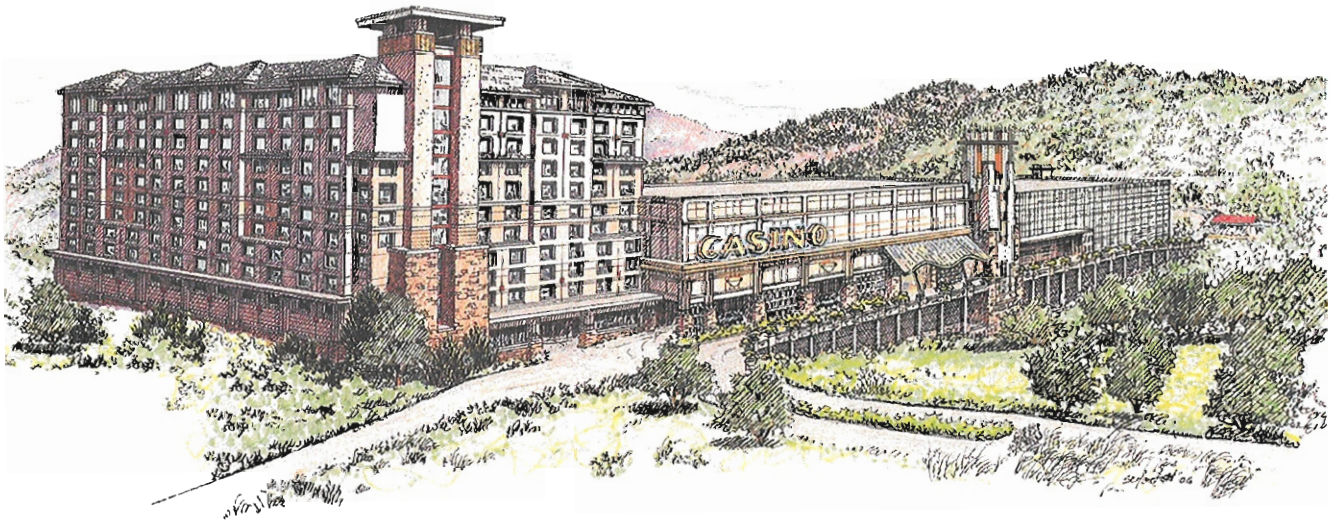
FINAL
TRIBAL ENVIRONMENTAL IMPACT STATEMENT/REPORT

JAMUL INDIAN VILLAGE
CASINO DEVELOPMENT PROJECT



VOLUME 1

DECEMBER 2006

LEAD AGENCY

JAMUL INDIAN VILLAGE
P.O. BOX 612
JAMUL, CA 91935

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SECTION 1.0

INTRODUCTION

SECTION 1.0
INTRODUCTION

1.1 INTRODUCTION

This Tribal Environmental Impact Statement/Report (Tribal EIS/R/R) has been prepared pursuant to the requirements of the 2006 Off-Reservation Environmental Impact Ordinance (Ordinance) adopted by the Jamul Indian Village (the "Tribe"). The Ordinance was prepared and adopted by the Tribe pursuant to the Tribal-State Gaming Compact, which was entered into between the Tribe and the State of California on May 5, 2000. Pursuant to Section 6 of the Ordinance, the Tribe could cause an Environmental Impact Statement to be developed if it determines that a significant adverse effect could result from project implementation. In addition to being prepared pursuant to the existing Tribal Ordinance, this document is also designed to be consistent with requirements of newly adopted tribal/state compacts, which mandate development of Tribal Environmental Impact Reports. It is the Tribe's intention to use this document to comply with the new TEIR provisions should it be successful in securing a new compact with the State.

1.1.1 PROJECT LOCATION

The Jamul Indian Village is located in southwestern San Diego County approximately one mile south of the community of Jamul **(Figure 1-1).** The Village is bordered by vacant land and Melody Road to the north, vacant and residentially developed land to the west, vacant land to the south and State Route 94 to the east. **Figure 1-2** and **Figure 1-3** show the project site and vicinity. The Jamul Indian Village is located within portions of Section 10 and un-sectioned areas of Township 17 S, Range 1 East, San Bernardino Baseline and Meridian, Dulzura, CA and Jamul Mountains, CA, U.S. Geological Survey 7.5-minute Quadrangle. **Figure 1-3** shows the existing Jamul Indian Village. State Route 94 (SR 94) provides regional access to the project site from downtown San Diego, which is located approximately 20 miles to the west where it intersects with Highway 5. Local access to the Indian Village is provided directly from SR 94. From the project site, State Route 94 travels briefly north and then west to Downtown San Diego, passing through the unincorporated communities of Jamul, Casa de Oro, Spring Valley and Lemon Grove.

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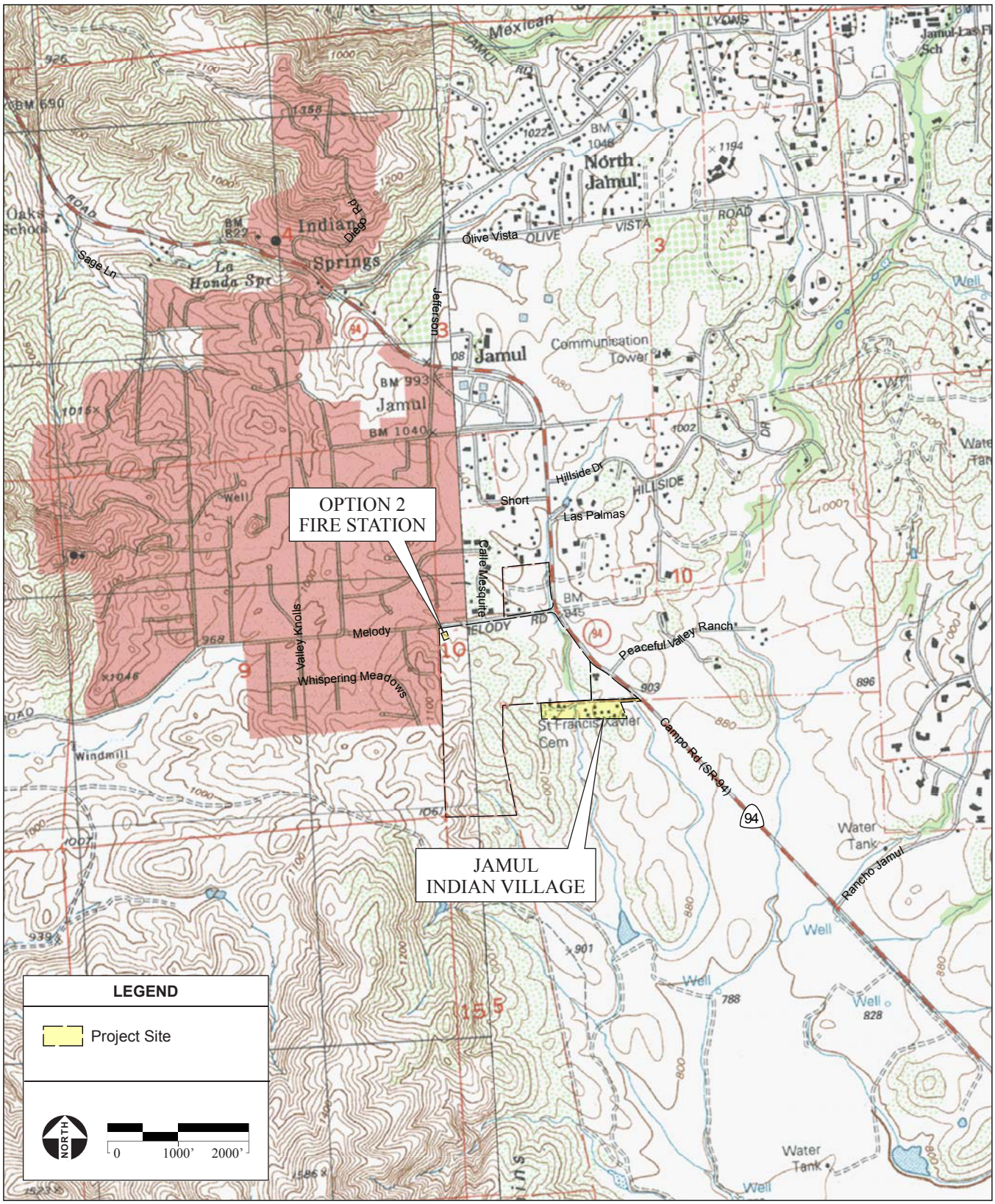
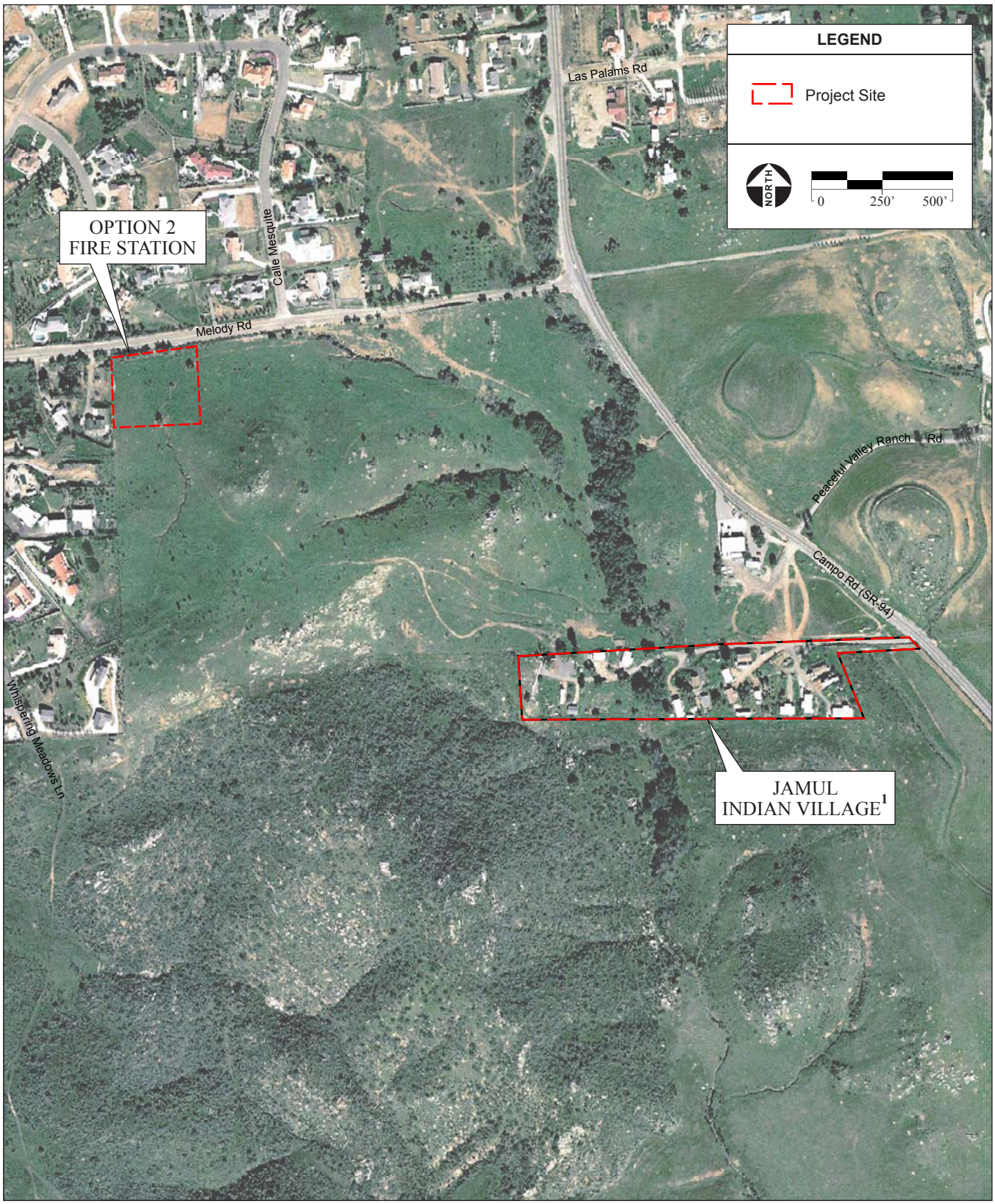
SOURCE: Microsoft Streets & Trips, 2005; AES, 2006

Figure 1-1
Regional Location



SOURCE: "Jamul MTS, CA" & "Dulzura, CA" USGS 7.5 Minute Topographic Quadrangles; Section 10, T17S, R1E, San Bernardino Baseline & Meridian; AES, 2006

Figure 1-2
Site and Vicinity



SOURCE: AirPhoto USA Aerial Photograh, 2/1/2005; AES, 2005

[1] Since February 2005, when the aerial was flown, residences on the Indian Village Site have been removed by the tribe.

Figure 1-3
Aerial Site Map

1.1.2 PROJECT SUMMARY

The Tribal EIS/R addresses the off-reservation environmental effects associated with the proposed gaming facility and hotel complex which consists of 567,094 total square feet of building space. The hotel will include 400 beds in 361,900 square feet, and the casino building will cover approximately 205,194 square feet (73,469 square feet of which will be gaming floor area). Ancillary uses to the hotel and casino complex include a parking garage, tribal center, human resources facility, a wastewater treatment plant, and detention basin. Development will be phased with the construction of the casino in the first phase and the construction of the hotel approximately three years later.

1.2 PURPOSE AND NEED

The economic need for the project is evident when comparing the Tribe's socioeconomic conditions with those of the surrounding communities. The economy of Jamul Indian Village lags behind the economy of the local community in terms of the employment rate, median household income, and percentage of those living in poverty. The need for the development of this project is based on:

- The Tribal Government has no sustained revenue stream;
- The lack of employment opportunities for Tribal members (approximately 44.7% unemployed);
- The lack of economic development opportunities for tribal members on the Indian Village;
- The disadvantaged socioeconomic conditions of the Tribal Government and its members;
- The potential profitability of gaming; and
- The federal government and the state having cut back on programs which the Tribal Government has relied on to fund its governmental programs.

Through the proposed development, the Tribal Government is making an effort to improve the long-term economic condition of the Tribe and its members through the development of a stable, sustainable source of employment and revenue that takes advantage of the Tribe's reservation. Given the location of the reservation at the eastern extent of the unincorporated community of Jamul, this enterprise must independently attract patrons in order to be successful. For long-term feasibility, the project must have primary and secondary attractants to invite patrons to the reservation.

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Presently, a substantial portion of Tribal members' individual incomes is derived from Tribal administration and programs, and in general there is a high reliance upon the Federal government for social services. The Jamul Indian Village is a federally recognized sovereign Indian Tribe. (need reference to federal reg notice that recognizes tribe) Jamul tribal enrollment totals 56 persons, with the majority aged 16 to 64. Of the total work force of 38 persons, 17 are unemployed, resulting in a tribal unemployment rate of 44.7 percent. It has been estimated that about 69 percent of the employed work force is living below the poverty guidelines (BIA-OTS, 1999). By comparison, the percentage of persons living in poverty for the state and county are much lower at 16.3 and 11.3 percent (U.S. Census Bureau, 2002). These statistics indicate that the economic status of individuals in the Jamul area are generally well below that of the rest of San Diego County.

The casino facility will be operated consistent with the requirements of Federal law and the Tribal/State Compact between the State of California and the Tribal Government. The hotel and casino complex will provide the Tribal Government with a long term, sustainable revenue base. Revenues will be used to fund Tribal governmental programs and decrease the Tribal Government's dependence on Federal and State funding. Besides governmental functions, the Tribal Government plans to use revenues to support social and educational programs for the elderly, the poor and younger Tribal members. Gaming revenues will also allow the Tribal Government to upgrade equipment, hire additional staff, and expand environmental, health and safety programs. The casino will provide employment opportunities for tribal members and many local non-tribal residents. Casino operations will also promote the purchase of goods and services, which may be provided by the local community.

1.3 PROJECT BACKGROUND

The environmental review process for a casino on the Indian Village site began back in 1999 when the Tribe had an Environmental Assessment drafted for the Bureau of Indian Affairs (BIA) and National Indian Gaming Commission (NIGC). The BIA released the EA for public comment in early 2001. A Final EA was issued in later 2001. The Final EA was followed with a Finding of No Significant Impact (FONSI) in November of 2001. However, after three parties appealed the FONSI, the BIA determined that mitigation proposed for traffic effects were too provisional; therefore, an EIS would be required to fulfill the requirements of NEPA.

In 2003, the Bureau of Indian Affairs completed a Final EIS for the proposed fee-to-trust transfer and casino project (BIA, August 2003). The Jamul EIS evaluated the environmental consequences associated with placing 87± acres into federal trust for the Tribal Government and approving the Tribal Government's Development and Management Contract. The Jamul EIS was completed in accordance with the requirements set for in NEPA (42 U.S.C. 4321 *et seq.*); the Council on Environmental Quality Regulations for Implementing NEPA (40 C.F.R. Parts 1500-

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1508); the BIA's NEPA handbook (30 BIAM Supplement 1), and the NIGC's NEPA Procedures. The Draft EIS (DEIS) was distributed to federal, tribal, state, and local agencies and other interested parties for a 45-day review and comment period. Comments received during the comment period, including those submitted or recorded at public hearings, and responses to comments were provided under separate covers, Volume II and III.

Following the determination by the Tribe that their application for placing land into trust was inexplicably stalled at the BIA, the Tribe has revised their project by proposing to place all needed uses on the existing reservation. This revised plan does not require the taking of land into trust. This Tribal EIS/R/R has been prepared, pursuant to the new tribal state compacts, and the Tribe's environmental ordinance to analyze the off-reservation environmental consequences of developing all the facilities necessary to support a gaming facility on the existing reservation.

1.4 INCORPORATION BY REFERENCE AND TIERING

When preparing environmental documents, the Tribe may employ procedures including tiering and incorporation by reference with respect to any prior environmental document prepared by the Tribe or any NEPA or CEQA document prepared by any Federal, State, or local agency or agencies, so as to reduce duplication and avoid undue delay (Tribal Ordinance, § 11(c)).

Given the extensive and public Federal and State environmental reviews, this Tribal EIS/R does tier from, and incorporates by reference information from the recently completed NEPA documents described below. In addition, the various decisions that have been secured from various regional, state and federal agencies are also incorporated by reference into this Tribal EIS/R.

This tiering and incorporation by reference reduces duplication and avoids delay in considering the Proposed Project. The Tribal EIS/R also incorporates much of the mitigation measures recommended or required in the NEPA documents to reduce or avoid potential environmental impacts. Lastly, the Tribal EIS/R includes all additional information the Tribe deemed necessary to address issues raised on the prior environmental review documents.

The prior environmental review documents tiered from and incorporated by reference include the following:

- Final Environmental Impact Statement: Jamul Indian Village; San Diego County, California (August, 2003).
- Appendices, Volume I and Volume II: Jamul Indian Village Final EIS; San Diego County, California (August, 2003).

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- The Bureau of Indian Affairs (BIA) acted in the capacity of federal lead agency and prepared the above referenced EIS that addressed the environmental effects of the proposed hotel and casino project.

The following documents are available for viewing at the Tribal Offices at the Jamul Indian Village 14191 Highway 94, Jamul, CA, 91935 weekdays between 9:00 am and 5:00 pm (phone number: (619) 669-4785):

- Final Environmental Impact Statement;
- Appendices, Volume I and Volume II Final EIS;

1.5 PUBLIC CONSULTATION

The Tribe's Off-Reservation Environmental Ordinance requires the Tribe to inform the public prior to commencement of any action that may significantly affect the off-reservation human environment. Such notifications are specifically required by the ordinance to include:

- San Diego County Board of Supervisors to address mitigation of significant off-reservation environmental impacts;
- Meeting with "those members of the public residing off-reservation within the vicinity of the Gaming Facility, such as might be adversely affected by the proposed action;"
- Providing notice to the State Clearinghouse in the Office of Planning and Research and receiving and responding to comments in the environmental documents from the public and affected agencies of government.

Over the course of the past few years, numerous opportunities for public participation have been presented by the Tribe, and the BIA. The Tribe has undertaken considerable efforts to educate the community about the proposed project, as well as listen to issues raised by the community. The public outreach effort has included public meetings, media advertisements/publicity, and mail and phone communications. These communications have occurred with various individuals, groups and organizations including the Jamul/Dulzura communities, the local, state and federal political establishments, and the greater San Diego business and civic establishments. The Tribe has held numerous meetings with members of the San Diego County Board of Supervisors regarding the proposed hotel and casino action.

The Tribe has sent correspondence to and held numerous meetings with members of the San Diego County Board of Supervisors, and various agencies including the Planning Department, the Fire Department, the Sheriff's Department, the Transportation Department and the Otay Water District. Tribe representatives have also consulted with officials from state and federal agencies including Caltrans, State Historical Preservation Office, Department of Forestry and Fire Protection, U.S. Army Corp of Engineers, U.S. Fish and Wildlife Service, and the Environmental

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Protection Agency. At each of these meetings, the Tribe's representative provided information to these organizations and their representatives and answered questions about the project.

The Jamul Indian Village 101-Acre Fee to-Trust Transfer Project and Casino Project Final EIS (BIA, 2000 – SCH # 2001024001) was submitted to the State Clearinghouse in the Office of Planning and Research and the County Board of Supervisors to distribute to the public for comment. Following the release of the Final EIS, the BIA held a public meeting where well over 300 people attended and provided input regarding the EIS analysis of a hotel and casino on tribal land. All of these comments were responded to in the Final EIS, which is incorporated by reference into this Tribal EIS/R.

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SECTION 2.0

ALTERNATIVES

SECTION 2.0
ALTERNATIVES

2.1 INTRODUCTION

The purpose of this section is to provide a description of the project alternatives analyzed within this Tribal EIS/R. A complete description of the Preferred On-Reservation Casino and Hotel Project (Preferred Project) as well as the Reduced On-Reservation Casino and Hotel Project (Reduced Intensity Alternative) is included below. In addition, this section includes a brief discussion of alternatives previously analyzed within the Jamul Indian Village Jamul Indian Village Final EIS (BIA, 2003) (EIS). These alternatives have been eliminated from detailed consideration within this document due to physical constraints on the project site limiting the feasibility of the development. A detailed description of Alternatives A through E are incorporated by reference from **Section 2.0** of the Jamul EIS. A comparison of the alternatives proposed within this Tribal EIS/R and the alternatives proposed within the previously prepared EIS is included at the end of this chapter (**Section 2.6**).

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2.2 PREFERRED ON-RESERVATION CASINO AND HOTEL COMPLEX

Pursuant to the Tribe's Environmental Ordinance, and as required by the Compact with the State of California, the Preferred On-Reservation Casino and Hotel Complex Project (Preferred Project) is analyzed within this document. The exact components of the Preferred Project were not previously addressed within the Jamul Final EIS. However, the setting discussion and existing conditions of the project site are identical to those described within the Jamul EIS. Many aspects of the project description and project impacts are also similar to those of Alternative A in the Jamul EIS. Therefore, much of the analysis regarding the environmental consequences of the Preferred Project is contained within the Jamul Indian Village 87-acre Fee-to-Trust Transfer Project and Casino Project Final EIS, and all relevant information is incorporated by reference or tiered from those documents.

The Preferred Project includes the construction of a casino and hotel complex on the existing Indian Village site shown in **Figure 1-3**. Unlike Alternatives A through E analyzed within the existing Jamul EIS, the Preferred Project for this Tribal EIS/R does not propose a fee-to-trust land

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transfer. All proposed development would occur on the existing six-acre Jamul Indian Village, with the exception of the new fire station, which is an option in each of the development alternatives. As with Alternative A described in the Jamul EIS, the proposed development would include the removal of Tribal housing and the administration building on the existing Indian Village site. The existing church and cemetery located immediately west of the trust property would be preserved and access to the church and cemetery would be maintained. Additionally, a dedicated parking area providing 10 guest parking spaces would be constructed for the church as part of the Preferred Project on the existing Indian Village site adjacent to the church.

The Preferred Project would consist of two phases. Phase A includes the construction of the following components: (1) a 205,194-square-foot gaming facility (casino), (2) structured parking, (3) human resources facility, (4) wastewater treatment plant, and various other casino supporting uses on the existing Jamul Indian Village site. Phase B would include the addition of a 270,000-square-foot, twelve-story hotel with 400 beds to the western wing on the complex. **Figure 2-1** shows the site plan for buildout of the Preferred Project at completion of Phase B. Architectural renderings of the conceptual building elevation for Phase A and B are presented in **Figure 2-2 and 2-3, respectively**. **Table 2-1** provides a breakdown of the proposed development for each phase and the corresponding square footages.

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TABLE 2-1
PROPOSED DEVELOPMENT

Proposed Development	Square Feet
Phase A	
1. Casino	205,194
2. Structured Parking and Drives	926,000
3. Human Resource Facilities	30,000
4. Waste Water Treatment Plant	8,000
5. Roadway Improvements	24,500
Subtotal	1,193,694
Phase B	
1. Hotel (400 rooms)	270,000
2. Structured Parking and Drives	95,000
3. Pool and Deck	10,000
TOTAL	**1,568,694**

SOURCE: Urban Design Group, 2002.
NOTE: All figures are approximate.

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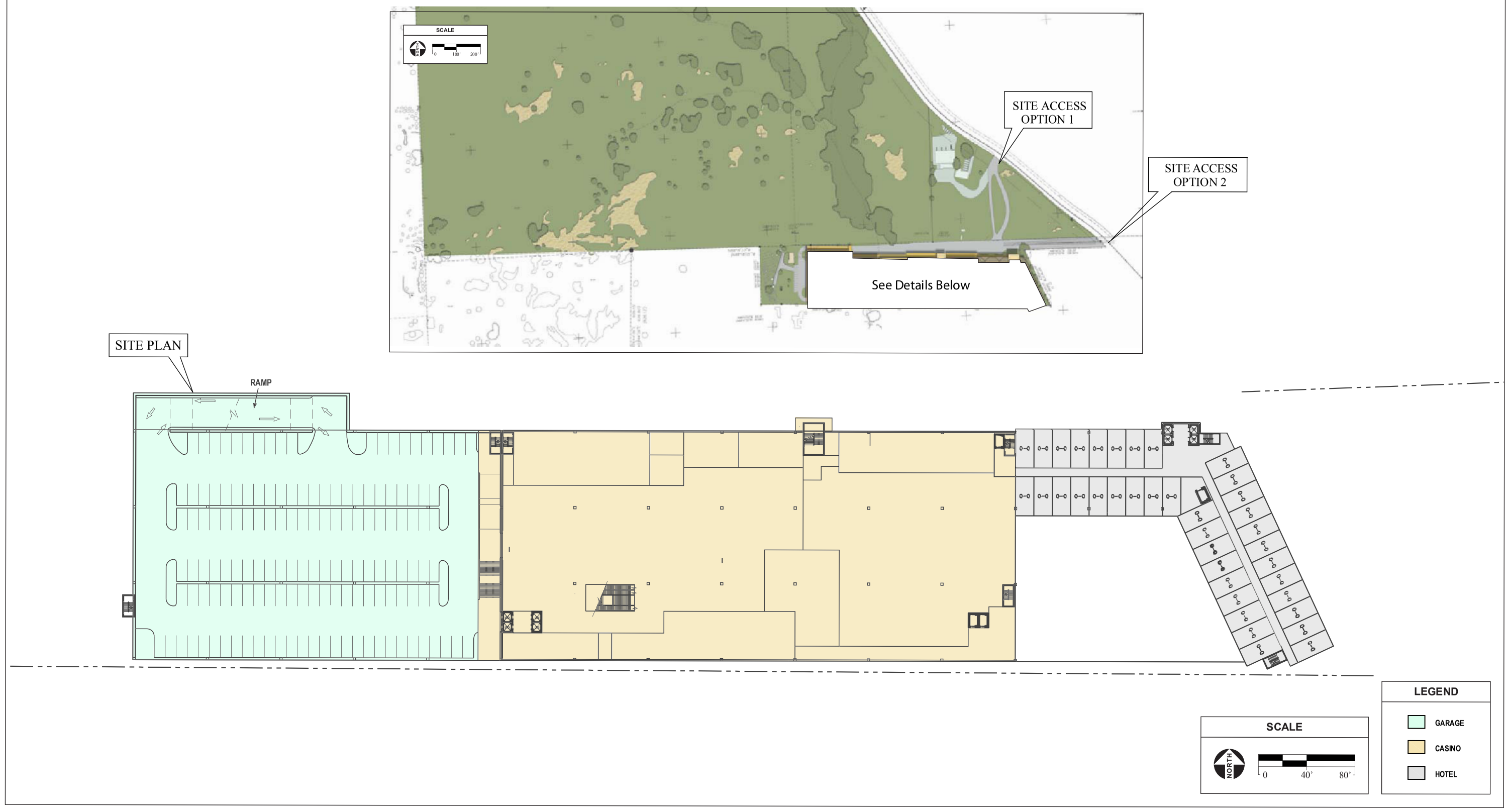
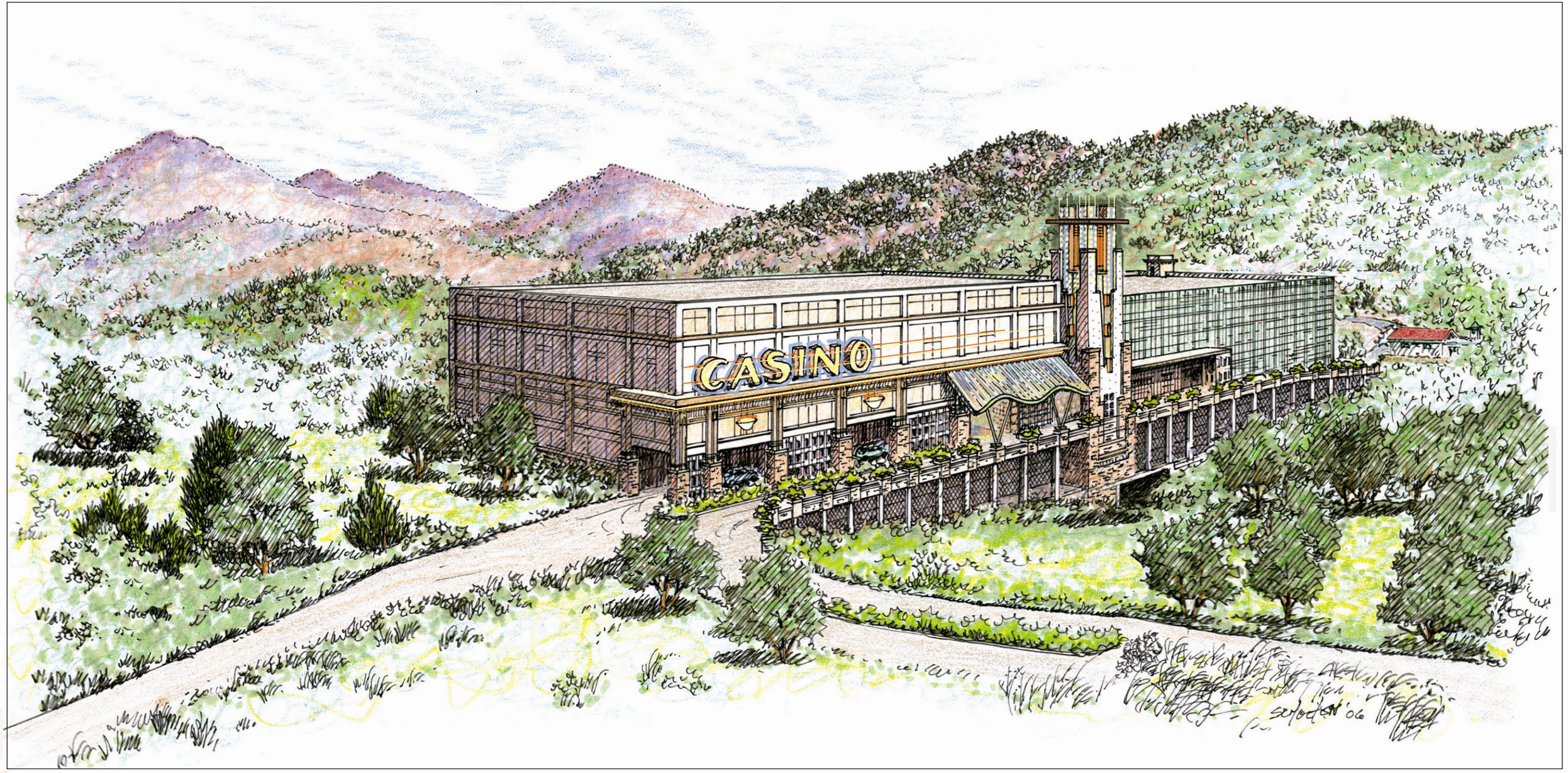


SOURCE: Urban Design Group, 2/8/2006 & 2/9/2006; AES, 2006

Figure 2-1
Proposed Project Site with Level 1 Roadways



Source: Urban Design Group, 12/2006; EDS, 2006

Figure 2-2

Architectural Rendering - Preferred Project Phase A



Source: Urban Design Group, 12/2006; EDS, 2006

Figure 2-3

Architectural Rendering - Preferred Project Phase B

2.2A PHASE A

2.2A.1 CASINO COMPLEX

The casino complex would consist of a mixture of uses located in one structure on the existing Indian Village site. Proposed uses within the structure include: food and beverage facilities, banking and administration facilities, gaming commission offices, child care/arcade, retail, main gaming halls, structured parking, human resource facilities, wastewater treatment plant, and a fire protection facility. These uses are described in more detail below.

DEVELOPMENT STANDARDS

The development standards for the Preferred Project are the same as those described in the Jamul EIS under Alternative A. Please refer to the description of the development standards under Alternative A (**Section 2.2A.3,** page of the Final EIS) for more detail.

The Tribal Government would adopt the standards of the California Building Codes 2003. Title 24, including all uniform fire, plumbing, electrical, mechanical, and related codes. These standards would be followed when constructing the proposed facilities. The construction of the facility would also comply with the provisions established in the Erosion Control Plan and Erosion Control Details, which are incorporated by reference from the Jamul EIS. They are listed in **Appendix A** of the Jamul EIS. In addition, the development would comply with the Federal Americans with Disabilities Act, P.L. 101-336, as amended, 42 U.S.C. Section 12101 *et seq.* Pursuant to the Tribal-State Compact, the proposed development would also comply with the following provisions:

- Development will be issued a certificate of occupancy by the Tribal Gaming Agency prior to occupancy;
- Tribal Government will adopt and comply with standards no less stringent than State public health standards for food and beverage handling;
- Tribal Government will adopt and comply with standards no less stringent than Federal air quality, water quality, and safe drinking water standards applicable in California;
- Tribal Government will adopt and comply with standards no less stringent than Federal workplace and occupational health and safety standards;
- Tribal Government will comply with Tribal codes and other applicable Federal law regarding public health and safety; and,

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- Tribal Government will make reasonable provisions for adequate emergency, fire, medical, and related relief and disaster services for patrons and employees of the gaming facility.

