LOS	С		D		В		В	
Approach:								
Delay	1	8.85	3	30.08	1	1.58		11.70
LOS	С		I)	В			В
Intersection Delay	22.25		Inte	ersection	n LOS C			

Phone: E-Mail: Fax:

_____ALL-WAY STOP CONTROL(AWSC) ANALYSIS_____

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/7/2019

Analysis Time Period: PM Peak Hours

Intersection: Site #1

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2039

Project ID: Trindad Rancheria Hotel TIA0

East/West Street: Main Street

North/South Street: Patrick Point / Scenic Drive

______Worksheet 2 - Volume Adjustments and Site Characteristics_____

	Eastbound		We	Westbound			Northbound			Southbound			
	L	T	R	L	T	г R		T	R	L	Т	R	
							.						
Volume	82	483	39	163	450	143	30	13	135	97	18	52	

% Thrus Left Lane

	Eastbound	Westbound	Northbound	Southbound
	L1 L2	L1 L2	L1 L2	L1 L2
Configuration	LTR	LTR	LTR	LTR
PHF	1.00	1.00	1.00	1.00
Flow Rate	604	756	178	167
% Heavy Veh	0	0	0	0
No. Lanes	1	1	1	1
Opposing-Lanes	1	1	1	1
Conflicting-lanes	1	1	1	1
Geometry group	1	1	1	1
Duration, T 2.00	hrs.			

_______Worksheet 3 - Saturation Headway Adjustment Worksheet_______

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	604		756		178		167	
Left-Turn	82		163		30		97	
Right-Turn	39		143		135		52	
Prop. Left-Turns	0.1		0.2		0.2		0.6	
Prop. Right-Turns	0.1		0.2		0.8		0.3	
Prop. Heavy Vehicl	e0.0		0.0		0.0		0.0	
Geometry Group	1	_	1	L		L		1
Adjustments Exhibi	t 17-33	3:						
hLT-adj	().2	(0.2	(0.2		0.2

hRT-adj -0.6 -0.6 -0.6 -0.6 hHV-adj 1.7 1.7 1.7 1.7 hadj, computed -0.0 -0.1 -0.4 -0.1

Worksheet	4	_	Departure	Headway	and	Service	Time
-----------	---	---	-----------	---------	-----	---------	------

	Eastbound		West	bound	Northl	oound	Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow rate	604		756		178		167		
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	
x, initial	0.54		0.67		0.16		0.15		
hd, final value	6.56		6.50		7.69		8.07		
x, final value	1.10		1.37		0.38		0.37		
Move-up time, m	:	2.0		2.0		2.0	2	2.0	
Service Time	4.6		4.5		5.7		6.1		

_______Worksheet 5 - Capacity and Level of Service_____

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate Service Time	604 4.6		756 4.5		178 5.7		167 6.1	
Utilization, x	1.10		1.37		0.38		0.37	
Dep. headway, hd	6.56		6.50		7.69		8.07	
Capacity Delay	604 434.64		756 1349		428 15.40		417 15.89)
LOS	F		F		C		C	
Approach:								
Delay		34.64	_	L349	_	5.40		15.89
LOS Intersection Delay	755.36		Inte	rsection	C n LOS F			С

Phone: E-Mail: Fax:

_____ALL-WAY STOP CONTROL(AWSC) ANALYSIS______

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/7/2019

Analysis Time Period: PM Peak Hours

Intersection: Site #1

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2039

Project ID: Trindad Rancheria Hotel TIA0

East/West Street: Main Street

North/South Street: Patrick Point / Scenic Drive

______Worksheet 2 - Volume Adjustments and Site Characteristics______

	Ea	astbou	nd	We	stbou	.nd	No	orthbo	ound	Sc	outhbo	ound	
	L	Т	R	L	T	R	L	T	R	L	T	R	
				.									_
Volume	82	483	45	187	450	143	34	15	155	97	21	52	

% Thrus Left Lane

	Eastbound	Westbound	Northbound	Southbound
	L1 L2	L1 L2	L1 L2	L1 L2
Configuration	LTR	LTR	LTR	LTR
PHF	1.00	1.00	1.00	1.00
Flow Rate	610	780	204	170
% Heavy Veh	0	0	0	0
No. Lanes	1	1	1	1
Opposing-Lanes	1	1	1	1
Conflicting-lanes	1	1	1	1
Geometry group	1	1	1	1
Duration, T 2.00	hrs.			

_______Worksheet 3 - Saturation Headway Adjustment Worksheet_______

	Easth	ound	Westk	oound	North	oound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
_								
Flow Rates:								
Total in Lane	610		780		204		170	
Left-Turn	82		187		34		97	
Right-Turn	45		143		155		52	
Prop. Left-Turns	0.1		0.2		0.2		0.6	
Prop. Right-Turns	0.1		0.2		0.8		0.3	
Prop. Heavy Vehicl	e0.0		0.0		0.0		0.0	
Geometry Group	1		1	L	1	L		1
Adjustments Exhibi	t 17-33	} :						
hLT-adj	C	1.2	(0.2	(0.2		0.2

hRT-adj -0.6 -0.6 -0.6 -0.6 hHV-adj 1.7 1.7 1.7 1.7 hadj, computed -0.0 -0.1 -0.4 -0.1

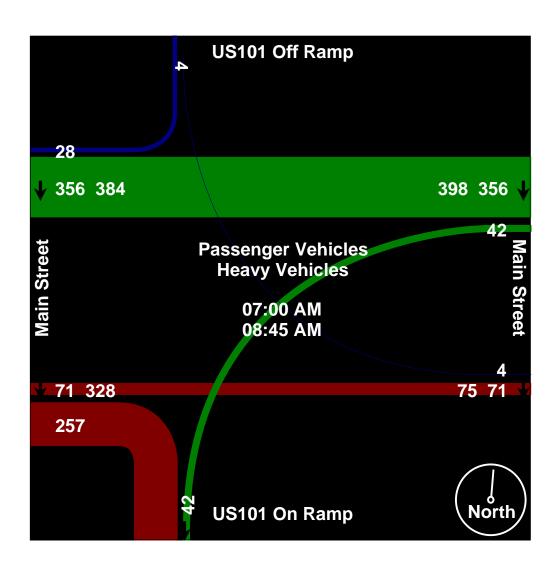
Worksheet	4	-	Departure	Headway	and	Service	Time
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	Eastl	oound	West	oound	Northl	bound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	610		780		204		170	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.54		0.69		0.18		0.15	
hd, final value	6.74		6.69		7.73		8.23	
x, final value	1.14		1.45		0.44		0.39	
Move-up time, m	4	2.0	:	2.0		2.0	2	2.0
Service Time	4.7		4.7		5.7		6.2	

_______Worksheet 5 - Capacity and Level of Service_____

	Eastbound	Westbound	Northbound	Southbound
	L1 L2	L1 L2	L1 L2	L1 L2
Flow Rate	610	780	204	170
Service Time	4.7	4.7	5.7	6.2
Utilization, x	1.14	1.45	0.44	0.39
Dep. headway, hd	6.74	6.69	7.73	8.23
Capacity	610	780	454	420
Delay	568.73	1650	16.73	16.44
LOS	F	F	C	C
Approach:				
Delay	568.73	1650	16.73	16.44
LOS	F	F	С	С
Intersection Delay	929.74	Intersectio	n LOS F	

File Name : Site 2 AM
Site Code : 00000002
Start Date : 1/8/2019
Page No : 1



___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: AM Peak Hour

Intersection: Site #2

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary
Analysis Year: 2019

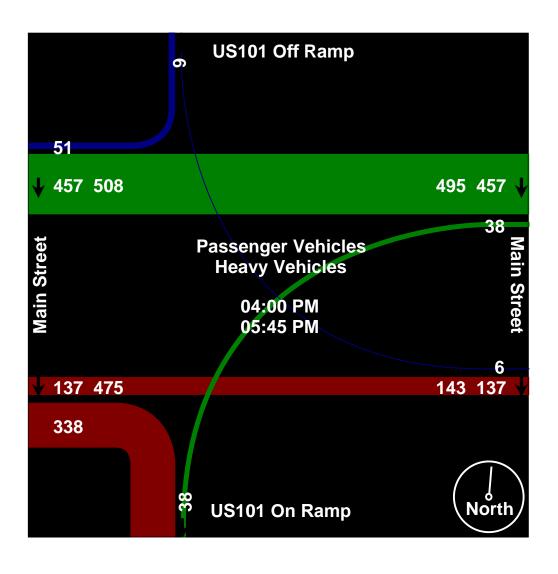
Project ID: Trinidad Hotel TIA
East/West Street: Main Street

North/South Street: US101 ON/OFF RAMPS

Intersection Orientation: EW Study period (hrs): 2.00

incersection off	encacion.	T- 44		50	uuy	berroo	(III.S). 2.00	J
	Veh	icle Volu	mes and	Adjus	tme:	nts			
Major Street: A	pproach	Eas	stbound			Wes	tboun	d	
M	ovement	1	2	3		4	5	6	
		L	Т	R		L	T	R	
Volume			71	257		42	356		
Peak-Hour Factor			1.00	1.00		1.00	1.00		
Hourly Flow Rate	, HFR		71	257		42	356		
Percent Heavy Vel	nicles					0			
Median Type/StoraRT Channelized?	age	Undivi	ded			/			
Lanes			1 0			0	1		
Configuration			TR			LT	7		
Upstream Signal?			No				No		
Minor Street: A	pproach	Nor	thbound			Sou	thbou	 nd	
M	ovement	7	8	9		10	11	12	
		L	Т	R		L	Т	R	
Volume						4	0	28	
Peak Hour Factor	, PHF					1.00	1.00		
Hourly Flow Rate	, HFR					4	0	28	
Percent Heavy Vel	nicles					0	0	0	
Percent Grade (%)		0				0		
Flared Approach:	Exists?	/Storage			/			No	/
Lanes						0	1	0	
Configuration							LTR		
	 Delay,	Queue Ler	ngth, an	d Leve	1 0	f Servi	ce		
Approach	EB	WB		hbound				thbound	
Movement	1	4		8	9	1	.0	11	12
Lane Config	_	LT	,	O		-	. 0	LTR	12
v (vph)		42						32	
C(m) (vph)		1243						643	
v/c		0.03						0.05	
95% queue length		0.10						0.16	
Control Delay		8.0						10.9	
LOS		A						В	
Approach Delay								10.9	
Approach LOS								В	