The Tribal Government would also meet standards identical to those established by the following State and County Codes/Ordinances when constructing and operating the proposed facility:

- Sections 67.801 through 67.811 of San Diego County Code of Regulatory Ordinances (Stormwater Ordinance);
- Sections 87.101 through 87.717 of San Diego County Code of Regulatory Ordinances (Grading Ordinance);
- Caltrans Storm Water Quality Handbook dated April 1997; and,
- California Storm Water BMP Handbook of Construction dated March 1993.

PROPOSED USES

The proposed multi-level casino complex consists of an entry, gaming floor, food and beverage areas, human resources facility, bus terminal and parking, sub-grade parking garage, wastewater treatment plant, and fire protection facilities. The structure is designed to span the natural drainage currently transecting the project site, but remain outside of the mean high water mark of the drainage. The total height of the development would be approximately 101 feet measured from the main driveway level to the roofline. A description of the proposed uses and their location within the structure is provided below.

Casino

The casino portion of the complex would be located on levels 1 through 6. The proposed development is expected to employ approximately 1,800 employees. **Table 2-2** shows the breakdown of proposed uses with associated square footages for the proposed casino.

Entry

The entry to the casino would be located on ground levels 1 and 2 of the complex and would include a main lobby, bus lobby, an 12,000-square-foot Kids Quest childcare facility/arcade and storage areas. The entry would be situated between the bus parking area and port cochere. This would allow for safe and efficient passenger loading and drop-off. Loading docks for truck delivery would be located adjacent to storage areas in the western portion of the entry level. A divider would separate the loading dock area from the casino lobby and parking area.

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TABLE 2-2
PREFERRED ON-RESERVATION CASINO USES

Proposed Use	Square Feet
Casino	
1. Gaming Floor Area	73,469
2. Banking	5,017
3. Gaming Support	2,600
4. Public Spaces	12,453
5. Administration	28,317
6. Food and Beverage	25,956
7. Employee Area	33,986
8. Toilets	7,691
9. Systems	7,490
10. Misc. and Circulation	8,215
Total	**205,194**

SOURCE: Urban Design Group, 2006.
NOTE: All figures are approximate.

Casino Gaming Floors

The gaming area of the casino would be distributed between two floors and would be located on levels 3 and 5 of the facility. The overall gaming floor would include 2,000 electronic gaming devices, 60 tables, and 20 poker tables. Food and beverage areas would be dispersed throughout the gaming floors, along with retail, back of house and banking areas. Alcohol would be served throughout the casino, including the gaming floor. Accordingly, patrons would be required to be 21 years old or over. The Tribe would adopt a "Responsible Alcoholic Beverage Policy" which would include but not be limited to carding patrons and refusing service to those who have had enough to drink. Smoking would be permitted within the casino within designated sections.

Human Resource Facilities

The human resources facility would be located directly above the casino floors on level 6 of the development. The approximately 30,000 square foot area will provide space for offices and meeting rooms to support casino operations and essential tribal programs and functions.

Parking Garage

The eleven level parking garage would consist of 848,000 square feet and would provide a total of 2,550 parking spaces. The lower four levels of the garage would be located in the basement of the proposed structure while the upper seven levels would be constructed in the west wing of the complex adjacent to the casino. The lowest level of the parking garage would span the natural drainage that transects the project site, but would be constructed outside of the jurisdictional

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water mark of the drainage. Vehicular access between the multiple parking levels would be provided by a ramp while stairs and elevators would provide pedestrian access.

Wastewater Treatment Plant

The proposed wastewater treatment facility would be under the elevated entrance drive. A recycled water storage tank with a capacity of approximately 1,000,000 gallons would be located adjacent to the facility. A detailed description wastewater treatment and disposal is included below in **Section 2.2A.5**.

2.2A.2 SITE DRAINAGE

Runoff from the project site will be conveyed by an internal drain system to an outflow control facility. The drainage plan includes the use of several features designed to filter the surface runoff prior to release into the natural drainage channels on site. Runoff from the project site will be directed through inlets from buildings or curb inlets on roadways into storm drain pipes. Prior to release into the open channels, runoff will pass through a sediment/grease trap ("Stormceptor") that will filter approximately 80 percent of the total suspended solids such as trash and soil sedimentation, oil, grease and other potential materials that could degrade surface water quality. An illustration of a Stormceptor is incorporated by reference from **Figure 2-4**, page 2-9 in the Jamul EIS.

A detention facility of 220,000 gallons will be provided on-site to reduce increased peak flows that would result from developing the site. This basin will assure that post development runoff peaks from the project site will be equal to the existing conditions. The detention of water on site would reduce potential downstream erosion and water quality effects. The detention facility would be constructed as part of the parking garage, and would capture stormwater flows from the casino, hotel and parking garage facilities. All of the proposed facilities would be constructed outside of the 100-year floodplain of the creek passing under the facility.

2.2A.3 WASTEWATER TREATMENT AND DISPOSAL

The wastewater treatment facility planned for the proposed development will be designed to satisfy several criteria that would comply with standards established by EPA. These criteria include:

1. The technology must be one that is proven and has been accepted by the EPA, permitted by the RWQCB, and certified by the National Sanitation Foundation;
2. The treatment process will be a "Tertiary Treatment Process" that has the capability of treating wastewater to a quality level that is acceptable by California Title 22 for Unrestricted Irrigation Water Reclamation;

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3. The process will have the capability of nitrifying and de-nitrifying converted nitrogen compounds;
4. The combined treatment system will have the capability of accommodating waste strength loads and hydraulic peaking factors that exceed normal domestic wastewater treatment systems; and,
5. The operation will be "odor free."

To meet the above criteria, the Tribal Government will use an immersed membrane bioreactor (MBR) system as the wastewater treatment process to provide the highest quality of water for reuse or subsurface disposal. The MBR is a state-of-the-art system that operates as an activated sludge process run at a high suspended solids concentration. Running at a high suspended solids concentration gives the system the ability to react to wide variations in flows as would be expected at gaming facilities on the weekend or holidays.

The proposed treatment and disposal facility provides for the use of reclaimed water within the facility toilets. All water used for reclamation will comply with State regulations governing the use of recycled water and Title 22 of the California Code of Regulations. Title 22 specifies redundancy and reliability features that must be incorporated into the reclamation plant. Under the current version of the Title 22 Water Recycling Criteria, the highest level of treatment is referred to as "Disinfected Tertiary Recycled Water." The proposed plant will produce an effluent meeting the criteria for this highest level of recycled water. Disinfected Tertiary Recycled Water can be used for irrigation of parks, playgrounds, schoolyards, residential landscaping, golf courses, and food crops. Additional permitted uses include non-restricted recreational impoundments, cooling towers, firefighting, toilet flushing and decorative fountains. The water produced by this treatment system is highly treated and poses no health risks for the intended uses.

The proposed reclaimed water system would include a recycled water storage tank that would be located under the structure. This tank would not be used for the storage of untreated or raw wastewater. Overall water storage capacity would be approximately 1.1 million gallons. Recycled water would be produced by the wastewater treatment plant at the rate that wastewater is received at the plant. The primary transmission line from the recycled water storage tank would supply the gaming facility with water for toilet flushing. In order to use recycled water for these "in-building" purposes, the plumbing system within the building would have recycled water lines plumbed separately from the building's potable water system with no cross connections. The dual plumbing systems would be distinctly marked and color-coded. Reclaimed water would also be used for the cooling towers and for emergency firefighting.

Water that is not used for reclamation purposes will be hauled off the project site for disposal. It is anticipated that the average amount of wastewater generated by the Preferred Project after

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reclamation use would be 73,423 gallons per day. Average day disposal requirements would require 11 trucks per day with a carrying capacity of 6,700 gallons to transport the treated wastewater off the project site. The Tribe has several options for the disposal of their treated wastewater including delivering the treated water to the Mesa Grande Tribe and Manzanita Band of Kumeyaay Nation where it would be used for irrigation purposes (**Appendix A**).

2.2A.4 WATER DELIVERY

Potable water and water used for fire flow service will be supplied by the Otay Water District. The Otay Water District, in accordance with the local fire codes, will provide emergency fire flow, pressure and storage. Detail regarding the existing water service and nearby water mains to the Jamul Indian Village site are incorporated by reference from **Section 2.2A.7,** page 2-13 and **Appendix B** of the Jamul EIS.

2.2A.5 FIRE PROTECTION

There are two issues associated with fire protection, the first is timing of development of the casino project in relation to the relocation of the existing fire station operation by the Rural Fire Protection District, and the second addresses fire protection measures for the proposed casino. Regarding the first, the project will be opened following the expiration of the lease for the existing Rural Fire Protection District fire station on Tribal property. The Rural Fire Protection District will cease operations before the casino project opens. Therefore, the operation of the casino project will not have an impact on the existing operation of the existing Rural Fire Protection District's station.

With regards to the second issue, the tribe will provide fire protection for the proposed development through the creation of a Tribal Fire Department and the construction of fire protection facilities either on or off the Indian Village site. Option 1 would result in the location of the facility on the existing reservation near the casino facility as shown in Figure 2-1. This option is described in detail under Option 1 below. As described under Alternative A in the Jamul EIS, Option 2 would locate the new fire station on a parcel of privately owned land north of the Jamul Indian Village site, just south of Melody Road. The Tribe would enter into an agreement with the current owner of the fee-parcel to purchase the property and develop the new fire station. The fire station under Option 1 or 2 would be available for mutual aid to other districts.

OPTION 1

Fire protection under Option 1 would include the placement of the initial facilities on the vacant land located east of the casino under Phase A, and the final fire station within the ground-floor of the hotel when Phase B is built-out. Equipment to be used will include an Advanced Life Support (ALS) ambulance, fire apparatus and associated

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equipment (fire engine and response equipment from radios, hose, rescue, and other associated emergency response equipment). One of the apparatus used will be a "Squirt", which is an engine company with a built in 50-foot aerial ladder device with all equipment items. Reserve apparatus would also be used, including a fire engine available to the Tribal Fire Department for periods of down or out of service time due to maintenance or repairs. The use, and staffing, of this equipment is described in detail below.

The Tribe has entered into a Fire Service Consulting Agreement with the San Miguel Fire District (SM District), which would result in on-going consulting services from the SM District to the Jamul Tribe. Please see Appendix B for the adopted Jamul Fire Department Development Plan. The SM District would not provide fire protection services to the Tribe, rather, they would consult with the Tribe during the construction of the fire station, hiring of qualified personnel, and operation of the facility. The Jamul Indian Village Fire Station will be of sufficient size to house the necessary personnel and equipment specified below:

- Advanced Life Support:

  The Advanced Life Support (ALS) ambulance is proposed to be stationed at the Indian Village site and staffed with one Paramedic and one Emergency Medical Technician. Fire Engine and Truck staffing is proposed to include four person constant staffing with one Firefighter/Paramedic at all times. The minimum medical training level of all emergency personnel is proposed to be Emergency Medical Technician with Defibrillator and Combi-Tube Certifications (EMT-D/C).

  The normal response time for the ambulance is expected to be the same as the current response time for the Rural Fire Protection District ambulance since it would be stationed at the nearly the same location. It is proposed that the Tribe would enter into a Mutual Aid Agreement with the Grossmont Rural ALS Program. This Mutual Aid agreement would provide the Indian Village with redundant ALS ambulance response from the Jamul area and double the ALS unit hours available in that area.

  The Tribe will enter into a contractual agreement with the SM District for medical direction, EMT/Paramedic continuing education, and program quality assurance and improvement programs.

- Emergency calls for service, dispatching personnel and equipment and managing response data (911/dispatch/information management and reporting):

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The Tribe would establish a contract with the Heartland Communication Facility Authority (HCFA). The Authority provides comprehensive dispatching services with state-of-the-art equipment and employs a Records Management System.

The capability exists to separately track incidents evolving from the Indian Village. This capability would serve to maintain the identity and autonomy of the Indian Village fire operations. There are two ways that participation by the Indian Village in the communications system could be accomplished: 1) the Indian Village could contract separately with HCFA; or 2) the Indian Village could apply for membership as a JPA member of HCFA.

- Vehicle and equipment maintenance program:

The vehicle and equipment maintenance program would include replacement or reserve vehicles provided when the Indian Village equipment is out of service, how emergency and routine maintenance will be performed, and related matters.

The Village proposes to contract with the SM District for fire apparatus and associated equipment, reserve apparatus, and apparatus repair and maintenance programs. The SM District will implement the same maintenance program for the Indian Village apparatus that the SM District uses for its own apparatus. The goal of the Fleet Maintenance Facility is to assure the dependability of the Indian Village's vehicle fleet. This is accomplished through continuing education of mechanics on staff, as well as performing diagnosis, maintenance, and repairs. Repairs and related documentation of vehicle repairs are recorded accurately and in a timely manner. Vehicle accident/body or frame damage would be reimbursed directly to the agency performing those repairs by the Indian Village.

The SM District's state-of-the-art maintenance facility allows its fleet maintenance personnel to inspect, diagnose, maintain and repair gasoline and diesel engines, air and hydraulic brake systems, steering, suspension, drive train, electrical systems, fire pumps, and accessories. All power systems listed can be serviced on any vehicle. The maintenance program for fire apparatus consists of daily, weekly, semi-annual, and annual services. The Indian Village will consider contracting for Fire Apparatus

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from the Districts' excellent Reserve Fleet. These apparatus are fully equipped with State of the Art equipment to the same standard as all SM District first line apparatus.

A contract between the Indian Village and the SM District will provide reserve apparatus during scheduled maintenance and emergency out-of-service periods.

- Service Delivery Plan:

The Indian Village would submit for participation in the Heartland Zone and the Rural Fire Protection District Automatic Aid Agreement's. The Jamul Indian Village Fire Station and response resources would become another asset available to the Rural Fire Protection District and the Heartland Zone. This would provide for an adequate first response to all Indian Village alarms with a system of redundancy for augmentation of initial responses when necessary.

The staffing standards of apparatus vary with each participating agency. The minimum required staffing for an engine or a truck participating in the Heartland Automatic Aid Agreement is three personnel: a Captain, an Engineer (or operator), and a Firefighter. The Indian Village will adopt four-person staffing of their engine and truck apparatus and three-person staffing of Rescue 23 in the SM District to improve mutual and automatic aid support to the Indian Village and associated roadways. The apparatus and personnel response numbers listed in the scenarios below assume the availability of the Indian Village apparatus augmented by other Rural and Heartland resources at the three-person staffing level.

The remote location and extended response time of back up units justifies the recommended staffing level of Indian Village resources.

The estimated response levels to various Indian Village incidents is included in Appendix B.

The contract will include staffing with a Captain, Engineer, and Firefighter. This would ensure a rapid mutual aid rescue response to traffic accidents associated with existing local traffic as well as increased Indian Village casino traffic and provide essential support to high-rise and other structure related incidents via Automatic and Mutual Aid. Additionally, the Jamul Indian Village Fire Department would design and

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purchase a Mini-Pumper for response to vehicle fires within the parking structure. This vehicle would be maintained under the previously described maintenance contract.

- Mutual Aid Program:

  Participation in any mutual or automatic aid agreements is subject to negotiation between the Indian Village and those agencies. This would provide for an adequate first response to all Indian Village alarms with a system of redundancy for augmentation of initial responses when necessary.

  Under the auspices of the Heartland Agreement, the Indian Village can expect to respond to multiple engine alarms in the San Diego Rural Fire District and the Southern parts of the SM District. These agreements would also include Medical mutual aid.

  The Heartland Automatic Aid Agreement includes provisions to maintain coverage through systematic move-up of engines to vacated areas Move-up would normally be indicated whenever the Village engine would be committed for more than one hour.

- Fire Protection Programs:

  The Indian Village would contract with the SM District for Fire Prevention Services including the training of the engine company personnel to provide basic inspection services. This training would be contracted via the SM District. The Indian Village response personnel would have access to the Fire Marshal and the Fire Inspectors whenever a situation arises beyond their scope of expertise. The SM District is able to provide Plan Checking services according to the desires of the Village.

- Recruitment, Hiring and Training Process:

  Approximately 9 months prior to establishing a Jamul Indian Village Fire Department, recruitment would be initiated for experienced Fire Captains, Fire Engineers, and entry level Firefighter Paramedics and Firefighers. Additionally, the Tribe would recruit and hire a Part-Time Fire Chief who would assist in the recruitment and hiring process with support from the SM District via a contract for services. The SM District would work with the Jamul Indian Village Fire Chief to develop the

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recruitment materials, process, and implementation plan for review and approval of the Indian Village.

In addition to the staffing, equipment, and consulting contract with the SM District, the proposed structure would contain a number of fire protective measures that will assure compliance with fire codes and regulations, including NFPA standards. Typical features worked into the design of the building includes the following:

- Complete automatic fire sprinklers, including in the garage.

  The fire sprinkler system operates when there is heat present only, so only those sprinklers near a fire will activate. Pulling a fire alarm station will not cause sprinklers to activate in a room.

- Fire alarm system with pre-recorded voice notification

  The fire alarm system will activate on the floor of alarm, the floor above and the floor below. This activation will occur whenever there is a sprinkler activation, a smoke detector activation or a manual pull station activation. A pre-recorded message will tell occupants what is occurring and what they should do.

- Smoke Control system

  The smoke control system will activate to draw smoke from the fire floor and pressurize the adjacent 2 floors. This will limit the amount of smoke migration to other floors while improving visibility on the fire floor. This system will assist both the general public and fire fighters.

- Pressurized exit stairs

  Exit stairs will be pressurized, with a fan, to prevent smoke migration into the stair and to other floors. This protects the stairs, which are one of the most critical aspects of building safety.

- Emergency generator

  The fire pump, fire alarm system, smoke control system, star pressurization fans and at least one elevator to each floor will be provided an electric generator in the event that electricity is lost to the building.

- Fire water tank and pump

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As a secondary water supply a tank will be provided on site to store water.

- Rescue Breathing air filling stations in the building (2)

  Stored pressurized firefighting breathing air will be provided in the building with filling stations. This air reduces the manpower needed to bring spar air bottles and to the fire floor during an emergency. This reduces the work required by firefighters.

- Radio Repeater for firefighter's communication

  A radio repeater system will be provided so that firefighter's can use the portable radios that they carry on the fire trucks instead of a firefighter's telephone system (which requires them to get a handset in the fire command center and carry it in the building). This provided greater firefighter safety.

- Fire Command Center

  A Fire Command Center will be provided. The fire command center will have equipment and information that is necessary for the fire ground commander to operate a major incident in the building.

OPTION 2

Option 2 would include the development of a fire station on a parcel of land immediately south of Melody Road (**Figure 2-1**). Ingress and egress for the fire station would be provided via Melody Road. The Tribe would be required to acquire construction and encroachment permits from the County for construction of the fire station under this option. The site is zoned "Specific Plan" and a permitted use under that designation is "Fire Protection Services." Section 6905 of the County Zoning Ordinances requires that, prior to the approval of any building permit or grading plan, or the construction of any structure to be used as a fire station, a Site Plan of the proposed station must be submitted for review and evaluation by the Director of Department of Planning and Land Use ("DPLU"). The Ordinance describes the required contents of the "Site Plan" and the "Site Plan Review Criteria" to be used by the Director. Construction of the fire station would require County approvals of the grading plan and drainage plan for the construction, including a stormwater pollution prevention plan, and the issuance of a building permit.

Because the construction of the fire station would require discretionary approvals by the County, the project would be subject to the California Environmental Quality Act ("CEQA"), and the County would be the lead agency under CEQA.

Deleted: be provided primarily through the installation of internal, stationary fire fighting equipment. Redundant fire pumps would be sized to pressurize external and internal hydrants, on-site water would be increased, and portable equipment would be stored in caches around the site. The entire building would be treated as a high-rise, where exterior access and escape is considered to not be feasible. Standpipe outlets would be provided within 130 feet of any location, with 100 feet of hose at each outlet valve. The tribal fire department would be housed in the Fire Command Center located on the entry level of the complex adjacent to the loading docks. Fire department manning would consist of a full-time chief, whose day-to-day job would be either as full-time fire inspector/safety officer, or as a manager of the fire command center, and two 24-hour staff members who would monitor systems in the Fire Command Center. The remaining fire service personnel would be trained fire brigade, who have full-time jobs in other departments of the property. Minimum staffing would be on site at all times, with other staff on call. Fire flows would be provided by water delivery from the Otay Water District and the use of recycled water. ¶

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Equipment, operations, training, and administration of the tribal fire department would be conducted within the proposed development. The operation of the fire station and use of related equipment would be as described above for Option 1. Water delivery to the fire station would be provided from the Otay Water District, while sewage would be treated using percolation through on-site leach fields. External lighting of the facility would consist of typical downcast lighting.

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2.2A.6 CIRCULATION

Regional and local access to the project site would be provided via one of two options from SR 94. Option 1 would include use of the existing paved access that extends from SR 94 in a southwesterly direction to the Indian Village. Option 2 would include the use of an existing paved access that extends in a westerly direction from SR 94 to the Indian Village site. **Figure 2-4** shows the location of both access options. Improvements to SR94/Project Driveway are proposed for the both access options. These proposed improvements include the installation of a stop sign controlled intersection at the driveway access point and the addition of right and left hand turn lanes.

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Fire protection under Option 3 would be provided through a contractual agreement with the California Department of Forestry (CDF). The nearest CDF fire station facility is located approximately 6.7 miles from the Jamul Indian Village at 2249 Jamacha Road. The fire station is equipped to handle structural fires. The tribe would pay for the additional staff and equipment necessary to provide fire protection to high-rise facilities. In the case of an emergency, the CDF fire station response time would be 10 minutes or less (Cedano, 2006). ¶
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The circulation plan for the entrance level of the project site is shown in **Figure 2-5.** Traffic would be directed west towards the parking garage. Several turnoffs before the parking garage would provide access to the porte cochere, truck dock, and the bus parking area. Truck deliveries and pickup would occur towards the rear of the facility where a separate driveway would connect to the loading docks.

A third access option was considered but was eliminated from detailed study – access from Melody Road.

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The assumption was that the access road would begin at Melody west of SR 94 and then continue down to the existing Indian Village site. It should be noted that, while analyzed within the existing Jamul EIS as an access option, the Tribe does not own 87-acre fee-parcel, however since its development consultant and financial partner own the property such a purchase could be arranged. The access points described under Option 1 is owned and controlled by the Tribe as an existing driveway to the Reservation and Option 2 is land in trust making land use ownership and control a non-issue.

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The roadway, if constructed from Melody to the Indian Village, would begin approximately 600-feet west of the SR94/Melody Road intersection. The alignment would take it through the County's Multiple Species Conservation Plan (MSCP) proposed preserve lands within the County's MSCP Subarea Plan. Land within the Subarea Plan is planned as either preserved, limited development, or developable. This designation is reflected in the County's Otay Ranch Specific Plan and its General Plan. The County has stated in their

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comments to the 2003 Final EIS (which included development of these lands) that any variation in the MSCP might result in a negative impact on the regional preserve system. The following list includes the issues that would be addressed for this access, as well as by the Lead Agency that would be responsible for overseeing necessary approvals prior to construction:

1. The project would require an amendment to the County's Otay Ranch Specific Plan (San Diego County as Lead Agency);

2. The modifications to Melody Road would require approvals from San Diego County's Public Works Department (San Diego County as Lead Agency);

3. The construction of the driveway to Melody would require an Encroachment Permit from the County's Public Works Department (San Diego County as Lead Agency);

4. The project would require an amendment to the County's General Plan (San Diego County as Lead Agency);

5. The project would require a formation of the proposed MSCP preserve boundaries (San Diego County as Lead Agency). This boundary adjustment would require extensive dedication of the remainder of the property for open space uses;

6. The MSCP reformation requires the concurrence of the U.S. Fish and Wildlife Service;

7. The MSCP reformation requires the concurrence of the Department of Fish and Game, which would require additional CEQA review;

8. The roadway construction would require permitting from the U.S. Army Corps of Engineers (Section 404 Permit) given the drainage crossings that would be required;

9. The roadway construction would require a Streambed Alteration Permit from the California Department of Fish and Game (and the CEQA review that comes from this process);

10. A California Regional Water Quality Control Board 401 Water Quality Certification would also be required for the water crossings to occur;

11. Building permit from San Diego County for the construction of the driveway; and

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12. Potential Federal agency NEPA obligations.

Habitats affected would include Grazed Coastal Sage Scrub, Mule-fat Scrub and Coast Live Oak Riparian Woodland habitats. In addition to affecting the MSCP and its habitats, the roadway would be located on open hilly land that would require extensive contouring and drainage improvements. Additional disturbance of the bare soils on this land would occur given the length and width of the access road, as well as the two required drainage crossings. All of these environmental impacts would be in addition to those currently expected under the proposed project. Therefore, it was concluded that the Melody Road access option to the Indian Village site would result in greater environmental impacts (biological, grading and drainage) than either Option 1 or 2, which would make it less desirable.

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There are also substantial financial issues to be considered when reviewing this access option. The Tribe would be required to purchase the entire parcel leading up to Melody Road. The roadway would be significantly longer, include two bridge structures, and require substantial grading and site preparation plus the actual cost of the improvements. As a result, the cost of the access roadway would be excessively prohibitive. Adding to the cost would be the required dedication of substantial portions of the land to mitigate the MSCP impacts, as well as the extensive regulatory permitting processes listed below:

Deleted: current owner of the 87 acre parcel is not willing to sell a right-of-way through the property to construct the road due to the parcel fragments that would remain. Therefore, the only consideration acceptable would be for the sale of the

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- County General Plan/Specific Plan Amendments;
- County Encroachment Permit;
- MSCP Reconfiguration;
- County and State CEQA Process;
- Section 404 Permitting Process;
- Section 401 Water Quality Certification;
- Streambed Alteration Permit, and
- Potential Federal agency NEPA obligations.

The approval of the Melody Road access option could not occur without first undergoing several years of additional CEQA and NEPA review overseen and implemented by various outside agencies. Prior to beginning those processes, the Tribe would need to negotiate the purchase of the property from its current owner and design a revised MSCP for the project site addressing the roadway design.. In all, the Tribe would need to complete an additional multi-year design and environmental process beyond the 6+ years that they have been undergoing environmental review. This additional time would be without the assurance that

Deleted: construction costs associated with grading and bridges from Melody to the to the Indian Village site.¶
It is uncertain that

Deleted: be successful in constructing the roadway even if an agreement was reached with the land owner

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the Lead Agencies would approve their discretionary permit requests. Therefore, this access option is dismissed from further consideration given the time and financial costs associated with processing the various permit requests through the Lead Agencies, together with the additional environmental impacts that would result (when compared to Option 1 or 2).

2.2B PHASE B

Development of Phase B is estimated to take place in 2009 and would include the construction of a hotel and ancillary uses. The existing components of Phase A will remain unchanged.

2.2B.1 HOTEL

The 12-story hotel will consist of 270,000 square feet and will provide 400 rooms. The hotel would be located on the eastern portion of the Jamul Indian Village site that is nearest to SR-94. The first floor of the hotel would be located one level above ground level and would include the hotel lobby. The guest rooms will be located on floors 3 through 12. The hotel will also include meeting rooms, a fitness room, and a pool and spa area that will consist of a 1,500-square-foot pool and hot tub, 8,500-square-foot pool deck. Structured parking would be located in the lower floors of the facility and would provide 250 spaces. The hotel structure would be 206 feet high from the lowest first floor to the hotel parapet[1]. The height of the hotel from the lowest floor to the top of the hotel tower would be approximately 249 feet high. **Table 2-3** provides a breakdown of the proposed uses within the hotel.

Potable water and wastewater services will be provided to this facility as described in Phase A of the Preferred Project. The wastewater treatment plant described above in **Section 2.2A.5** will provide wastewater services for the hotel.

TABLE 2-3
PREFERRED ON-RESERVATION HOTEL USES

Hotel Proposed Use	Square Feet
1. First Floor / Lobby	13,850
2. Guest Rooms (floors 2-8)	190,000
3. Administration	3,600
4. Guest Tower Support	56,700
5. Pool and Spa	10,250
6. Structured Parking	87,500
TOTAL	**361,900**

SOURCE: Urban Design Group, 2006.
NOTE: All figures are approximate.

[1] / low wall along the edge of the top of the building.

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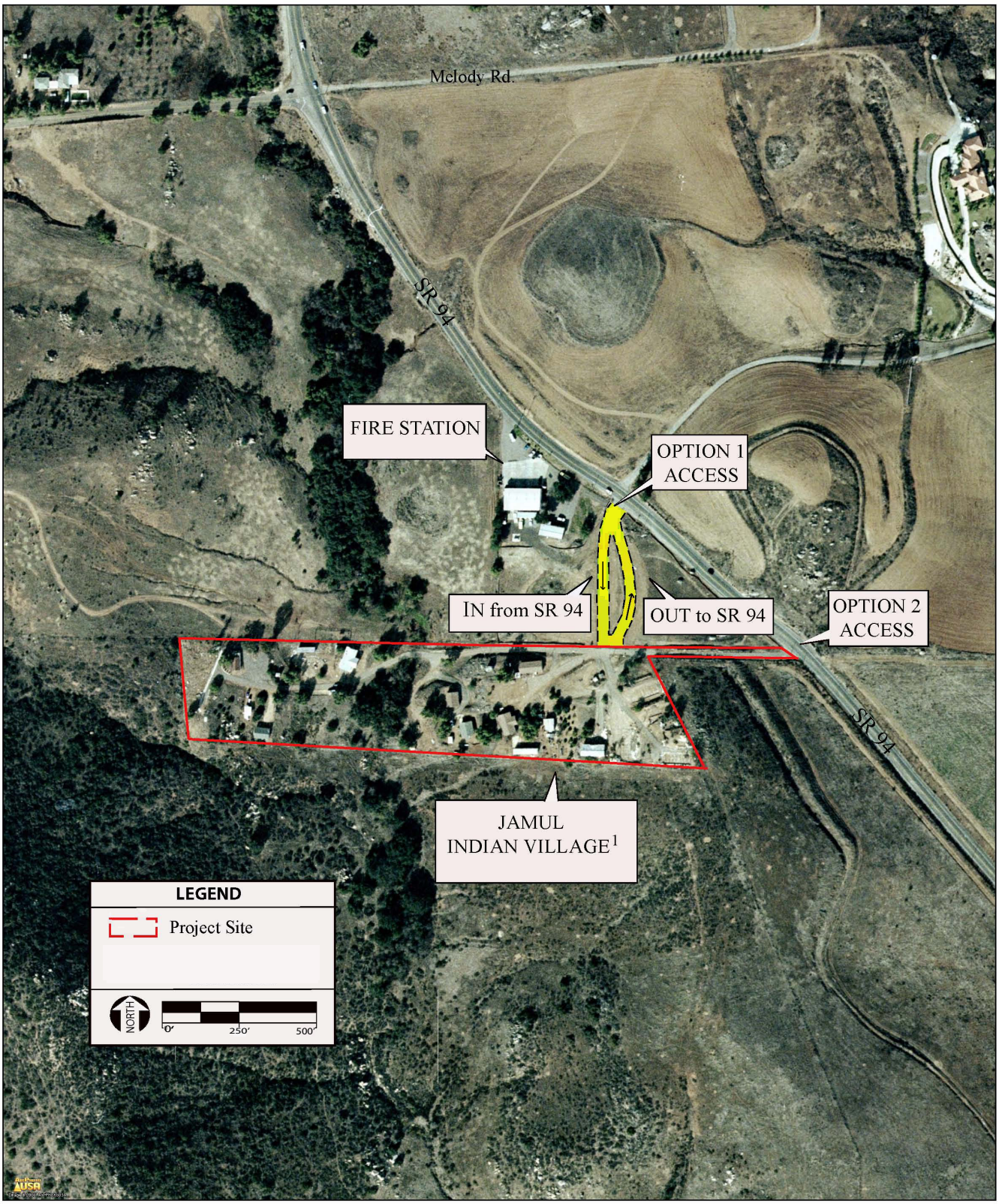
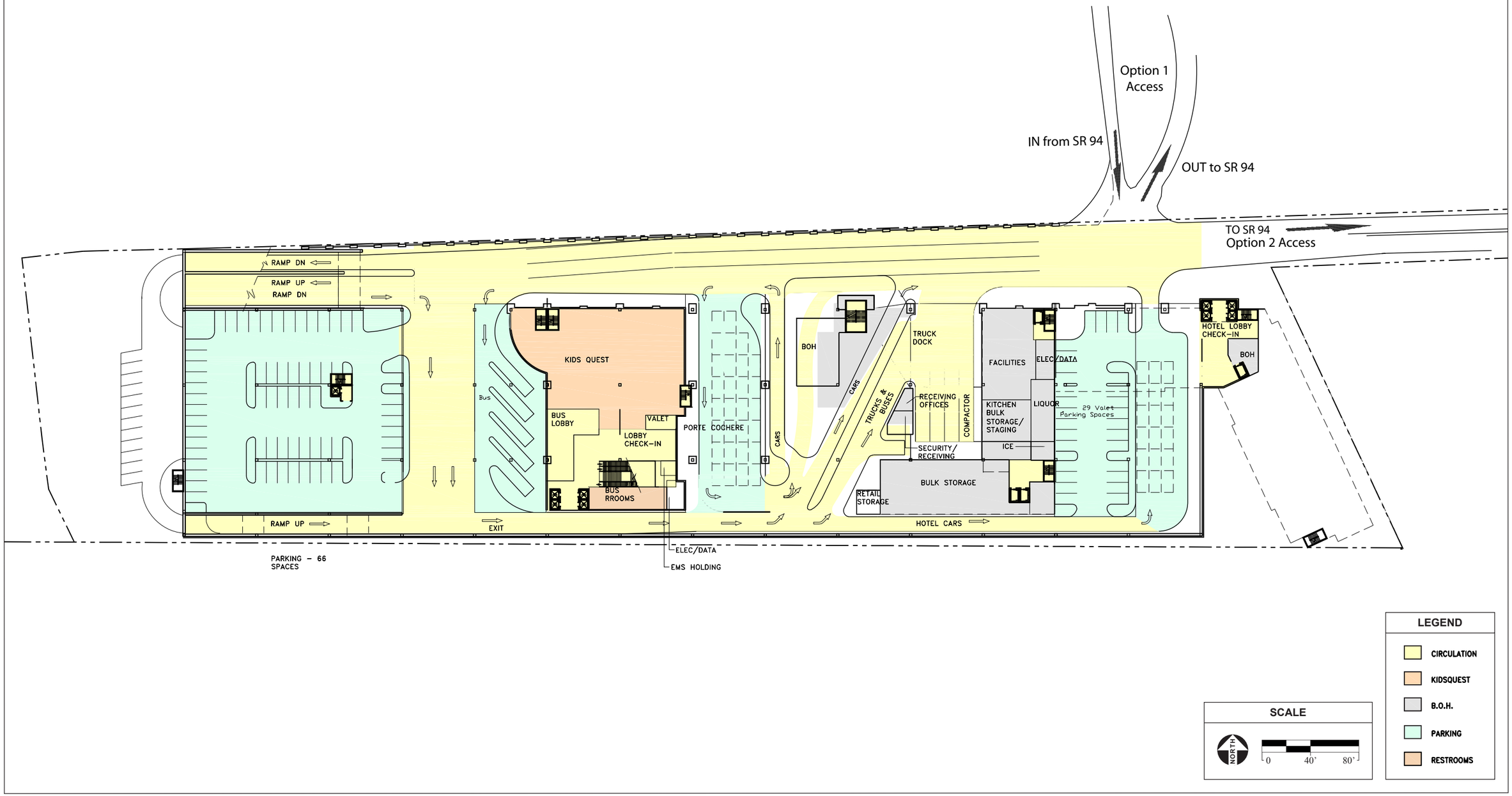


SOURCE: AirPhoto USA Aerial Photograph, 2/1/2005; AES, 2005

[1] Since February 2005, when the aerial was flown, residences on the Indian Village Site have been removed by the tribe

Figure 2-4
Project Site Access Options



SOURCE: Urban Design Group, 2/8/2006; AES, 2006

Figure 2-5
Entrance Level Circulation

2.3 REDUCED INTENSITY ON-RESERVATION CASINO AND HOTEL COMPLEX

The Reduced Intensity On-Reservation Casino and Hotel Complex (Reduced Intensity Alternative) consists of most of the same components as the Preferred Project, but on a reduced scale. As with the Preferred Project, the proposed development would entail the removal of tribal housing and the administration building on the existing Indian Village site. The existing church and cemetery located immediately west of the trust property would not be affected by the proposed development. Access to the church and cemetery would be maintained. A dedicated parking area would be constructed for the church on the existing Indian Village site adjacent to the church.

The Reduced Intensity Alternative would also have two phases. Phase A includes the construction of the following components: (1) smaller casino on the existing Jamul Indian Village site; (2) structured parking, (3) human resources facility, (4) wastewater treatment plant, and various other casino supporting uses on the existing Jamul Indian Village site. Phase B would include the addition of a smaller hotel on the western portion of the existing Indian Village site. The components of Phase A and B are discussed in detail below.

2.3A PHASE A

2.3A.1 CASINO

The casino would consist of the same mixture of uses as described under the Preferred Project; however, the size of the casino would be reduced to provide only 1,000 electronic gaming devises, food and beverage facilities, banking and administration facilities, gaming commission offices, child care/family fun room, retail, main gaming halls, structured parking, human resources facility, wastewater treatment plant, and a fire protection facility.

DEVELOPMENT STANDARDS

The development standards for this alternative are identical to those described under the Preferred Project. Please refer to the description of the development standards under the Preferred Project **(Section 2.2A.3,** pages 2-3 though 2-4 of this document) for more detail.

PROPOSED USES

The casino facility would be housed in a two-level facility over which would be disbursed the casino, banking facilities, restaurants, retail area, poker room, service entrance, and administrative operations. The second level would include a mezzanine over the back of house areas for administrative operations. The total height of the building would be approximately 52

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feet measured from the main driveway level to the roofline of the second level. As with the Preferred Project, alcohol would be served under a "Responsible Alcoholic Beverage Policy", and smoking will be permitted within the casino along with no-smoking sections.

The proposed casino development is expected to employ approximately 700 employees. **Table 2-4** shows the breakdown of proposed uses with associated square footages for the proposed casino complex.

2.3A.2 PARKING GARAGE

A 4-level parking garage will provide a total of 1,600± parking spaces. A driveway from State Route 94 located northeast from the project site will provide the sole means of access to the parking garage and casino.

TABLE 2-4
REDUCED ALTERNATIVE CASINO USES AND SIZE

Proposed Use	Square Feet
1. Gaming Floor Area	55,500
2. Banking	4,000
3. Gaming Support	7,100
4. Public Spaces/Restrooms	7,000
5. Administration	12,500
6. Food and Beverage/Retail	30,000
7. Employee Area	5,500
8. Systems	10,000
9. Misc. and Circulation	7,500
10. Human Resources	25,000
TOTAL	**164,100**

SOURCE: Urban Design Group, 2006.
NOTE: All figures are approximate.

2.3A.3 SITE DRAINAGE

Runoff from the project site would be addressed in the same manner as described for the Preferred Alternative. Minor differences in the drainage plan for the Reduced Intensity Alternative would accommodate the smaller size of the casino and hotel.

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2. 3A.4 WATER AND WASTEWATER

Potable water and wastewater would be delivered, treated, and disposed in the same manner as described for the Preferred Alternative.

2. 3A.5 HUMAN RESOURCE BUILDING

As with the Preferred Project, the Reduced Intensity Alternative would include a 25,000 square foot human resources facility. This facility would include meeting rooms and administration areas for tribal functions.

2. 3A.6 FIRE PROTECTION

Fire protection for this alternative will be the same as described for the Preferred Alternatives. Please refer to the discussion of this action under the Preferred Alternative (**Section 2.2A.7**) above.

2.3B PHASE B

Phase B of the Reduced Intensity Alternative would include the construction of a hotel and ancillary uses. The existing components of Phase A would remain unchanged.

2.3B.1 HOTEL

The Tribe proposes to construct a 150-room hotel on the existing Jamul Indian Village site. The 5-story hotel building will have a total building space of approximately 80,000 square feet. Vehicle access to the hotel will be provided by the main casino and parking garage driveway. A walkway will provide pedestrian access from the casino building and parking garage. Approximately 40 people will be employed at the hotel. Potable water and wastewater services will be provided to this facility as described under the Phase A of the development. Specifically, the Otay Water District will provide potable water to the project site. The wastewater treatment plant described for the Preferred Project will provide wastewater services for the hotel.

2.4 NO-ACTION ALTERNATIVE

Under the No Action Alternative, the development described above under the project alternatives would not take place on the existing Jamul Indian Village site for the benefit of the Tribal Government. For the purposes of the environmental analysis in this Tribal EIS/R, it is assumed that the property would continue to be utilized for rural residential. All other effects of the Preferred Project and Reduced Intensity Alternative, both on- and off-site, would be avoided. Under this alternative, the Tribal Government would not attain its basic objective of economic self-sufficiency.

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2.5 ALTERNATIVES CONSIDERED WITHIN THE 2003 FINAL EIS THAT ARE ELIMINATED FROM FURTHER DETAILED CONSIDERATION

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Several alternative projects were considered and correspondingly analyzed in the Jamul EIS for off-reservation environmental impacts within the Final EIS. All of the Alternatives evaluated within the Final EIS, with the exception of the No-Action Alternative, include development on the existing Indian Village Site and three proposed fee-to-trust parcels. All four of the development alternatives evaluated within the Jamul EIS include placing three parcels totaling 101± acres into Federal Trust status and implementing a Conservation and Revegetation Program within Parcel #2. Each of these alternatives have been eliminated from detailed consideration within this document due to regulatory constraints on the project site limiting the feasibility of the development at this time. A brief description of each alternative is included below:

2.5.1 ALTERNATIVE A – PREFERRED CASINO AND HOTEL

Alternative A, the Casino and Hotel Project, includes the transfer of 101 acres of land into Federal trust and the establishment of a gaming management contract with LKAR-CA for the development, construction, and operation of a casino, hotel, and event center (the proposed casino and hotel action). A detailed description of Alternative A is incorporated by reference from **Section 2.2,** pages 2-1 through 2-19 of the Jamul EIS.

The components and scope of Alternative A would occur in two phases. Phase A includes: (1) placing 101 acres into Federal trust status; (2) approval of a Development and Management Contract; (3) development of a Class III casino with an approximate size of 205,194 square feet on the existing Jamul Indian Village Site; (4) implementation of a Conservation and Revegetation Program; and (5) development of Tribal housing, a human resources building, parking structure, and wastewater treatment plant. Phase B would add the following components: (1) development of a 222,985-square-foot hotel with 300 beds; (2) development of an event center; and (3) development of an employee parking area (BIA, 2002).

2.5.2 ALTERNATIVE A – PREFERRED ALTERNATIVE VARIANT

The Preferred Alternative Variant includes all the aspects of Alternative A, but with a reduced casino, hotel and event center. Development under this alternative would result in a 138,308 square foot casino facility that includes a 55,000 square foot gaming floor area. Food, beverage and retail would consume approximately 29,000 square feet of the overall facility. A 150-room hotel facility would also be included under this alternative and would be developed as an attached structure to the casino. A 1,675 parking space parking garage would also be included in this alternative. The gaming/hotel/parking facilities would also be constructed as one complete

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structure on the existing Indian Village site. A complete description of the various uses included in this alternative is incorporated by reference from **Section 2.2C,** pages 2-20 through 2-25 of the Jamul EIS. However, the location of the facilities will be entirely on the existing Indian Village site.

2.5.3 ALTERNATIVE B – CASINO AND RETAIL DEVELOPMENT

The Casino and Retail Development Alternative would result in the development of 218,000 square feet of retail and restaurant space. This development option would eliminate the construction of the hotel and event center and significantly reduce the overall size of the conservation area to 38.7 acres. The construction of the casino would remain the same as for the Alternative A. A complete description of this alternative is incorporated by reference from **Section 2.3,** pages 2-26 through 2-32 of the Jamul EIS.

2.5.4 ALTERNATIVE C – RETAIL DEVELOPMENT

The Retail Development Alternative includes the development of a regional retail outlet center. A total of 568,520 square feet of retail and restaurant space would occur within the project site. This alternative would not include the casino, hotel and event center and would locate the Tribal housing and community center on the existing Indian Village site. The conservation area proposed is reduced to 35 acres in size. A detailed description of this alternative is incorporated by reference from **Section 2.4,** pages 2-32 through 2-40 of the Jamul EIS.

2.5.5 ALTERNATIVE D – HOTEL/CASINO NORTH OF MELODY ROAD

This Alternative would include the development of a hotel, casino and event center complex on the parcel just north of Melody Road. The overall square footage of the complex would be similar to the development proposed by Alternative A; however, the building height would be increased to 10-stories. The Tribal housing and community center would be located on the existing Indian Village site. As with Alternative A, the proposed conservation area would consist of 58 acres. A detailed description of this alternative is incorporated by reference from **Section 2.5,** pages 2-40 through 2-50 of the Jamul EIS.

2.5.6 ALTERNATIVE E – NO-ACTION

Under the No-Action Alternative, no development would occur on the existing reservation or parcels 1, 2, and 3. This alternative would eliminate any of the environmental effects associated with the Proposed Action, including the benefits associated with the conservation area. In addition, no added economic benefit would come to the Tribe or its members. A detailed description of this alternative is incorporated by reference from **Section 2.6,** page 2-48 of the Jamul EIS.

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2.6 ALTERNATIVE COMPARISON

The project alternatives analyzed within this Tribal EIS/R are modifications of the project alternatives analyzed within the previous Jamul EIS. The previously proposed locations of project features were reconfigured within the existing reservation, as opposed to being incorporated throughout adjacent land owned by the tribe. The following section provides a comparison of the project alternatives analyzed within this Tribal EIS/R, and the project alternatives analyzed within the Jamul EIS. This comparison will provide an explanation and justification for incorporating various components of the environmental analysis documented in the Previous Jamul EIS, into the analysis of the project alternatives analyzed within this Tribal EIS/R.

2.6.1 LOCATION

The 93-acre project site analyzed in the Jamul EIS included the existing Jamul Indian Village and 87 acres of adjacent land owned by the Tribe. This area is shown in **Figure 1-3**. In other words, development on the 6 acres (which encompasses the development proposed in this TEIS/R) was examined in the BIA's Jamul EIS, the 6 acres being totally encompassed within the 107 acres discussed in the earlier EIS. Indeed, the Preferred Alternative in the earlier Jamul EIS envisioned construction of the casino entirely on the 6 acre reservation, as does this TEIS/R. No additional acreage or land beyond the previously analyzed project site is proposed for the project alternatives analyzed in this Tribal EIS/R/R. Therefore, all site-specific information pertaining to the Jamul Indian Village is contained within the completed Jamul EIS.

2.6.2 PROPOSED LAND-USES

PREFERRED PROJECT AND ALTERNATIVE A

Table 2-5 shows the land uses proposed under Alternative A analyzed in the Jamul EIS and the land uses proposed under the Preferred project analyzed in this Tribal EIS/R. As can be seen from the table, proposed land uses are identical in many cases. However several project components of Alternative A are no longer proposed under the Preferred Project due to constraints associated with the condensed project site. Overall, the size of the development proposed under the Preferred Alternative is approximately the same as Alternative A analyzed in the Jamul EIS.

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TABLE 2-5
COMPARISON OF PROJECT LAND USES – PROPOSED PROJECT

Land Use	Alternative A[1]		Preferred Project[2]	
	Proposed	Square Feet	Proposed	Square Feet
Casino	2,000 gaming devices	205,194	2,000 gaming devices	205,194
Hotel	300 rooms	222,985	400 rooms	361,900
Event Center	1,200 seats	24,000	N/A	-
Parking Structure	2,550 spaces	847,599	2,550 spaces	847,599
Bus and RV Parking	50 spaces	-	9 spaces[3]	-
Employee Parking	300 spaces	-	300 spaces	-
Human Resource space	Yes[3]	30,000	Yes	30,000
Fire Station	Yes	-	Yes	-
Tribal Housing	18 homes	46,000	N/A	-
Wastewater Treatment Plant	Yes[4]	-	Yes	-
Detention Basin	814,627 gallon capacity	-	220,000 gallon capacity	-
Conservation Area	75 acres[5]	-	N/A	-

SOURCE: Urban Design Group, 2005.
NOTE: All figures are approximate.
N/A: Not Applicable
1 As noted in the Jamul EIS
2 As noted in this Tribal EIS/R/R
3 Under Alternative A, the space was proposed in a separate building. Under the Preferred Alternative, the space is included within the proposed structure.
4 Under Alternative A, the WWTP was proposed on the adjacent land to be taken into trust. Under the Preferred Alternative the WWTP will be located within the proposed structure.
5 The adjacent land will not be disturbed with development, so no conservation is required.

REDUCED INTENSITY ALTERNATIVE AND ALTERNATIVE A VARIANT

Table 2-6 shows the land uses proposed under the Alternative A Variant analyzed in the Jamul EIS and the land uses proposed under Reduced Intensity Alternative analyzed in this Tribal EIS/R. As can be seen from the table, proposed land uses are identical in many cases. However several project components of the Alternative A Variant are no longer proposed under the Reduced Intensity Alternative due to constraints associated with the condensed project site. Overall, less development is proposed under the Reduced Intensity Alternative.

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TABLE 2-6
COMPARISON OF PROJECT LAND USES - REDUCED ALTERNATIVE

Land Use	Alternative A Variant[1]		Reduced Alternative[2]	
	Proposed	Square Feet	Proposed	Square Feet
Casino	1,000 gaming devices	**138,308**	1,000 gaming devices	**138,308**
Hotel	150 rooms	80,000	150 rooms	80,000
Event Center	N/A	-	N/A	-
Parking Structure	1,675 spaces	847,599	1,675 spaces	847,599
Bus and RV Parking	50 spaces	-	9 spaces	-
Employee Parking	300 spaces	-	300 spaces	-
HR Facility	Yes	30,000	Yes	30,000
Fire Station	Yes	-	Yes	-
Tribal Housing	18 homes	46,000	N/A	-
Wastewater Treatment Plant	Yes	-	Yes	-
Detention Basin	814,627 gallon capacity	-	220,000 gallon capacity	-
Conservation Area	75 acres	-	No	-

SOURCE: Urban Design Group, 2005.
NOTE: All figures are approximate.
N/A: Not Applicable
[1] As described in the Jamul EIS.
[2] As described within this Tribal EIS/R.

2.7 IMPACTS, MITIGATION MEASURES, AND SELECTED OPTIONS

The environmental analysis presented in Section 3 of this document resulted in impacts and mitigation measures that are summarized in Table 2-7. Table 2-7 presents each impact, level of significance before mitigation, mitigation measures (if needed), and level of significance after mitigation. Acronyms used are defined in the footer of the table.

The analysis presented in Section 3 addresses two project features that contain multiple options: (1) fire protection, and (2) project access. The information provided below presents the environmentally superior option based on the analysis.

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FIRE PROTECTION

The analysis addresses two options for fire protection, one on-site option (Option 1) and one off-site option (Option 2). Both options would include the same built-in features to the casino/hotel structure, as well as operational features such as advanced life support, staffing, mutual aid, commoditization services, etc. The only difference between the two is that the construction of the fire station under Option 2 would necessitate the approval of San Diego County through their discretionary permitting process. This process includes CEQA compliance to address the environmental effects of the project. This Tribal EIS/R could serve, if the County desires, as the basis for the environmental review that would be necessary under CEQA. The ultimate fate of the approval of the fire station would reside with the County Board of Supervisors given their discretionary authority. From an environmental perspective, Option 2 is desirable due to direct access to Melody, proximity to adjacent residential as well as the Indian Village site, which would be a benefit from a Mutual Aid standpoint. However, the Tribe plans to move forward with the on-site option (Option 1) due to the uncertainty associated with County consideration of the proposal under Option 2.

PROJECT ACCESS

The analysis addresses two options for project access to SR 94. Both options utilize existing paved driveways extending from SR 94 to the Indian Village site. Option 1 is the paved driveway extending in a southwesterly direction from SR 94 to the Indian Village site passing immediately south of the existing fire station. Option 2 extends in a westerly direction from SR 94 to the Indian Village Site. It should be noted that Option 1 (passing near the existing fire station) would not be in operation until the Rural Fire Protection lease expires and the facility is relocated off-site. The Option 1 driveway is entirely off-reservation, while the Option 2 roadway is entirely on-reservation.

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Table 2-7 below presents the impact and mitigation summary table for the various alternatives:

The impact of the use of Option 1 driveway is centered on traffic access from SR 94 transitioning to the driveway. No additional widening or pavement work is needed to use this existing driveway. Striping is the only improvement that would be needed to assure the proper flow of traffic in and out of the facility. Mitigation identified in Section 3.8 includes the following:

Install a traffic signal at the project access point. In conjunction with the signal installation, the intersection lane configuration should be modified as follows:

- Northbound: Provide a dedicated left-turn lane and one through lane,

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- Southbound: Provide a free-flow right-turn lane and through lane, and

- Eastbound: Provide a dedicated left-turn lane and a right-turn lane.

Option 1 provides better site distance (than Option 2) from the southern boundary of the Indian Village where a hill and vertical highway grade obstructs the view of northwest bound travelers. No off-reservation impacts to water resources, biological resources, MSCP habitat, cultural resources, and/or soils/geology would occur under this option due to the lack of need for site modifications.

Option 2 would use the existing route of the current roadway, but would need to be widened to accommodate both in-bound and out-bound travelers. All of these improvements would occur on the Indian Village site. The SR 94 improvements specified above would also apply to the Option 2 driveway. The sight distance for northwest bound travelers is less than desirable for Option 2 when compared with Option 1. So, in addition to the mitigation identified above, the following mitigation is also needed:

> Project Access Sight Distance – To ensure safety in the vicinity of the project access point on SR 94/Campo Road, install appropriate signage to provide advance warning of the presence of the project access intersection. Such signage may include some or all of the following standard warning signs: SIGNAL AHEAD (CA MUTCD W3-3), BE PREPARED TO STOP (CA MUTCD W3-4, used as a supplement to W3-3), HILL BLOCKS VIEW (CA MUTCD W7-6), and various signs designating changes in horizontal alignment (CA MUTCD W1-1 through W1-5), as well as appropriate advisory speed plaques. The SIGNAL AHEAD sign should be supplemented with a flashing beacon, as allowed in Section 2C.29 of the *California Manual on Uniform Traffic Control Devices* (CA MUTCD), State of California, Department of Transportation, September 26, 2006.

No off-reservation impacts to water resources, biological resources, MSCP habitat, cultural resources, and/or soils/geology, would occur under Option 2. The use of various construction related measures such as best-management practices, stormwater pollution prevention plan, etc. (as outlined in Chapter 3) will assure the avoidance of off-reservation impacts.

As shown above, the off-reservation impacts of Option 1 and 2 are similar except for the site distance to the Option 2 driveway that necessitates the placement of advance highway signage warning of this issue. Therefore, for this reason, the Option 1 driveway is selected as the environmentally superior option.

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signage warning of this issue. Therefore, for this reason, the Option 1 driveway is selected as the environmentally superior option.

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TABLE 2-7
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
3.2 LAND RESOURCES			
Topography			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI
Soils/Geology			
Preferred Project	SI	Implement mitigation measures identified in Sections 3.3.	LTS
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
Seismicity			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI
Mineral Resources			
Preferred Project	NI	None required.	NI
Reduced Intensity Alternative	NI	None required.	NI
No Action Alternative	NI	None required.	NI

Less than Significant = LTS | Significant = SI | Significant and Unavoidable = SU | BI = Beneficial | NI = No Impact

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TABLE 2-7
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
3.3 WATER RESOURCES			
Drainage			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI
Surface Water Quality			
Preferred Project	SI	A. An Erosion Control Plan shall be developed and implemented prior to construction. During construction, surface water quality will be protected by using Best Management Practices (BMPs) as listed in the Erosion Control Plans. B. Post-construction surface water quality will be protected through the use of vegetated swales, sediment/grease traps (Stormceptors), a detention basin and non-structural BMPs. Non-structural BMPs will be consistent with the applicable requirements of the San Diego County Stormwater Standards Manual. C. A sampling and monitoring program will be developed and implemented to assess the quality of surface water entering and leaving the project site. At a minimum, sampling sites will include: a site above all proposed development; and, a site downstream of all development but prior to surface waters entering the Fish and Game Refuge. Analyses will include total suspended solids (TSS), oils and greases, metals and nutrients (total nitrogen and total phosphorous). D. The Tribal Government will meet standards identical to those established by Sections 67.801 through 67.811 of San Diego County Code of Regulatory Ordinances (Stormwater Ordinance) when constructing and	LTS

Less than Significant = LTS | Significant = SI | Significant and Unavoidable = SU | BI = Beneficial | NI = No Impact

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TABLE 2-7
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		operating the proposed facility. E. The Tribal Government will meet standards identical to those established by Caltrans Storm Water Quality Handbook dated March 1,2003 when constructing and operating the proposed facility. F. The Tribal Government will meet standards identical to those established by California Storm Water BMP Handbook of Construction dated January 2003 when constructing and operating the proposed facility. G. The pavement in the immediate area around the casino, hotel, and/or retail area garbage bins will be isolated from the surrounding pavement by a break in the grade or other means of diversion. The runoff from the garbage bin area will then be directed to the sewer system and treated by the WWTP. H. Fertilizer use will be limited to use the minimum amount necessary, taking into account any nutrient levels in the recycled water source. Fertilizer will not be applied prior to a rain event.	
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	Ni	None required.	NI
Ground Water Quality			
Preferred Project	LTS	The following mitigation measures are presented to reduce the effect. The impact is less than significant. I. Effluent from the project will be treated by an immersed membrane bioreactor (MBR) plant, an advanced treatment facility that produces very high quality tertiary effluent that will meet Title 22 criteria for the highest quality of recycled water. J. A sampling and monitoring program on the wastewater treatment plant effluent will be developed and implemented in consultation with the USEPA. Typically, similar facilities generally monitor effluent quality	LTS

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TABLE 2-7
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		for BOD5, TSS, and coliform on a regular basis.	
Reduced Intensity Alternative	LTS	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
3.4 AIR QUALITY			
Phase A/B - Construction			
Preferred Project	SI	The following best management practices (BMPs) shall be implemented for both Phases of the Preferred Project or the Reduced Alternative: - Water all active construction areas as needed to prevent dust; - Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer); - Pave, apply water, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites; - Sweep (preferably with water sweepers) all paved access roads, parking areas and staging areas at construction sites; and - Sweep streets (preferably with water sweepers) if visible soil material is carried onto adjacent public streets; - Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more); - Install sandbags or other erosion control measures to prevent silt runoff to public roadways; - Replant vegetation in disturbed areas as quickly as possible, and - The Tribal Environmental Agency will oversee the implementation of a	LTS

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TABLE 2-7
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		comprehensive dust control program and to increase watering, as necessary. - To the extent that equipment and technology is available and cost-effective, the contractors are encouraged to use catalyst and filtration technologies, and retrofit existing diesel engines in construction equipment. - Idling time shall be minimized to 5 minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is required.	
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
Phase A/B – Construction-Related Diesel Exhaust Emissions Generated by the Preferred Project			
Preferred Project	SI	The Tribe will implement the following measures to reduce diesel exhaust emissions: - Encourage the contractor to be as efficient as possible for construction-related trips. - Require that diesel-powered equipment be properly maintained. - Minimize idling of diesel equipment to the fullest extent feasible. - Encourage the contractor to lease or buy newer, "cleaner" equipment, 1996 or newer model year and use a minimum of 75 percent of the total horsepower of the equipment.	LTS
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
Phase A/B – Ozone Precursor and PM10 Emissions Generated by Operation of the Preferred Project			

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TABLE 2-7
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Preferred Project	SI	- Emissions associated with operation of the facility will be reduced by requiring buses arriving at the project site to turn off their engines if the bus is not going to be operated for a 10 minute period of time. - The Tribe will encourage and facilitate the use of 'carpools' by construction workers and facility employees, and tour buses by casino patrons to reduce vehicular use and air pollution.	SU
Reduced Intensity Alternative	NI	None required.	NI
No Action Alternative	SI	Same as PP.	SU
Phase A/B – Carbon Monoxide Hot Spots Generated by Operation of the Preferred Project			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI
Phase A/B – Carbon Monoxide Emissions Generated by the Preferred Project – Parking Garage			
Preferred Project	SI	The Tribe will ensure the mechanical ventilation of the parking structure will be constructed so that the exhaust will be directed vertically and away from inhabited areas.	LTS
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
Emissions and Odors Generated by the Wastewater Treatment Facility			

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Less than Significant = LTS | Significant = SI | Significant and Unavoidable = SU | BI = Beneficial | NI = No Impact

TABLE 2-7
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Preferred Project	LTS	No mitigation is required.	LTS
Reduced Intensity Alternative	NI	None required.	NI
No Action Alternative	LTS	Same as PP.	LTS
3.5 BIOLOGICAL RESOURCES			
Wildlife and Habitats			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI
Federally Listed Species			
Preferred Project	SI	- Lighting from the front of the casino will be directionally pointed away from the reserve and the building will shield light, human activity and noise effects from the Rancho Jamul Reserve. Lighting in the back of the casino will consist of low wattage security and safety lighting near doorways within UBC requirements. - The project will incorporate best management practices for storm water runoff including vegetated swales and runoff infiltration devices to ensure that the water quality and quantity in the onsite streams does not change. Stormwater runoff from the project site will be monitored according to BMPs to assess the quality of water leaving the proposed project area. - All landscaping within the project area will consist of native or non-invasive species. - Temporary fencing will be installed around areas of the intermittent drainage and riparian habitat to be conserved. Fencing will be located as far as feasible from the edge of these features and installed prior to any construction. The fencing will remain in place until all construction activities on the site have	LTS

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TABLE 2-7
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		been completed. - Construction staging areas will be located away from the intermittent drainage. Temporary stockpiling of excavated or imported material will occur only in approved construction staging areas. Excess excavated soil will be used on site or disposed of at a regional landfill or other appropriate facility. Stockpiles that are to remain on the site through the wet season will be protected to prevent erosion (e.g. silt fences, straw bales).	
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required	NI
State Listed Species			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI
Migratory Birds			
Preferred Project	SI	See mitigation under federally listed species.	LTS
Reduced Intensity Alternative	SI	See mitigation under federally listed species.	LTS
No Action Alternative	NI	None required.	LTS
Waters of the U.S.			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI

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TABLE 2-7
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
San Diego County MSCP			
Preferred Project	SI	- If Option 2 Fire Station is selected, the Tribe shall submit an application to the County of San Diego for Design Review. The Tribe may be required to compensate for the loss of MSCP land using a 2:1 replacement ratio. Option 1 shall be implemented if the County denies the application for construction and operation of a fire station.	LTS
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
3.6 CULTURAL RESOURCES			
Cultural Resources			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI
Paleontological Resources			
Preferred Project	NI	None required.	NI
Reduced Intensity Alternative	NI	None required.	NI
No Action Alternative	NI	None required.	NI

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TABLE 2-7
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
3.7 SOCIOECONOMICS			
Direct Economic Effects			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI
Employment			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI
Housing			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI
Community Infrastructure			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI

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TABLE 2-7
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Social Costs Associated with Gambling			
Preferred Project	SI	- The Tribe will create a fund to support problem gambling-specific research, prevention and education, and treatment programs. A portion of annual revenues will be used to create and maintain the fund. - The Tribe will adopt a policy statement on problem gambling. - The Tribe will contract with a gambling treatment professional to train management and staff to develop strategies for recognizing and addressing customers whose gambling behavior may strongly suggest they may be experiencing serious to severe difficulties. - The Tribe will refuse service to any customer whose gambling behavior convincingly exhibits indications of problem or pathological gambling. - The Tribe will respectfully and confidentially provide the customer (as described above) with written information that includes a list of professional gambling treatment programs and self-help groups. - The Tribe will implement procedures to allow for voluntary self-exclusion, enabling gamblers to ban themselves from a gambling establishment for a specified period of time.	LTS
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
Fiscal Effects to San Diego County			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI

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TABLE 2-7
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Effects to the Jamul Indian Village			
Preferred Project	BI		BI
Reduced Intensity Alternative	BI		BI
No Action Alternative	NI		NI
3.8 TRANSPORTATION/CIRCULATION			
Phase A/B– Daily Roadway Segment			
Preferred Project	SI	- Contribute to the cost of preparing necessary studies and engineering and design work, as well as construction of operational improvements to SR-94 westerly of the project site. These improvements may consist of passing lane areas, shoulder widening, protected left turn areas and other operational measures deemed feasible and consistent with plans for the corridor. - Construct all project access points to include any necessary deceleration or acceleration lanes, restriction of turning movements when necessary, and adequate transition between lanes in consultation with Caltrans. - Install a traffic signal at the project access point. In conjunction with the signal installation, the intersection lane configuration should be modified as follows: a. Northbound: Provide a dedicated left-turn lane and one through lane, b. Southbound: Provide a free-flow right-turn lane and one through lane, and c. Eastbound: Provide a dedicated left-turn lane and a right-turn lane. - Project Access Sight Distance – To ensure safety in the vicinity of the project access point on SR 94/Campo Road, install appropriate signage to provide advance warning of the presence of the project access intersection. Such signage may include some or all of the following standard warning signs: SIGNAL AHEAD (CA MUTCD W3-3), BE PREPARED TO STOP (CA MUTCD W3-4, used as a supplement to W3-3),	LTS

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TABLE 2-7
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		HILL BLOCKS VIEW (CA MUTCD W7-6), and various signs designating changes in horizontal alignment (CA MUTCD W1-1 through W1-5), as well as appropriate advisory speed plaques. The SIGNAL AHEAD sign should be supplemented with a flashing beacon, as allowed in Section 2C.29 of the *California Manual on Uniform Traffic Control Devices* (CA MUTCD), State of California, Department of Transportation, September 26, 2006.	
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
Phase A/B – Peak Hour Intersection			
Preferred Project	SI	- Contribute fairshare, at a minimum, to construct and signalize the intersection of SR-94/Lyons Valley Road in consultation with Caltrans.	LTS
		- Contribute fairshare, at a minimum, to construct and signalize the intersection of SR-94/Campo Road at Melody Road in consultation with Caltrans.	
		- Develop and implement a traffic control management plan to maintain safety and traffic operations within the construction zone.	
		- SR-94 at Jamacha Boulevard – To improve the intersection operations, provide a fairshare contribution, at a minimum, to re-stripe the northbound approach to include one left-turn lane, one shared left-through lane, and a right-turn lane, and construct an additional northbound right-turn lane. Also, construct an additional eastbound through lane. Note, that the County of San Diego has plans to improve the intersection of Jamacha Boulevard to include three eastbound through lanes. The project is budgeted and scheduled to begin construction in 2003-2004.	
		- SR-94/Campo Road at Lyons Valley Road – Provide a fairshare contribution, at a minimum, to construct a signal and provide an additional eastbound left-turn lane and an exclusive southbound right-turn lane.	
		- SR-94/Campo Road at the Project Access Road – The Tribe shall pay for the installation	

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TABLE 2-7
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		of a traffic signal at this intersection. Construct a dedicated northbound left-turn lane and two through lanes, a southbound free-flow right-turn lane and two through lanes, and an eastbound dedicated left-turn lane and a shared left/right turn lane. - SR-94 at Cougar Canyon Road – Provide a fairshare contribution, at a minimum, to improve the intersection operations to include an additional eastbound through lane. - SR-94 at Steele Canyon Road – Provide a fairshare contribution, at a minimum, to improve the intersection operations to include an additional eastbound through lane. - SR-94 at Lyons Valley Road –Construct an additional westbound through lane and re-stripe the westbound approach to include one left turn lane, one through lane and one shared through-right turn lane. - SR-94 at Melody Road – Provide a fairshare contribution, at a minimum, to construct a traffic signal. Construct a northbound left-turn lane and one shared through/right-turn lane, a southbound dedicated left-turn lane and a shared through/right-turn lane, and an eastbound dedicated left-turn lane and one shared through/right-turn lane.	
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
Fire Station Safety			
Preferred Project	LTS	None Required	LTS
Reduced Intensity Alternative	LTS	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
Wastewater Removal Truck Traffic			

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Deleted: - Install EMERGENCY VEHICLE signs (Manual on Uniform Traffic Control Devices Sign Code W11-8; California Sign Code SW21B) on both northbound and southbound SR 94, in advance of the fire station. The warning sign is a graphic representation of a fire truck that informs drivers they are approaching a fire station. The signs should be placed approximately 500 feet in advance of the fire station, with the exact placement to be determined at time of installation, so as to maximize visibility.¶
- The EMERGENCY VEHICLE sign should be supplemented with flashing yellow warning beacons, to increase the likelihood that passing motorists will notice the signs.
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TABLE 2-7
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI

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TABLE 2-7
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
3.9 RESOURCE USE PATTERNS			
Land Use			
Preferred Project	SI	- The Tribe shall submit a site plan to the County of San Diego for a plan review. No development shall be allowed unless and until the County approves the site plan. The Tribe may be required to compensate for the loss of MSCP land using a 2:1 replacement ratio. Option 1 or 3 shall be implemented if the County denies the application for construction and operation of a fire station.	LTS
Reduced Intensity Alternative	LTS	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
Agriculture			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI
3.10 PUBLIC SERVICES			
Water Supply			
Preferred Project	SI	- Recycled water from the wastewater treatment facility will be used for toilet flushing in the casino and hotel complex to significantly reduce potable water demands on-site.	LTS
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required.	NI