File Name : Site 2 PM Site Code : 00000002 Start Date : 1/8/2019 Page No : 1



___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: PM Peak Hour

Intersection: Site #2

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary
Analysis Year: 2019

Project ID: Trinidad Hotel TIA East/West Street: Main Street

North/South Street: US101 ON/OFF RAMPS

Intersection Orientation: EW Study period (hrs): 2.00

	Veh	icle Volu	umes and	Adjus	tme	nts			
Major Street:	Approach	Eas	stbound			Wes	tbound	f	
	Movement	1	2	3		4	5	6	
		L	Т	R		L	Т	R	
Volume	·		137	338		38	457		
Peak-Hour Fact			1.00	1.00		1.00	1.00		
Hourly Flow Ra	te, HFR		137	338		38	457		
Percent Heavy						0			
Median Type/St RT Channelized		Undiv	ided			/			
Lanes			1 0			0	1		
Configuration			TR			LT			
Upstream Signa	1?		No				No		
Minor Street:	Approach		thbound			Sou	thbour	 nd	
	Movement	7	8	9		10	11	12	
		L	Т	R	ĺ	L	T	R	
Volume						6	0	51	
Peak Hour Fact	or, PHF					1.00	1.00	1.00	
Hourly Flow Ra	te, HFR					6	0	51	
Percent Heavy	Vehicles					0	0	0	
Percent Grade	(%)		0				0		
Flared Approac	h: Exists?	/Storage			/			No	/
Lanes						0	1	0	
Configuration							LTR		
	Delay.	 Queue Lei	ngth, an	d Leve	1 0	f Servi			
Approach	EB	WB	_	hbound				hbound	
Movement	1	4		8	9	1	.0	11	12
Lane Config	_	LT	,	O		-	. 0	LTR	12
v (vph)		 38						 57	
C(m) (vph)		1098						558	
V/C		0.03						0.10	
95% queue leng	rt h	0.03						0.34	
Control Delay	CII	8.4						12.2	
LOS		о. т А						12.2 В	
Approach Delay		А						12.2	
Approach LOS								12.2 В	
APPIOACII 105								ט	

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: PM Peak Hour Intersection: Site #2

Jurisdiction:

Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2019 w/Development

Project ID: Trinidad Hotel TIA East/West Street: Main Street

North/South Street: US101 ON/OFF RAMPS

Intersection Orientation: EW Study period (hrs): 2.00

	Veh	icle Volu	umes and	Adjus	tme	nts			
Major Street:	Approach	Eas	stbound			Wes	tbound	f	
	Movement	1	2	3		4	5	6	
		L	T	R		L	T	R	
Volume			143	353		38	477		
Peak-Hour Fact			1.00	1.00		1.00	1.00		
Hourly Flow Ra			143	353		38	477		
Percent Heavy						0			
Median Type/St RT Channelized		Undiv	ided			/			
Lanes			1 0			0	1		
Configuration			TR			LT	•		
Upstream Signa	1?		No				No		
Minor Street:	Approach	No:	thbound			Sou	 ıthbour	 nd	
	Movement	7	8	9		10	11	12	
		L	Т	R	ĺ	L	Т	R	
Volume						6	0	53	
Peak Hour Fact						1.00	1.00	1.00	
Hourly Flow Ra	te, HFR					6	0	53	
Percent Heavy						0	0	0	
Percent Grade	•		0				0		
Flared Approac	h: Exists?	/Storage			/			No	/
Lanes						0	1	0	
Configuration							LTR		
	Delay.	 Queue Lei	ngth, an	d Leve	1 0	f Servi			
Approach	EB	WB	_	hbound				hbound	
Movement	1	4		8	9	1	.0	11	12
Lane Config	_	LT	•	O .		-	. 0	LTR	
v (vph)		38						 59	
		1078						542	
C(m) (vph) v/c		0.04						0.11	
95% queue leng	+ h							0.11	
	LII	0.11							
Control Delay		8.5						12.5	
LOS		A						B 10 F	
Approach Delay								12.5	
Approach LOS								В	

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: PM Peak Hour

Intersection: Site #2

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary Analysis Year:

2039

Project ID: Trinidad Hotel TIA East/West Street: Main Street

North/South Street: US101 ON/OFF RAMPS

Intersection Orientation: EW Study period (hrs): 2.00

	ver Approach	nicle Volu Eas	stbound	Aujus	CILLE		tbound	 ₹	
ajor bereet.	Movement	1	2	3	1	4	5	6	
	rio v cincire	L	T	R	İ	L	T	R	
			203	502		 56	679		
Peak-Hour Fact	or, PHF		1.00	1.00		1.00	1.00		
Hourly Flow Ra	te, HFR		203	502		56	679		
Percent Heavy	Vehicles					0			
Median Type/St RT Channelized		Undiv	lded			/			
Lanes			1 0			0	1		
Configuration			TR			LT			
Jpstream Signa	1?		No				No		
Minor Street:	Approach	No:	thbound			Sou	thbou	 nd	
	Movement	7	8	9		10	11	12	
		L	Т	R		L	Т	R	
Jolume						9	0	76	
Peak Hour Fact						1.00	1.00	1.00	
Hourly Flow Ra						9	0	76	
Percent Heavy	Vehicles					0	0	0	
Percent Grade	,		0				0		
Flared Approac	h: Exists?	/Storage			/			No	/
Lanes						0	1	0	
Configuration							LTR		
	Delay,	Queue Lei	ngth, an	d Leve	 1 o	f Servi	.ce		
Approach	EB	~ WB		hbound				thbound	
Movement	1	4	7	8	9	1	. 0	11	12
Lane Config		LT				İ		LTR	
v (vph)		56						85	
7/m \ / h \		902						393	
C(m) (vph)		0.06						0.22	
7/C	_							0.83	
7/c 95% queue leng	th	0.20							
7/c 95% queue leng Control Delay	th	9.3						16.7	
7/c 95% queue leng Control Delay LOS								С	
7/c 95% queue leng Control Delay		9.3							

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: PM Peak Hour Intersection: Site #2

THE CLASSICATION.

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2039 w/Development

Project ID: Trinidad Hotel TIA
East/West Street: Main Street

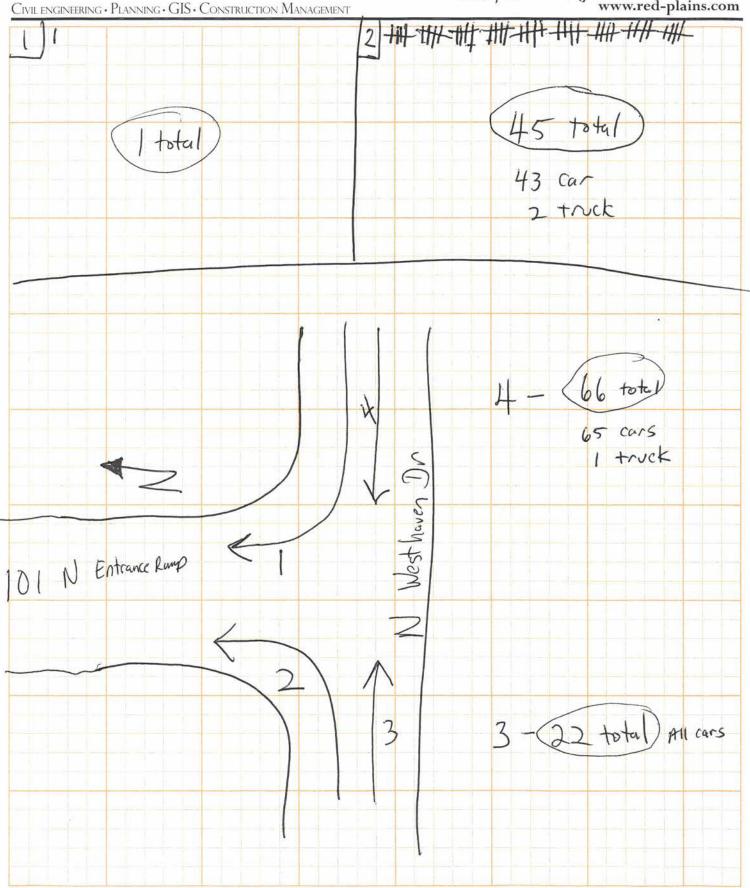
North/South Street: US101 ON/OFF RAMPS

Intersection Orientation: EW Study period (hrs): 2.00

	Veh:	icle Volu	umes and	Adjus	tme	nts			
Major Street:	Approach	Eas	stbound			Wes	stboun	d	
	Movement	1	2	3		4	5	6	
		L	Т	R		L	Т	R	
Volume			209	517		56	699		
Peak-Hour Fact	or, PHF		1.00	1.00		1.00	1.00		
Hourly Flow Ra	ate, HFR		209	517		56	699		
Percent Heavy	Vehicles					0			
Median Type/St RT Channelized		Undivi	lded			/			
Lanes			1 0			0	1		
Configuration			TR			L	Γ		
Upstream Signa	11?		No				No		
Minor Street:	Approach	Non	thbound			Soi	ıthbou	 nd	
	Movement	7	8	9	ļ	10	11	12	
		L	Т	R		L	Т	R	
Volume						9	0		
Peak Hour Fact						1.00	1.00		
Hourly Flow Ra						9	0	76	
Percent Heavy	Vehicles					0	0	0	
Percent Grade	• •		0				0		
Flared Approac	ch: Exists?	/Storage			/			No	/
Lanes						0	1	0	
Configuration							LTR		
	Delay (Queue Ler	ngth an	d Leve	·1 0:	f Serv	ice		
Approach	EB	WB		hbound				thbound	
Movement	1	4		8	9	-	LO	11	12
Lane Config	_	LT	,				- 0	LTR	
v (vph)		 56						 85	
C(m) (vph)		886						380	
V/C		0.06						0.22	
95% queue leng	rth	0.20						0.86	
Control Delay	,	9.3						17.2	
LOS		э. 3 А						17.2 C	
Approach Delay	7	A						17.2	
Approach LOS	•							17.2 C	
APPIOACH HOS								C	