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TABLE 2-7
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Wastewater			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI
Solid Waste			
Preferred Project	SI	- Construction waste will be recycled to the fullest extent practicable by diverting green waste and recyclable building materials from the solid waste stream. - As part of the General Assistance Program (GAP) administered by the EPA, the Tribe will adopt a Solid Waste Management Plan that addresses recycling and solid waste reduction on the Indian Village site. Measures adopted under this plan will be applied to the design of the hotel, casino and retail facilities. These measures will include but would not be limited to: Installation of a trash compactor for cardboard and paper products. Installation of recycling bins throughout the facilities for glass, cans and paper products.	LTS
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
Electricity, Natural Gas, and Telecom			
Preferred Project	SI	- The project's air conditioning refrigeration systems will utilize the most environmentally friendly refrigerants available. The chillers will be of the highest energy efficiency available, utilizing only ½ kilowatts per cooling ton capacity.	LTS

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TABLE 2-7
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		- The air handling systems will utilize outside air economizers cycles to take advantage of free cooling when the outside air temperature is below 55 degrees F. Economizer cycles, when utilized in a dry cool climate such as San Diego's can serve 20 to 30 percent of the cooling needs thus saving energy. - The casino and hotel complex will be equipped with a direct digital energy management and control system to perform energy conservation measures such as optimum start/stop, duty cycling and demand limiting. This management system will insure that the project will not consume any more energy than is absolutely necessary. - The facilities will not exceed the State of California Title 24-energy code	
Reduced Intensity Alternative	SI	Same as PP	LTS
No Action Alternative	NI	None required.	NI
Public Health and Safety			
Preferred Project	SI	*Law Enforcement* - The Tribe will provide on-site security for casino operations to reduce and prevent criminal and civil incidents. - The Tribe will adopt a "Responsible Alcoholic Beverage Policy" which would include but not be limited to carding patrons and refusing service to those who have had enough to drink. This policy would be discussed with the San Diego Sheriff's Office. - All security guards will carry two-way radios so as to respond to back up and emergency related calls. This will aid in the prevention of criminal activity within gaming facilities. - All parking areas will be well lit and monitored by parking staff, and/or roving security guards at all times during operation. This will aid in the prevention of auto theft and other related criminal activity.	LTS

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TABLE 2-7
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		- The Tribe will provide traffic control with appropriate signage and the presence of peak-hour traffic control staff. This will aid in the prevention of off-site parking, which could create possible security issues. - The Tribe will enter into an agreement with the Sheriff to pay for this additional law enforcement service. *Fire Protection / Emergency Medical Service* Any construction equipment that normally includes a spark arrester will be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws. During construction, staging areas, wilding areas, or areas slated for development using spark-producing equipment will be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor will keep these areas clear of combustible materials in order to maintain a firebreak. - The Tribal Government will make reasonable provisions for adequate emergency, fire, medical, and related relief and disaster services for patrons and employees. - The Tribe shall use fire resistant construction materials and equip the casino and hotel complex with automatic sprinkler systems. The automatic sprinkler systems shall be designed to meet or exceed the NFPA standards governing the different occupancies associated with the project structures. - Through the use of modern construction and fire engineering techniques, the Tribe shall build-in automatic systems designed to contain any fire to the room of origin. - Through the use of modern fire engineering technology the Tribe shall create and maintain a facility equipped with the latest early detection systems. This would rely on automatic sprinkler systems in the occupied areas and smoke detection, along with automatic sprinkler systems, in the areas of the facility that are normally unoccupied, such as storerooms and mechanical areas.	
Reduced Intensity Alternative	SI	Same as PP	LTS

Deleted: - Areas surrounding the gaming facilities will have "No Loitering" signs in place, will be well lit and will be patrolled regularly by roving security guards. This will aid in the prevention of illegal loitering and all crimes that relate to or require illegal loitering.¶

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TABLE 2-7
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
No Action Alternative	NI	None required.	NI
3.11 Other Values			
Visual Resources			
Preferred Project	SI	- Lighting for exterior illumination will be downcast, so as to avoid glare overflowing off-site. - Illuminated signage will be limited to the northern side of the project site. - The proposed casino hotel complex would incorporate native building materials, sensitive architecture, and earth tones of paint to blend with the landscape.	LTS
Reduced Intensity Alternative	SI	Same as PP	LTS
No Action Alternative	NI	None required	NI
Noise			
Preferred Project	SI	- Bus drivers should turn off busses when not in use to reduce idling noise. - The parking garage should include barriers to a height of four feet on the north, south and west sides of the structure	LTS
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
Hazardous Materials			
Preferred Project		Personnel will follow written standard operating procedures (SOPs) for filling and servicing construction equipment and vehicles. The SOPs, which are designed to reduce the potential for incidents involving the hazardous materials, will include the following:	

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TABLE 2-7
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		- Refueling would be conducted only with approved pumps, hoses, and nozzles. - Catch-pans would be placed under equipment to catch potential spills during servicing. - All disconnected hoses would be placed in containers to collect residual fuel from the hose. - Vehicle engines would be shut down during refueling. - No smoking, open flames, or welding would be allowed in refueling or service areas. - Refueling would be performed away from bodies of water to prevent contamination of water in the event of a leak or spill. - Service trucks would be provided with fire extinguishers and spill containment equipment, such as absorbents. - Should a spill contaminate soil, the soil would be put into containers and disposed of in accordance with local, state, and federal regulations. - All containers used to store hazardous materials would be inspected at least once per week for signs of leaking or failure. All maintenance and refueling areas would be inspected monthly. Results of inspections would be recorded in a logbook that would be maintained onsite. - Staging areas, welding areas, or areas slated for development using spark-producing equipment would be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor will keep these areas clear of combustible materials in order to maintain a firebreak. - Any construction equipment that normally includes a spark arrester will be equipped with an arrestor in good working order. The amount of hazardous materials used in project construction and operation	

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TABLE 2-7
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		will be consistently kept at the lowest volumes needed. The least toxic material capable of achieving the intended result are consistently used to the extent practicable. A hazardous materials and hazardous waste minimization program shall be developed, implemented, and reviewed annually by the Tribe to determine if additional opportunities for hazardous materials and hazardous waste minimization are feasible, for both project construction and operation. The contractor will be requested to minimize the use of hazardous materials during the project's construction to the fullest extent practicable. Minimize use of pesticides and toxic chemicals to the greatest extent feasible in landscaping or using less toxic alternatives.	
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required.	NI
3.12 Environmental Justice			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI

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TABLE 2-7
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
3.13 Growth Inducing Effects			
Preferred Project	LTS	None required.	LTS
Reduced Intensity Alternative	LTS	None required.	LTS
No Action Alternative	NI	None required.	NI
3.14 Cumulative Effects			
Preferred Project	SI	Implement mitigation measures from Sections 3.2 through 3.13	SU
Reduced Intensity Alternative	SI	Same as PP.	SU
No Action Alternative	NI	None required.	NI
3.15 Indirect Effects			
Preferred Project	SI	- Pre-construction surveys for Least Bell's vireo, Otay tarplant, and San Diego thorn mint, yellow-billed cuckoo should be performed by a qualified biologist to ensure that these species are not present. - The appropriate permits should be obtained from the County of San Diego before coast live oaks or riparian vegetation is cleared. Mitigation measures identified by the County permit process should be fully implemented. Best Management Practices, including tree protection measures, should be implemented during construction to minimize indirect impacts to coast live oaks and other sensitive habitats. - If construction activities will occur during the nesting season (approximately February to September), pre-construction surveys for the presence of special-status bird species or any nesting bird species should be conducted by a qualified biologist within 500 feet of proposed construction areas. If active nests are identified in these areas, CDFG should be consulted to develop measures to avoid "take" of active nests prior to the initiation of any construction activities. Avoidance measures may include establishment of a buffer zone using construction fencing or the postponement of vegetation	LTS

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Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		removal until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site. County of San Diego permits would be required for vegetation clearing and the loss of sensitive habitats. - Any alteration or degradation of a streambank below the highwater mark would require Clean Water Act Section 404 permit. Any alteration or degradation of a streambank within the limits of riparian vegetation would require a CDFG Streambed alteration agreement. Clean Water Act Section 401 Water Quality Certification would be required in conjunction with these permits; this may consist of obtaining coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ). In conjunction with this Certification, a Storm Water Pollution Prevention Plan with Best Management Practices (BMPs) must be identified and implemented during construction to avoid or minimize the potential for erosion or sedimentation. County of San Diego permits would be required for vegetation clearing and the loss of sensitive habitats. The State Water Resources Control Board maintains a database of Stormwater Best Management Practices (available on the Internet at http://www.swrcb.ca.gov/stormwtr/ bmp_database.html) and the California Stormwater Quality Association provides specific guidance on stormwater BMPs (http://www.cabmphandbooks.com/). At a minimum, the following Best Management Practices should be implemented to protect waterbodies from impacts: · create and implement a Hazardous Materials Management Plan and Spill Response Plan, including the identification of specific refueling areas; · create and implement an erosion control plan and a sediment monitoring plan, including the placement of jute mats, straw bales and wattles, sand bags, and vegetative covers (e.g. Hydroseed), weather monitoring, and specific inspection protocols; designated concrete washout areas and other filters for construction materials;	

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TABLE 2-7
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		a visual monitoring program and a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs.	
Reduced Intensity Alternative	SI	Same as PP.	LTS
No Action Alternative	NI	None required.	NI

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SECTION 3.0

ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

SECTION 3.0
ENVIRONMENTAL CONSEQUENCES

3.1 INTRODUCTION

The purpose of this section is to analyze the potential off-reservation environmental consequences associated with the Preferred Project, the Reduced Intensity Alternative, and the No-Action Alternative.

The Tribe will use this Tribal EIS to determine if the Preferred Project and alternatives would result in significant off-reservation environmental impacts. The off and on-reservation environmental impacts of Alternatives A through E discussed in **Section 2.0** have been fully analyzed in the previous Jamul EIS. This environmental document is incorporated herein by reference for the purposes of evaluating the potential environmental impacts to the project alternatives described in Section 2. The Jamul Indian Village Final Environmental Impact Statement prepared by the BIA (the "EIS") is incorporated by reference in full, including separately bound Appendices. The Jamul EIS was prepared under NEPA to analyze the environmental effects of Alternatives A through E.

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The Jamul EIS evaluated the potential impacts of the alternatives to land resources, water resources, air quality, biological resources, cultural resources, socioeconomic conditions, resource use patterns, public services and other values. Where it found potentially significant impacts, the EIS recommended mitigation measures to reduce these impacts to less-than-significant levels whenever possible. The Final EIS analysis also included fourteen technical studies, all of which are incorporated herein.

The environmental consequences of the Preferred Project and Reduced Intensity Alternative were not specifically detailed within the Jamul EIS, although the impacts of structures and similar purposes and impacts were analyzed there. Unlike Alternatives A through E, the Preferred Project and the Reduced Alternative do not propose to take additional land into federal trust. All of the proposed development will take place on the existing 6-acre reservation, reducing the overall project site by 87 acres. **Section 3.0** of the Final EIS gives a description of the affected environment that includes the existing Jamul Indian Village site. Information included within this section that is relevant to the revised project site and the affected environment shall be incorporated by reference.

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Many features of the development proposed under the Preferred Project and the Reduced Intensity Alternative are identical to the development proposed by Alternative A and the Alternative A Variant analyzed within the existing Jamul EIS. A detailed comparison of the project alternatives is included in **Section 2.6**. As evidenced in this comparison, much of the environmental review necessary to analyze the off reservation impacts of the Preferred Project and the Reduced Intensity Alternative is contained within the Jamul EIS. In order to avoid duplication and redundancy, this document incorporates by reference any relevant information pertaining to the environmental consequences of the Preferred Project and the Reduced Intensity Alternative from **Section 4.0** of the Jamul EIS. A brief description of the issue areas analyzed within the Jamul EIS is provided below.

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3.1.1 JAMUL INDIAN VILLAGE FINAL EIS

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The Proposed Casino and Hotel Project evaluated within the Jamul EIS included transferring a three-parcel, 87-acre area into federal trust and approval of a management contract between the Tribe and LKAR-CA for the development, construction, and operation of a gaming facility on the mentioned property. The Jamul EIS provides a thorough analysis of potential on- and off-site environmental effects of Alternative A (the Proposed Casino and Hotel Project), and Alternatives B – E. This complete analysis is incorporated by reference from the Jamul EIS.

LAND-USE

The Jamul EIS evaluated the potential impacts of the Proposed Alternatives to land and land resources. This was accomplished through thorough analysis of the topography, soils, seismicity, and mineral resources on the Jamul Indian Village Site and the proposed parcels to be taken into trust. The EIS concluded that the Alternatives A through E would not have significant impacts with the exception of soils. Mitigation to reduce the significant impact to soils is included in the Jamul EIS and incorporated by reference.

WATER RESOURCES

The EIS analysis of potential impacts to water resources included evaluations of surface water quality, ground water quality, and drainage. Impacts were considered from both the construction and operation of the proposed action. There were several potential significant impacts associated with water resources. Mitigation measures are recommended in the Jamul EIS to reduce potential impacts during the construction phase and the operational phase of the project. This analysis is incorporated by reference from the Jamul EIS.

AIR QUALITY

The air quality analysis includes potential air quality impacts from both construction and operation of the project. The air quality analysis complies with all federal laws and regulations.

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It includes traffic emissions as well as stationary emissions from the casino, and is supported by numerous technical studies. It concluded that air quality impacts associated with operation of the Alternatives would be less–than-significant, and required mitigation for potential air quality impacts during construction. This analysis is included in the Jamul EIS and incorporated by reference.

BIOLOGICAL RESOURCES

The EIS analysis of biological resources includes evaluations of potential impacts to wetlands and jurisdictional waters and special-status species. There are potentially significant impacts associated with sensitive native species, however these will be considered less than significant with recommended and required mitigation measures. This analysis is included in the Jamul EIS and incorporated by reference.

CULTURAL RESOURCES

The analysis of cultural resources impacts incorporated various records searches as well as field surveys for archaeological, paleontological and cultural artifacts. Significant cultural resources were found to exist in the project area. Impacts to these cultural resources will be reduced through mitigation measures approved by the SHPO. The detailed analysis and mitigation measures are included in the Jamul EIS and incorporated by reference.

SOCIOECONOMIC CONDITIONS

The socioeconomic analysis examined the potential economic and social impacts of the Proposed Action on the area surrounding the project site. This analysis concluded that in most cases, these impacts will not be significant, and in some cases that they will be positive. This analysis is included in the Jamul EIS and incorporated by reference.

RESOURCE USE

The analysis of resource use patterns evaluated transportation, land use and agricultural impacts. This analysis incorporated information, analysis and conclusions from a number of technical studies. Significant impacts are expected in regards to traffic, however mitigation measures would reduce these to a less than significant level. This analysis is included in the Jamul EIS and incorporated by reference.

PUBLIC SERVICES

The public services analysis, evaluated potential impacts to water supply, wastewater, solid waste disposal, electricity, natural gas and telecommunications, law enforcement, fire protection, and emergency medical service. Significant impacts were found associated with waste water disposal, however mitigation measures are recommended to reduce the impacts. In all of the remaining areas, the Jamul EIS concluded that, with the imposition of mitigation measures, the

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project would not have significant impacts. This analysis is included in the Jamul EIS and incorporated by reference.

OTHER VALUES

The "Other Values" section included analysis of noise (both construction and operations), hazardous materials and visual impacts. In all of these areas, significant impacts are predicted, however with the imposition of mitigation measures, these impacts will be reduced. This analysis is included in the Jamul EIS and incorporated by reference.

ENVIRONMENTAL JUSTICE

The environmental justice section analysis examined potential environmental justice impacts for minority and low-income populations in the surrounding areas of the project site. There were no impacts associated with this area of consideration. This analysis is included in the Jamul EIS and incorporated by reference.

3.1.2 ENVIRONMENTAL CHECKLIST

Below is an environmental checklist used to determine which environmental issue has the potential to be significantly impacted by the Proposed Project. Each category is followed by a discussion that either concludes a less-than-significant impact would result, or that a potentially significant impact would result. A conclusion by the checklist that an impact is potentially significant does not mean that it is significant. The potentially significant impact conclusion within the checklist warrants further analysis, which is provided in the detailed analysis that follows the checklist.

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TABLE 3.1-1
OFF-RESERVATION ENVIRONMENTAL IMPACT ANALYSIS CHECKLIST

I. Aesthetics

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Have a substantial adverse effect on a scenic vista?				√
b.) Substantially damage off-reservation scenic resources, including, but not limited to, tress, rock outcroppings, and historic buildings within a state scenic highway?			√	
c.) Create a new source of substantial light or glare, which would adversely affect day or nighttime views of historic buildings or views in the area?	√			

Discussion:

The development of the proposed facility would result in a new urban feature within the Jamul Valley. There are currently no designated scenic vistas or scenic highways that would be impacted by the proposed facility. The proposed facility would introduce a new scale of structure and some nighttime lighting into the area. The height and massing of this facility, together with the proposed night lighting may cause a significant impact of views within the area. This issue will be addressed in detail within the Tribal EIS/R.

II. Agricultural Resources

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Involve changes in the existing environment, which, due to their location or nature, could result in conversion of off-reservation farm land to non-agricultural use?			√	

Discussion:

The project as proposed, would not result in the conversion of off-reservation lands from farmland to non-agricultural uses. The decision to allow conversion of farmland to non-farmland ultimately resides with the County Board of Supervisors who serve as the local land use authority. A large amount of land surrounding the project site does not have agricultural zoning or land use designations. Approximately 4,800 acres of land to the south of the project site has been transferred to the Department of Fish and Game for preservation purposes. This area is called the Rancho Jamul Ecological Preserve and is to remain undeveloped in perpetuity. Approximately 1-mile north of the Indian Village site is the unincorporated village of Jamul. Land uses between Jamul and the project site consists of scattered housing and small businesses. Residential development also exists east and west of the Indian Village site. There are some lands surrounding the project site that consist of agricultural lands.

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II. Agricultural Resources

Discussion:
Beyond the fact that the ultimate approval of land use conversion lies with the County, circumstances leading up to the request for conversion include development pressures resulting indirectly from the casino project. This could include pressures for additional residential and commercial development resulting from the growth-inducing effects. However, as noted in Section 4.7 of the Jamul EIS, "(t)he amount of vacant housing units in addition to the projected increase in the number of housing units, and the amount of undeveloped residential acres available in the region would provide an ample amount of residential opportunities to the employees of the casino and hotel development" (page 4.7-3). The Jamul EIS goes on to state that "(t)herefore, the proposed casino and hotel development would not likely induce "disorderly" residential growth within San Diego County either directly or indirectly" (page 4.7-4). The Jamul EIS identifies the East and South Suburban areas as those places where demand for goods and services would be most significant. According to Section 4.12 of the Jamul EIS, commercial growth within the East and South Suburban areas and other areas of San Diego County are to occur over a wide geographic area, supporting existing businesses as well as new businesses. As noted above, commercial development within the County would be subject to approval by the County land use plans and ordinances. Therefore, the Jamul EIS concluded that the proposed development would not likely induce "disorderly" growth within the San Diego County either directly or indirectly. The existing and planned residential/commercial uses in the East and South Suburban portions of the County provide the existing or zoned land needed to assure that this one commercial development on 6-acres of land does not place an undue pressure on surrounding agricultural lands that compels the County Board of Supervisors to allow land use changes away from agricultural uses. Therefore, a less than significant impact to agricultural resources would occur.

III. Air Quality

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Conflict with or obstruct implementation of the applicable air quality plan?		√		
b.) Violate any air quality standard or contribute to an existing or projected air quality violation?		√		
c.) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors?)		√		
d.) Expose off-reservation sensitive receptors to substantial pollutant concentrations?			√	
e.) Create objectionable odors affecting a substantial number of people off-reservation?			√	

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III. Air Quality

Discussion:
The proposed development is expected to result in both construction and operational air emissions. Criteria pollutants potentially affected by the project emissions include reactive organic gasses, nitrogen oxides, carbon monoxide, and particulate matter. Both construction and operational emissions may result in a significant contribution to the criteria pollutant levels; therefore, these issues will be addressed in detail within the Air Quality chapter of this TEIS/R. The only use of the project that could result in objectionable odors would be the wastewater treatment plant. As identified in Section 2.0, the entire plan would be located within the basement level of the building and, as such, would contain and filter all odors within the facility. No odor impacts to surrounding residents would occur.

IV. Biological Resources

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Have a substantial adverse impact, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			√	
b.) Have a substantial adverse effect on any off-reservation riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife A101Service?			√	
c.) Have a substantial adverse effect on federally protected off-reservation wetlands as defined by Section 404 of the Clean Water Act?			√	
d.) 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?			√	
e.) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?		√		

Discussion:
The vast majority of the proposed development would occur on the existing Indian Village site. The exception to this is the Option 2 Fire Station, which is located on fee-land immediately south of Melody Road. There are a number of federally and state listed species in the project area; however, none of these species have been identified on the Indian Village site. The CDFG Reserve located south of the site does have the potential to contain listed species. The project would not impact off-reservation wetlands given that the Option 2 Fire Station would not be located on Waters of the U.S. The Option 2 Fire Station would be located on MSCP land where development is permitted. Issues associated with listed species and MSCP will be addressed within the Biological Resources chapter of this TEIS/R.

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V. Cultural Resources

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a) Cause a substantial adverse change in the significance of an off-reservation historical or archeological resource?				√
b.) Directly or indirectly destroy a unique off-reservation paleontological resource or site or unique off-reservation geological feature?				√
c.) Disturb any off-reservation human remains, including those interred outside of formal cemeteries?				√

Discussion:

As stated previously, the only off-reservation development component is the Option 2 Fire Station located south of Melody Road. The potential for the off-reservation development component to affect cultural resources is addressed in the Cultural Resources section of this TEIS/R. A review of the paleontological locality maps by the San Diego Museum of Natural History identified no recorded fossil sites on the project site or in the immediate surrounding area. Additionally, the museum's review of available geologic maps confirmed that the geologic formations (igneous rock and alluvial veneers) that underlie the project site have a low probability of containing paleontological resources. The project would not affect off-reservation human remains, including those outside those interred outside formal cemeteries.

VI. Geology and Soils

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Expose off-reservation people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i.) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				√
ii.) Strong seismic ground shaking?				√
iii.) Seismic-related ground failure, including liquefaction?				√
iv.) Landslides?				√
b.) Result in substantial off-reservation soil erosion or the loss of topsoil?			√	

Discussion:

The project area is not mapped within the State-delineated Earthquake Fault Zone and there are no known faults in the immediate vicinity of the study area. Over the last 200 years, only one large-magnitude earthquake has occurred in the immediate San Diego County area. With that said, the Land Resources Section of this TEIS/R will address the potential for impacts associated with earthquakes. The project would not result in substantial off-reservation soil erosion or the loss of topsoil. The development would incorporate BMP's to the maximum extent practicable. Nevertheless, the Land Resources Section of this TEIS/R will address issues related to soil erosion.

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VII. Hazards and Hazardous Materials

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Create a significant hazard to the off-reservation public or the off-reservation environment through the routine transport, use, or disposal of hazardous materials?			√	
b.) Create a significant hazard to the off-reservation public or the off-reservation environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			√	
c.) Emit hazardous emissions or handle hazardous or acutely hazardous materials+A203, substances, or waste within one-quarter mile of an existing or proposed off-reservation school?			√	
d.) Expose off-reservation people or structures to a significant risk of loss, injury or death involving wildland fires.		√		

Discussion:

Small amount of hazardous materials would be transported during construction and operation of the project. During grading and construction the use of hazardous materials would include substances such as gasoline, diesel fuel, motor oil, hydraulic fluid, solvents, cleaners, sealants, welding flux, various lubricants, paint and paint thinner. These materials would be used for the operation and maintenance of equipment, and directly in the construction of the facilities. Regular fueling and oiling of construction equipment would be performed daily. The most likely possible incidents would involve the dripping of fuels, oil and grease from construction equipment, and during handling and transfer from one container to another. The small quantities of fuel, oil and grease that may drip would have low relative toxicity and concentrations. Typical construction management practices limit and often eliminate the effect of such accidental releases.

During operation of the facilities included under the Preferred Project, the majority of waste produced would be non-hazardous. The small quantities of hazardous materials that would be generated would include motor oil, hydraulic fluid, solvents, cleaners, lubricants, paint and paint thinner. These materials would be generated from the use and maintenance of the sewage treatment facility, fire station, casino, emergency generators and other project facilities. The amount and type of hazardous materials that would be generated are common to commercial sites and do not pose unusual storage, handling or disposal issues.

Based upon the amount and type of hazardous materials that will be stored, used and generated during operation of the Preferred Project, effects on the environment or public are considered to be less than significant. However, the Other Values Section of the TEIS/R will address these issues in details.

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VIII. Water Resources

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Violate any water quality standards or waste discharge requirements?			√	
b.) Substantially deplete off-reservation groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				√
c.) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion of siltation off-site?			√	
d.) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding off-site?			√	
e.) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted run off-reservation			√	
f.) Place within a 100-year flood hazard area structures, which would impede or redirect off-reservation flood flows?				√
g.) Expose off-reservation people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				√

Discussion:

Development of the project would result in the overcovering of soils on the Indian Village site. To attenuate peak flows, the development would incorporate a filtering/detention facility into the project design. The result of this is to filter the surface runoff and detain it until capacity exists within the surface drainage system. Therefore, post-project runoff would be the same or less than pre-project runoff. The filtering system would remove the vast majority of surface contaminants, reducing the potential for water impacts off-site. All project features would be built outside of jurisdictional waters. The proposed structure will span the open channel that currently transects the property, thereby avoiding impacts to the waterway. Although the project features are designed to avoid significant impacts to both water quality and capacity, these issues are addressed in detail within the Water Resource Section of this TEIS/R.

The Tribe will get their potable water from the Otay Water District. No use of groundwater resources will occur; therefore, no impact to groundwater resources will occur.

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IX. Land Use

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Conflict with any off-reservation land use plan, policy or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect?		√		
b.) Conflict with any applicable habitat conservation plan or natural communities' conservation plan covering off-reservation lands?		√		

Discussion:

The vast majority of the project would be developed on the existing Indian Village site. The exception to this is the fire station under Option 2, which would include minor development immediately south of Melody Road on fee-land. The development of the fire station under Option 2 would require a plan amendment due to the inconsistency of the fire station use and underlying land use designation, which is for open space/low density residential. Development on the fire station site, if approved by the County, would necessitate compliance with the MSCP. The MSCP designation for the site allows for the development of urban uses. The MSCP mitigation applicable to this site would most likely be a 2:1 replacement of land. The County land use plans would not apply to the proposed reservation development. The existing access across the 4-acre parcel that connects the Indian Village to SR 94 would continue to be used as is under Option 1 access, so no change in land use is proposed here.

X. Mineral Resources

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Result in the loss of availability of a known off-reservation mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?				√
b.) Result in the loss of availability of an off-reservation locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				√

Discussion:

The California Geological Survey classifies land in western San Diego County according to the presence or absence of construction aggregate resources. However, the project area itself does not offer a suitable combination of soils and minerals types to warrant extraction of aggregates. There are no known mapped mines within the area or visual evidence of any mining activity. The field survey did not indicate past or present mines or quarries. The proposed grading and landform alteration associated with the Preferred Project will not adversely affect known or recorded mineral resources. Alteration in the land use will not result in a loss of economically viable aggregate rock or diminish the extraction of important ores or minerals. Because there are no known or mapped mineral resources within the project area, development and use of the land will not be affected by such resources. There are no abandoned mines, shafts or tailing that would affect development. Therefore impacts associated with mineral resources would be less than significant.

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XI. Noise

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Exposure of off-reservation persons to noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		√		
b.) Exposure of off-reservation persons to excessive groundborne vibration of the project?			√	
c.) A substantial permanent increase in ambient noise levels in the off-reservation vicinity of the project?		√		
d.) A substantial temporary or periodic increase in ambient noise levels + A294 in the off-reservation vicinity of the project?			√	

Discussion:

Construction and operation activities with the casino project would result in an increase of off-reservation noise. Short-term increases in noise would be associated with heavy construction equipment. Operational noise associated with the increase in vehicular activity, HVAC systems, on-site parking structure noise, and truck delivery and loading activities would all be long term noise continuing through the life of the project. The Other Values Section of this TEIS/R addresses these potential noises in detail.

XII. Population and Housing

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Induce substantial off-reservation population growth?			√	
b.) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere off-reservation?			√	

Discussion:

The casino project has the potential to induce some growth in both housing demand and population. The potential effects of increased housing demand and population growth are evaluated in detail in the Socioeconomics Section of this TEIS/R. The project will result in the relocation of several residences currently on-reservation; however, the number is less than significant. The number of vacant residential units within the region is enough to absorb the relocated tribe members. Replacement housing will not need to be constructed to accommodate the few tribe members who will need replacement housing. This is a less than significant impact.

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XIII. Public Services

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Result in substantial adverse physical impacts associated with the provision of new or physically altered off-reservation government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the off-reservation public services: Fire Protection?		√		
Police Protection		√		
Schools?			√	
Parks?			√	
Other public facilities?		√		

Discussion:

The construction and operation of the casino project would result in an increased demand for various public services. As part of the project, the Tribe is proposing to construct their own fire facility, either on- or off-reservation. The construction of a new fire station would be beneficial to both the Tribe and community Therefore, the fire demand impact to be less than significant. Nevertheless, the fire demand impacts are addressed in detail in the Public Services Section of the TEIS/R. The project increase on law enforcement services will be addressed through site design issues, traffic improvements, and a service agreement with the County Sheriff will all serve the mitigate the impacts associated with operation of the project. This issue will also be addressed in detail within the Public Services Section of the TEIS/R. Increased demands on schools, libraries, and parks are also issues associated with increased employment growth in the Jamul area. The socioeconomics Section of this TEIS/R will address these potential effects.

XIV. Recreation

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Increase the use of existing off-reservation neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			√	

Discussion:

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The construction of the casino project would result in an increased demand for various public services. As part of the project, the Tribe is proposing to construct their own fire facility either on- or off-reservation. The construction of a new fire station would be beneficial to both the Tribe and community. Therefore, the fire demand impact is considered to be less than significant. Nevertheless, the fire demand impacts are addressed in detail in the Public Services Section of the TEIS/R. The projected increase on law enforcement services would be addressed through site design issues, traffic improvements and a service agreement with the County Sheriff. All these measures would serve to mitigate the impacts associated with operation of the project. This issue is addressed in detail within the Public Services Section of the TEIS/R. Increased demands on schools, libraries and parks are also issues associated with increased employment growth in the Jamul area. The Socioeconomics Section of this TEIS/R will address these potential effects.

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XV. Transportation and Traffic

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Cause an increase in off-reservation traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of the vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?		√		
b.) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated off-reservation roads or highways?		√		
c.) Substantially increase+A358 hazards to an off-reservation design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		√		
d.) Result in inadequate emergency access for off-reservation responders?			√	

Discussion:
The operation of the proposed project would increase the amount of traffic on area roadways especially State Route 94. This increased traffic has the potential to significantly contribute to already congested intersections and roadways, as well as the potential to result in new intersection/roadway impacts along SR94 The Transportation Section of the TEIS/R addresses the potential impacts to area roadways and intersections. In addition, an assessment of increased truck traffic associated with wastewater delivery off-site is addressed in the Transportation Section. Lastly, the safety impact associated with the SR94 access point in close proximity to the fire station will also be addressed.

XVI. Utilities and Service Systems

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Exceed off-reservation wastewater treatment requirements of the applicable Regional Water Quality Control Board?			√	
b.) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant off-reservation environmental effects?			√	
c.) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant off-reservation environmental effects?			√	

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d.) Result in a determination by an off-reservation wastewater treatment provider (if applicable), which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				√

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XVI. Utilities and Service Systems

Discussion:
The proposed project includes the development of a wastewater treatment facility within the basement of the casino structure. This wastewater facility will treat the wastewater to Title 22 standards resulting in the quality of water that would allow for full body contact. Once treated, the water will be used in the facilities toilets and for irrigation purposes. The disposal of wastewater will occur by trucking the water to another reservation (Mesa Grande or Manzanita) to be used for irrigation purposes. No on-site disposal of wastewater will occur. No traditional demand to other municipal wastewater facilities will occur. A detailed analysis of the potential effects of wastewater treatment and disposal is provided in the Public Service Section of the TEIS/R. No new off-reservation storm drainage facility would be constructed except for the Option 2 Fire Station. The minor amount of surface runoff resulting from the small parking lot and fire station would be directed into the County's surface wastewater system pursuant to their regulations. The increased runoff from the fire station is negligible. The increased runoff from the Indian Village would be detained on-site via an on-site detention facility. The facility would assure that post project flows are equal to pre-project conditions. Therefore, a less than significant impact off-reservation would occur.

XVII. Cumulative Effects

Would the project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant	No Impact
a.) Have impacts that are individually limited, but cumulatively considerable off-reservation? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past, current, or probable future projects.		√		

Discussion:
The time frame of the cumulative effects analysis extends to the year 2020. This date was chosen as it corresponds with the time frame of SANDAG's *2020 Regional Transportation Plan* (RTP) at the time the Jamul EIS was drafted. Beyond 2020, information on growth patterns and future activities becomes scarce and uncertainties increase, limiting the usefulness of such analysis. Added to this cumulative growth through 2020 is the proposed casino and hotel project. When considering cumulative growth through 2020 and the proposed project various cumulative issues arise such as air quality, transportation/circulation, biological resources, public services, etc. The potentially significant impacts associated with cumulative growth for these, and other topics, will be addressed in depth in the Cumulative Effects Section of this TEIS/R.

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3.2 LAND RESOURCES

3.2.1 ENVIRONMENTAL SETTING

TOPOGRAPHY

The project site lies on relatively flat slopes in the Jamul Mountains, south of Jamul. The topography of the project area ranges from approximately 900 feet to 1,150 feet above mean sea level. The project area slopes downward from the east and west towards the intermittent drainage that transect the site. A detailed description of the topography of the site and vicinity is included in the Jamul EIS and is incorporated by reference from **Section 3.21, page 3-1**.

GEOLOGIC SETTING

The project site is located in the Peninsular Ranges geomorphic province of California. The site includes pre-Tertiary age granitic and metavolcanic bedrock that is locally overlain by Quaternary age alluvial and colluvial deposits, which are locally covered by shallow fill. Artificial fill consisting of silty sands and sands observed at the site is believed to be locally derived of stream terrace deposits and colluvium generated from cutting into the natural slope during grading for existing structures. A detailed description of the geologic setting of the project site is included in the Jamul EIS and incorporated by reference from **Section 3.2.2,** pages 3-1 through 3-2.