Trinidad TMC
Site 3 AM
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____TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: AM Peak Hour

Intersection:

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2019

Project ID: Trinidad Hotel TIA

East/West Street: N. Westhaven Drive

North/South Street: US101 ON RAMP

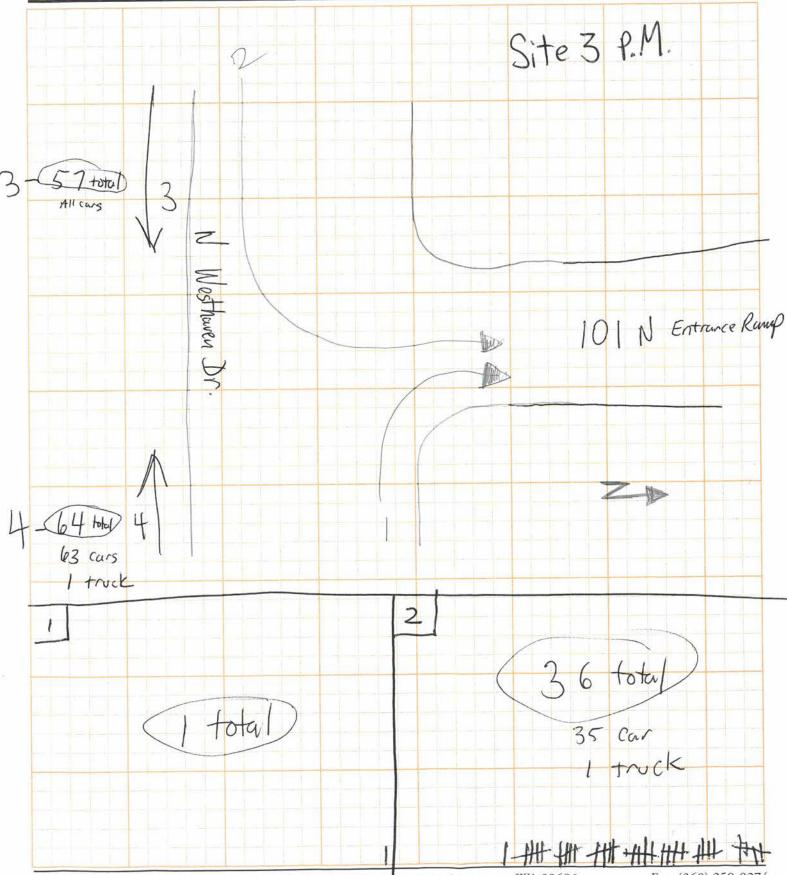
Intersection Orientation: EW Study period (hrs): 2.00

Major Street:	Approach	iicle Volu Eas	stbound				stboun	 d	
110101 20100	Movement	1	2	3	- 1	4	5	6	
		L	T	R	İ	L	Т	R	
 Volume		45	22	0		0	66	1	
Peak-Hour Fact	or, PHF	1.00	1.00	1.00		1.00	1.00	1.00	
Hourly Flow Ra	te, HFR	45	22	0		0	66	1	
Percent Heavy	Vehicles	10				0			
Median Type/St RT Channelized		Undivi	ded			/			
Lanes		0	1	0		0	1	0	
Configuration		LT	TR.			L'	ΓR		
Upstream Signa	1?		No				No		
Minor Street:	Approach	Nor	thbound	 d		So	uthbou	 nd	
	Movement	7	8	9		10	11	12	
		L	T	R		L	T	R	
 Volume		0	0	0		0	0	0	
Peak Hour Fact	or, PHF	1.00	1.00	1.00		1.00	1.00	1.00	
Hourly Flow Ra	te, HFR	0	0	0		0	0	0	
Percent Heavy	Vehicles	0	0	0		0	0	0	
Percent Grade	(%)		0				0		
Flared Approac	h: Exists?	/Storage		No	/			No	/
Lanes		0	1	0		0	1	0	
Configuration			LTR				LTR		
	Delav	Queue Ler	ngth ai	nd Leve		f Serv	ice		
 Approach	EB	WB	_	thbound				thbound	
Movement	1	4	7	8	9	1 :	10	11	12
Lane Config	LTR	LTR		LTR				LTR	
v (vph)	45	0		0				0	
C(m) (vph)	1485	1607							
v/c	0.03	0.00							
95% queue leng		0.00							
Control Delay	7.5	7.2							
LOS	A	A							
Approach Delay									
Approach LOS									



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____TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: PM Peak Hour

Intersection: Site #3

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2019

Project ID: Trinidad Hotel TIA

East/West Street: N. Westhaven Drive

North/South Street: US101 ON RAMP

	Veł	nicle Volu	umes ar	nd Adju	stment	.s			
Major Street:	Approach	Eas	stbound	i		Wes	tbound	d	
	Movement	1	2	3	4	l	5	6	
		L	T	R	1		T	R	
Volume		36	57	0	()	64	1	
Peak-Hour Fact	or, PHF	1.00	1.00	1.00	1	L.00	1.00	1.00	
Hourly Flow Ra	ite, HFR	36	57	0	()	64	1	
Percent Heavy	Vehicles	10			()			
Median Type/St RT Channelized		Undiv:	ided		/				
Lanes		0	1	0		0	1	0	
Configuration		L'	ΓR			LT	'R		
Upstream Signa	11?		No				No		
Minor Street:	Approach		rthbour				ıthbou		
	Movement	7	8	9	!	L 0	11	12	
		L	Т	R	1	_	Т	R	
Volume		0	0	0	()	0	0	
Peak Hour Fact		1.00	1.00	1.00	1	L.00	1.00	1.00	
Hourly Flow Ra		0	0	0	()	0	0	
Percent Heavy	Vehicles	0	0	0	()	0	0	
Percent Grade	• •		0				0		
Flared Approac	h: Exists?	?/Storage		No	/			No	/
Lanes		0	1	0		0	1	0	
Configuration			LTR				LTR		
	Delay,	Queue Lei	ngth, a	and Lev	el of	Servi	.ce		
Approach	EB	WB	Noi	thboun	d		Sou	thbound	
Movement	1	4	7	8	9	1	. 0	11	12
Lane Config	LTR	LTR		LTR		İ		LTR	
v (vph)	36	0		0				0	
C(m) (vph)	1488	1560							
v/c	0.02	0.00							
95% queue leng	th 0.07	0.00							
Control Delay	7.5	7.3							
LOS	A	A							
Approach Delay	7								
Approach LOS									

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: PM Peak Hour

Intersection: Site #3

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2019 w/Development

Project ID: Trinidad Hotel TIA

East/West Street: N. Westhaven Drive

North/South Street: US101 ON RAMP

//			stbound	d Adjus			a + b a		
Major Street:	Approach Movement	ная 1	z bouna 2	. 3	1 .	we: 4	stboun 5	a 6	
	Movement	L	Z T	R	!	i L	T	R	
Volume		0	67	0		0	75	1	
Peak-Hour Fact	or, PHF	1.00	1.00	1.00	:	1.00	1.00	1.00	
Hourly Flow Ra	te, HFR	0	67	0	(0	75	1	
Percent Heavy	Vehicles	10			(0			
Median Type/St	_	Undivi	ided		/				
RT Channelized Lanes	1.3	0	1	0		0	1	0	
		ŭ		U		_		U	
Configuration	1.0	ـ'ـط	rr No			Т.	TR		
Jpstream Signa	.⊥ ;		No				No		
Minor Street:	Approach	Noı	thboun	 .d		So	uthbou	 nd	
	Movement	7	8	9		10	11	12	
		L	Т	R	1	L	Т	R	
 7olume		0	0	0		 0	0	0	
Peak Hour Fact	or, PHF	1.00	1.00	1.00		1.00	1.00	1.00	
Hourly Flow Ra		0	0	0		0	0	0	
Percent Heavy		0	0	0	(0	0	0	
Percent Grade		-	0	-		-	0	-	
Flared Approac	,	2/Storage	ū	No	/		· ·	No	/
Lanes		0	1	0	•	0	1	0	,
Configuration		-	LTR			-	LTR	-	
		Queue Ler				Serv			
Approach	EB	WB		thbound		1 .		thbound	1.0
Movement	1	4	7	8	9		10	11	12
Lane Config	LTR	LTR		LTR				LTR	
/ (vph)	0	0		0				0	
C(m) (vph)	1474	1547							
7/C	0.00	0.00							
95% queue leng		0.00							
Control Delay	7.4	7.3							
LOS	A	A							
Approach Delay	==								
Approach LOS									

____TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: PM Peak Hour

Intersection: Site #3

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2039

Project ID: Trinidad Hotel TIA

East/West Street: N. Westhaven Drive

North/South Street: US101 ON RAMP

	Veł	nicle Volu	ımes ar	nd Adjus	stment	.s			
Major Street:	Approach		stbound	_			tboun	 d	
	Movement	1	2	3	4	1	5	6	
		L	Т	R	į ı	_	Т	R	
 Volume		0	 85	0)	 95	1	
Peak-Hour Fact	or DHF	1.00	1.00	1.00		L.00	1.00	1.00	
Hourly Flow Ra		0	85	0)	95	1	
Percent Heavy		10)			
Median Type/St		Undivi			/	,			
RT Channelized		Ondivi	raca		,				
Lanes		0	1	0		0	1	0	
Configuration		L	ΓR			LT	'R		
Upstream Signa	1?		No				No		
Min and Charles	7								
Minor Street:	11		rthbour		1 -		thbou		
	Movement	7	8	9	!	L 0	11	12	
		L	Т	R	1		Т	R	
Volume		0	0	0	()	0	0	
Peak Hour Fact	or, PHF	1.00	1.00	1.00	-	L.00	1.00	1.00	
Hourly Flow Ra	te, HFR	0	0	0	()	0	0	
Percent Heavy	Vehicles	0	0	0	()	0	0	
Percent Grade	(%)		0				0		
Flared Approac	h: Exists?	/Storage		No	/			No	/
Lanes		0	1	0		0	1	0	
Configuration			LTR				LTR		
	Dolar	Queue Ler				Contri			
Approach	Belay, EB	WB	_	thbound		SELVI		 thbound	
Movement	1	4	7	8	9	l 1	.0	11	12
Lane Config	LTR	LTR	,	LTR)	1	. 0	LTR	12
v (vph)	0	0		0				0	
C(m) (vph)	1449	1524							
v/c	0.00	0.00							
95% queue leng	th 0.00	0.00							
Control Delay	7.5	7.4							
LOS	А	A							
Approach Delay	•								
Approach LOS									

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: PM Peak Hour

Intersection: Site #3

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2039 w/Development

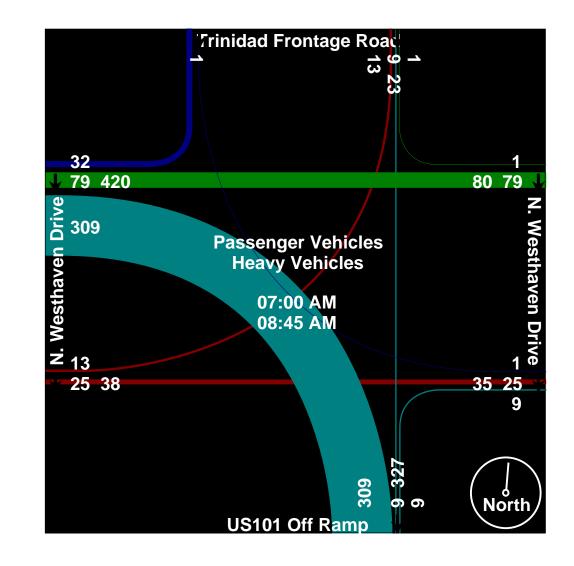
Project ID: Trinidad Hotel TIA

East/West Street: N. Westhaven Drive

North/South Street: US101 ON RAMP

Major Street:	ver		stbound		Adjustments Westbound					
Major Screet.	Movement	1	2	3	4		5	а 6		
	rio v Cilicire	L	T	R	L		T	R		
 Volume		 59	 95	0	0		106	1		
Peak-Hour Fact	or, PHF	1.00	1.00	1.00	1	.00	1.00	1.00		
Hourly Flow Ra	ate, HFR	59	95	0	0		106	1		
Percent Heavy	Vehicles	10			0					
Median Type/St RT Channelized	_	Undiv	ided		/					
Lanes		0	1	0		0	1	0		
Configuration		L:	ΓR			LT	R			
Upstream Signa	il?		No				No			
Minor Street:	Approach	Noi	 rthbour			Sou	thbou	 nd		
	Movement	7	8	9	1	0	11	12		
		L	T	R	L		Т	R		
 Volume		0	0	0	0		0	0		
Peak Hour Fact		1.00	1.00	1.00	1	.00	1.00	1.00		
Hourly Flow Ra		0	0	0	0		0	0		
Percent Heavy	Vehicles	0	0	0	0		0	0		
Percent Grade	,		0				0			
Flared Approac	ch: Exists	?/Storage		No	/			No	/	
Lanes		0	1	0		0	1	0		
Configuration			LTR				LTR			
	Delay	Queue Lei	nath s	and Leve	 el of	Servi				
 Approach	BEEGY,	WB		thbound		DCIVI		 thbound		
Movement	1	4	7	8	9	1		11	12	
Lane Config	LTR	LTR	,	LTR		-		LTR		
v (vph)	59	0		0				0		
C(m) (vph)	1435	1512								
v/c	0.04	0.00								
95% queue leng		0.00								
Control Delay	7.6	7.4								
LOS	A	A								
Approach Delay	7									
Approach LOS										

File Name : Site 4 AM Site Code : 00000004 Start Date : 1/10/2019 Page No : 1



__TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: AM Peak Hour

Intersection: Site #4

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Approach LOS

Analysis Year: 2019

Project ID: Trinidad Hotel TIA

East/West Street: N. Westhaven Drive

North/South Street: Trinidad Frtg Rd/US101 ON RAMP

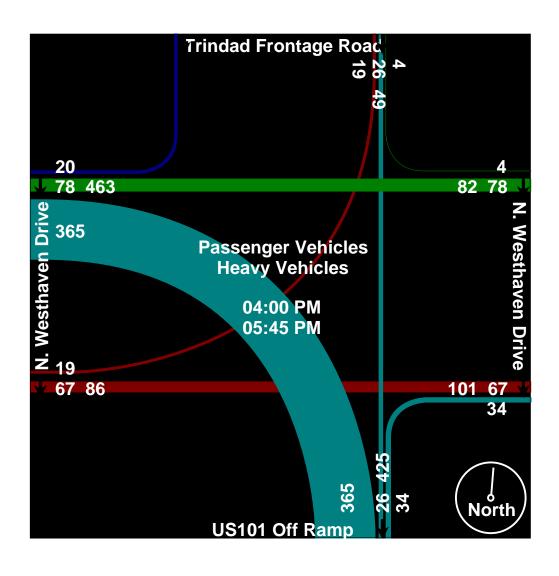
Intersection Orientation: EW Study period (hrs): 2.00

	Veh:	icle Volu	ımes and	d Adjus	tments			
Major Street:	Approach	Eas	stbound		₩e	stbound	i	
	Movement	1	2	3	4	5	6	
		L	Т	R	L	Т	R	
 Volume		13	25			79	1	
Peak-Hour Facto	or, PHF	1.00	1.00			1.00	1.00	
Hourly Flow Rat	ce, HFR	13	25			79	1	
Percent Heavy V	ehicles/	10						
Median Type/Sto RT Channelized?		Undivi	ded		/			
Lanes		0	1			1	0	
Configuration		LT				7	r.	
Upstream Signal	?		No			No		
 Minor Street:	Approach	Nor	thbound	 i	Sc	uthbour	 nd	
	Movement	7	8	9	10	11	12	
		L	Т	R	L	Т	R	
 Volume		309	9	9	32		1	
Peak Hour Facto		1.00	1.00	1.00	1.00		1.00	
Hourly Flow Rat		309	9	9	32		1	
Percent Heavy V	<i>T</i> ehicles	0	0	0	0		0	
Percent Grade (0			0		
Flared Approach	n: Exists?	/Storage		No	/		No	/
Lanes		0	1 ()	0		0	
Configuration			LTR			LR		
	Dela (
 Approach	Delay, (ЕВ	диеце Бег. WB		na Leve chbound	l of Serv		 hbound	
Movement	ьь 1	wв 4	7	8	9	10	11100u11a	12
Movement Lane Config	LT	4	1	o LTR	ا ا	Τ 0	LR	1 Z
v (vph)	13			327			33	
C(m) (vph)	1469			841			819	
V/C	0.01			0.39			0.04	
95% queue lengt				1.90			0.13	
Control Delay	7.5			12.0			9.6	
LOS	A			В			A	
Approach Delay				12.0			9.6	

В

Α

File Name : Site 4 PM Site Code : 00000004 Start Date : 1/9/2019 Page No : 1



___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: PM Peak Hour

Intersection: Site #4

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Approach LOS

Analysis Year: 2019

Project ID: Trinidad Hotel TIA

East/West Street: N. Westhaven Drive

North/South Street: Trinidad Frtg Rd/US101 ON RAMP

Intersection Orientation: EW Study period (hrs): 2.00

	Vehi	.cle Volu	ımes and	d Adjus	tments			
Major Street: A	Approach		stbound	,		estboun	 d	
	Movement	1	2	3	4	5	6	
		L	T	R	L	Т	R	
		 19	67			78	4	
Peak-Hour Factor	r, PHF	1.00	1.00			1.00	1.00	
Hourly Flow Rate	e, HFR	19	67			78	4	
Percent Heavy Ve	ehicles	10						
Median Type/Sto RT Channelized?	rage	Undivi	ided		/			
Lanes		0	1			1	0	
Configuration		LT	[TR	
Jpstream Signali	?		No			No		
Minor Street: A	Approach	Noı	thbound	 d	S	outhbou	 nd	
ľ	Movement	7	8	9	10	11	12	
		L	T	R	L	Т	R	
olume		365	26	34	20		0	
Peak Hour Factor		1.00	1.00	1.00	1.00		1.00	
Hourly Flow Rate		365	26	34	20		0	
Percent Heavy Ve		0	0	0	0		0	
Percent Grade (•		0			0		
Flared Approach	Exists?/	Storage		No	/		No	/
anes		0	1 (0	0		0	
Configuration			LTR			LR		
	Dolor (T on			l of Serv			
 Approach	Delay, Ç B	иеце пег WB	_	hbound			 thbound	
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	-	1	LTR	9	10	LR	12
		l 					——————— TIX	
(vph)	19			425			20	
C(m) (vph)	1466			782			693	
7/C	0.01			0.54			0.03	
95% queue length				3.54			0.09	
Control Delay	7.5			15.1			10.3	
LOS	A			C			В	
Approach Delay				15.1			10.3	
1 - 0 0				~			_	

C

В

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: PM Peak Hour

Intersection:
Jurisdiction: Site #4

Trinidad Rancheria

Units: U. S. Customary

Approach LOS

Analysis Year: 2019 w/Development

Project ID: Trinidad Hotel TIA

East/West Street: N. Westhaven Drive

North/South Street: Trinidad Frtg Rd/US101 ON RAMP

Intersection Orientation: EW Study period (hrs): 2.00

/
12
1
_

C

В

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: PM Peak Hour Intersection: Site #4

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Approach LOS

Analysis Year: 2039

Project ID: Trinidad Hotel TIA

East/West Street: N. Westhaven Drive

North/South Street: Trinidad Frtg Rd/US101 ON RAMP

Intersection Orientation: EW Study period (hrs): 2.00

Major Street:	Approach	cle Volu. Eas	tbound	-			estbour	nd	
-	Movement	1	2	3		4	5	6	
		L	Т	R	İ	L	Т	R	
 Volume		28	99				116	6	
Peak-Hour Facto	r, PHF	1.00	1.00				1.00	1.0	0
Hourly Flow Rat	e, HFR	28	99				116	6	
Percent Heavy V	ehicles	10							
Median Type/Sto RT Channelized?	rage	Undivi	.ded			/			
Lanes		0	1				1	0	
Configuration		LT	1					TR	
Upstream Signal	?		No				No		
Minor Street:	 Approach	Nor	thbound	 i		S	outhbou	 ınd	
•	Movement	7	8	9		10	11	12	
		L	Т	R		L	Т	R	
Volume		542	39	50		30		0	
Peak Hour Facto		1.00	1.00	1.00		1.00		1.0	0
Hourly Flow Rat		542	39	50		30		0	
Percent Heavy V		0	0	0		0		0	
Percent Grade (0				0		
Flared Approach	: Exists?/	'Storage		No	/			No	/
Lanes		0	1 ()		0		0	
Configuration			LTR				LR		
	Dolos (T om			1 .	f Co.			
 Approach	Delay, Ç EB)ueue Ler WB		hbound		r ser		 uthbound	
Approach Movement	<u>ғ</u> ь 1	wв 4	7	8	9	1	10	11	12
Movement Lane Config	LT	≠	/	o LTR	פ		Ŧ 0	LR	14
		 				I			
v (vph)	28			631				30	
C(m) (vph)	1417			685				567	
v/c	0.02			0.92				0.05	
95% queue lengt				24.21				0.17	
Control Delay	7.6			62.2				11.7	
LOS	A			F				В	
Approach Delay				62.2				11.7	

F

В

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: PM Peak Hour Site #4

Intersection:
Jurisdiction:

Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2039 w/Development

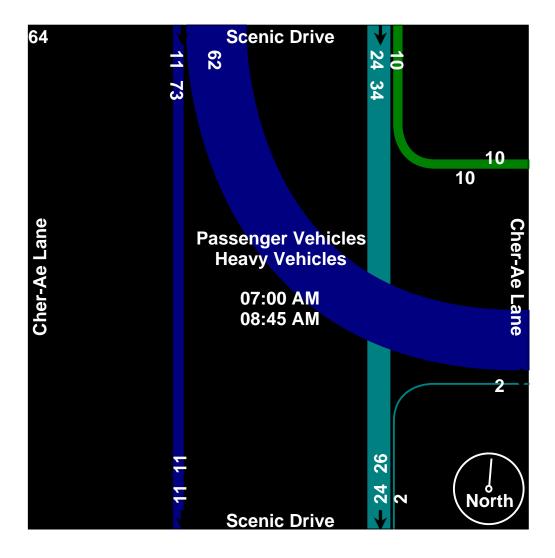
Project ID: Trinidad Hotel TIA

East/West Street: N. Westhaven Drive

North/South Street: Trinidad Frtg Rd/US101 ON RAMP

		cle Vol		_				
	pproach		stbound			Westboun		
М	ovement	1	2	3	4	5	6	
		L	Т	R	L	Т	R	
 Volume		29	102			120	6	
Peak-Hour Factor	, PHF	1.00	1.00			1.00	1.00)
Hourly Flow Rate	, HFR	29	102			120	6	
Percent Heavy Ve	hicles	10						
Median Type/Stor RT Channelized?	age	Undiv	ided		/			
Lanes		0	1			1	0	
Configuration		L'					TR	
Upstream Signal?			No			No		
Minor Street: A	 pproach	No:	 rthbour	 nd		 Southbou	nd	
	ovement	7	8	9	10	11	12	
		L	Т	R	L	Т	R	
Volume		560	39	50			0	
Peak Hour Factor		1.00	1.00	1.00	1.0	0	1.00	1
Hourly Flow Rate	, HFR	560	39	50	30		0	
Percent Heavy Ve	hicles	0	0	0	0		0	
Percent Grade (%)		0			0		
Flared Approach:	Exists?/	'Storage		No	/		No	/
Lanes		0	1	0		0	0	
Configuration			LTR			LR		
	Delay, Q)ueue Le:	ngth, a	and Leve	l of Se	 rvice		
Approach	EB	WB	Nor	thbound		Sou	thbound	l
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	İ		LTR	İ		LR	
v (vph)	29			649			30	
C(m) (vph)	1412			675			559	
v/c	0.02			0.96			0.05	
95% queue length	0.06			33.00			0.17	
Control Delay	7.6			93.5			11.8	
LOS	A			F			В	
Approach Delay				93.5			11.8	
Approach LOS				F			В	

File Name : Site 5 AM Site Code : 00000005 Start Date : 1/10/2019 Page No : 1



___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: AM Peak Hour

Intersection: Site #5

Jurisdiction: Trinidad Rancheria

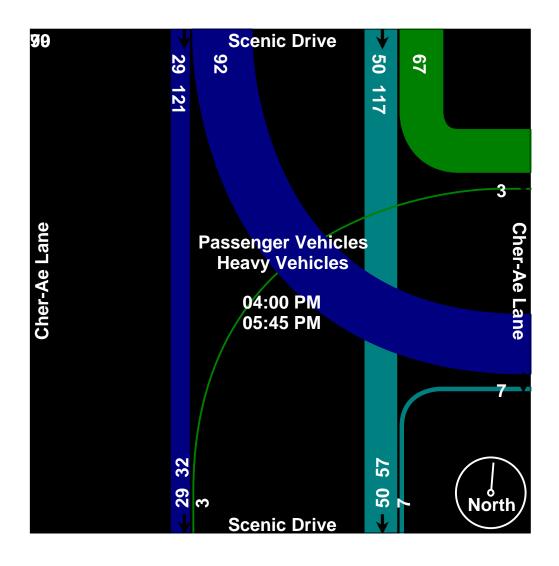
Units: U. S. Customary

Analysis Year: 2019

Project ID: Trinidad Hotel TIA
East/West Street: Cher-Ae Lane
North/South Street: Scenic Drive

	Veh:	icle Vol	umes and	l Adjus	stmen	nts			
Major Street:	Approach		rthbound				ıthbour	ıd	
	Movement	1	2	3		4	5	6	
		L	Т	R	İ	L	T	R	
Volume			24	2		62	11		
Peak-Hour Facto	or, PHF		1.00	1.00		1.00	1.00		
Hourly Flow Rat	ce, HFR		24	2		62	11		
Percent Heavy V	Vehicles					0			
Median Type/Sto	orage	Undiv	rided		/	′			
RT Channelized	?								
Lanes			1 0	1		0	1		
Configuration			TR	-		LT	7		
Upstream Signal	l?		No				No		
Minor Street:	Approach	We	stbound			Eas	tbound	l	
	Movement	7	8	9		10	11	12	
		L	Т	R	ĺ	L	Т	R	
Volume		0		10					
Peak Hour Facto	or. PHF	1.00		1.00					
Hourly Flow Rat		0		10					
Percent Heavy		0		0					
Percent Grade		Ü	0	O			0		
Flared Approach	• •	/Storage	-		/		O		/
Lanes	INIBED.	1	. 1		,				,
Configuration		I		•					
	Delay (Nielle I.e	ength, an	d Leve	al of	Servi	CA		
Approach	NB	SB		bound	01			bound	
Movement	1	4	7	8	9	1	10	11	12
Lane Config	_	LT	, L	O	R	-	- 0		12
Lane config		<u> п</u> т	ъ		10	I			
v (vph)		62	0		10				
C(m) (vph)		1601	804		105	57			
V/C		0.04	0.00		0.0				
95% queue lengt	th	0.12	0.00		0.0				
Control Delay		7.3	9.5		8.4				
LOS		A	A		Α.				
Approach Delay				8.4					
Approach LOS				A					

File Name : Site 5 PM Site Code : 00000005 Start Date : 1/9/2019 Page No : 1



___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: PM Peak Hour

Intersection: Site #5

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2019

Project ID: Trinidad Hotel TIA
East/West Street: Cher-Ae Lane
North/South Street: Scenic Drive