SOILS

The U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), has mapped the project area as being underlain by approximately 10 different soil types. These soils include Las Posas fine sandy loam which are capable of supporting endemic and sensitive plant species. A detailed discussion of soils found in the vicinity of the project site is incorporated by reference from the Jamul EIS **Section 3.2.3,** pages 3-2 through 3-6.

SEISMICITY

The project area is not mapped within a State-delineated Earthquake Fault Zone and there are no known faults in the immediate vicinity of the study area. Over the last 200 years, only one large-magnitude earthquake has occurred in the immediate San Diego County area. However, the San Diego County area has been subject to ground shaking on many other occasions as a result of earthquakes in the surrounding, more highly seismic southern California/northern Baja California and offshore regions. A discussion of the seismicity of the project site is included in the Jamul EIS and incorporated by reference from **Section 3.2.4**, pages 3-6 through 3-8.

MINERAL RESOURCES

The California Geological Survey classifies land in western San Diego County according to the presence or absence of construction aggregate resources. However, the project area itself does

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not offer a suitable combination of soils and minerals types to warrant extraction of aggregates. There are no known mapped mines within the area or visual evidence of any mining activity. The field survey did not indicate past or present mines or quarries.

3.2.2 ENVIRONMENTAL CONSEQUENCES

PREFFERED PROJECT

The impact assessment below for land resources contains a modified version of information originally published in the Jamul EIS. The Jamul EIS impact assessment of Alternative A was found to be applicable to the Preferred Project due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

Topography

Due to due to the intensity of the development and steep topography of the Jamul Indian Village site, the cutting and filling of topographic features would be necessary. An estimated 61,535 cubic yards (cy) would be cut and exported from the site. The proposed facilities will be built into the slope, maintaining the main natural drainage channel that cuts through the property. Cutting and filling would not affect the natural topography beyond the boundaries of the reservation, with the exception of development proposed under fire protection Option 2 of the Preferred Project. No additional development is expected on the 4-acre parcel that contains the paved roadway that would be used if the Option 1 traffic access point is selected.

For the Option 2 fire station site, some fill slopes and grading would be required to level the site for the construction of the proposed fire station off-melody road. However, slopes on the proposed fire station site are mild, ranging from 3 to 9%. Additionally, fill would be provided from the construction of the casino complex. The major topographic features of the project vicinity would be preserved. Therefore, topographic impacts are considered less than significant.

Soils/Geology

The Preferred Project could adversely affect soils due to erosion during construction, operation, and maintenance activities. Such activities include clearing, grading, trenching, and backfilling. The majority of the soils existing on the project site have a moderate erosion potential based on soil type and slope gradients. **Table 3-1** is incorporated by reference from **Section 3.2.3** of the Jamul EIS, page 3-6. This table describes the soil types, erosion potential, and general gradients for each of the soil units on the project site and surrounding land owned by the tribe. Las Posas fine sandy loam is a gabbroic soil found near the project site which has the potential to support sensitive plant species. Development of the Preferred

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Project would take place entirely on the existing reservation with the exception of the fire station proposed under Option 2. As mentioned previously, no additional development would occur on the 4-acre fee-parcel that contains the Option 1 traffic access. Las Posas soils do not exist on the proposed fire station site. Most areas near the project site that contain Las Posas gabbroitic soils are either developed or severely degraded as a result of cattle grazing, thereby substantially limiting the potential for this species to occur. Potential indirect effects to sensitive species are presented in **Section 3.15**.

An Erosion Control Plan will be prepared for the Preferred Project through implementation of Mitigation Measure A included in **Section 3.3**. The Erosion Control Plan would identify the location of erosion control features recommended to direct and filter stormwater runoff. These features to be used during construction include but are not limited to silt fences, fiber rolls, and rock bag dams. The location of permanent erosion control features such as "Stormceptors" or similar sediment/grease traps, vegetated drainage swales, and riprap will also be identified. The Erosion Control Plan prepared for the Preferred Project will incorporate Erosion Control Details, which will provide specific Best Management Practices (BMPs) recommended during construction. The Erosion Control Details will specify stormwater pollution prevention measures including construction details, compliance standards, procedural requirements, regulatory compliance requirements, and implementation timeframe requirements.

The Erosion Control Plan and Erosion Control Details prepared for the Preferred Project would be implemented during the construction and operation of the project, thus assuring that adverse effects resulting from erosion are minimized. Landscaping of the cut and fill slopes and other disturbed areas would also mitigate long-term effects to erosion by covering and stabilizing the soil surface with plants and mulch. Therefore, with implementation of recommended mitigation measures in **Section 3.3**, impacts to soils from erosion resulting from the Preferred Project would be less than significant.

Seismicity

Construction of the proposed facilities will not be affected by seismicity, as the area has low liquefaction and acceleration characteristics. Liquefaction is considered very low due to the dense nature of the underlying granitic rocks. Since no known fault traces are mapped as crossing the area, the potential for surface rupturing along an onsite fault trace is considered low and should not be considered a constraint to the Preferred Project.

Construction of facilities will adhere to the Uniform Building Code. Specifically, Chapter 16 of the 1997 UBC addresses structural design requirements for buildings and other structures (including hazardous materials storage facilities) that are consistent with rational analyses and well-established principles of mechanics. Division IV covers earthquake design, which has

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provisions to safe guard against major structural failures and loss of life. In this regard, the 1997 UBC design requirements include seismically induced characterization, and near-source attenuation effects. Use of the 1997 UBC would allow for ground shaking-related hazards to be managed from a geologic, geotechnical, and structural standpoint such that risks to the health or safety of workers or members of the public would be reduced to a less than significant level.

Mineral Resources

The proposed grading and landform alteration associated with the Preferred Project will not adversely affect known or recorded mineral resources. Alteration in the land use will not result in a loss of economically viable aggregate rock or diminish the extraction of important ores or minerals. Because there are no known or mapped mineral resources within the project area, development and use of the land will not be affected by such resources. There are no abandoned mines, shafts, or tailing that would affect development. Therefore impacts associated with mineral resources would be less than significant.

REDUCED INTENSITY ALTERNATIVE

The impact assessment below for land resources contains a modified version of information originally published in the Jamul EIS. The Jamul EIS impact assessment of the Alternative A Variant was found to be applicable to the Reduced Alternative due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

Topography

As with the Preferred Project, the Reduced Alternative would require cutting and filling of topographic features, although to a lesser extent than is anticipated under the Preferred Project. The total cubic yards (cy) of cut material removed from portions of the site would be reduced under this alternative. The proposed facilities will be built into the slope, maintaining the main natural drainage channel that cuts through the property. Cutting and filling would not affect the natural topography beyond the boundaries of the reservation, with the exception of the development of the fire station off Melody Road. Some fill slopes and grading would be required to level the site for construction. However, slopes on the proposed fire station site are mild, ranging from 3 to 9%. Additionally, fill would be provided from the construction of the casino complex. Because the major topographic features of the affected area would be preserved, impacts are considered less than significant.

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Soils/Geology

The Reduced Intensity Alternative could adversely affect soils due to erosion during construction, operation, and maintenance activities. Such activities include clearing, grading, trenching, and backfilling. These activities would be reduced due to the relatively small scale of the project in relation to Preferred Project. The majority of the soils existing on the project site have a moderate erosion potential based on soil type and slope gradients. Las Posas fine sandy loam is a gabbroic soil found near the project site which has the potential to support sensitive plant species. However, the majority of these areas are either developed or severely degraded as a result of cattle grazing, thereby substantially limiting the potential for this species to occur. Potential effects to sensitive species would be reduced, as compared to the Preferred Project.

As recommended through Mitigation Measure A in **Section 3.3,** the Erosion Control Plan and Erosion Control Details would be implemented during the construction and operation of the project, thus assuring that adverse effects resulting from erosion are minimized. Landscaping of the cut and fill slopes and other disturbed areas would also mitigate long-term effects to erosion by covering and stabilizing the soil surface with plants and mulch. Therefore, with implementation of mitigation measures recommended in **Section 3.3,** effects from the Reduced Intensity Alternative are considered to be less than significant and proportionally less than Preferred Project.

Seismicity

Construction of a casino and hotel under the Reduced Intensity Alternative would not be affected by seismicity, as the area has low liquefaction and acceleration characteristics. Liquefaction is considered very low due to the dense nature of the underlying granitic rocks. Since no known fault traces are mapped as crossing the area, the potential for surface rupturing along an onsite fault trace is considered low and should not be considered a constraint to this alternative.

Construction of facilities would adhere to the Uniform Building Code. Use of the 1997 UBC would allow for ground shaking-related hazards to be managed from a geologic, geotechnical, and structural standpoint such that risks to the health or safety of workers or members of the public would be reduced to a less than significant level.

Mineral Resources

The Reduced Intensity Casino would not adversely affect known or recorded mineral resources. Alteration in the land use would not result in a loss of economically viable aggregate rock or diminish the extraction of important ores or minerals. Because there are no known or mapped mineral resources within the project area, development and use of the land

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would not be affected by such resources. There are no abandoned mines, shafts, or tailing that would affect development.

NO-ACTION ALTERNATIVE

Under the No Action Alternative, the proposed developments would not be constructed on the existing Indian Village site. The existing Indian Village site would remain in its current use as a vacant tribal center. The topography and soils would remain undisturbed. Thus no landform, soil, or seismic effects would occur under this alternative.

3.2.3 MITIGATION

No mitigation is required as no significant impacts are expected.

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3.3 WATER RESOURCES

3.3.1 ENVIRONMENTAL SETTING

SURFACE WATER, DRAINAGE, FLOODING

The project area is located within the Otay Basin (Hydrologic Unit 10.33) at the border with the Sweetwater Basin (Hydrologic Unit 9.21) as identified in the San Diego Regional Water Quality Control Board's Water Quality Control Plan (Basin Plan). Locally, the project area is within the Jamul Hydrologic Subarea (JHS) comprising approximately 10 square miles at the headwaters of Jamul Creek north of the Jamul Mountains, and therefore within the Jamul Creek watershed.

Surface runoff from the project site drains to the main wash traversing the area in a north-south direction during storm events. The wash also carries runoff from approximately 3,000 feet north of the project area. For each alternative, the storm drainage discharge volume was calculated using the total acreage of areas proposed for development. This calculation was based on the findings of the Flood Plain Analysis and Hydrology Report prepared for the project site. This report is incorporated by reference from Appendix A of the Jamul EIS. The total existing discharge for the areas proposed for development in each alternative are listed below in **Table 3.3-1**.

TABLE 3.3-1
EXISTING ON-SITE DISCHARGE

Alternative	Area Proposed for Development (acres)	Existing Condition (cfs)
Preferred Project	6	10.3
Reduced Alternative	6	10.3

cfs - cubic feet per second
SOURCE: AES. 2006.

The project area is not located in a major floodplain as mapped by the Federal Emergency Management Agency (FEMA, 1997). The entire project area is within Zone D for areas of undetermined flood risk.

A detailed description of surface water, drainage, and flooding of the project site is included in the Jamul EIS and is incorporated by reference from **Section 3.3.1**, page 3-9 through paragraph 1 on page 3-11, and paragraph 3 on page 3-11 through page 3-13.

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GROUND WATER

Groundwater in the project area is considered to occur predominantly in alluvial soils. Geological structures where significant volumes of groundwater could occur are not presently known to exist in the JHS. A soil boring within the intermittent wash on the project site encountered groundwater at a depth of 13.5 feet which is consistent with a report prepared by the County of San Diego indicating that the mean water level for wells drilled in "etchbasins" (intermountain basins such as the JHS) was 40 feet with a range between 7 feet to 250 feet. A detailed description of groundwater in the region of the project site is included in the Jamul EIS and is incorporated by reference from **Section 3.3.2,** page 3-13 through page 3-14.

WATER QUALITY

Surface Water Quality

The streams and drainages in the project area are intermittent, responding to precipitation. Cattle grazing in the project area has resulted in the introduction of manure and has increased erosion, compaction, and stream-bank degradation on-site. These and other effects of cattle grazing typically lead to increased temperature and decreased dissolved oxygen content of surface waterways (Jacobs, 1992). The flow of surface water over cattle manure and subsequent percolation through soils is one source of groundwater contamination.

Ground Water Quality

Groundwater in the JHS is characterized as locally marginal to unsuitable for domestic use due to high nitrate and total dissolved solids (TDS) (LawGibb Group, 2002 – citing DWR, 1975). A report issued by the State Water Resources Control Board, found that the JHS groundwater basin is currently impaired by salinity, TDS, and chlorides. The report lists the sources for this impairment as agriculture, agriculture-animal, animal operations, and irrigated crop production. Beneficial uses for groundwater within the Otay Hydrologic Unit include: municipal and domestic supply, agricultural supply, and industrial service supply. Water quality testing in the project area showed that groundwater on the project site exceeds federal drinking water standards.

A detailed description of the surface water quality and ground water quality in the region of the project site is included in the Jamul EIS and is incorporated by reference from **Section 3.3.3,** page 3-15 through page 3-20.

3.3.2 ENVIRONMENTAL CONSEQUENCES

PREFERRED PROJECT

The impact assessment below for water resources contains a modified version of information originally published in the Jamul EIS. The Jamul EIS impact assessment of Alternative A was

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found to be applicable to the Preferred Project due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

Drainage

Construction of Preferred Project would create impervious surfaces over approximately 6 acres of the project site, thereby preventing precipitation from infiltrating into the soil. The proposed facility would be situated atop the site's primary drainage channel that carries runoff during heavy rainstorms. This main drainage channel flows through the center of the project site in a north-south direction.

The existing discharge under a 100-year storm event for the areas proposed for development is estimated to be 10.3 cubic feet per second (cfs). Additional run-off created by the Preferred Project was calculated based on the findings of the Flood Plain Analysis and Hydrology Report included as **Appendix A** of the Jamul EIS. With the addition of development proposed by the Preferred Project, the total discharge would increase to 18.4 cfs. This increase of 8.1 cfs would be detained on-site in a proposed detention basin with an adequate capacity of 220,000 gallons.

The detention basin would be located under the proposed parking garage outside of the drainage channel. The detention basin would be sized to handle the additional runoff generated by the project development so that downstream runoff during the peak period is not increased when compared with pre-project conditions. The basin will allow for a controlled release of stormwater runoff as downstream capacity allows. Therefore, additional runoff from the project site will not significantly affect downstream drainage conditions.

The proposed casino complex would be designed to straddle the intermittent drainage channel that transects the project site. All development would take place outside of the 100 year flood plain. Retaining walls for the proposed development would be placed approximately 4.5 feet outside the floodplain limits.

The Preferred Project is also consistent with the Clean Water Act (CWA) including 40 CFR 230, which provides guidelines for issuing Section 404 permits. As discussed in **Section 3.5** of this document, a formal delineation of "waters of the U.S." occurring within the project site identified one intermittent drainage channel that transects the Jamul Indian Village site. This channel, referred to as Intermittent Drainage A, is subject to Army Corps of Engineers (ACOE) jurisdiction under the Clean Water Act and any discharge of dredged or fill material within Intermittent Drainage A would require an ACOE permit. However, the Preferred Project would not alter Intermittent Drainage A as the development is designed to maintain the natural channel and no fill is required. Therefore no impacts to waters of the U.S. would occur under the Preferred Project and no ACOE permitting is required.

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Water Quality

Surface Water Quality

Potential effects to surface water quality could result from both construction and operational activities of the proposed facilities. Construction activities on the project site would be regulated by the United States Environmental Protection Agency (USEPA) NPDES storm water program and require coverage under USEPA's NPDES Phase II General Permit for Storm Water Discharges from Construction Activities. To receive project authorization under the USEPA's Construction General Permit, a Notice of Intent (NOI) must be submitted to the USEPA at least two days prior to commencement of construction. In accordance with the requirements of the General Permit, the tribe shall prepare a Stormwater Pollution Prevention Plan (SWPPP) to control discharge of pollutants in stormwater. This plan would be kept onsite and would be available for review by the USEPA upon request. The plan shall incorporate appropriate best management practices (BMPs) such as those listed in the California Stormwater Quality Association Stormwater Best Management Practice Handbook. It shall also include an inspection and monitoring section consistent with the requirements of the NPDES program. Implementation of the SWPPP would ensure that pollutants in stormwater runoff from the construction site are reduced to the maximum extent practicable (MEP), consistent with the San Diego County Watershed Protection, Stormwater Management and Discharge Control Ordinance.

BMPs to prevent erosion and subsequent surface water degradation would be followed during construction activities. These measures would include the use of silt fences, fiber rolls, vegetated swales, and construction area entrances and exits stabilized with crushed aggregate. Therefore, it is not expected that construction activities will result in significant adverse effects to water quality.

To control operational storm water pollution and protect surface water quality, the project will utilize a combination of site planning, structural treatment BMPs, and non-structural source control BMPs. The project has been designed to incorporate two main structural BMPs: the stormwater detention basin described above, and "Stormceptors" or sediment/grease traps that assure runoff from impervious surfaces is filtered prior to release at any discharge point. The purpose of the structural BMPs is to control and reduce by approximately 80% the Total Suspended Solids (TSS) and other potentially environmentally polluting mineral or materials such as oils and greases, nutrients and metals.

The Stormceptors are designed to comply with the federal stormwater treatment guideline of 80% reduction of total suspended solids (TSS) in post construction stormwater runoff as described in the USEPA National Management Measures Guidance to Control Nonpoint Source Pollution from Urban Areas (USEPA 842-B-02-003). This guidance document

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indicates that 80% reduction of TSS is assumed to control heavy metals, phosphorous, and other pollutants. Actual storm event monitoring data reported by the Stormceptor manufacturer provides specific removal efficiencies for various pollutants. Additional removal efficiency would be provided through the detention basin. A summary of the pollutant reduction efficiencies is listed in **Table 3.3-2** below. As runoff from the parking garage will not pass through the vegetated swales but will be discharged directly into the detention basin, separate reduction efficiencies have been listed.

In **Table 3.3-2**, combined Reduction Efficiency is determined by applying the component reduction efficiency (midpoint efficiency for those components with ranges listed) to the pollutant level in the effluent from the previous control device. The final pollutant level is divided by the initial pollutant level and subtracted from 1 to express the combined reduction

TABLE 3.3-2
ESTIMATED STORMWATER POLLUTANT LEVELS
AND REDUCTION EFFICIENCIES OF STRUCTURAL BMPS

Pollutant	Anticipated Level in Stormwater[a] (mg/L)	Stormceptor Reduction Efficiency[b]	Detention Basin Reduction Efficiency[c]	Estimated Combined Reduction Efficiency	Anticipated discharge pollutant level (mg/L)
Total Suspended Solids	80	80%	30-65%	**90%**	8
Total Petroleum Hydrocarbon	3.5	80%		**80%**	0.70
Total Phosphorous	0.3	11%	15-45%	**N/A**	N/A
Total Nitrogen	2	43%	15-45%	**N/A**	N/A
Zinc	0.14	39%	15-45%	**57%**	0.06
Copper	0.01	28%	15-45%	**50%**	0.01
Lead	0.018	51%	15-45%	**66%**	0.01

[a] Source: USEPA, National Management Measures to Control Nonpoint Source Pollution from Urban Areas, USEPA 842-B-02-003 July 2002.
[b] Source: Stormceptor supplied performance studies, 2003.
[c] Source: USEPA, Preliminary Data Summary of Urban Storm Water Best Management Practices, USEPA 821-R-99-02, August 1999.

efficiency as percent reduction. For Example: Estimated Total Suspended Solids in the uncontrolled stormwater is 80 mg/L. The Stormceptor estimated control efficiency (80%) will reduce this to 16 mg/L (20%). The detention basin will reduce the remaining 16 mg/l by 48%, leaving a residual concentration of 7.68 mg/L. To determine the % efficiency 7.68 is divided by 80 and subtracted from 1 to get a combined percent reduction of approximately 90%.

Parking areas and roadways are a key area of concern because many of the pollutants (i.e. oil, metals) originate from vehicles. Runoff from the top level of the parking garage will pass

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through both the structural BMPs prior to release. An additional precaution will be undertaken during operation to limit parking on the upper uncovered level until the lower eight covered levels are full. This will reduce the amount of pollutants from vehicles that would be deposited on the surface of the parking structure that would enter runoff. Because the fact that most of the parking will be covered and thus not exposed to rain, the parking garage is not considered a major source of stormwater runoff.

Numerical water quality objectives have been set for some of the expected pollutants. For pollutants that do not have numerical limits set, water quality objectives are narrative and require protection of beneficial uses. For these pollutants, drinking water maximum contaminant levels (MCLs) were chosen as limits which would be protective of beneficial uses. In addition, state and local agencies were consulted to determine surface water quality requirements (Smith, 2003; Baczkowski 2003; Fox, 2003). A comparison of the expected effluent levels to water quality objectives for the area shows that anticipated water storm water quality will meet all applicable water quality objectives. This comparison is provided in **Table 3.3-3**

Based on this analysis, project site runoff quality is not expected to exceed applicable water quality objectives for all of the pollutants of concern for the protection of beneficial uses. Measures taken will be to isolate the immediate area around garbage bins and direct runoff to the wastewater treatment plant to be treated. This will remove the possibility of trash bin leachate or grease entering into surface waters, but will not present a substantial addition to the amount of wastewater treated. Based on an approximate surface area of 500 square feet surrounding the trash bins, and a 100-year (24 hour) rain event of 6.5 inches, only 2,027 gallons of additional stormwater would require treatment. This represents only 1.0 percent of the estimated average daily wastewater flow or 0.5 percent of the peak estimated peak daily wastewater flow under buildout conditions.

TABLE 3.3-3
COMPARISON OF STORMWATER DISCHARGE TO DESIGN OBJECTIVES

Pollutant	Anticipated discharge pollutant level	Design Objective	Basis for Objective
Total Suspended Solids	2.91 (96% reduction)	80% reduction[a]	No numerical limit listed in San Diego Basin Plan. Objective based on USEPA recommended 80% reduction efficiency[a], which is expected to protect beneficial uses.
Total Petroleum Hydrocarbon	0.7	No visible film	San Diego Basin Plan[b]
Total Phosphorous	0.07	<0.1 mg/L in a flowing body of water	San Diego Basin Plan[b]

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Total Nitrogen	0.28	Maintain N:P ratio of no more than 10:1	San Diego Basin Plan[b]
Zinc	0.03	5 mg/L	No numerical limit listed in the San Diego Basin Plan. Objective based on California Secondary Drinking Water Standard, which is expected to protect beneficial uses.
Copper	<0.01	1.3 mg/L	No numerical limit listed in the San Diego Basin Plan. Objective based on California Primary Drinking Water Standard, which is expected to protect beneficial uses.
Lead	<0.01	0.05 mg/L	No numerical limit listed in the San Diego Basin Plan. Objective based on California Primary Drinking Water Standard, which is expected to protect beneficial uses.

[a] Source: USEPA, National Management Measures to Control Nonpoint Source Pollution from Urban Areas, USEPA 842-B-02-003 July 2002.

[b] Source: California Regional Water Quality Control Board San Diego Region, Water Quality Control Plan for the San Diego Basin, September 8, 1994

In addition to the structural treatment measures, reduction of stormwater pollutant levels will be ensured through use of source controls described in the San Diego County Storm Stormwater Standards Manual (Standards Manual) or equivalent controls. The Standards Manual requires commercial facilities to implement BMPs in the following areas:

- Employee Training
- Stormwater Pollution Prevention Plans
- Storm Drain Tileage and Signing
- Annual Review of Facilities and Activities
- Pollution Prevention
- Materials and Waste Management
- Vehicles and Equipment
- Outdoor Areas

The combination of structural and non-structural BMPs will reduce pollutants in stormwater to the maximum extent practicable. The residual pollutant concentration of the stormwater runoff will not negatively impact biological resources within the preserve and will prevent violation of water quality standards downstream. To verify control and appropriate reduction of contaminants in surface runoff, the Tribe will implement a water quality monitoring program that will include testing for the contaminants listed above.

The water quality monitoring program will be developed with input from the USEPA and will provide schedules and standards for the assessment and protection of surface water runoff and groundwater. Once the program is finalized, it will be adopted by Tribal

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Ordinance. The Tribe will supply the USEPA with a copy of the final program. While the scope of the final program will be determined in consultation with the USEPA, it could include the following items:

- Water quality objectives identified (based on San Diego Basin Plan and the California Primary Drinking Water Standard for the protection of beneficial uses).
- Schedule of surface water and groundwater monitoring.
- Sampling locations (at a minimum sampling sites will include a site above all proposed development and a site downstream of all development but prior to surface waters entering the Fish and Game Refuge).
- Pollutants to be tested for in surface water samples (analytes will include total suspended solids (TSS), oils and greases, metals and nutrients (total nitrogen and total phosphorous).
- Pollutants to be tested for in ground water samples (analytes will include BOD, TSS, Coliform, Turbidity, pH, nitrate, phosphates and sulfates).
- Source reduction measures (including the regulated application of fertilizers to avoid runoff, cleaning of roadway and parking surfaces, and limiting parking on top level of parking garage).
- Record keeping protocol (monitoring records to be maintained on site available for USEPA review)
- Annual review of water quality program (to include results of sampling, assessment of the effectiveness of source reduction measures, and identification of changes or additions to the program to ensure that water quality objectives are met).

The on-site wastewater facility would employ an immersed membrane bioreactor (MBR) plant to produce very high quality tertiary effluent that will meet Title 22 criteria for the highest quality of recycled water. The wastewater would, in effect, be treated to allow for "full body contact" prior to disposal. An ultraviolet light (UV) disinfection system is proposed. UV disinfection provides efficient and consistent microbial inactivation without the risk of chlorine contamination of water quality. The plant will also denitrify the effluent to address nitrate concerns. Disposal of treated wastewater would involve transporting it off-site to be used for irrigation purposes at the Mesa Grande Reservation located in Santa Ysabel, which is approximately 70 miles to the northeast of Jamul. No adverse effects to public health would result from disposal of treated wastewater.

The wastewater treatment plant would also be designed with two immersed microfiltration membrane bioreactor systems, each sized to handle half of the peak design wastewater flow. This would allow one system to be taken off-line for maintenance during off-peak days. If maintenance is necessary during peak hours, the capacity of one system can be increased temporarily resulting in an increased need to clean the filters in the system (after 2-3 weeks).

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If both systems become dysfunctional, the emergency storage basin (located within the wastewater treatment plant) may be used to store untreated wastewater temporarily and, if necessary, the facilities could be shut down temporarily until the treatment plant is operational. The treatment system is designed for 100% redundancy. Wastewater will not be discharged to surface waters.

Components of the project design, including the use of Stormceptors, serve to protect water quality. The Tribe also proposes to monitor surface water quality above the project site and just before surface waters enter the California Department of Fish and Game Wildlife Refuge. Therefore, it is not expected that operation of the proposed facility will result in significant adverse effects to surface water quality. Mitigation measures have been included below in **Section 3.3.3** to assure that effects are minimized. Please see **Section 3.5** for a discussion of potential effects to the California Department of Fish and Game Wildlife Refuge and downstream habitat.

Groundwater Quality

Groundwater will not be utilized during construction or operation of the Preferred Project. The project will receive its water supply from the Otay Water District. Wastewater from the project's facilities will be tertiary treated at the on-site wastewater treatment plant. Tertiary treated recycled water includes secondary effluent that has been disinfected to a level such that the median coliform bacteria in the water do not exceed 2.2 most probable number per 100 mL. Title 22 defines the tertiary treatment process as wastewater that has been oxidized, coagulated, clarified, and filtered. The recycled water turbidity should not exceed two nephelometric turbidity units (NTU) on average, should not exceed 5 NTU more than five percent of the time during any 24-hour period, and should never exceed 10 NTU. Tertiary treated wastewater will comply with the California Department of Health Services' (DHS) regulations under Title 22, Division 4, Chapter 3 of the California Administrative Code (Title 22). Wastewater will meet Title 22 standards and will also comply with RWQCB Basin Plan and federal drinking water standards for nitrate and turbidity. Following treatment, the wastewater will be transported off-site to the Mesa Grande Reservation in Santa Ysabel where it will be used for irrigation purposes. Therefore, no disposal of wastewater will take place on the Jamul Reservation.

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A watershed's runoff characteristics are altered when impervious surfaces replace natural vegetation. Runoff changes may increase stream volumes, increase stream velocities, increase peak discharges, shorten the time to peak flows, and lessen groundwater contributions to stream base-flows during non-precipitation periods. All runoff from the project site will be directed into stormwater inlets that are designed with vegetation around the inlet entrance to filter surface runoff. Each inlet will be fitted with a sediment/grease trap that will filter the surface runoff prior to being released in the drainage channel. At the point

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of release, the runoff will pass through a stormceptor that will further reduce runoff contaminants. As discussed above under surface water quality, project site runoff quality would exceed applicable water quality objectives, including those in the San Diego Basin Plan and the California Drinking Water Standards. Therefore, urban surface runoff will not significantly affect groundwater quality.

The operation of the proposed facility would not result in significant adverse effects to ground water quality. Mitigation measures have been included in **Section 3.3.3** to assure that effects are minimized.

REDUCED INTENSITY ALTERNATIVE

The impact assessment below for water resources contains a modified version of information originally published in the Jamul EIS. The Jamul EIS impact assessment of the Alternative A Variant was found to be generally applicable to the Reduced Intensity Alternative due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

Drainage

Construction of the Reduced Intensity Alternative would create impervious surfaces over portions of the project site, thereby preventing precipitation from infiltrating into the soil. Overall site coverage would be approximately one-half of what is anticipated under Preferred Project. As with the Preferred Project, the development would span the site's primary drainage channel that carries runoff during heavy rainstorms.

With the addition of development proposed by this alternative, the total discharge would increase. The total increase in discharge is expected to be identical to what is estimated to occur under the Preferred Project (an increase of approximately 8.1 cfs). This is because, although the overall square footage of development would decrease, the project footprint (acreage developed) would be identical to the Preferred Project. The additional run-off would be detained on-site in a proposed detention basin with a storage capacity of 220,000 gallons.

The detention basin would be located under the proposed parking structure outside of the drainage channel and would be sized to handle the additional runoff generated by project development so that downstream runoff during the peak period is not increased. As with the Preferred Project, the basin would allow for a controlled release of stormwater runoff as downstream capacity allows. Therefore, additional runoff from the project site would not significantly affect downstream drainage conditions.

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Impervious surfaces would be minimized to the extent feasible. Where feasible, all areas outside of buildings and roads would be kept as permeable surfaces, either as vegetation or high infiltration cover such as mulch, gravel, or turf block. Pedestrian pathways would use a permeable surface where possible. Rooftops would drain to either embedded cisterns or vegetated driplines to maximize infiltration prior to concentrating runoff.

As with Preferred Project, proposed buildings would be designed outside the 100-year floodplain. The parking structure would be designed to straddle the primary intermittent wash's 100-year floodplain. Retaining walls for the parking structure and for the casino would be placed 4.5 feet outside the floodplain limits.

This alternative is also consistent with the Clean Water Act (CWA) including 40 CFR 230, which provides guidelines for issuing Section 404 permits. As with Preferred Project, the Reduced Alternative would not alter Intermittent Drainage A that runs through the project site. The development would be designed to maintain the natural drainage and no fill is required. Therefore no impacts to Waters of the US are expected.

Water Quality

Surface Water Quality

Potential adverse effects to surface water quality could result from both construction and operational activities of the proposed facilities. As with the Preferred Project, construction activities on the project site are regulated by USEPA's NPDES stormwater program and require coverage under USEPA's NPDES General Permit for Storm Water Discharges from Construction Activities (General Permit). In accordance with the requirements of the General Permit, the tribe will prepare a Storm Water Pollution Prevention Plan (SWPPP). This plan will be kept onsite will be made available for review by the USEPA upon request. The plan will incorporate appropriate best management practices (BMPs) such as those listed in the California Stormwater Quality Association Stormwater Best Management Practice Handbook. It will also include an inspection and monitoring section consistent with the requirements of the NPDES program. Implementation of the SWPPP will ensure that pollutants in stormwater runoff from the construction site are reduced to the maximum extent practicable, consistent with the San Diego County Watershed Protection, Stormwater Management and Discharge Control Ordinance.

BMPs to prevent erosion and subsequent surface water degradation would be followed during construction. These measures would include the use of silt fences, fiber rolls, vegetated swales, and construction area entrances and exits stabilized with crushed aggregate. Therefore, it is not expected that construction activities would result in significant adverse

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effects to water quality. The overall potential for adverse effects would be reduced relative to the Preferred Project due to the reduced size of the project and associated reduction in construction intensity.

As with Preferred Project, this alternative would be designed to incorporate detention basins and "Stormceptors" prior to any discharge point to assure that the post construction runoff from the site is adequately treated prior to release to the surface runoff drainage system. Pollutant control measures, control efficiency and runoff quality would be similar to that described in the Preferred Project and summarized in **Tables 3.3-2** and **3.3-3**.

The combination of structural and non structural BMPs will reduce pollutants in stormwater to the maximum extent practicable. Reduction goals for pollutant levels will be ensured through source control measures as described in The Preferred Project. Post construction runoff quality will not exceed applicable water quality objectives. The residual runoff pollutant concentrations will not negatively impact biological resources within the preserve and will prevent violation of water quality standards downstream. To verify control and appropriate reduction of contaminants in surface runoff, the Tribe will implement a water quality monitoring program as described in the Preferred Project.

As with the Preferred Project, the on-site wastewater facility would employ an immersed membrane bioreactor (MBR) plant to produce very high quality tertiary effluent that will meet Title 22 criteria for the highest quality of recycled water. The wastewater would, in effect, be treated to allow for "full body contact" prior to disposal. An ultraviolet light (UV) disinfection system would be employed. UV disinfection provides efficient and consistent microbial inactivation without the risk of chlorine contamination of water quality. The plant would also denitrify the effluent to address nitrate concerns. Disposal of treated wastewater would involve transporting it off-site to be used for landscape irrigation. No adverse effects to public health would result from disposal of treated wastewater.

As with the Preferred Project, the WWTP would be designed with two immersed microfiltration membrane bioreactor systems, each sized to handle half of the peak design wastewater flow. This would allow one system to be taken off-line for maintenance during off-peak days. If maintenance is necessary during peak hours, the capacity of one system could be increased temporarily resulting in an increased need to clean the filters in the system. If both systems become dysfunctional, the emergency storage basin may be used to store untreated wastewater temporarily and, if necessary, the facilities could be shut down temporarily until the treatment plant is operational. The treatment system is designed for 100% redundancy. Wastewater would not be discharged to surface waters.