	Veh	icle Vol	umes a	nd Adi	ustment	ts			
Major Street:	Approach		rthbou				thbou	 nd	
-	Movement	1	2	3	4	4	5	6	
		L	Т	R	1	L	Т	R	
Volume			50	7		 9	29		
Peak-Hour Fact	or, PHF		1.00	1.0	0 2	1.00	1.00		
Hourly Flow Ra			50	7	9	92	29		
Percent Heavy					(0			
Median Type/St RT Channelized		Undiv	rided		/				
Lanes			1	0		0	1		
Configuration				TR		LT			
Upstream Signa	1?		No				No		
Minor Street:	Approach		estboun				tboun		
	Movement	7	8	9	!	10	11	12	
		L	Т	R	1	L	T	R	
Volume		3		67					
Peak Hour Fact	or, PHF	1.00		1.0	0				
Hourly Flow Ra	te, HFR	3		67					
Percent Heavy	Vehicles	0		0					
Percent Grade	(%)		0				0		
Flared Approac	h: Exists?	/Storage	3		/				/
Lanes		1		1					
Configuration		I	ı	R					
	D-1-		1-						
Approach	Delay, (NB	Queue Le SB		stboun		servi		 tbound	
Movement	1	4	7	8	9	1	0	11	12
Lane Config		LT	L	_	R		-		
v (vph)		92	3		67				
C(m) (vph)		1560	684		1019	9			
V/C		0.06	0.00		0.0				
95% queue leng	th	0.19	0.01		0.23				
Control Delay		7.5	10.3		8.8				
LOS		A	В		A				
Approach Delay				8.8					
Approach LOS				А					

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: PM Peak Hour Intersection: Site #5

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2019 w/Development

Project ID: Trinidad Hotel TIA East/West Street: Cher-Ae Lane North/South Street: Scenic Drive

Northbo 2 T 50 1.0 50 divided 1 No Westbou	3 R 9 0 1.00 9 	4 L 125 1.0 125 0	Southbou 5 T 29 0 1.00 29 0 1 LT No	6 R	
50 1.0 50 divided 1 No	9 0 1.00 9 	125 1.00 125 0	T 29 0 1.00 29 	R	
50 1.0 50 divided 1 No	9 0 1.00 9 	125 1.00 125 0	29 0 1.00 29 		
1.0 50 divided 1 No	0 1.00 9 0 TR	1.00 125 0	0 1.00 29 0 1 LT		
50 divided 1 No	9 0 TR	125 0 /	29 0 1 LT		
divided 1 No	0 TR	0	0 1 LT		
divided 1 No	TR	/	LT		
1 No	TR	/	LT		
No	TR		LT		
No	TR	(LT		
			No		
Westbou					
Westbou	_				
		. 1	Eastboun		
8	9	10	11	12	
T	R	L	Т	R	
	91				
0.0	1.00)			
	0				
0			0		
age		/			/
1	1	,			,
_ L					
Length.	and Lev	rel of Se ^r	rvice		
				tbound	
			10	11	12
L	<u>-</u> -	R	-		•
4		91			
8 613		1019			
0.01		0.09			
0.02		0.29			
10.9		8.9			
В		A			
	9.0				
	T 00 0 age 1 L Length, W 7 L 4 3 613 3 0.01 5 0.02 10.9	T R 91 00 1.00 91 0 0 age 1 1 L R Length, and Lev Westbound 7 8 L 4 3 613 3 0.01 5 0.02 10.9	T R L 91 1.00 91 0 0 age / 1	T R L T 91 00 1.00 91 0 0 00 00 00 00 00 00 00 00 00 00 00 00	T R L T R 91 00 1.00 91 0 0 00 00 00 00 00 00 00 00 00 00 00 00

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: PM Peak Hour Site #5

Intersection:

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2039

Project ID: Trinidad Hotel TIA East/West Street: Cher-Ae Lane North/South Street: Scenic Drive

Movement 1			icle Vol	umes and	d Adjus	stme	nts			
L T R L T R L T R	Major Street:	Approach	No	rthbound			Sot	uthboun	ıd	
Volume		Movement	1	2	3		4	5	6	
Peak-Hour Factor, PHF 1.00 1.00 1.00 1.00 Hourly Flow Rate, HFR 74 10 137 43 Percent Heavy Vehicles 0 Median Type/Storage Undivided / / RT Channelized? Lanes 1 0 0 1 Configuration TR LT LT Upstream Signal? No No No Minor Street: Approach Movement Approach Movement Approach Heavy Vehicles Approach Movement Approach: Exists?/Storage Approach: Exists?/Storage Approach Movement Approach NB SB Mestbound Mestbound Fastbound Movement Approach NB SB Mestbound Mestbound Eastbound Approach Approach NB SB Mestbound Movement Approach NB SB Mestbound Approach NB SB Mestbound Approach NB SB Mestbound Approach Approach NB SB Mestbound Approach Approach NB SB Mestbound Approach Approac			L	T	R		L	Т	R	
Hourly Flow Rate, HFR	Volume			· -	10		137			
Percent Heavy Vehicles				1.00	1.00		1.00	1.00		
Median Type/Storage Undivided / RT Channelized? 1 0 0 1 Lanes 1 0 0 1 Configuration TR LT Upstream Signal? No No Minor Street: Approach Movement 7 8 9 10 11 12 T R Eastbound T R Movement 7 8 9 10 11 12 T R L T R Volume 4 99 Peak Hour Factor, PHF 1.00 1.00 Hourly Flow Rate, HFR 4 99 Percent Heavy Vehicles 0 0 0 0 0 Percent Grade (%) 0 0 Flared Approach: Exists?/Storage / Lanes 1 T Configuration L R / Lanes 0 1	_			74	10		137	43		
RT Channelized? Lanes							0			
TR			Undiv	rided			/			
Minor Street: Approach	Lanes			1 ()		0	1		
Minor Street: Approach Westbound Eastbound Movement 7 8 9 10 11 12 L T R L T R Volume 4 99 Peak Hour Factor, PHF 1.00 1.00 Hourly Flow Rate, HFR 4 99 Percent Heavy Vehicles 0 0 Percent Grade (%) 0 0 Flared Approach: Exists?/Storage / / Lanes 1 1 Configuration L R	Configuration			TI	2		L:	Γ		
Movement 7 8 9 10 11 12 L T R L T R Volume 4 99 Peak Hour Factor, PHF 1.00 1.00 Hourly Flow Rate, HFR 4 99 Percent Heavy Vehicles 0 0 Percent Grade (%) 0 0 Flared Approach: Exists?/Storage / / / Lanes 1 1 Configuration L R Delay, Queue Length, and Level of Service Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Lane Config LT L R V (vph) 137 4 99 C(m) (vph) 1526 558 987 v/c 0.09 0.01 0.10 95% queue length 0.30 0.02 0.33 Control Delay 7.6 11.5 9.1 LOS A B Approach Delay 9.1	_	1?		No				No		
L T R L T R L T R Volume Peak Hour Factor, PHF 1.00 1.	Minor Street:	Approach	 W∈	stbound			Eas	stbound	 l	
Volume		Movement	7	8	9		10	11	12	
Peak Hour Factor, PHF 1.00 1.00 Hourly Flow Rate, HFR 4 99 Percent Heavy Vehicles 0 0 Percent Grade (%) 0 0 Flared Approach: Exists?/Storage / / Lanes 1 1 Configuration L R Delay, Queue Length, and Level of Service			L	Т	R	İ	L	T	R	
Hourly Flow Rate, HFR 4 99 Percent Heavy Vehicles 0 0 Percent Grade (%) 0 0 Flared Approach: Exists?/Storage / / Lanes 1 1 Configuration L R Delay, Queue Length, and Level of Service	Volume		4		99					
Percent Heavy Vehicles 0 0 0 Percent Grade (%) 0 0 Flared Approach: Exists?/Storage / / / Lanes 1 1 1 Configuration L R			1.00		1.00					
Percent Grade (%) 0 0 Flared Approach: Exists?/Storage / / / Lanes 1 1 Configuration L R Delay, Queue Length, and Level of Service Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Lane Config LT L R V (vph) 137 4 99 C(m) (vph) 1526 558 987 v/c 0.09 0.01 0.10 95% queue length 0.30 0.02 0.33 Control Delay 7.6 11.5 9.1 LOS A B A Approach Delay 9.1	Hourly Flow Ra	te, HFR	4		99					
Flared Approach: Exists?/Storage			0		0					
Lanes 1 1 1 Configuration L R Delay, Queue Length, and Level of Service Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Lane Config LT L R v (vph) 137 4 99 C(m) (vph) 1526 558 987 v/c 0.09 0.01 0.10 95% queue length 0.30 0.02 0.33 Control Delay 7.6 11.5 9.1 LOS A B A Approach Delay 9.1				0				0		
Delay, Queue Length, and Level of Service Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Lane Config LT L R	Flared Approac	h: Exists?	/Storage	<u>.</u>		/				/
	Lanes		1	-	L					
Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Lane Config LT L R 99 (wph) 137 4 99 (c(m) (vph) 1526 558 987 v/c 0.09 0.01 0.10 95% queue length 0.30 0.02 0.33 Control Delay 7.6 11.5 9.1 LOS A B A Approach Delay 9.1	Configuration		I	ı R						
Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Lane Config LT L R 99 (wph) 137 4 99 (c(m) (vph) 1526 558 987 v/c 0.09 0.01 0.10 95% queue length 0.30 0.02 0.33 Control Delay 7.6 11.5 9.1 LOS A B A Approach Delay 9.1		Delay. (Onene Le	ngth ar	nd Leve	0 اد	f Serv	ice		
Movement 1 4 7 8 9 10 11 12 Lane Config LT L R v (vph) 137 4 99 C(m) (vph) 1526 558 987 v/c 0.09 0.01 0.10 95% queue length 0.30 0.02 0.33 Control Delay 7.6 11.5 9.1 LOS A B A Approach Delay 9.1	Approach	_		_					bound	
Lane Config LT L R v (vph) 137 4 99 C(m) (vph) 1526 558 987 v/c 0.09 0.01 0.10 95% queue length 0.30 0.02 0.33 Control Delay 7.6 11.5 9.1 LOS A B A Approach Delay 9.1						9	1 :			12
C(m) (vph) 1526 558 987 v/c 0.09 0.01 0.10 95% queue length 0.30 0.02 0.33 Control Delay 7.6 11.5 9.1 LOS A B A Approach Delay 9.1	Lane Config	_				_		- 0		
v/c 0.09 0.01 0.10 95% queue length 0.30 0.02 0.33 Control Delay 7.6 11.5 9.1 LOS A B A Approach Delay 9.1	v (vph)		137	=		99				
95% queue length 0.30 0.02 0.33 Control Delay 7.6 11.5 9.1 LOS A B A Approach Delay 9.1	C(m) (vph)		1526	558		98	7			
Control Delay 7.6 11.5 9.1 LOS A B A Approach Delay 9.1	V/C		0.09	0.01		0.	10			
LOS A B A A A A A A A A A A A A A A A A A		th	0.30	0.02		0.	33			
Approach Delay 9.1	Control Delay		7.6	11.5		9.	1			
	LOS		A	В		A	•			
Approach LOS A	Approach Delay	•			9.1					
	Approach LOS				A					