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Components of the project, including vegetative swales and Stormceptors would protect water quality. The Tribe would also monitor surface water quality above the project site and just before surface waters enter the CDFG property nearby. It is not expected that operation of the proposed facilities under the Reduced Alternative would result in significant adverse effects to surface water quality. The severity of potential adverse impacts would be reduced relative to the Preferred Project. The mitigation measures described for the Preferred Project in **Section 3.3.3** would be incorporated to assure that effects are minimized. Please see **Section 3.5** for a discussion of potential effects to the California Department of Fish and Game Wildlife Refuge and downstream habitat.

Groundwater Quality

Groundwater resources would not be utilized under the Reduced Alternative. The project would receive its water supply from the Otay Water District. Wastewater from the project's facilities would be tertiary treated at the on-site WWTP. Tertiary treated recycled water includes secondary effluent that has been disinfected to a level such that the median coliform bacteria in the water do not exceed 2.2 most probable number per 100 mL. The recycled water turbidity should not exceed two nephelometric turbidity units (NTU) on average, should not exceed 5 NTU more than five percent of the time during any 24-hour period, and should never exceed 10 NTU. Tertiary treated wastewater would comply with DHS regulations under Title 22 of the California Administrative Code (Title 22). Wastewater would meet Title 22 standards and would also comply with RWQCB Basin Plan and federal drinking water standards for nitrate and turbidity.

The WWTP would include membrane bioreactor facilities (MBR) that would be designed for biological oxidation, nitrification, denitrification, and solids removal. Disposal of treated wastewater would conform with the USEPA guidelines and RWQCB regulations. Surplus tertiary treated wastewater would be hauled off-site and sold for irrigational purposes. This water could eventually enter the groundwater through soil percolation. The groundwater basin in the region of the project site is impaired by salinity, total dissolved solids (TDS), chlorides, nitrate, sulfate and aluminum. The quality of the surplus tertiary treated wastewater would be high and could improve groundwater quality if used as an irrigational source in the project region. Under this alternative, recycled wastewater application would be reduced in relation to the Preferred Project due to the reduced size of project components. Based on the relative size of the facility components, wastewater effluent generated would be reduced by almost one-half at the casino and by over half at the hotel building. No adverse effects to the water quality of regional groundwater resources are anticipated.

A watershed's runoff characteristics are altered when impervious surfaces replace natural vegetation. Any runoff from a paved surface that has not been captured in a catch basin may enter the groundwater. Runoff from these surfaces could carry contaminants. Under this

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alternative, all runoff from the development would be directed into stormwater inlets that are designed with vegetation around the inlet entrance to filter surface runoff. Each inlet would be fitted with a sediment/grease trap. The vegetation would provide additional filtering. Therefore, urban runoff would not significantly affect groundwater quality.

Because the wastewater would be treated to tertiary recycled water standards, the effluent is expected to meet standards defined by the USEPA and RWQCB. It is not expected that this alternative would result in significant adverse effects to ground water quality. The mitigation measures described for the Preferred Project in **Section 3.3.3** would be incorporated into the project to assure that effects are minimized.

NO ACTION ALTERNATIVE

Drainage

No new development is proposed under the No Action Alternative. Thus, the existing drainage from the Jamul Indian Village would continue to drain to the main drainage channel and flow off-site unimpeded. Under this alternative, there would be no effect on drainage.

Water Quality

The above surface water quality control measures necessary for the construction and operation of the Preferred Project and Reduced Alternative would not be necessary for the No Action Alternative because no new development is anticipated. Because existing land uses would persist, there would be no effect on current surface or ground water quality.

3.3.3 MITIGATION

The following mitigation will reduce the identified potentially significant impacts to a less than significant level:

SURFACE WATER QUALITY

A. An Erosion Control Plan shall be developed and implemented prior to construction. During construction, surface water quality will be protected by using Best Management Practices (BMPs) as listed in the Erosion Control Plans.

B. Post-construction surface water quality will be protected through the use of vegetated swales, sediment/grease traps (Stormceptors), a detention basin and non-structural BMPs. Non-structural BMPs will be consistent with the applicable requirements of the San Diego County Stormwater Standards Manual.

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C. A sampling and monitoring program will be developed and implemented to assess the quality of surface water entering and leaving the project site. At a minimum, sampling sites will include: a site above all proposed development; and, a site downstream of all development but prior to surface waters entering the Fish and Game Refuge. Analyses will include total suspended solids (TSS), oils and greases, metals and nutrients (total nitrogen and total phosphorous).

D. The Tribal Government will meet standards identical to those established by Sections 67.801 through 67.811 of San Diego County Code of Regulatory Ordinances (Stormwater Ordinance) when constructing and operating the proposed facility.

E. The Tribal Government will meet standards identical to those established by Caltrans Storm Water Quality Handbook dated March 1,2003 when constructing and operating the proposed facility.

F. The Tribal Government will meet standards identical to those established by California Storm Water BMP Handbook of Construction dated January 2003 when constructing and operating the proposed facility.

G. The pavement in the immediate area around the garbage bins will be isolated from the surrounding pavement by a break in the grade or other means of diversion. The runoff from the garbage bin area will then be directed to the sewer system and treated by the WWTP.

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H. Fertilizer use will be limited to use the minimum amount necessary, taking into account any nutrient levels in the recycled water source. Fertilizer will not be applied prior to a rain event.

GROUND WATER QUALITY

The following mitigation measures are presented to further reduce the effect. The impact is less than significant.

I. Effluent from the project will be treated by an immersed membrane bioreactor (MBR) plant, an advanced treatment facility that produces very high quality tertiary effluent that will meet Title 22 criteria for the highest quality of recycled water.

J. A sampling and monitoring program on the wastewater treatment plant effluent will be developed and implemented in consultation with the USEPA. Typically, similar facilities generally monitor effluent quality for BOD5, TSS, and coliform on a regular basis.

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3.4 AIR QUALITY

3.4.1 ENVIRONMENTAL SETTING

REGIONAL METEOROLOGY

The project site is located in the San Diego Air Basin (SDAB), which consists mainly of coastal plains and foothills. The region's abundant sunshine and warm summer temperatures speed the reaction that chemically alters air pollutants into photochemical smog. Air pollutants produced in the populated areas along the coast are blown against the eastern foothills and trapped under the warm marine layer. Consequently, inland foothill areas receive the impact from regional air pollution. A detailed discussion of the regional meteorology is included in the Jamul EIS and incorporated by reference from **Section 3.4.1**, pages 3-20 through 3-21.

POLLUTANTS OF CONCERN

The U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have identified air quality standards for criteria pollutants in order to address the typical exposure found in the environment. Criteria pollutants that are of greatest concern for the Proposed Project are carbon monoxide (CO), ozone, and respirable particulate matter less than 10 microns in diameter (PM_{10}). Ozone is a pollutant created in the atmosphere through the combination of two "precursors", reactive organic gases (ROG) and nitrogen oxides (NO_X), in the presence of sunlight. A detailed description of these pollutants is included in the Jamul EIS and incorporated by reference from **Section 3.4.2,** pages 3-22 through 3-25.

Since the Jamul EIS, several changes have occurred. As of June 15, 2005, the federal 1-hour ozone standard was revoked. In setting the 8-hour ozone standard, EPA concluded that replacing the existing 1-hour standard with an 8-hour standard was appropriate to provide adequate and more uniform protection of public health from both short-term (1 to 3 hours) and prolonged (6 to 8 hours) exposures to ozone. San Diego County had received attainment status for the 1-hour standard prior to revocation but is presently designated "basic" non-attainment for the 8-hour federal standard, with a projected attainment date of June 2009. In addition, CARB has adopted an 8-hour standard for ozone of 0.070 parts per million (ppm) that became effective May 2006. Designations will be forthcoming.

Additionally, official designations for the new federal fine particulate matter, less than 2.5 microns or $PM_{2.5}$, standard have occurred and San Diego County has been designated "unclassifiable/attainment". On July 5, 2003, CARB modified the particulate matter standards with a new $PM_{2.5}$ standard of 12 micrograms per cubic meter ($\mu g/m^3$) as an annual arithmetic mean, lowered the annual average PM_{10} to 20 $\mu g/m^3$, and retained the 24-hour PM_{10} standard.

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EXISTING AIR QUALITY

There are three categories of emission sources: stationary, mobile, and area. The main source of anthropogenic (or man-caused) ROG and NO_X in San Diego County is on-road motor vehicles, i.e. 32 percent of the ROG and 55 percent of the NO_X. Construction and demolition activities, paved road dust, and unpaved road dust represent the largest source of PM_{10} and $PM_{2.5}$ emissions in San Diego County. Progress has been made in the SDAB in attaining federal and state air quality standards established by the federal Clean Air Act of 1970 and the California Clean Air Act. As of 2006, federal and state standards have been met for lead, NO_2, sulfur dioxide, and CO. Whereas federal standards are being met for PM_{10} and $PM_{2.5}$, state standards for PM_{10} and $PM_{2.5}$ have not been met to date. EPA retains permitting authority for sources of air pollution located on the project site as well as jurisdiction for all Clean Air Act matters relative to the reservation. A detailed description of the existing air quality is included in the Jamul EIS and incorporated by reference from **Section 3.4.3**, pages 3-25 through 3-31.

In order to bring the existing air quality discussion up to date, **Table 3.4-1** shows an updated emissions inventory for San Diego County and **Table 3.4-2** shows the latest three years of air monitoring data and related National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). Only 3 monitoring sites are within a 15-mile radius of the project site. Approximately 7 miles northwest is an air monitor in the City of El Cajon, on Redwood Avenue. This monitor measures ozone, PM_{10}, and $PM_{2.5}$. Approximately 11 miles north-northeast is an ozone monitor in the City of Alpine and in Chula Vista, on East J Street, approximately 12 miles west-southwest is a monitor that measures CO, ozone, PM_{10}, and $PM_{2.5}$.

TABLE 3.4-1
SAN DIEGO COUNTY 2005 ESTIMATED ANNUAL EMISSIONS (TONS PER DAY)

EMISSION CATEGORY	POLLUTANT				
	ROG	CO	NO_x	PM_{10}	$PM_{2.5}$
Fuel Combustion	3.3	32.1	9.0	2.4	2.3
Waste Disposal	2.9	0.1	0.2	0.1	0.1
Cleaning and Surface Coatings	37.6	0	0	0	0
Petroleum Production and Marketing	9.4	0	0	0	0
Industrial Processes	2.4	0.6	0.3	5.7	4.3
Solvent Evaporation	32.6	0	0	0	0
Miscellaneous Processes	7.5	68.2	3.0	98.9	27.3
On-Road Motor Vehicles	60.5	626.3	113.0	4.5	3.1
Other Mobile Sources	32.1	256.2	52.0	6.0	5.5
Natural Sources	76.1	137.5	4.2	13.9	11.8
TOTAL	**264**	**1,121**	**182**	**132**	**54**

SOURCE: CARB, 2006a.

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TABLE 3.4-2
AIR MONITORING RESULTS

Pollutant (Location)	CAAQS	NAAQS	2003	2004	2005
Ozone (El Cajon)					
Highest 1-Hour Average (ppm)	0.09	~~0.12~~	**0.102**	**0.096**	0.092
Highest 8-Hour Average (ppm)		0.08	0.073	0.078	0.072
Days > State 1-Hour Standard			1	1	0
Days > Federal 1-Hour Standard			0	0	0
Days > Federal 8-Hour Standard			0	0	0
Ozone (Chula Vista)					
Highest 1-Hour Average (ppm)	0.09	~~0.12~~	0.075	**0.097**	0.083
Highest 8-Hour Average (ppm)		0.08	0.056	**0.087**	0.081
Days > State 1-Hour Standard			0	1	0
Days > Federal 1-Hour Standard			0	0	0
Days > Federal 8-Hour Standard			0	1	0
Ozone (Alpine)					
Highest 1-Hour Average (ppm)	0.09	~~0.12~~	**0.125**	**0.106**	**0.113**
Highest 8-Hour Average (ppm)		0.08	**0.103**	**0.090**	**0.088**
Days > State 1-Hour Standard			18	5	8
Days > Federal 1-Hour Standard			1	0	0
Days > Federal 8-Hour Standard			6	2	1
Carbon Monoxide (Chula Vista)					
Highest 8-Hour Average (ppm)	9.0	9	5.40	2.48	2.13
Days > Federal and/or State 8-Hour Standard			0	0	0
PM_{10} (El Cajon)					
Highest State 24-Hour Average ($\mu g/m^3$)	50		**240**	**56**	41
Highest Federal 24-Hour Average ($\mu g/m^3$)		150	**230**	55	41
Days > State Standard			5	1	0
Days > Federal Standard			1	0	0
National Annual Average		50	34.4	30.1	N/A
State Annual Average	20		**34.9**	**30.3**	N/A
PM_{10} (Chula Vista)					
Highest State 24-Hour Average ($\mu g/m^3$)	50		**78**	45	**63**
Highest Federal 24-Hour Average ($\mu g/m^3$)		150	75	44	52
Days > State Standard			2	0	2
Days > Federal Standard			0	0	0
National Annual Average		50	27.0	25.8	N/A
State Annual Average	20		**27.6**	**26.5**	N/A
$PM_{2.5}$ (El Cajon)					
Highest Federal 24-Hour Average ($\mu g/m^3$)		65	43.7	44.4	27.5
Days > Federal Standard			0	0	0
National Annual Average		15	N/A	13.2	N/A
State Annual Average	12		N/A	N/A	N/A
$PM_{2.5}$ (Chula Vista)					
Highest Federal 24-Hour Average ($\mu g/m^3$)		65	**239.2**	32.7	28.0
Days > Federal Standard			1	0	0
National Annual Average		15	14.4	12.2	N/A
State Annual Average	12		**14.4**	**12.2**	N/A

Notes: The number of days that at least one measurement was greater than the level of the state or national standard is not necessarily the number of violations of the standard for the year since the hourly and eight hour standards can be violated more than once per day.

* 1-hour federal ozone standard was in effect for these three monitoring years, even though it is now inapplicable
ppm = parts per million
$\mu g/m^3$ = micrograms per cubic meter
Bold = exceeds standard

Source: CARB, 2006b

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3.4.2 ENVIRONMENTAL CONSEQUENCES

METHODOLOGY

Emissions and air quality impacts of the project would occur primarily as a result of construction activities and traffic generation. Traffic counts and construction activities for the Preferred Project and Reduced Intensity Alternative would be slightly less intense than for Alternative A and the Alternative A Variant analyzed in the Jamul EIS. Therefore, air quality emissions would also be slightly reduced when compared with the Jamul EIS Alternatives.

The methodology used to assess the air quality effects of the project included a separate analysis of each phase of the project. The project phases are referred to as Phase A and Phase B in **Section 2.0**. Phase A was analyzed with a 2007 target date, and Phase B with a 2009 target date.

URBEMIS 2002 version 8.7.0 was used to estimate emissions from all construction-related sources. URBEMIS is a California-specific computer model that is owned and modified by the local air pollution control districts and air quality management districts in the State of California. URBEMIS estimates construction, area source, and operational emissions of ROG, NO_X, and PM_{10} from potential land uses, using the most recent approved version of relevant CARB emissions models and emission factors and/or District-specific emission factors; and estimates emissions reductions.

For this project, URBEMIS defaults were used with construction estimated to be operating an average of 22 days per month for 12 months. The second phase of of construction was assumed to be operating an average of 22 days per month for 12 months. Output files from the URBEMIS 2002 model are presented in **Appendix C**.

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URBEMIS 2002 was also used to estimate emissions associated with long-term operation of the Proposed Project and the Reduced Alternative. Input values for the URBEMIS 2002 model included URBEMIS defaults and data from the traffic studies for the Proposed Project and the Reduced Alternative (MRO, Inc., 2006).

An initial screening was conducted to determine the need for detailed microscale dispersion modeling of CO concentrations. The potential impact of the Preferred Project and the Reduced Alternative on local CO levels was assessed by applying screening procedures described in the *Transportation Project-Level Carbon Monoxide Protocol (Protocol)* (Garza, *et al*, 1997) and then, if indicated by the screening procedures, conducting detailed microscale air quality dispersion modeling.

The screening procedure applied in this document focuses on the effects of the project alternatives on intersection operations. Since elevated CO concentrations are associated with

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traffic congestion, a project is considered to have no potential for significant impacts on CO concentrations if it does not substantially contribute to excessive traffic congestion.

According to Section 4.7.4 of the *Protocol*, projects that would result in operation of a signalized intersection worsening from LOS D or better to LOS E or F are considered to have the potential for resulting in a significant CO air quality impact. In addition, according to Section 4.7.3 of the protocol document, projects that would result in the worsening of a signalized intersection already operating at LOS E or F are considered to have the potential for resulting in a significant CO air quality impact.

Projects that would meet these criteria are considered to have the potential for resulting in a significant CO air quality impact. According to the *Protocol* document, detailed dispersion modeling is not needed for projects that do not meet these criteria.

The screening procedures described above were applied to traffic analysis results presented in this TEIS/R. The traffic analysis presents peak hour LOS at study intersections. Both the LOS results, and a comparison of LOS with and without the Preferred Project, are used to determine whether CO concentrations in excess of the air quality standards would occur.

If the CO screening procedures indicated detailed modeling of a scenario was needed, estimates of CO concentrations would be made using the California Department of Transportation's (Caltrans) microscale air quality model: CALINE4 (Benson, 1989). CALINE4 is a dispersion model that predicts CO impacts near roadways. The user defines the proposed roadway geometry, worst-case meteorological parameters, anticipated traffic volumes, and receptor positions. The user must also define CO emission factors for each roadway link.

PREFERRED PROJECT

The impact assessment below for air quality contains a modified version of information originally published in the Jamul EIS. The Jamul EIS impact assessment of Alternative A was found to be applicable to the Preferred Project due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration, location of the project as currently proposed and is provided below, and to incorporate current changes in model versions and protocol methods.

Phase A Effects

Implementation of Phase A of the Preferred Project would result in short-term construction-related effects, and long-term effects related to operation of the project. The following is a description of these effects.

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Construction-Related Emissions Generated by the Preferred Project – Phase A

Construction of Phase A of the Preferred Project would result in the generation of ROG, NO_x, PM_{10}, and CO emissions. **Table 3.4-3** presents an estimate of these construction-related emissions for both Phases of the Preferred Project in tons per year (tpy) and pounds per day (ppd) and the related emissions thresholds. The table shows that the project would not violate either federal or local standards.

TABLE 3.4-3
UNMITIGATED CONSTRUCTION EMISSIONS
PREFERRED PROJECT

Proposed Project	ROG		NOx		PM_{10}		CO	
	tpy	ppd	tpy	ppd	tpy	ppd	tpy	Ppd
Phase A - 2006	1.0	21.2	7.0	137.9	0.7	50.1	8.2	177.4
Phase A - 2007	0.9	36.9	4.3	92.7	0.0	0.2	5.2	116.3
Phase B - 2008	1.0	21.1	6.5	129.6	0.7	50.0	8.3	180.6
Phase B - 2009	0.9	33.0	4.0	85.8	0.0	0.1	5.3	115.3
Maximum Year	***1.0***	***36.9***	***7.0***	***137.9***	***0.7***	***50.1***	***8.3***	***180.6***
Federal Thresholds	*100*		*100*		*N/A*		*100*	
Local Thresholds		*75*		*250*		*100*		*550*

NOTE: Emissions shown are for the highest year in the multi-year construction period.
SOURCE: AES 2006, MBA 2006

Even though this project is not a federal action and subsequently EPA's general conformity rule does not apply, the general conformity rule's *de minimis* emissions thresholds are presented here for informational purposes. For this analysis, the general conformity *de minimis* thresholds are used as a comparison threshold for construction-related effects. The thresholds are based on the current basic ozone non-attainment designation of San Diego County and the attainment/maintenance designation for CO. *De minimis* thresholds are only applicable in non-attainment or maintenance areas, thus there is no *de minimis* threshold for PM_{10}. If this project were a federal action, construction-related emissions would be considered significant if they equal or exceed 100 tpy of ROG, NO_X, or CO emissions.

In addition, based on discussions with San Diego County staff, construction-related emissions should be considered significant if they equal or exceed 75 ppd of volatile organic compounds (VOC)[1] emissions, which is based on thresholds from the neighboring South Coast Air Quality Management District or 250 ppd of NO_X emissions, 550 ppd of CO emissions, or 100 ppd of

[1] VOCs are any organic compound containing at least one carbon atom except for specific exempt compounds found to be non-photochemically reactive. In this document, VOC is synonymous with ROG.

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PM_{10} emissions, which are based on the San Diego County Air Pollution Control District's Air Quality Impact Analysis levels in Rule 20.2 (Covic, 2006)[2].

Construction emissions resulting from implementation Phase A of the Proposed Project are below any federal or local thresholds for construction. Nevertheless, best management practices (BMPs) identified in **Section 3.4.3** will ensure that fugitive dust emissions are further reduced.

Construction-Related Diesel Exhaust Emissions Generated by the Preferred Project – Phase A

Construction of Phase A of the Preferred Project would result in the generation of diesel equipment exhaust emissions. EPA has listed diesel exhaust as a mobile sources air toxic (MSAT) (66 Fed. Reg. 17229 (March 29, 2001)). Diesel exhaust MSAT is expressed as diesel particulate matter, measured as PM_{10}, (DPM) plus diesel exhaust organic gases DEOG. Combined these MSATs are represented as DPM+DEOG. Although EPA has listed diesel exhaust as a MSAT, it has established neither control requirements, emissions standards, nor applicability or significance thresholds for DPM+DEOG, at this time relying on other programs to cause reductions in DPM+DEOG as well as the targets of the programs. With exceptions established for specific industrial categories through regulations, the Clean Air Act has established a threshold for determining whether a stationary source that emits hazardous air pollutants (HAPs) is major in Section 112 of the Clean Air Act; this threshold is also the *de minimis* threshold for determining whether new sources are of concern. These thresholds, 10 tpy for a single HAP or 25 tpy for a combination of HAPs, are logical thresholds to extrapolate to construction-related diesel emissions, particularly as there are no other mass emissions thresholds that are applicable. Unlike other categories of mobile sources, construction-related mobile sources move around within a single location for the period of time that they are necessary for construction. Like stationary sources, the emissions derive from a stationary location, despite the movement of the generators of the emissions. As DPM+DEOG is considered a single MSAT, the 10-tpy threshold is appropriate.

Table 3.4-4 presents the DPM+DEOG emissions estimated to be generated during construction of the both Phases of the Preferred Project. Construction of Phase A of the Preferred Project would result in 1.32 tpy of DPM+DEOG emissions. These construction-related diesel emissions are below the 10-tpy threshold and would be a less than significant effect. Although these diesel equipment exhaust emissions resulting from the construction of Phase A or the Preferred Project are below federal or local thresholds, measures identified in **Section 3.4.3** will ensure that diesel equipment exhaust emissions are further reduced.

[2] Telephone conversation with Mario Covic, Planner II, San Diego County Department of Planning and Land Use and Joe O'Bannon, Michael Brandman Associates on 6/26/06.

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TABLE 3.4-4
SUMMARY OF CONSTRUCTION-RELATED EXHAUST ROG AND PM_{10} EMISSIONS
PREFERRED PROJECT

Project Alternative	Emissions		
	ROG	PM_{10}	DPM+DEOG
Preferred Project - Phase A Only	1.02	0.30	1.32
Preferred Project - Phase B Only	1.01	0.25	1.26

NOTE: All values are in tons per year.
SOURCE: AES 2006, MBA 2006

Ozone Precursor and PM_{10} Emissions Generated by Operation of the Preferred Project – Phase A

The general conformity *de minimis* thresholds and local thresholds provided by San Diego County are applied in this environmental document to determine the significance of ROG, NO_X, and PM_{10} emissions associated with operation of the project. The local ROG threshold from the South Coast Air Quality Management District is only 55 ppd for operational emissions, unlike the 75 ppd that related to construction emissions. In contrast to ozone and PM_{10}, which are generally regional pollutants, high concentrations of CO are generally localized and occur on a microscale level. As described below, CO effects associated with operation of the project are assessed in this environmental document in the hot spots analysis.

Operation of Phase A of the Preferred Project would result in the generation of ROG, NO_x, and PM_{10} emissions. **Table 3.4-5** presents unmitigated estimates of these emissions.

TABLE 3.4-5
SUMMARY OF UNMITIGATED OPERATIONAL EMISSIONS
PREFERRED PROJECT

Proposed Project	ROG		NOx		PM_{10}	
	tpy	ppd	tpy	ppd	tpy	ppd
Phase A	10.0	49.1	13.5	66.6	9.6	52.8
Phase A + B	11.3	**56.7**	15.8	78.6	12.8	70.1
Federal Thresholds	*100*		*100*		*N/A*	
Local Thresholds		*55*		*250*		*100*

NOTE: **Bold** means threshold is exceeded
SOURCE: AES 2006, MBA 2006

Even though operational emissions from Phase A of the Preferred Project operations would be less than significant, these emissions would be further reduced by measures described in **Section 3.4.3** of this document. Table 3.4-6 reveals that the Phase A+B emissions would be less than significant with mitigation applied from Section 3.4.3.

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Carbon Monoxide Hot Spots Generated by Operation of the Preferred Project – Phase A

As shown in the *Transportation* section of this environmental document and in the Final Supplemental Traffic Impact Analysis (MRO Engineers, 2006), all of the study intersections would operate at, or will be mitigated to, LOS D or better under 2007 conditions with Phase A of the Preferred Project. Based on Section 4.7.4 of the *Transportation Project-Level Carbon Monoxide Protocol*, Phase A of the Preferred Project is considered to not have the potential for resulting in a significant CO air quality impact. Therefore, this impact is considered less-than-significant. No mitigation measures are required.

Carbon Monoxide Emissions Generated by the Preferred Project - Phase A Parking Garage

Phase A of the Preferred Project would include a parking structure. Vehicles operating within the parking structure would generate CO emissions. The upper levels of the parking structure would include openings on the exterior surfaces to provide for flow-through ventilation. The lower levels of the parking structure would be below grade, and would be mechanically ventilated. The only occupied structure in the vicinity of the parking garage would be the casino complex. The casino structure would include a mechanical ventilation system to provide filtered, heat-controlled air, and is not considered a sensitive receptor. Therefore, CO emitted by the flow-through ventilation of the parking structure would not be considered to have a significant effect on air quality.

Deleted: Mechanical ventilation would provide a minimum of 1.5 cubic feet per minute of airflow per square foot of floor area in compliance with the 1997 UBC Section 1202.2.7.¶

The mechanical ventilation system used in the lower, below-grade levels of the parking structure would collect CO emissions from vehicles within the structure. The operation of the mechanical ventilation system could expose humans to elevated CO concentrations if the exhaust is directed towards inhabited areas. This would be considered a significant effect.

The effect of potential exposure of humans to exhaust from the parking structure's mechanical ventilation system would be reduced to a less than significant level by directing the exhaust vertically and away from inhabited areas. This mitigation measure is described in more detail in **Section 3.4.3**.

Emissions and Odors Generated by the Preferred Project's Wastewater Treatment Facility

Phase A of the Preferred Project would include a wastewater treatment facility. As noted in **Section 2.2A.5**, the facility would be designed to satisfy several criteria that would comply with standards established by the EPA and the Regional Water Quality Control Board (RWQCB). These criteria include "odor free" operation of the facility. The treatment facility would use a membrane bioreactor (MBR) system as the wastewater treatment process.

Operation of the wastewater treatment facility would result in the generation of a minor amount of emissions. The facility would primarily emit nitrogen gas, which is not a criteria pollutant and

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is a relatively inert gas that makes up approximately ¾ of normal ambient air. The mechanical ventilation system in the below-grade levels of the parking structure would collect any emissions and transfer them vertically out of the parking structure away from the inhabited portions of the building. As a result, this effect is considered less than significant.

Phase B Effects

Implementation of Phase B of the Preferred Project would result in short-term construction-related effects, and long-term effects related to operation of the project. The following is a description of these effects.

Construction-Related Emissions Generated by the Preferred Project – Phase B

Construction of Phase B of the Preferred Project would result in the generation of ROG, NO_X, CO, and PM_{10} emissions. Unmitigated emission estimates are presented in **Table 3.4-3.**

Although construction emissions resulting from implementation Phase B of the Preferred Project are below any federal or local thresholds for construction, BMPs identified in **Section 3.4.3** will ensure that fugitive dust emissions are further reduced.

Construction-Related Diesel Exhaust Emissions Generated by the Preferred Project – Phase B

Construction of Phase B of the Preferred Project would result in the generation of diesel equipment exhaust emissions. **Table 3.4-4** presents the DPM+DEOG emissions estimated to be generated during construction of the various phases and alternatives for this project. Construction of Phase B of the Preferred Project would result in 1.26 tpy of DPM+DEOG emissions. These construction-related diesel emissions are below the 10-tpy threshold and would be a less than significant effect.

Ozone Precursor and PM_{10} Emissions Generated by Operation of the Preferred Project – Phase A + B

Operation of Phase B of the Preferred Project, which would include the continuing operation of Phase A, would result in the generation of ROG, NO_X, and PM_{10} emissions. **Table 3.4-5** presents estimates of these unmitigated emissions. All estimated emissions would be less than the federal thresholds. Unmitigated NO_X and PM_{10} emissions would also be less than the local thresholds, however unmitigated ROG emissions estimated from the operation of both Phase A and B of the Preferred Project would exceed the local threshold and could be considered potentially significant.

Table 3.4.6 presents the estimated emissions from the Preferred Project with mitigations applied as proposed in **Section 3.4.3.** Emissions associated with operation of Phase A and B of the Preferred Project would be reduced to a level of less than significant by requiring these mitigation measures.

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TABLE 3.4-6
SUMMARY OF MITIGATED OPERATIONAL EMISSIONS
PREFERRED PROJECT

Proposed Project	ROG		NOx		PM_{10}	
	tpy	ppd	tpy	ppd	tpy	ppd
Phase A	9.6	47.1	12.9	63.9	9.3	50.7
Phase A + B	10.8	54.2	15.0	74.3	12.2	66.8
Federal Thresholds	*100*		*100*		*N/A*	
Local Thresholds		*55*		*250*		*100*

NOTE: **Bold** means threshold is exceeded
SOURCE: AES 2006, MBA 2006

Carbon Monoxide Hot Spots Generated by Operation of the Preferred Project – Phase B

As shown in the *Transportation* section of this environmental document and in the Final Supplemental Traffic Impact Analysis (MRO Engineers, 2006), all of the study intersections would operate at, or will be mitigated to, LOS D or better under 2009 conditions with the addition of Phase B of the Preferred Project. Based on the *Protocol*, Phases A plus B are considered to not have the potential for resulting in a significant CO air quality impact. Therefore, this impact is considered less-than-significant. No mitigation measures are required.

REDUCED INTENSITY ALTERNATIVE

The impact assessment below for air quality contains a modified version of information originally published in the Jamul EIS. The Jamul EIS impact assessment of the Alternative A Variant was found to be generally applicable to the Reduced Alternative due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

Phase A Effects

Implementation of Phase A of the Reduced Alternative would result in short-term construction-related effects, and long-term effects related to operation of the project. The following is a description of these effects.

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Construction-Related Emissions Generated by the Reduced Alternative – Phase A

Construction of Phase A of the Reduced Alternative would result in the generation of ROG, NO_X, and PM_{10} emissions. Since the overall size of the facilities constructed would be reduced, construction of Phase A of the Reduced Alternative is estimated to result in almost half of the emissions of ROG, NO_X, CO, and PM_{10}, as compared to the Preferred Project. **Table 3.4-7** presents an estimate of these construction-related emissions for both Phases of the Reduced Alternative in tpy and ppd and the related emissions thresholds.

TABLE 3.4-7
UNMITIGATED CONSTRUCTION EMISSIONS
REDUCED ALTERNATIVE

Proposed Project	ROG		NOx		PM_{10}		CO	
	tpy	ppd	tpy	ppd	tpy	ppd	tpy	ppd
Phase A - 2006	0.6	11.4	4.4	74.6	0.2	16.1	4.9	96.1
Phase A - 2007	0.6	25.2	2.9	65.4	0.0	0.1	3.4	80.8
Phase B - 2008	0.7	11.4	4.6	70.1	0.1	10.1	5.8	97.7
Phase B - 2009	0.6	20.6	3.1	68.5	0.0	0.1	4.0	91.5
Maximum Year	***0.7***	***25.2***	***4.6***	***74.6***	***0.2***	***16.1***	***5.8***	***97.7***
Federal Thresholds	*100*		*100*		*N/A*		*100*	
Local Thresholds		*75*		*250*		*100*		*550*

NOTE: Emissions shown are for the highest year in the multi-year construction period.
SOURCE: AES 2006, MBA 2006

As with the Preferred Project, the Reduced Alternative is not a federal action and subsequently EPA's general conformity rule does not apply. However, the general conformity rule's *de minimis* emissions thresholds and the local air quality thresholds are presented here for informational purposes.

Although construction emissions resulting from implementation Phase A of the Reduced Alternative are below any federal or local thresholds for construction, BMPs identified in **Section 3.4.3** will ensure that fugitive dust emissions are further reduced.

Construction-Related Diesel Exhaust Emissions Generated by the Reduced Alternative – Phase A

Construction of Phase A of the Reduced Alternative would result in the generation of diesel equipment exhaust emissions. As with the Preferred Project, construction of Phase A of the Reduced Alternative is not expected to result in significant DPM+DEOG emissions. Diesel equipment exhaust emissions would likewise be reduced by the measures described in **Section 3.4.3**.

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Ozone Precursor and PM_{10} Emissions Generated by Operation of the Reduced Alternative – Phase A

The general conformity *de minimis* thresholds and local thresholds provided by San Diego County are applied in this environmental document to determine the significance of ROG, NO_X, and PM_{10} emissions associated with operation of the Reduced Alternative.

Operation of the Reduced Alternative would result in the generation of ROG, NO_x, and PM_{10} emissions. **Table 3.4-8** presents unmitigated estimates of these emissions. As with the Preferred Project, this alternative is not estimated to result in significant tpy of ROG, NO_x, or PM_{10} emissions.

TABLE 3.4-8
SUMMARY OF UNMITIGATED OPERATIONAL EMISSIONS
REDUCED ALTERNATIVE

Reduced Alternative	ROG		NOx		PM_{10}	
	tpy	ppd	tpy	ppd	tpy	ppd
Phase A	7.6	37.1	10.2	50.3	7.3	39.9
Phase A + B	7.8	38.9	10.8	53.4	8.8	48.1
Federal Thresholds	*100*		*100*		*N/A*	
Local Thresholds		*55*		*250*		*100*

NOTE: **Bold** means threshold is exceeded
SOURCE: AES 2006, MBA 2006

Operational emissions associated with Phase A of the Reduced Alternative would not exceed either federal or local thresholds and would be considered less than significant. No mitigations would be required.