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019
Analysis Time Period: PM Peak Hour Intersection: Site #5

Jurisdiction: Trinidad Rancheria

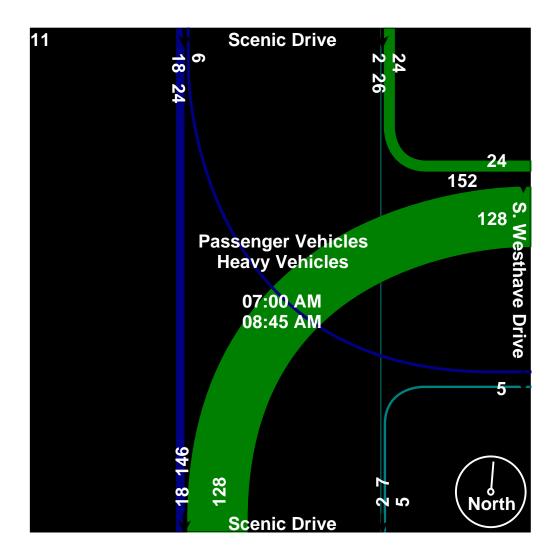
Units: U. S. Customary

Analysis Year: 2039 w/Development

Project ID: Trinidad Hotel TIA
East/West Street: Cher-Ae Lane
North/South Street: Scenic Drive

			umes and	_	stme				
Major Street:	Approach	_	rthbound				ıthbour		
	Movement	1	2	3		4	5	6	
		L	Т	R		L	T	R	
Volume			74	12		170	43		
Peak-Hour Fact	or, PHF		1.00	1.00		1.00	1.00		
Hourly Flow Ra	te, HFR		74	12		170	43		
Percent Heavy	Vehicles					0			
Median Type/St RT Channelized		Undiv	rided			/			
Lanes			1)		0	1		
Configuration			T	2		L'	Γ		
Upstream Signa	1?		No				No		
Minor Street:	 Approach	 ₩∈	stbound			Eas	 stbound	 i	
	Movement	7	8	9		10	11	12	
		L	Т	R	İ	L	T	R	
Volume		5		123					
Peak Hour Fact	or, PHF	1.00		1.00					
Hourly Flow Ra	te, HFR	5		123					
Percent Heavy	Vehicles	0		0					
Percent Grade	(%)		0				0		
Flared Approac	h: Exists?	/Storage	5		/				/
Lanes		1		1					
Configuration		I	ı R						
	Delay (Oueue T.	ength, a	nd T.exe		f Serv	i ce		
Approach	NB	SB		bound	J	I DCIV.		bound	
Movement	1	4	7	8	9	1 .	10	11	12
Lane Config	_	LT	L L	O	R	-	10	T T	12
v (vph)		170	 5		12	 3			
C(m) (vph)		1523	498		98				
V/C		0.11	0.01		0.	-			
95% queue leng	t.h	0.38	0.03		0.				
Control Delay		7.7	12.3		9.				
LOS		Α.	в		у. А				
Approach Delay		7.3	ב	9.3	А				
Approach LOS				Э. Э А					
TEL CACIL HOD				11					

File Name : Site 6 AM Site Code : 00000006 Start Date : 1/11/2019 Page No : 1



___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: AM Peak Hour Intersection: Site #6

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2019

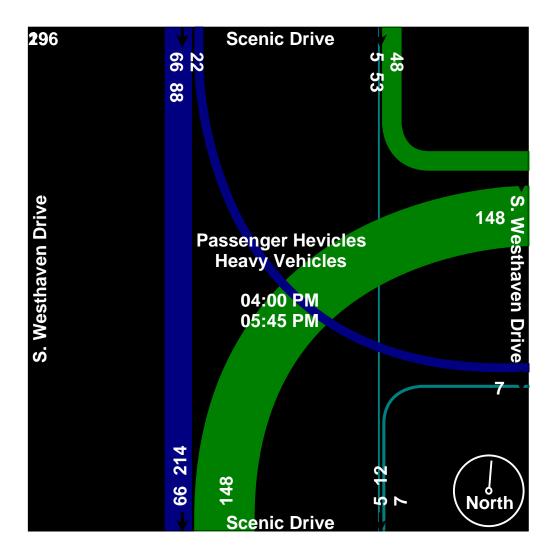
Project ID: Trinidad Hotel TIA

East/West Street: S. Westhaven Drive

North/South Street: Scenic Drive

	Veh	icle Vol	umes an	d Adju	stments			
Major Street:	Approach	No	rthboun	d	Sc	outhbou	nd	
	Movement	1	2	3	4	5	6	
		L	Т	R	L	T	R	
Volume			2	 5	6	18		
Peak-Hour Fact	or, PHF		1.00	1.00	1.00	1.00		
Hourly Flow Ra	ite, HFR		2	5	6	18		
Percent Heavy	Vehicles				0			
Median Type/St	orage	Undiv	rided		/			
Lanes			1	0	0	1		
Configuration			T]	T		
Upstream Signa	11?		No			No		
Minor Street:	Approach		stbound			astboun		
	Movement	7	8	9	10	11	12	
		L	Т	R	L	Т	R	
Volume		128		24				
Peak Hour Fact		1.00		1.00				
Hourly Flow Ra		128		24				
Percent Heavy	Vehicles	0		0				
Percent Grade			0			0		
Flared Approac	h: Exists?	/Storage	2		/			/
Lanes		1		1				
Configuration		I	ı R					
	Delay.	Oueue Le	ength, a	nd Leve	el of Serv	zice		
Approach	NB	SB	_	tbound			tbound	
Movement	1	4	7	8	9	10	11	12
Lane Config	_	LT	, L	Ü	R	10		12
v (vph)		6	128		24			
C(m) (vph)		1627	980		1085			
v/c		0.00	0.13		0.02			
95% queue leng	ŗth	0.01	0.45		0.07			
Control Delay		7.2	9.2		8.4			
LOS		A	A		A			
Approach Delay	7			9.1				
Approach LOS				A				

File Name : Site 6 PM Site Code : 00000006 Start Date : 1/10/2019 Page No : 1



____TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: PM Peak Hour Intersection: Site #6

Jurisdiction:

Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2019

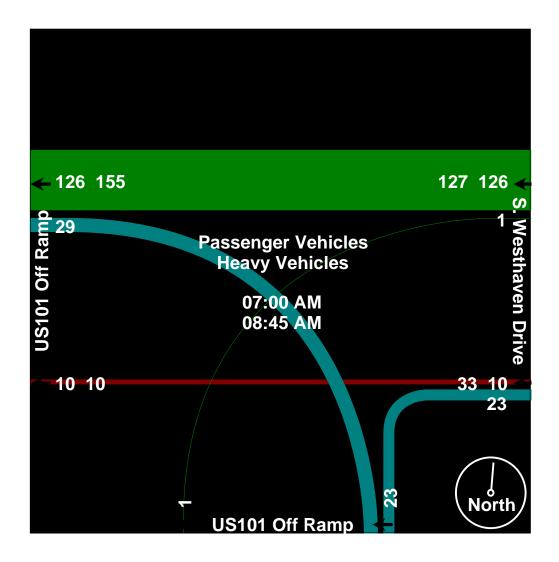
Project ID: Trinidad Hotel TIA

East/West Street: S. Westhaven Drive

North/South Street: Scenic Drive

	Veh	icle Vol	umes and	Adjus	stments			
Major Street:	Approach	No	rthbound		Sc	outhbou	nd	
	Movement	1	2	3	4	5	6	
		L	Т	R	L	Т	R	
Volume			 5	7	22	66		
Peak-Hour Fact	or, PHF		1.00	1.00	1.00	1.00		
Hourly Flow Ra	ate, HFR		5	7	22	66		
Percent Heavy	Vehicles				0			
Median Type/St RT Channelized		Undiv	rided		/			
Lanes			1 0		0	1		
Configuration			TR]	T		
Upstream Signa	11?		No			No		
Minor Street:	Approach		stbound			astboun		
	Movement	7	8	9	10	11	12	
		L	Т	R	L	T	R	
Volume		148		48				
Peak Hour Fact		1.00		1.00				
Hourly Flow Ra		148		48				
Percent Heavy	Vehicles	0		0				
Percent Grade			0			0		
Flared Approac	ch: Exists?	/Storage	!		/			/
Lanes		1	1					
Configuration		L	ı R					
	Delay,	Oueue Le	ngth, an	.d Leve	el of Serv	 ⁄ice		
Approach	NB	~ SB		bound			tbound	
Movement	1	4	7	8	9	10	11	12
Lane Config		LT	L		R			
v (vph)		22	148		48			
C(m) (vph)		1620	871		1080			
v/c		0.01	0.17		0.04			
95% queue leng	ŋth	0.04	0.61		0.14			
Control Delay		7.3	10.0-		8.5			
LOS		A	A		A			
Approach Delay	7			9.6				
Approach LOS				A				
=								