Carbon Monoxide Hot Spots Generated by Operation of the Reduced Alternative – Phase A

Operation of the Reduced Alternative during mid-term 2007 conditions would result in the generation of CO emissions. However, as shown in the *Transportation* section of this environmental document and in the Final Supplemental Traffic Impact Analysis (MRO Engineers, 2006), all of the study intersections would operate at, or will be mitigated to, LOS D or better under 2007 conditions with Phase A of the Reduced Alternative. Based on the *Protocol*, Phase A of the Reduced Alternative is considered to not have the potential for resulting in a significant CO air quality impact. Therefore, this impact is considered less than significant. No mitigation measures are required.

Carbon Monoxide Emissions Generated by the Reduced Alternative - Phase A Parking Garage

Phase A of the Reduced Alternative would include a parking structure. The structure would be smaller and contain fewer vehicles than the Preferred Project. Vehicles operating within the

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parking structure would generate CO emissions. The upper levels of the parking structure would include openings on the exterior surfaces to provide ventilation. The lower levels of the parking structure would be below grade, and would be mechanically ventilated. Mechanical ventilation would provide a minimum airflow per square foot of floor area in compliance with the 1997 UBC.

The only occupied structure in the vicinity of the parking garage would be the casino. The casino structure would include a mechanical ventilation system to provide filtered, heat-controlled air, and is not considered a sensitive receptor. Therefore, CO emitted by the flow-through ventilation of the parking structure would not be considered to have a significant effect on air quality.

The mechanical ventilation system used in the lower, below-grade levels of the parking structure would collect CO emissions from vehicles within the structure. The operation of the mechanical ventilation system could expose humans to elevated CO concentrations if the exhaust is directed towards inhabited areas. This would be considered a significant effect.

The effect of potential exposure of humans to exhaust from the parking structure's mechanical ventilation system would be reduced to a less than significant level by directing the exhaust vertically and away from inhabited areas. This mitigation measure is described in more detail in **Section 3.4.3**.

Emissions and Odors Generated by Reduced Alternative Wastewater Treatment Facility

Phase A of the Reduced Alternative would include a wastewater treatment facility. The size of the facility would be proportionately smaller than the facility necessary to serve the Preferred Project. The facility would be designed to satisfy several criteria that would comply with standards established by the EPA and the RWQCB. These criteria include "odor free" operation of the facility. The treatment facility would use an MBR system as the wastewater treatment process. Operation of the wastewater treatment facility under this alternative would result in the generation of a minor amount of emissions. The facility would primarily emit nitrogen gas, which is not a criteria pollutant and is a relatively inert gas that makes up approximately ¾ of normal ambient air. As a result, this effect is considered less than significant.

Phase B Effects

Implementation of Phase B of the Reduced Alternative would result in short-term construction-related effects, and long-term effects related to operation of the project. The following is a description of these effects.

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Construction-Related Emissions Generated by the Reduced Alternative – Phase B

Construction of Phase B of the Reduced Alternative would result in the generation of ROG, NO_X, CO, and PM_{10} emissions. Unmitigated emission estimates are presented in **Table 3.4-7**.

Although construction emissions resulting from implementation Phase B of the Reduced Alternative are below any federal or local thresholds for construction, BMPs identified in **Section 3.4.3** will ensure that fugitive dust emissions are further reduced.

Construction-Related Diesel Exhaust Emissions Generated by the Reduced Alternative – Phase B

Construction of Phase B of the Reduced Alternative would result in the generation of diesel equipment exhaust emissions. As with the Preferred Project, construction of Phase B of the Reduced Alternative would result in a less than significant amount of DPM+DEOG emissions and would be a less than significant.

Ozone Precursor and PM_{10} Emissions Generated by the Reduced Alternative – Phase B

Operation of Phase B, which would include the continuing operation of Phase A, would result in the generation of ROG, NO_X, and PM_{10} emissions. **Table 3.4-8** presents estimates of these unmitigated emissions.

Operational emissions associated with Phase B of the Reduced Alternative would not exceed either federal or local thresholds and would be considered less than significant. No mitigations would be required.

Carbon Monoxide Hot Spots Generated by Operation of Reduced Alternative – Phase B

Operation of Phase B of the Reduced Alternative during mid-term 2009 conditions would result in the generation of CO emissions. However, as shown in the *Transportation* section of this Environmental Evaluation and in the Final Supplemental Traffic Impact Analysis (MRO Engineers, 2006), all of the study intersections would operate at, or will be mitigated to, LOS D or better under 2009 conditions with Phase B of the Reduced Alternative. Based on the *Protocol*, Phase B of the Reduced Alternative is considered to not have the potential for resulting in a significant CO air quality impact. Therefore, this impact is considered less-than-significant. No mitigation measures are required.

NO ACTION ALTERNATIVE

Implementation of the No Action Alternative would result in no short-term construction-related effects, and no long-term effects related to operation of the project.

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3.4.3 MITIGATION

The following will reduce the identified potentially significant impacts to a less than significant level:

CONSTRUCTION-RELATED PM_{10} EMISSIONS

A. The following best management practices (BMPs) shall be implemented for both Phases of the Preferred Project or the Reduced Alternative:

1) Water all active construction areas as needed to prevent dust;
2) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer);
3) Pave, apply water, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites;
4) Sweep (preferably with water sweepers) all paved access roads, parking areas and staging areas at construction sites; and
5) Sweep streets (preferably with water sweepers) if visible soil material is carried onto adjacent public streets;
6) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more);
7) Install sandbags or other erosion control measures to prevent silt runoff to public roadways;
8) Replant vegetation in disturbed areas as quickly as possible, and
9) The Tribal Environmental Agency will oversee the implementation of a comprehensive dust control program and to increase watering, as necessary.
10) To the extent that equipment and technology is available and cost-effective, the contractors are encouraged to use catalyst and filtration technologies, and retrofit existing diesel engines in construction equipment.
11) Idling time shall be minimized to 5 minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is required.

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CONSTRUCTION-RELATED DIESEL TOXIC EMISSIONS

B. The Tribe will implement the following measures to reduce diesel exhaust emissions:

1) Encourage the contractor to be as efficient as possible for construction-related trips.

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2) Require that diesel-powered equipment be properly maintained.

3) Minimize idling of diesel equipment to the fullest extent feasible.

4) Encourage the contractor to lease or buy newer, "cleaner" equipment, 1996 or newer model year and use a minimum of 75 percent of the total horsepower of the equipment.

PARKING STRUCTURE CARBON MONOXIDE EMISSIONS

C. The Tribe will ensure the mechanical ventilation of the parking structure will be constructed so that the exhaust will be directed vertically and away from inhabited areas.

OPERATIONAL OZONE PRECURSOR AND PM_{10} EMISSIONS

D. Emissions associated with operation of the facility will be reduced by requiring buses arriving at the project site to turn off their engines if the bus is not going to be operated for a 10 minute period of time.

E. The Tribe will encourage and facilitate the use of 'carpools' by construction workers and facility employees, and tour buses by casino patrons to reduce vehicular use and air pollution.

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3.5 BIOLOGICAL RESOURCES

3.5.1 ENVIRONMENTAL SETTING

STUDY AREA

The biological resources setting described below is based on studies and information collected for the Jamul Indian Village Final EIS (August, 2003). The study area analyzed in detail for the Jamul EIS included the Jamul Indian Village and three nearby parcels. Although the project site has been reduced to the 6-acre Jamul Indian Village, the information collected for the entire study area is included below to provide a detailed description of the biological resources for the project site and vicinity. Therefore the term "study area" for the purposes of this Tribal EIS/R is defined as the Jamul Indian Village and adjacent land analyzed in the Jamul EIS (**Figure 1-2**).

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REGIONAL SETTING

The project site is located within the coastal foothills of southern California, along the western side of the Peninsular Ranges. Characteristic terrestrial habitat types occurring within this region include coastal sage scrub, chamise scrub, coast live oak woodland, scrub oak, and annual grassland.

HABITAT TYPES WITHIN THE STUDY AREA

Habitat types occurring within the study area include coastal sage scrub, grazed coastal sage scrub, disturbed/developed, mule-fat scrub, coast live oak riparian woodland, and rock outcrop. The Jamul Indian Village is composed entirely of disturbed/developed habitat. The proposed fire station location for fire protection Option 1 is located within grazed coastal sage scrub habitat. A detailed description of habitat types in the study area and common species supported by each habitat is included in the Jamul EIS and incorporated by reference from **Section 3.5.2**, pages 3-31 through 3-36.

FEDERALLY LISTED SPECIES

For the purposes of this Tribal EIS/R, federally listed species include those plant and animal species that are listed as endangered or threatened under the federal Endangered Species Act, or formally proposed for listing. A list of federally listed species that may potentially occur, or be affected by projects, in the vicinity of the project site was compiled based upon a review of pertinent literature, consultation with the USFWS, a query of the CNDDB for reported occurrences of federally listed species within the project vicinity, and biological field surveys. The Chino Spot butterfly and the Coastal California gnatcatcher were identified as having a moderate probability of being affected by development in the project area, although field studies did not find presence of these species. A detailed description of federally listed species that could be affected by development in the project site area is included in the Jamul EIS and incorporated by reference from **Section 3.5.3** (pages 3-39 and 3-40) and is reproduced below:

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TABLE 3.5-1

FEDERALLY LISTED SPECIES POTENTIALLY OCCURRING IN PROJECT AREA

Scientific Name	Common Name	Fed Status
Birds		
Empidonax traillii extimus	Southwestern willow flycatcher	FE
Haliaeetus leucocephalus	Bald eagle	FT, FPD
Polioptila californica californica	Coastal California Gnatcatcher	FT
Vireo bellii pusillus	Least Bell's vireo	FE
Amphibians		
Bufo microscaphus californicus	Southwestern arroyo toad	FE
Invertebrates		
Euphydryas editha quino	Quino checkerspot butterfly	FE
Plants		
Acanthomintha ilicifolia	San Diego thorn mint	FT
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE
Baccharis vanessae	Encinitas baccharis	FT
Brodiaea filifolia	Thread-leaved brodiaea	FT
Chorizanthe orcuttiana	Orcutt's spineflower	FE
Fremontodendron mexicanum	Mexican flannelbush	FE
Monardella linoides ssp. *viminea*	Willowy monardella	FE
Navarretia fossalis	Spreading navarretia	FT

NOTES: FE Listed as Endangered by the U.S. Fish and Wildlife Service
FT Listed as Threatened by the U.S. Fish and Wildlife Service
FPD Proposed for delisting

SOURCE: USFWS 2000, CNDDB 2001, Skinner and Pavlik 1994, and AES 2002.

STATE LISTED SPECIES

A list of special-status plant and animal species that historically occurred in the vicinity of the Study Area was compiled based upon the following:

- a review of pertinent literature;
- Informal consultation with the U.S. Fish and Wildlife Service via the USFWS Internet site (http://www.fws.gov/carlsbad/CFWO_Species_List.htm); and
- a query of the CNDDB.

To determine which special-status species occurred in the vicinity of the Study Area, the CNDDB was queried spatially within the boundary of the "Jamul Mountains" USGS 7.5 minute topographic quadrangle map and the surrounding 8 quadrangle maps; the resulting species list is

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presented in **Appendix D**. Twenty-one of these regionally-occurring special-status species have State status; these species are summarized in Table 3.5-2.

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TABLE 3.5-2

SPECIES WITH STATE STATUS REPORTED IN THE CNDDB FROM THE SURROUNDING 9 USGS QUADS

Scientific Name	Common Name	CA Status
Acanthomintha ilicifolia	San Diego thorn-mint	CE
Baccharis vanessae	Encinitas baccharis	CE
Calochortus dunnii	Dunn's mariposa lily	CR
Coccyzus americanus occidentalis	western yellow-billed cuckoo	CE
Cordylanthus maritimus ssp. maritimus	salt marsh bird's-beak	CE
Deinandra conjugens	Otay tarplant	CE
Eryngium aristulatum var. parishii	San Diego button-celery	CE
Fremontodendron mexicanum	Mexican flannelbush	CR
Laterallus jamaicensis coturniculus	California black rail	CT
Monardella linoides ssp. viminea	willowy monardella	CE
Nolina interrata	Dehesa nolina	CE
Orcuttia californica	California Orcutt grass	CE
Ornithostaphylos oppositifolia	Baja California birdbush	CE
Passerculus sandwichensis beldingi	Belding's savannah sparrow	CE
Pogogyne abramsii	San Diego mesa mint	CE
Pogogyne nudiuscula	Otay Mesa mint	CE
Rallus longirostris levipes	light-footed clapper rail	CE
Rosa minutifolia	small-leaved rose	CE
Senecio ganderi	Gander's ragwort	CR
Sterna antillarum browni	California least tern	CE
Vireo bellii pusillus	least Bell's vireo	CE

NOTES: CE = California State listed as endangered;
CT = California State listed as threatened;
CR = California rare species;.

SOURCE: Natural Investigations Co., 2006

WATERS OF THE U.S.

A formal delineation of "waters of the U.S." occurring within the study area was conducted in September 2002. The complete delineation is incorporated by reference from **Appendix F** of the Jamul EIS. Within the Jamul Indian Village, the delineation identified one intermittent drainage channel, which transects the project site. Several other drainage channels were also identified within the study area including an additional intermittent drainage and four ephemeral drainages.

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These features are considered jurisdictional "waters of the U.S." and are subject to U.S. Army Corps of Engineers regulation under Section 404 of the Clean Water Act.

The two intermittent drainages occupy 1.78 acres of the study area and are characterized as defined channels that carry flows associated with storm events, urban and agricultural surface runoff, and seasonal groundwater discharge. The portion of the intermittent drainage channel that flows directly through the Jamul Indian Village is approximately 0.25 acres. For most reaches of the intermittent drainage channels, surface water is present only during the rainy season (typically late October through April); some late-season ponding occurs in localized areas. The four ephemeral drainages occupy 0.26 acre of the study area and are characterized as narrow, scoured channels that carry flows during and briefly after storm events.

Drainages within the study area are tributary to a small reservoir located approximately 3,000 feet south of the Jamul Indian Village. This reservoir drains to Jamul Creek, approximately 1.8 miles south of the Jamul Indian Village. A "waters of the U.S." delineation map for the study area is incorporated by reference from **Figure 3-9,** page 3-42 of the Jamul EIS.

SAN DIEGO COUNTY MSCP SUBAREA PLAN

In October 1997, the County of San Diego adopted the Multiple Species Conservation Program (MSCP) Subarea Plan as part of a larger Natural Communities Conservation Program (NCCP) to provide long-term habitat conservation for a variety of sensitive species (County of San Diego, 1997). The discussed study area falls within the Metropolitan-Lakeside-Jamul segment of the subarea plan, and the South County segment of the plan. An illustration of these designations within the study area is incorporated by reference from **Figure 3-10** of the Jamul EIS, page 3-44.

MSCP designated areas are regulated under the authority of the County of San Diego in cooperation with the CDFG and the USFWS. Regulations associated with the different MSCP designations occurring within the study area are summarized below and incorporate by reference the San Diego County MSCP (County of San Diego, 1997).

Metro-Lakeside-Jamul Segment

Within this segment, the take of covered species and their habitats are authorized for projects that meet the requirements of the Biological Mitigation Ordinance (Ordinance) and conformance with the terms of the Subarea Plan. The Ordinance contains guidelines for the design and mitigation requirements for all projects subject to County discretionary authority. These guidelines are summarized below.

Project Design Criteria

Projects proposed within the segment will avoid sensitive biological resources (as defined in the Ordinance) to the maximum extent practicable through siting the project in less sensitive areas,

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reducing road standards, and developing on steeper slopes (to avoid sensitive habitats). Projects will also be designed so that they do not significantly contribute to edge effects or affect established movement corridors.

Habitat and Species Based Mitigation

Several measures are identified to ensure that a proposed project properly mitigates potential effects to both covered species and their habitats. These measures include identifying mitigation sites based on their value to covered species (based on data within the MSCP and Ordinance), avoiding known populations, avoiding special habitats (such as vernal pools), determining appropriate mitigation ratios, and grading restrictions.

South County Segment

The South County segment can be generally separated into two designations: (1) those areas where take is authorized (non-preserve areas) and (2) Multiple Habitat Planning Areas (MHPA) preserve areas. Within take-authorized areas, projects must still conform to the Ordinance and the Subarea Plan (see above). Land uses within the MHPA preserve areas are generally very limited. Some examples of land uses that may be authorized within the MHPA preserve areas include hand clearing of vegetation for fuels management, habitat restoration, noxious weed control, scientific studies, and recreational trails.

3.5.2 ENVIRONMENTAL CONSEQUENCES

The purpose of this assessment is to analyze the potential effects of the Preferred Project and project alternatives on biological resources including wildlife and habitats, listed species, migratory birds, jurisdictional "waters of the U.S.", and the San Diego County MSCP Subarea Plan. The analysis of potential effects was based upon the results of biological field surveys, consultation with the USFWS, a review of the CNDDB, and a comparison of project-related habitat conservation in relation to the conservation areas identified in the San Diego County MSCP Subarea Plan. Potential direct effects to biological resources associated with the development of the Preferred Project and each project alternative are discussed below.

Development of the Preferred Project or project alternatives may result in increased traffic along State Route 94, thereby creating a need for future road improvements. Effects to biological resources associated with road improvements outside of the project site are addressed in **Section 3.15** of this document.

PREFERRED PROJECT

Construction and operation of the Preferred Alternative would occur exclusively on the existing Jamul Indian Village Reservation. Therefore, no direct off-reservation effects to habitats, listed species, migratory birds, "waters" of the US, or the San Diego County MSCP would occur. The

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exception of this would be the fire station to be constructed under Option 1, which would be located off of Melody Lane. The discussion of direct effects below focuses on that parcel of land shown in **Figure 1-3**. Other indirect effects associated with operation of the facilities can be found in **Section 3.15** Indirect Effects of this Tribal EIS/R.

Fire Protection Option 2

Potential Effects to Wildlife and Habitats

Development of Option 2 for the fire station would result in the loss of approximately 0.5 acres of grazed coastal sage scrub habitat. This area presents limited resources for wildlife and is currently subject to disturbance from existing roads, residential development, and cattle grazing. Given the limited amount of development proposed for this location, the severely degraded habitat conditions within proposed development areas, and existing extent of surrounding residential and other developments in the immediate vicinity, it is unlikely that an increase in human activity in this area would significantly affect local populations of wildlife.

Federally Listed Species

Two federally listed species, including coastal California gnatcatcher (*Polioptila californica californica*) and Quino checkerspot butterfly (*Euphydryas editha quino*), were determined to have a "moderate" potential to be affected by project-related activities and potentially suitable habitat for these species is present within the vicinity of the project site. Three federally listed species including least Bell's vireo (*Vireo belli pusillus*), southwestern arroyo toad (*Bufo microscaphus californicus*), and San Diego thorn mint (*Acanthomintha ilicifolia*) were determined to have a "low" potential to be affected by project-related activities. No suitable habitat for these species occurs within the proposed fire station site.

The following discussion evaluates the potential direct effects the construction of the off-site fire station may have on each potentially affected federally listed species.

Coastal California Gnatcatcher

USFWS protocol-level surveys of the study area described in **Section 3.5.1** were conducted for coastal California gnatcatcher during the 2000 and 2001 nesting seasons (Evans, 2000 and Allen, 2001). The coastal California gnatcatcher survey reports are incorporated by reference from **Appendix J** of the Jamul EIS. These surveys did not detect the presence of this species within the study area, but did detect two gnatcatchers on adjacent property.

It was concluded that development of the previously proposed Alternative A, analyzed within the Jamul EIS, would not result in adverse direct effects to coastal California gnatcatcher. However, USFWS did not concur, and formal consultation under the Endangered Species Act was initiated as a result. On February 27th, 2003, USFWS released a Biological Opinion

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(Volume III Attachment A of the Jamul **Indian Village Final** EIS, 2003) for the coastal California gnatcatcher, which stated that implementation of the previously proposed Alternative A would not adversely affect this species if all of the conservation measures stipulated within the Biological Opinion were also implemented. Development of the Preferred Project Option 1 would result in 0.5 acres of off-reservation habitat conversion as opposed to the 30.8 acres previously proposed by Alternative A. Some of the conservation measures stipulated within the biological opinion would not apply to the Preferred Project, as the development being mitigated is no longer proposed. However, the conservation measures that do pertain to the Preferred Project have been incorporated into the mitigation measures detailed in **Section 3.5.3**.

Quino Checkerspot Butterfly

The project site is not included in the designated critical habitat of the Quino checkerspot butterfly. Regardless, USFWS protocol-level surveys for Quino checkerspot butterfly were conducted within the project site and study area between March 31 and May 4, 2000 (Robbins, 2000). The Quino checkerspot survey report is incorporated by reference from **Appendix K** of the Jamul EIS. No Quino checkerspot butterflies were observed during these surveys and it is not anticipated that the Preferred Project would result in adverse direct effects to this species. Additionally, the USFWS Biological Opinion (Volume III Attachment A of the **Jamul Indian Village Final** EIS, 2003) stated that implementation of the previously proposed Alternative A analyzed within the Jamul EIS would not adversely impact the Quino checkerspot butterfly. Because the fire station proposed under the Preferred Project would be developed within a smaller portion of the overall off-reservation footprint for Alternative A, potential impacts to the Quino checkerspot butterfly would be further reduced. Therefore impacts to the Quino checkerspot butterfly are considered less than significant.

Least Bell's Vireo

The coast live oak riparian woodland habitat occurs with the proposed fire station site. Therefore no adverse direct effects to Least Bell's vireo would occur.

Southwestern Arroyo Toad

No habitat for the Southwestern Arroyo Toad occurs on the proposed fire station site. Therefore no adverse effects to this species would occur.

San Diego Thorn Mint

Potentially suitable habitat for San Diego thorn mint (Las Posas soils) does not occur on the Option 1 fire station site.

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State Listed Species

Four species with State status were determined to have a potential to occur on or around the fire station site: Least Bell's Vireo, Otay tarplant, San Diego Thorn Mint, and Yellow billed cuckoo.

Least Bell's Vireo

Least Bell's vireo is a small, plain, insectivorous songbird that typically nests in willow thickets and other dense, shrubby vegetation communities found near water at elevations below 2,000 feet (California Department of Fish and Game, 2006c,d). These habitats are typically associated with willow, cottonwood, baccharis, wild blackberry, and/or mesquite. According to the CNDDB, Least Bell's vireo has been reported near or in the Study Area at the SR 94 / Jamacha Boulevard Intersection. The coast live oak riparian habitat occurring at the SR 94 / Melody Road Intersection is currently degraded from cattle ranching and generally lacks the habitat structure required by least Bell's vireo for foraging and nesting. Therefore, it is not anticipated that the Project would result in adverse direct effects to least Bell's vireo at this location.

Otay Tarplant

The Otay tarplant is a glandular, aromatic, annual herb; the blooming period for this species is May to June (CNPS, 2006). The majority of occurrences are associated with clay soils in grasslands, coastal sage scrub, or maritime succulent scrub at elevations between 25 and 300 m. The Study Area is outside of the designated critical habitat. This species is also a covered species under the City and County of San Diego subarea plans of the MSCP. While suitable habitat occurs with the Study Area and vicinity, the known range is over 10 kilometers to the southwest from the Study Area, according to the CNDDB. Therefore, it is not anticipated that the Project would result in adverse direct effects to Otay tarplant.

San Diego Thornmint

San Diego thorn mint is an annual herb that occurs in chaparral, coastal scrub, vernal pools with clay soils, and valley and foothill grassland habitats of southern California and northern Baja California, Mexico (CNPS, 2006). The nearest historic occurrence is over 3 kilometers to the northeast and southwest from the Study Area, according to the CNDDB. A botanical inventory of the Jamul Indian Village and the grassland south of the SR 94 / Melody Road Intersection (Analytical Environmental Services, 2003); this survey did not detect the presence of San Diego thorn mint. Potentially suitable habitat for San Diego thorn mint occurs within the Study Area. However, the majority of these suitable areas are either developed or severely degraded as a result of cattle grazing, thereby significantly limiting the potential for this species to occur.

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Yellow-Billed Cuckoo

The yellow-billed cuckoo is a relatively large, insectivorous bird found in riparian habitats. This bird uses densely foliaged, deciduous trees and shrubs, especially willows, for roosting and nesting (California Department of Fish and Game, 2006d). The nearest reported occurrence is approximately 20 kilometers to the southwest from the Study Area, according to the CNDDB. The riparian habitat occurring at the SR 94 / Melody Road Intersection is currently degraded from cattle ranching and generally lacks the habitat structure required by this species for foraging and nesting. Given the extent of existing habitat degradation within the fire station site, it is unlikely that a significant adverse impact to this species would result. Therefore, Project operation is not considered a significant adverse impact.

Migratory Birds

The development of the Preferred Project Option 1 would affect vegetation communities that could potentially support active migratory bird nests. Migratory birds and their nests are protected from "take" according to the federal Migratory Bird Treaty Act. Active migratory bird nests could be affected by the Preferred Project if vegetation removal activities associated with the construction of the fire station occur during the nesting season. Potential adverse direct effects to migratory birds will be avoided or minimized by implementation of the mitigation measures identified in **Section 3.5.3**.

Waters of the U.S.

A formal delineation of "waters of the U.S." occurring within the project site identified one intermittent drainage channel. This feature is subject to U.S. Army Corps of Engineers (ACOE) jurisdiction under the Clean Water Act and any discharge of dredged or fill material within the drainage would require a Department of the Army permit. Development of the casino complex over the intermittent drainage would not involve the discharge of dredged or fill material within the ordinary high water mark (OHWM) of "waters of the U.S.". Therefore, no impacts to jurisdictional waters would occur.

San Diego County MSCP Subarea Plan

The only off-reservation area directly affected by the Proposed Action would be the Option 2 fire station site south of Melody Road. The Option 1 access point and the 4-acre parcel which the access travels through would not result in an impact to the MSCP. This is because the roadway is already paved. Therefore, the discussion below focuses on the Option 2 fire station site.

Fire Protection Option 2

The fire station location proposed by fire protection Option 2 of the Preferred Project would take place within the South County segment of the MSCP Subarea Plan designated as developable, where "take" is authorized. The Preferred Project would not affect designated MHPA preserve areas. Therefore, because the Preferred Project is consistent with the

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planning designations, is not anticipated to adversely affect the San Diego County MSCP Subarea Plan.

REDUCED INTENSITY ALTERNATIVE

Construction and operation of the Reduced Intensity Alternative would occur exclusively on the existing Jamul Indian Village Reservation. Therefore, no direct off-reservation effects to habitats, federal or state listed species, migratory birds, waters of the US, or the San Diego County MSCP would occur. Indirect effects associated with operation of the facilities can be found in **Section 3.15** Indirect Effects of this Tribal EIS/R.

NO ACTION ALTERNATIVE

Under the No Action Alternative, land uses would remain the same and no changes to the off-reservation environment would occur. Therefore no adverse effects to habitats, federal or state listed species, migratory birds, waters of the US, or the San Diego County MSCP would occur.

3.5.3 MITIGATION

The following mitigation will reduce the identified potentially significant impacts to a less than significant level:

A. Lighting from the front of the casino will be directionally pointed away from the reserve and the building will shield light, human activity and noise effects from the Rancho Jamul Reserve. Lighting in the back of the casino will consist of low wattage security and safety lighting near doorways within UBC requirements.

B. The project will incorporate best management practices for storm water runoff including vegetated swales and runoff infiltration devices to ensure that the water quality and quantity in the onsite streams does not change. Stormwater runoff from the project site will be monitored according to BMPs to assess the quality of water leaving the proposed project area.

C. All landscaping within the project area will consist of native or non-invasive species.

D. Temporary fencing will be installed around areas of the intermittent drainage and riparian habitat to be conserved. Fencing will be located as far as feasible from the edge of these features and installed prior to any construction. The fencing will remain in place until all construction activities on the site have been completed.

E. Construction staging areas will be located away from the intermittent drainage. Temporary stockpiling of excavated or imported material will occur only in approved construction staging areas. Excess excavated soil will be used on site or disposed of at a regional landfill or other appropriate facility. Stockpiles that are to remain on the site through the wet season will be protected to prevent erosion (e.g. silt fences, straw bales).

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F. If Option 2 Fire Station is selected, the Tribe shall submit an application to the County of San Diego for Design Review. The Tribe may be required to compensate for the loss of MSCP land using a 2:1 replacement ratio. Option 1 shall be implemented if the County denies the application for construction and operation of a fire station.

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3.6 CULTURAL RESOURCES

3.6.1 ENVIRONMENTAL SETTING

PREHISTORY

The prehistory of the San Diego county can be divided into three temporal periods: Paleoindian, Archaic, and Late Prehistoric. Sites associated with the Archaic Period, including shell middens, cobble tools, and flexed buriels, are common throughout the Jamul area. However, the most common sites in the Jamul region are associated with the Late Prehistoric Kumeyaay. A discussion of the prehistory of San Diego County is incorporated by reference from **Section 3.6.1**, page 3-44 through page 3-46 of the Jamul EIS.

ETHNOGRAPHY

The Yuman-speaking population that inhabited the project site vicinity including portions of southern Alta California and northern Baja California during the late prehistoric and early historic eras are referred to as "Kumeyaay." Sites associated with this society are characterized by ceramics, projectile points, obsidian, human cremations and the mortor and pestle. A discussion of Kumeyaay culture and society is incorporated by reference from **Section 3.6.2**, page 3-46 through page 3-47 of the Jamul EIS.

HISTORICAL CONTEXT OF THE PROJECT AREA

San Diego's historical period begins with Spanish discovery and exploration in 1542. However, european influence did not impact the region until the founding the joint mission system in 1769. The Jamul Rancho was established in the project area during the Mexican period under the land grant system. After the U.S. gained statehood of the area, little changed until the completion of the Santa Fe railroad in 1888. The expansion of the railroad into the San Diego Bay vicinity stimulated a major land boom that laid out numerous town sites throughout the area. The ease of transportation in turn inspired agricultural expansion in the South Bay, and therefore in the Jamul Valley, since produce could reach markets more quickly. Highway 94, which traverses the valley immediately east of the project area, has served the area first as an Indian travel route, then as a horse trail, later as a stagecoach route and more recently as a major vehicular corridor for movement of people and goods between the U.S. and Mexico and the road to Campo. In the last 30 years the Jamul area, particularly to the north of the project area, has undergone a large increase in population and development. A detailed discussion of the historical context of the project site and surrounding area is incorporated by reference from **Section 3.6.3**, page 3-47 through page 3-48 of the Jamul EIS.

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CULTURAL RESOURCES

The presence of cultural resources present on and in the vicinity of the project site was determined through a records and literature search and an extensive field survey of the entire project area. Significant cultural resources were discovered to be in the project vicinity. The National Historic Preservation Act provides criteria for evaluating the eligibility of properties in the National Register of Historic Places. A detailed discussion of the records and literature search, field survey methods, and National Register of Historic Places eligibility of cultural resources present in the project area is incorporated by reference from **Section 3.6.4**, page 3-48 through page 3-50 of the Jamul EIS.

PALEONTOLOGICAL RERSOURCES

A review of the paleontological locality maps by the San Diego Museum of Natural History identified no recorded fossil sites on the project site or in the immediate surrounding area. Additionally, the museum's review of available geologic maps confirmed that the geologic formations (igneous rock and alluvial veneers) that underlie the project site have a low probability of containing paleontological resources (Demere, 2002).

3.6.2 ENVIRONMENTAL CONSEQUENCES

PREFERRED PROJECT

The impact assessment below for cultural resources contains a modified version of information originally published in the Jamul EIS. The Jamul EIS impact assessment of Alternative A was found to be generally applicable to the Preferred Project due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

Cultural Resources

Previous cultural resources studies demonstrated that significant cultural resources do exist within the vicinity of the existing Jamul Indian Village site. The results of the cultural resources studies are not presented in this analysis in order to protect the nature and location of archaeological resources in compliance with Section 9 of the Archaeological Resources Protection Act (ARPA 16 U.S.C. 470hh and under the Federal Code of Regulations 43.CFR.7.18). However, these cultural resource studies are accessible under the ARPA's requirements upon request at the Jamul Indian Village.

Several cultural resources were identified within the Preferred Project's area of potential effects on the Jamul Indian Reservation and access driveway. However, these were determined by the study to not be significant cultural resources pursuant to National Register of Historic Places criteria due to the poor integrity of the resources. Previous studies

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undertaken for the Jamul EIS concluded that the location of the Fire Station site (Option 2) does not contain cultural resources Therefore, a less than significant impact is expected from implementation of this option.

Paleontological Resources

Geologic formations that underlie the project site have a low probability of containing paleontological resources. Therefore, no adverse effects are expected.

REDUCED INTENSITY ALTERNATIVE

The impact assessment below for cultural resources contains a modified version of information originally published in the Jamul EIS. The Jamul EIS impact assessment of the Alternative A Variant was found to be generally applicable to the Reduced Intensity Alternative due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

Cultural Resources

As with the Preferred Project, cultural resource studies have identified several potential cultural resources that may be present within the area that would be affected by development of the Reduced Intensity Alternative. However, these were determined to not be significant cultural resources pursuant to National Register of Historic Places criteria due to the poor integrity of the resources. Previous studies undertaken for the Jamul EIS concluded that the location of the Fire Station site (Option 2) does not contain cultural resources Therefore, a less than significant impact is expected from implementation of this option.

Paleontological Resources

Geologic formations that underlie the project site have a low probability of containing paleontological resources. Therefore, no adverse effects are expected.

NO ACTION ALTERNATIVE

Under the No Action Alternative, no change in existing land use is proposed. Future development activities would need to comply with CEQA and local regulations. No adverse effects have been identified.

3.6.3 MITIGATION

No mitigation is required.

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3.7 SOCIOECONOMIC CONDITIONS

3.7.1 ENVIRONMENTAL SETTING

SOCIOECONOMIC CHARACTERISTICS OF SAN DIEGO COUNTY

The baseline socioeconomic conditions of San Diego County, the combined East and South Suburban Metropolitan Statistical Areas (MSAs) and the Jamul Subregional Planning Area were analyzed to provide information on population, housing, and employment levels in the project area. According to the San Diego Association of Governments (SANDAG), the Jamul Subregional Planning area is expected to grow rapidly over the next 20 years with a 195% increase in housing and population. The employment/housing ratio of the area is low indicating that a significant portion of the population in the area commutes to work. A discussion of the socioeconomic conditions of the project area and San Diego County is incorporated by reference from **Section 3.7.1**, page 3-50 through page 3-54 of the Jamul EIS.

SOCIOECONOMIC CHARACTERISTICS OF THE JAMUL INDIAN VILLAGE

The Jamul Indian Village is a federally recognized sovereign Indian Tribe that currently has 57 tribal members. The tribal unemployment rate is 44.7 percent. Sixty-nine percent of the employed work force is living below poverty guidelines. The economic status of individuals in the Jamul Indian Village tribe is well below that of the rest of San Diego County. A detailed discussion of the socioeconomic conditions of Jamul Indian Village is incorporated by reference from **Section 3.7.2**, page 3-54 through page 3-55 of the Jamul EIS.