File Name : Site 7 AM Site Code : 00000007 Start Date : 1/11/2019 Page No : 1



___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: AM Peak Hour

Intersection: Site #7

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

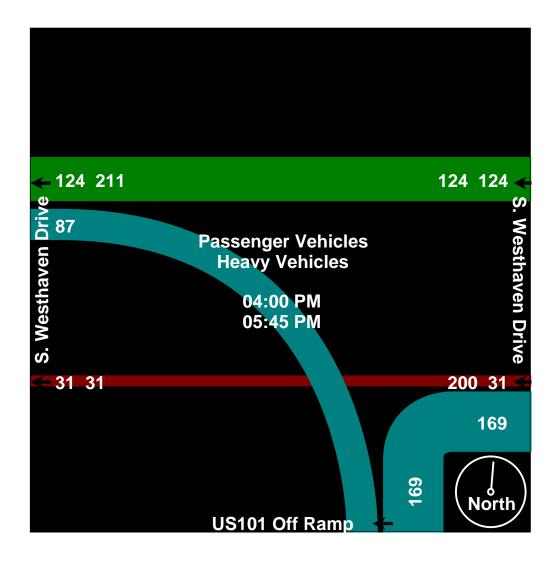
Analysis Year: 2019

Project ID: Trinidad Hotel TIA

East/West Street: S. Westhaven Drive North/South Street: US101 Off Ramp

Major Street:	Approach	F:	astbound			T	Westbound	3	
Major Bereet.	Movement	1	2	3	1	4	5	6	
	MOVEMETIC	L	T	R		L	T	R	
 Volume			10				127		
Peak-Hour Fact	or, PHF		1.00				1.00		
Hourly Flow Ra			10				127		
Percent Heavy									
Median Type/St		Undi	vided			/			
RT Channelized					,				
Lanes	•		1				1		
Configuration Configuration			T				T		
Upstream Signa	12		No				No		
opperedim bryina	- •		110				140		
Minor Street:	Approach	N	orthboun	 .d			 Southbour	 nd	
	Movement	7	8	9		10	11	12	
		L	T	R	j	L	T	R	
Volume		29							
Peak Hour Fact	•	1.00		1.00					
Hourly Flow Ra	te, HFR	29		0					
Percent Heavy	Vehicles	0		0					
Percent Grade	(%)		0				0		
Flared Approac	h: Exists?	/Storage	е		/				/
Lanes		1		1					
Configuration			L R						
	Delay,	Queue L	ength, a	nd Lev	el of	f Sei	rvice		
Approach	EB	WB	Nor	thboun	.d		Sout	hboun	d
Movement	1	4	7	8	9		10	11	12
Lane Config			L		R	ĺ			
		· 							
v (vph)			29		0				
C(m) (vph)			861		10	77			
v/c			0.03		0.0	0 0			
95% queue leng	th		0.10		0.0	0 0			
Control Delay			9.3		8.3	3			
LOS			A		A				
				9.3					
Approach Delay Approach LOS				9.3 A					

File Name : Site 7 PM Site Code : 00000007 Start Date : 1/10/2019 Page No : 1



___TWO-WAY STOP CONTROL SUMMARY__

Analyst: Chris Robideau

Agency/Co.: Red Plains Professional, Inc.

Date Performed: 2/6/2019 Analysis Time Period: PM Peak Hour

Intersection: Site #7

Jurisdiction: Trinidad Rancheria

Units: U. S. Customary

Analysis Year: 2019

Project ID: Trinidad Hotel TIA

East/West Street: S. Westhaven Drive North/South Street: US101 Off Ramp

	Vel	nicle Vol	umes and	d Adjus	tment	.s			
Major Street:	Approach	Ea	stbound			Wes	tbour	nd	
	Movement	1	2	3	4	ŀ	5	6	
		L	T	R	į I	ı	T	R	
Volume			31				124		
Peak-Hour Facto	or, PHF		1.00				1.00)	
Hourly Flow Rat	ce, HFR		31				124		
Percent Heavy V	/ehicles								
Median Type/Sto RT Channelized?		Undiv	ided		/				
Lanes			1				1		
Configuration			T				Т		
Upstream Signal	L?		No				No		
Minor Street:	Approach		rthbound			Sou	thbou	 ınd	
	Movement	7	8	9	1	. 0	11	12	
		L	T	R	I	ı	T	R	
Volume		87		169					
Peak Hour Facto	or, PHF	1.00		1.00					
Hourly Flow Rat	ce, HFR	87		169					
Percent Heavy V	/ehicles	0		0					
Percent Grade ((응)		0				0		
Flared Approach	n: Exists	?/Storage			/				/
Lanes		1	-	L					
Configuration		L	R						
	Delay	Queue Le	nath ar	nd Leve		Carvi			
Approach	встау, ЕВ	WB		hbound		DCIVI		thbound	 7
Movement	1	4	7	8	9	1 1	.0	11	12
Lane Config	Δ.	- I	, L	O	R	-	. 0	T T	12
v (vph)			87		169				
C(m) (vph)			841		1049)			
V/C			0.10		0.16	· •			
95% queue lengt	:h		0.35		0.58	3			
Control Delay			9.8		9.1				
LOS			A		A				
Approach Delay				9.3					
Approach LOS				A					

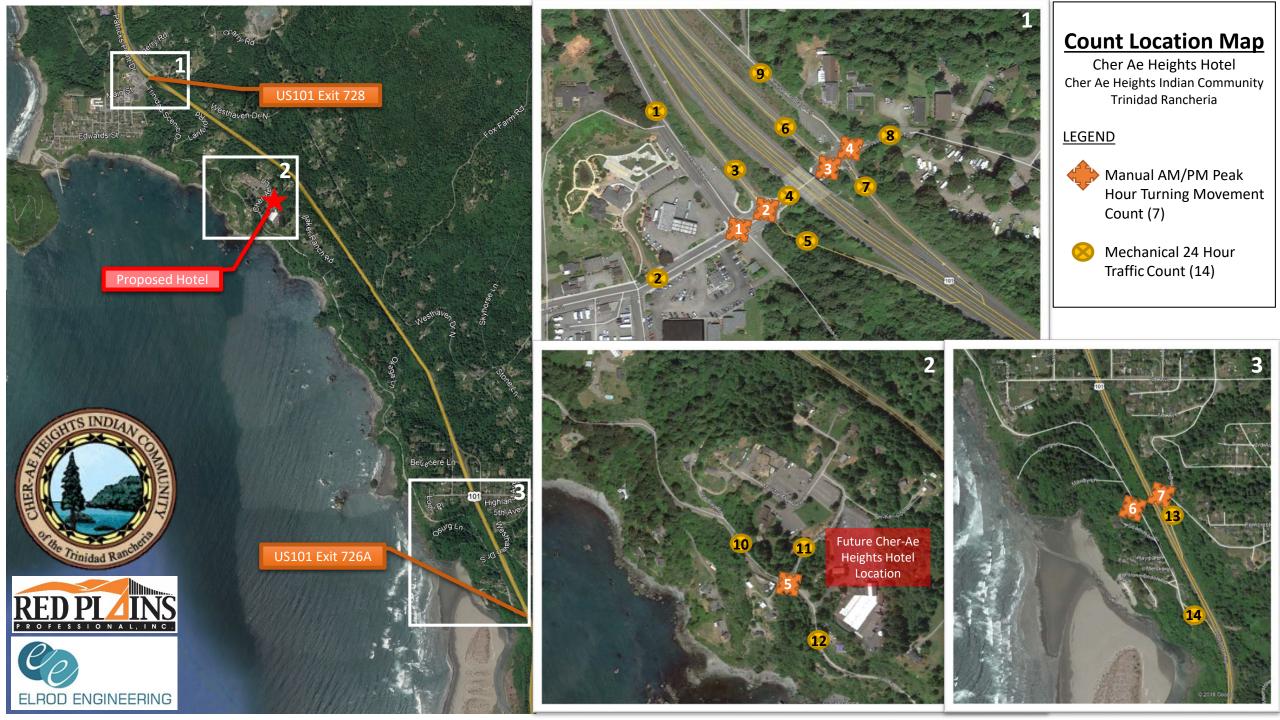
APPENDIX C

TRAFFIC ANALYSIS MAPS



Prepared by:









24-Hour Mechanical Traffic Count Map

Cher Ae Heights Hotel Cher Ae Heights Indian Community Trinidad Rancheria

LEGEND

Site Code (24-Hour Ct) 2019 AADT

2019 AADT w/Hotel

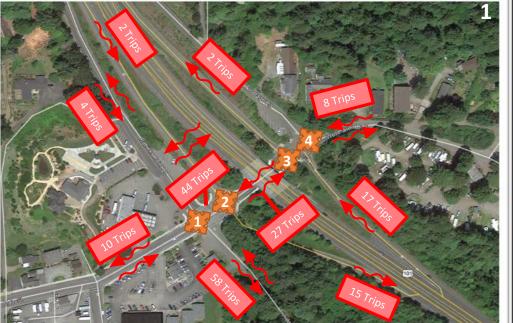
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2039 (AADT Projected) 2039 (AADT Proj w/Hotel)









PM PEAK HOURS Additional Trips Generated Map

Cher Ae Heights Hotel
Cher Ae Heights Indian Community
Trinidad Rancheria

LEGEND



Manual AM/PM Peak
Hour Turning Movement
Count (7)



Generated Trip
Distribution