COMMUNITY INFRASTRUCTURE

Community infrastructure including schools, libraries and parks in the vicinity of the project area was evaluated. The Jamul-Dulzura Union School District provides primary school, an intermediate school, and a middle school in the project area. The nearest highschool is 4.5 miles away. The nearest branch of public libraries are located approximately 11 miles from the project site and no parks exist in the vicinity of the Jamul area. A detailed discussion of the community infrastructure of San Diego County in the vicinity of the project site is incorporated by reference from **Section 3.7.3**, page 3-54 through page 3-55 of the Jamul EIS.

TRIBAL ATTITUDES, EXPECTATIONS, LIFESTYLE AND CULTURE

Altogether, tribal attitudes and expectations are for increasing participation and benefits from the regional economy, along with continuing the long tradition of comfortable coexistence and cooperation with their non-Indian neighbors. A detailed discussion of the attitudes, lifestyle and culture of the Jamul Indian Village Tribe is incorporated by reference from **Section 3.7.4**, page 3-56 of the Jamul EIS.

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3.7.2 ENVIRONMENTAL CONSEQUENCES

PREFERRED PROJECT

The impact assessment below for socioeconomic resources contains a modified version of information originally published in the Jamul EIS. The Jamul EIS impact assessment of Alternative A was found to be generally applicable to the Preferred Project due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

Direct Economic Effects of the Project

The development of The Preferred Project would introduce a variety of economic activities through the development of the casino and hotel, and other project features. The first economic activity would be the construction of Phase A components including the casino, parking garage, and other supporting uses. As shown in **Table 3.7-1** the construction of these facilities is expected to cost approximately $140 million, and would generate approximately 939 short-term construction jobs. Approximately 1,800 jobs will be created from operation of the casino and supporting facilities. Approximately 1.8 million patrons are expected to visit the casino generating approximately $201.2 million in gross revenue.

TABLE 3.7-1
PROJECTED ECONOMIC ACTIVITY – PREFERRED PROJECT

Forecast	Period: Construction Period	Completion of Phase A	Completion of Phase B	2011
Patrons		1.8	1.8	1.8
Construction	$140.0	$0.0	$50.0	$0.0
Employment	939	1,827	2,059	1,915
Gross Revenue	$0.0	$201.2	$209.3	$211.3
Net Substitution Effect	0%	50%	50%	50%
Adjusted Gross Revenue	0	$100.6	$104.7	$105.7
Total Direct Economic Effect	$140.0	$100.6	$154.7	$105.7

SOURCE: LKAR-CA, 2002; AES, 2006.
NOTES: All figures are presented in millions, except for employment.

There are two economic factors that must be considered in analyzing the effects of casino revenue. The first factor is the substitution effect. This refers to the reduction of economic activity that occurs to existing business when a competing business is established in the region. In this case, existing regional businesses such as other casinos, movie theatres, entertainment venues, and bars, could potentially lose customers to the newly constructed

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casino. The substitution effect is offset by the second economic factor – the recapture effect. This refers to the ability of the new business to attract business from competing businesses outside of the region. In the case of the proposed casino, this is expected to occur from visitors being diverted from casinos in Nevada and other recreation and travel activities outside of the County. A review of studies on the economic effects of casino gambling found that of the studies that provided evidence of key determinants of gambling effects substitution effects were estimated to be as small as 35 percent to as large as 85 percent, while recapture rates ranged from 25 percent to 50 percent (Adam Rose and Associates, 1998).

It is expected that in addition to the substitution and recapture of existing spending, new expenditure would be generated from the introduction of the proposed casino. This would occur as the result of the addition of a gaming venue into the locality of the project site; thereby inducing new or increased economic activity from visitors who were unwilling to travel further to gamble.

The amount of substitution and recapture is related to spending patterns and competition with other venues. Within San Diego County, it has been estimated that only 33 percent of travel destination spending (spending by travelers at or near their destinations) is from day travel (visitors who travel more than 50 miles one way but do not stay overnight). Tourism within San Diego County also experienced an average annual growth rate of 10.6 percent from 1995 to 2000 (Dean Runyan Associates, 2002). This represents San Diego County as a significant travel destination for those outside the region. San Diego's close proximity to Las Vegas also affects spending patterns within the region. It is estimated that 26 percent of Las Vegas business is derived from Southern California (County of San Diego, 2002). These statistics support the estimation of a relatively low substitution rate and a potentially high recapture rate. However, the existence of nine existing Indian casinos in San Diego County represent close substitutes in recreation/entertainment venues to residents and tourists, and suggest higher substitution rates. Based upon these statistics, the net substitution rate (substitution effect minus the recapture effect) is estimated to be 50 percent. This means that only half of the revenue created by the casino is considered to be new to the region, the remainder is considered to be transfers from other economic activities within the region.

Employment

It is assumed within this analysis that only 50 percent of long-term jobs will be net new jobs, the remaining jobs will be relocated employees. All short-term construction jobs are considered to be new jobs, due to the cyclical nature of the construction industry. Net new jobs are new jobs created in the economy rather than lateral shifts from one job to another without labor force replacement.

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San Diego County Employment Effect

Using the 50 percent net new jobs factor, estimated permanent new jobs to the County after both phases are completed would be approximately 958. Compared to the County's current overall employment level, the number of net new jobs is not significant. However, it becomes more significant when compared to the creation of new jobs in the local Jamul area and in the South Suburban and East Suburban Metropolitan Statistical Areas (MSAs).

East Suburban and South Suburban Employment Effect

Of the net new employment generated in the County, it was estimated that 90 percent would come from workers residing in the East Suburban and South Suburban planning areas (Hoffman, 2002). Applying this estimate to job generation results in 862 new jobs when both phases are completed. When compared to the employment level in the combined areas, new job creation represents around 0.4 percent.

Jamul Planning Area Income and Employment Effect

Since the labor force for the Jamul area is small, it was estimated that only five percent of the workers hired by the Preferred Project would come from the Jamul Planning area. Thus, 48 net new jobs for the area were estimated to be created when both phases are completed. New jobs represent approximately 1.7 percent of the current Jamul area employment.

Housing

The creation of approximately 958 net new long-term jobs within San Diego County may result in increased housing demand due to the relocation of workers. The increase in housing demand is expected to occur over a wide geographic area. In the short term, these employees are expected to occupy vacant housing units available in the region, primarily in the East and South Suburban MSA residential areas where 7,702 vacant units are estimated to be available. In the long term, the increase in employment is expected to result in the construction of new housing units. These employees are expected to reside primarily within the East and South Suburban areas due to real estate market forces. SANDAG has estimated that these areas will experience a significant amount of growth in housing units – a total of 108,927 units by 2020. Indirect and induced employment generated from the casino, hotel, and event center, which will occur over a wider regional area (including the City of San Diego) due to a wide range of affected business locations, would not likely result in significant increases in housing demand to the region.

The amount of vacant housing units in addition to the projected increase in the number of housing units, and the amount of undeveloped residential acres available in the region would provide an ample amount of residential opportunities to the employees of the casino and hotel development. A marginally higher employment/housing ratio can be expected in the short

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term, however this is not seen as adverse, due to the currently low employment/housing ratio in the Jamul Subregional Area. Additionally, it can be assumed that the development of any additional housing within San Diego County would be subject to approval by County land use plans and ordinances. The County would determine the consistency of proposed housing development with the goals and policies of the San Diego County General Plan. Therefore, the proposed casino and hotel development would not likely induce "disorderly" residential growth within San Diego County either directly or indirectly.

Community Infrastructure

Schools

San Diego County has a ratio of one school-age child (persons ages 5-17) for every 5.36 members of the general population (SANDAG, 2001). Thus, based upon the estimated 958 long-term employees generated by the Preferred Project, it can be estimated that the casino and hotel development will add 179 students to County public and private schools. Most of these students can be expected to attend schools in the primary labor market, since 90 percent of the employees are expected to reside in this area. Increases in the number of school students generated by The Preferred Project are therefore expected to occur over a wide geographic area, thus minimizing effects to particular schools.

Libraries and Parks

No libraries or parks are located within the Jamul area. Effects to libraries and parks within the East and South Suburban MSA residential areas where most employees are expected to reside would be spread out over a wide geographic area. Therefore, effects to the San Diego County library system and recreational areas are expected to be less than significant.

Potential Social Costs Associated with Gambling

Substantial research has been conducted nationally on the social costs associated with gambling, most recently in a report issued by the National Gambling Impact Study Commission (NGISC). The potential social costs associated with gambling may include lost productivity, increased theft, criminal prosecution and incarceration, therapy and social welfare. These costs are borne by the gambler, taxpayers and the general society. The NGISC Report identified pathological or compulsive gambling and increased local crime as the two main social problems that may result from legalized gaming. However, the NGISC could find no conclusive evidence that the introduction of legalized gambling increased pathological or compulsive gambling, or that local crimes increased significantly.

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Fiscal Effects to San Diego County

The effects to San Diego County are assessed in two categories: effects to County revenues and effects to County expenditures.

Effects to County Revenue

Effects to County revenue would occur due to an increase in sales tax. Potential changes in other sources of revenue such as motor vehicle fees, fines and forfeiture, license fees, and other fees and taxes have not been included as they are expected to represent minor changes in overall County revenues.

Sales Tax

The sales at the casino and hotel complex would be exempt from local sales tax. However, the indirect business taxes from the purchases of local goods by construction, casino, and hotel employees would be taxed. These sales tax revenues are estimated using the IMPLAN model as part of the regional economic analysis discussed above.

Of the 7.25 percent state sales tax that is remitted by San Diego County businesses, the State retains 5 percent, public transportation services in the region receive 0.25 percent, the County receives 1 percent for the General Fund, 0.5 percent for public safety, and 0.5 percent for health and social services (County of San Diego, 2002). The indirect business sales tax is expected to be $233,735 during the construction phase in summer and decrease to $111,205 during the first year of operation. During Phase B, sales tax generated during operation and construction activities would increase to $155,208, and is expected to level off at approximately $105,490 when both phases are complete .

The net change in County revenue is expected to be approximately $111,205 when Phase A is in operation and $105,490 when both phases of the project are completed.

Effects to County Expenditure

Changes to County expenditures could potentially occur as the result of an increased demand for public services. Public services that could potentially be affected include police service, schools, transportation, and fire and emergency medical service. For some of these services the Tribe may enter into a contract with a service provider. The Tribe may also supplement some of the existing services, or provide independent services. It should also be noted that the Tribe would provide financial reimbursement for some of the services provided. For example, the Tribe will provide fair share contributions for traffic improvements for some intersections affected by the project. Fire service will be provided by the Tribal fire department created as part of the project, while emergency medical service will be contracted

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through American Medical Response or a similar provider. Public services will also be affected by an increase in the number of employees located within San Diego County as a result of the project. Increased costs of providing public services to new employees and their families would be offset by increased revenue generated from property and sales tax collected from these employees.

Effects to the Jamul Indian Village

The casino would benefit the Tribe in at least two ways. First, it would generate substantial new income to be managed by the Tribal Government. Second, tribal members will have access to a significant number of new jobs created by the casino. It is expected that the approximately 17 tribal members who are currently unemployed would be employed at the casino, thereby reducing welfare program payments to tribal members. Therefore, the creation of employment opportunities on the reservation is expected to benefit tribal members as well as taxpayers in general.

The casino is projected to generate millions of dollars annually for the Tribe. According to IGRA, "net revenues from any tribal gaming are not to be used for purposes other than (i) to fund tribal government operations or programs; (ii) to provide for the general welfare of the Indian tribe and its members; (iii) to promote tribal economic development; (iv) to donate to charitable organizations; or (v) to help fund operations of local government agencies." The Tribe is required to develop a plan for using these funds for these activities before making distributions to individual tribal members.

Tribal Attitudes, Expectations, Lifestyle and Culture

Operation of the proposed hotel and casino development is anticipated to have a beneficial effect on tribal attitudes, expectations, lifestyle, and cultural values. The Preferred Project would fulfill stated tribal goals for economic development and self-sufficiency.

REDUCED INTENSITY ALTERNATIVE

The impact assessment below for socioeconomic resources contains a modified version of information originally published in the Jamul EIS. The Jamul EIS impact assessment of the Alternative A Variant was found to be generally applicable to the Reduced Intensity Alternative due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

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Direct Economic Effects of the Project

Like the Preferred Project, the development of the Reduced Intensity Alternative would introduce a variety of economic activities through the development of the casino and hotel, and other project features. The first economic activity would be the construction of Phase A components including the casino, parking garage, and other supporting uses. The construction of these facilities is expected to cost approximately two-thirds of the $140 million estimated for the Preferred Project, and should generate approximately half of the 939 short-term construction jobs. At the time of casino operation, only approximately half of the 1,800 jobs estimated under the Preferred Project would be created by this alternative. The number of patrons would also be reduced considerably when compared with the Preferred Project due to the relatively small size of the casino and hotel facilities under this alternative. Gross revenue generation would also decrease proportionately.

Two economic factors that must be considered in analyzing the effects of casino revenue are the substitution effect and the recapture effect. The amount of substitution and recapture is related to spending patterns and competition with other venues. Within San Diego County, statistics support the estimation of a relatively low substitution rate and a potentially high recapture rate. However, the existence of nine existing Indian casinos in San Diego County represent close substitutes in recreation/entertainment venues to residents and tourists, and suggest higher substitution rates. Based upon these statistics, the net substitution rate is estimated to be 50 percent. This means that only half of the revenue created by the casino is considered to be new to the region, the remainder is considered to be transfers from other economic activities within the region. Overall, substitution rates and recapture rates under the Reduced Intensity Alternative would be reduced proportionately relevant to the larger facilities under the Preferred Project.

Employment

The assumptions made for the Preferred Project apply to this analysis as well (i.e. only 50 percent of long-term jobs would be net new jobs and the remaining jobs would be relocated employees). All short-term construction jobs are considered to be new jobs, due to the cyclical nature of the construction industry. Net new jobs are new jobs created in the economy rather than lateral shifts from one job to another without labor force replacement.

San Diego County Employment Effect

The estimated amount of permanent new jobs to the County after both phases are completed is little over half of the 958 estimated for the Preferred Project. As with the Preferred Project, compared to the County's current overall employment level, the number of net new jobs is not significant. However, it becomes more significant when compared to the creation of new

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jobs in the local Jamul area and in the South Suburban and East Suburban Metropolitan Statistical Areas (MSAs).

East Suburban and South Suburban Employment Effect

As with the Preferred Project, it is assumed that 90 percent of net new employment generated in the County would come from workers residing in the East Suburban and South Suburban planning areas. Applying this estimate to job generation results in 862 new jobs for the Preferred Project. The Reduced Intensity Alternative is expected to generate a little over half of this number. When compared to the employment level in the combined areas, new job creation represents around 0.4 percent for the Preferred Project. The Reduced Intensity Alternative would be a proportionally smaller percentage.

Jamul Planning Area Income and Employment Effect

As with the Preferred Project, since the labor force for the Jamul area is small, it is estimated that only five percent of the workers hired as a result of the Reduced Intensity Alternative would come from the Jamul Planning area. Thus, since 48 net new jobs are estimated to be created in the area under the Preferred Project, it is estimated that less than 30 would be created under the Preferred Alternative Variant. New jobs under the Preferred Project represent approximately 1.7 percent of the current Jamul area employment. New jobs under this alternative would be proportionally less.

Housing

The creation of new long-term jobs within the county may result in increased housing demand due to the relocation of workers. The demand generated by the Reduced Intensity Alternative would be considerably less than the resultant demand from the Preferred Project, which would create more jobs. As with the Preferred Project, the increase in housing demand is expected to occur over a wide geographic area. In the short term, these employees are expected to occupy vacant housing units available in the region, primarily in the East and South Suburban MSA residential areas where 7,702 vacant units are estimated to be available. In the long term, the increase in employment is expected to result in the construction of new units. These employees are expected to reside primarily within the East and South Suburban areas due to real estate market forces. SANDAG has estimated that these areas will experience a significant amount of growth in housing units – a total of 108,927 units by 2020. Indirect and induced employment generated from the casino, hotel, and event center, which would occur over a wider regional area (including the City of San Diego) due to a wide range of affected business locations, would not likely result in significant increases in housing demand to the region.

The amount of vacant housing units in addition to the projected increase in the number of housing units, and the amount of undeveloped residential acres available in the region would

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provide an ample amount of residential opportunities to the employees of the casino and hotel development. A marginally higher employment/housing ratio can be expected in the short term, however this is not seen as adverse, due to the currently low employment/housing ratio in the Jamul Subregional Area. Additionally, it can be assumed that the development of any additional housing within the county would be subject to consistency with County land use plans and ordinances. The County would determine the consistency of proposed housing development with the goals and policies of the San Diego County General Plan. Therefore, the Reduced Intensity Alternative would not likely induce "disorderly" residential growth within San Diego County either directly or indirectly.

Community Infrastructure

Schools

Increases in the number of school students generated by the Reduced Intensity Alternative are expected to be proportionally less than what is anticipated under the Preferred Project. They are also expected to occur over a wide geographic area, thus minimizing effects to particular schools.

Libraries and Parks

No libraries or parks are located within the Jamul area. Effects to libraries and parks within the East and South Suburban MSA residential areas where most employees are expected to reside would be spread out over a wide geographic area. Therefore, effects to the San Diego County library system and recreational areas are expected to be less than significant.

Potential Social Costs Associated with Gambling

The potential social costs associated with gambling may include lost productivity, increased theft, criminal prosecution and incarceration, therapy and social welfare. These costs are borne by the gambler, taxpayers and the general society. Pathological or compulsive gambling and increased local crime are the two main social problems that may result from legalized gaming. However, no conclusive evidence exists that demonstrates that the introduction of legalized gambling increases pathological or compulsive gambling, or that local crimes increase significantly.

Fiscal Effects to San Diego County

The effects to San Diego County are assessed in two categories: effects to County revenues and effects to County expenditures.

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Effects to County Revenue

Effects to County revenue would occur in the area of sales tax. Potential changes in other sources of revenue such as motor vehicle fees, fines and forfeiture, license fees, and other fees and taxes have not been included as they are expected to represent minor changes in overall County revenues.

Sales Tax

As with the Preferred Project, the sales at the casino and hotel complex would be exempt from local sales tax. However, the indirect business taxes from the purchases of local goods by construction, casino, and hotel employees would be taxed. The indirect business sales tax revenues estimated for the Preferred Project using the IMPLAN model are expected to be proportionally less under this alternative during both the construction phase in and during operation of the casino. All assumptions made for the Preferred Project regarding the fluctuation of revenue during each project phase also apply to the Reduced Intensity Alternative.

Effects to County Expenditure

Changes to County expenditures could potentially occur as the result of an increased demand for public services. Public services that could potentially be affected include police service, schools, transportation, and fire and emergency medical service. Overall demand is expected to be proportionally less than under the Preferred Project. For some of these services the Tribe may enter into a contract with a service provider. The Tribe may also supplement some of the existing services, or provide independent services. The Tribe would also provide financial reimbursement for some of the services provided. Fire service would be provided by the Tribal fire department created as part of the project, while emergency medical service would be contracted through American Medical Response or a similar provider. Public services would also be affected by an increase in the number of employees located within San Diego County as a result of the project, although to a lesser extent than under the Preferred Project. The increased costs of providing public services to new employees and their families would be offset by increased revenue generated from property and sales tax collected from these employees.

Effects to the Jamul Indian Village

The casino would benefit the Tribe in at least two ways. First, it would generate new income to be managed by the Tribal Government. Second, tribal members will have access to new jobs created by the casino. Both of these benefits would be considerably less than what is expected under the Preferred Project due to the relative reduction in size of the relevant facilities. Welfare program payments to tribal members would be reduced, although to a lesser extent than under the Preferred Project. The creation of employment opportunities on

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the reservation is expected to benefit tribal members as well as taxpayers in general, although once again, to a lesser extent than would occur under the Preferred Alternative.

The casino is projected to generate millions of dollars annually for the Tribe. According to IGRA, "net revenues from any tribal gaming are not to be used for purposes other than (i) to fund tribal government operations or programs; (ii) to provide for the general welfare of the Indian tribe and its members; (iii) to promote tribal economic development; (iv) to donate to charitable organizations; or (v) to help fund operations of local government agencies." The Tribe is required to develop a plan for using these funds for these activities before making distributions to individual tribal members. The ability of the Tribe to satisfy these needs would be reduced under the Preferred Alternative Variant.

Tribal Attitudes, Expectations, Lifestyle and Culture

Operation of the proposed hotel and casino development is anticipated to have a beneficial effect on tribal attitudes, expectations, lifestyle, and cultural values. Beneficial effects would be reduced proportionately under the smaller Reduced Intensity Alternative. This alternative would fulfill stated tribal goals for economic development and self-sufficiency, although to a lesser extent.

NO ACTION ALTERNATIVE

Under the No Action Alternative, the casino and hotel developments would not occur on the existing Jamul Indian Village. The No Action Alternative would prevent the tribe from benefiting from an increased revenue stream associated with gaming or retail activities. The tribe would not be able to benefit from the Tribal-State Compact, federal regulations allowing gaming on tribal property, or benefit from the passage of Proposition 1A passed by the people of the State of California. The County would not experience increased sales tax revenue under the No Action Alternative.

3.7.3 MITIGATION

The following mitigation will reduce the identified significant impacts to a less than significant level:

A. The Tribe will create a fund to support problem gambling-specific research, prevention and education, and treatment programs. A portion of annual revenues will be used to create and maintain the fund.

B. The Tribe will adopt a policy statement on problem gambling.

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C. The Tribe will contract with a gambling treatment professional to train management and staff to develop strategies for recognizing and addressing customers whose gambling behavior may strongly suggest they may be experiencing serious to severe difficulties.

D. The Tribe will refuse service to any customer whose gambling behavior convincingly exhibits indications of problem or pathological gambling.

E. The Tribe will respectfully and confidentially provide the customer (as described above) with written information that includes a list of professional gambling treatment programs and self-help groups.

F. The Tribe will implement procedures to allow for voluntary self-exclusion, enabling gamblers to ban themselves from a gambling establishment for a specified period of time.

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3.8 TRANSPORTATION

3.8.1 ENVIRONMENTAL SETTING

EXISTING CIRCULATION NETWORK

Streets and highways in the project site vicinity include SR-94, Jamacha Boulevard, SR-54/Jamacha Road, Steele Canyon Road, Jamul Drive, Lyons Valley Road, Proctor Valley Road/Jefferson Road, and Melody Road. The project site is adjacent to SR-94 south of Melody Road. A detailed description of the existing circulation network including illustrative figures is incorporated by reference from the Jamul **Indian Village Final** EIS, **Section 3.8.1**, pages 3-56 through 3-59.

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DAILY ROADWAY SEGMENT OPERATIONS

Existing service levels on study area roadway segments was determined by comparing adopted Average Daily Traffic (ADT) thresholds for Level of Service (LOS), the daily capacity of the study area roadway segments, and the existing volumes in the study area. When evaluating traffic conditions, LOS A-D is considered acceptable, as this is consistent with the County of San Diego thresholds. Within the study area, it was determined that the following intersections currently operate at a LOS E or worse:

- SR-94, Jamacha Road to Steele Canyon Road;
- SR-94, Steele Canyon Road to Lyons Valley Road; and
- SR-94, Lyons Valley Road to Maxfield Road.

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A detailed discussion of daily roadway segment operations, including figures and specific volumes for each roadway segment analyzed, is included in the Jamul **Indian Village Final** EIS and incorporated by reference from **Section 3.8.1**, pages 3-60, 3-61, and 3-63.

PEAK HOUR INTERSECTION PERFORMANCE

Traffic conditions in the project vicinity were evaluated using the procedures outlined in "Chapter 16 – Signalized Intersections" of the 2000 Highway Capacity Manual (HCM). Within the study area, it was determined that the following intersections operate at LOS E or worse under existing traffic conditions:

- SR-94 at Jamacha Boulevard;
- SR-94 at Steele Canyon Road; and
- SR-94 at Lyons Valley Road.

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A detailed discussion of intersection performance, including figures and specific volumes for each roadway segment analyzed, incorporated by reference from the Jamul **Indian Village Final** EIS, **Section 3.8.1,** pages 3-60, 3-62, and 3-64.

3.8.2 ENVIRONMENTAL CONSEQUENCES

PREFERRED PROJECT

A detailed traffic impact analysis was developed for the Preferred Project analyzed in this Tribal EIS. The complete analysis includes information revealed in the *Jamul Indian Village Traffic Impact Analysis* (Katz, Okitsu & Associates, November 2002) conducted for the project alternatives analyzed in the previous Jamul **Indian Village Final** EIS, and the *Jamul Indian Village Supplemental Traffic Impact Analysis* (MRO Engineers, August 2006) conducted to address the modifications to the project alternatives analyzed in this Tribal EIS.

November 2002 Traffic Impact Analysis

The November 2002 report documented analyses of up to ten study intersections and fourteen roadway segments. In accordance with the San Diego Region Congestion Management Program, the study area analyzed included all roadway segments and intersections that would experience 50 or more peak hour trips in one direction. The analysis identified significant traffic impacts and associated mitigation measures for four time frames. These time frames include two near term scenarios and two long-term cumulative scenarios (cumulative impacts are discussed in **Section 3.14** of this Tribal EIS). In addition to daily conditions, the report addressed traffic operations in three peak hour periods: weekday AM peak hour, weekday PM peak hour, and Saturday PM peak hour. The November 2002 traffic impact assessment of the Preferred Project was found to be applicable to the Preferred Project at the following locations due to similar scale, uses, location, and timing of the development: Specifically, the documented analyses contained in the November 2002 report is valid and applicable to the Preferred Project at the following intersections and roadways segments:

Study Intersections

- SR 94/Via Mercado
- SR 94/Jamacha Boulevard
- SR 94/Jamacha Road/SR 54
- SR 94/Cougar Canyon Road
- SR 94/Steele Canyon Road
- SR 94/ Lyons Valley Road
- SR 94/Proctor Valley Road/Jefferson Road, and
- Proctor Valley Road/Melody Road.

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Roadway Segments

- Jamacha Road, between Sweetwater Springs Boulevard and SR 94
- Jamacha Road, between SR 94 and Fury Lane
- SR 94, between Jamacha Boulevard and Jamacha Road
- SR 94, between Jamacha Road and Steele Canyon
- SR 94, between Steele Canyon and Lyons Valley Road
- SR 94, between Lyons Valley Road and Maxfield Road
- SR 94, between Maxfield Road and Melody Road
- Steele Canyon Road, between Jamul Drive and SR 94
- Lyons Valley Road, between SR 94 and Jefferson Road
- Proctor Valley Road, between Jefferson and Melody Road
- Proctor Valley Road, between Melody Road and Poplar Way

The traffic impacts of the Preferred Project at the locations listed above were not addressed in the August 2006 supplemental traffic impact report. Significant impacts and mitigation measures identified for Alternative A in the November 2002 analysis for the locations listed above continue to apply to the Preferred Project and are incorporated by reference from the Jamul **Indian Village Final** EIS **(August, 2003), Section 4.8,** pages 4.8-1 through 4.8-14. These impacts and recommended mitigation measures are also included in the comprehensive traffic analysis included below.

August 2006 Supplemental Traffic Impact Analysis

The purpose of the August 2006 supplemental traffic impact analysis was to address impacts resulting from the modifications to the site plan proposed by the Preferred Project. From a traffic standpoint, the primary difference between the Preferred Project and Alternative A analyzed in the November 2002 report is the location of the access roadway serving the site. Therefore the August 2006 supplemental report focused on selected key intersections and roadway segments in the immediate vicinity of the project site that would be uniquely affected by the alternate site entrance. Specifically, traffic flow patters resulting from implementation of the Preferred Project would differ from Alternative A at only one of the study intersections (plus the project access[1] intersection) and three of the study roadway segments, as follows:

Study Intersections

- SR 94/Melody Road, and
- SR 94/Project Access.

[1] / This applies to both Option 1 and 2 access points.

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Roadway Segments

- Melody Road, west of SR 94,
- SR 94, between Melody Road and the Project Access Road, and
- SR 94, south of the Project Access Road.

The August 2006 supplemental analyses of these locations supercedes the analyses included in the November 2002 traffic report. However, as previously mentioned, the analyses at the other study intersections and roadway segments documented in the November 2002 report remain valid and the significant impacts and mitigation measures identified for those locations would continue to apply.

Comprehensive Traffic Impact Analysis

The comprehensive traffic impact assessment provided below incorporates information from the both the November 2002 report included as **Appendix L** of the Jamul **Indian Village Final** EIS, and the August 2006 supplemental report included as **Appendix E** of this document.

Trip Generation Assumptions

Table 3.8-1 contains a comparison of the trip generation for the Preferred Project and Alternative A previously analyzed in the Jamul **Indian Village Final** EIS **(August, 2003)**. As can be seen from the table, on a daily basis, the Preferred Project will generate about 30 percent fewer trips than Alternative A. This difference is due primarily to the elimination of the event center in Phase B of the project. The overall project, as modified, will generate over 500 fewer trips over the course of a typical weekday. Although a slight increase in weekday AM peak hour trips is estimated, that change is expected to have a negligible effect on intersection operations, and no further traffic impact is considered likely in that time period. Overall the traffic impacts would be reduced under the Preferred Project. However, for consistency sake, this report assumes that traffic generated by the Preferred Project would be identical to that generated by Alternative A analyzed in the initial traffic study prepared for the Jamul **Indian Village Final** EIS. As it is expected that the number of trips would be slightly reduced under the Preferred Project, traffic related impacts should be considered conservative.

Project Access

Vehicular access serving the site would be provided by way of a single connection to SR 94, south of Melody Road. There are two options under consideration: (1) Option 1 – is located south of the existing fire station and would use the existing paved roadway that travels in a southwesterly direction to the Indian Village, (2) Option 2 – is located east of the Indian Village and would use the existing paved roadway that connects to SR 94. This selected access intersection is assumed to be controlled by a STOP sign on the project access road; drivers exiting

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the site would be required to stop before turning onto SR 94, while traffic on SR 94 would remain unrestricted.

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TABLE 3.8-1
TRIP GENERATION - PROJECT COMPARISON

Land Use	Size	Weekday Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Previous EIS Alternative A											
Casino	73,469 SF [1]	7,714	152	65	217	192	171	363	232	273	505
Hotel	300 Rooms	900	27	18	45	25	38	63	25	38	63
Event Center	24,000 SF	828	0	0	0	187	0	187	187	0	187
TOTAL		**9,442**	**179**	**83**	**262**	**404**	**209**	**613**	**444**	**311**	**755**
Current Preferred Project											
Casino	73,469 SF	7,714	152	65	217	192	171	363	232	273	505
Hotel	400 Rooms	1,200	36	24	60	33	51	84	33	51	84
TOTAL		**8,914**	**188**	**89**	**277**	**225**	**222**	**447**	**265**	**324**	**589**
Preferred Project Net Increase (Decrease)		***(528)***	***9***	***6***	***15***	***(179)***	***13***	***(166)***	***(179)***	***13***	***(166)***

SOURCE: MRO Engineers, 2006.
NOTES: [1] Gaming floor area only

Methodologies

Buildout of the project is assumed to occur in the year 2009. Additional development projects that are expected to be complete within the pertinent time period for each phase are also considered within the analyses.

The "long-term" (year 2020) analysis scenarios address completion of the entire proposed project in combination with future year traffic forecasts and anticipated roadway system improvements. While the future year traffic forecasts for the two sets of year 2020 scenarios are identical, the buildout scenarios assume full implementation of the County of San Diego General Plan Circulation Network (as approved on October 15, 1993) as well as the most recent Caltrans Concept Report for SR 94.

Analysis Scenarios

The comprehensive traffic analysis addresses the following scenarios:

- Existing Conditions: The analysis of existing conditions is based on traffic counts collected in May 2002. Additional daily volumes were obtained from the California Department of Transportation and the SANDAG traffic count index.

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- Existing Plus Expected Development: Traffic estimates for the near term scenarios are based on the SANDAG Cities/County Traffic Forecasting Model for the year 2005. In addition, two substantial development projects are expected to be completed within this time frame, and the traffic associated with these projects has been included in the traffic estimates. These projects include the Grossmont Union High School District's Steele Canyon High School that will have an ultimate student enrollment of up to 2,000 students, and the Simpson Farm 100 dwelling unit residential development. Detailed trip generation estimates for these projects are included in **Appendix E** of this document.

- Near-Term (2009): The near-term 2009 analysis is based on the SANDAG Cities/Counties Traffic Forecasting Model for the year 2005 plus traffic associated with the development of other known projects in the study area. In addition, a linear growth rate was determined for each roadway segment based on a comparison of the Cities/Counties Traffic Forecast for the years 2005 and 2020 and applied directly to the 2005 forecasts. The linear growth rate accounts for other projects not specifically included in this analysis. The sum of these volumes simulates Year 2009 conditions.

  The two additional development projects that were specifically included in the year 2009 traffic forecasts include a 532 unit single-family residential project referred to as Hidden Valley Estates, and a 10-acre retail center located on the Simpson Farm Property. The location and detailed trip generation estimates for these projects are included in **Appendix E** of this document.

- Long-Term (2020): Long-term peak hour traffic volumes were derived from SANDAG's Rural Route 94 Corridor study and Year 2020 Cities/County forecasts. Against this base, traffic associated with the Preferred Project was added, and the relative impacts were determined.

  The Long-Term circulation network assumes that SR-94 would remain as a two-lane facility east of Millar Ranch Road as it was recently designated in the Regional Transportation Plan (RTP), published in 2000. Despite having previously been designated at a higher capacity, it was downgraded by the SANDAG board during the past year in the RTP.

For purposes of this TEIS/R the analysis presented within this discussion will address the potential transportation effects resulting from development of Phase A (Existing Plus Project), and Phase B (Near Term Year 2009). The Future (2020) effect analysis is presented in the Cumulative Effects section of this Tribal EIS (**Section 3.14**).

Project Study Area

In accordance with the guidelines set forth in the 1996 update of the San Diego Region Congestion Management Program, the study area for this project includes all roadway segments and intersections that would experience 50 or more peak hour trips in one direction. These include intersections and roadway segments along SR-94 between Avocado Boulevard and Melody Road. It should also be noted that the intersection of SR-94 at Town Center will not be analyzed in this report. The intersection of SR-94 at Town Center is not a major intersection and the proposed project would not contribute to delay since it will only add through traffic.

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Roadway Capacity Analysis

Existing average data was obtained from available data sources, including Caltrans and SANDAG. The County of San Diego has published daily traffic volume standards for roadways in their jurisdiction. For roadway segments that fall under the jurisdiction of Caltrans, the SANTEC/ITE Guildelines for Traffic Impact Studies in the San Diego Region was referenced to determine acceptable daily traffic volumes and standards.

An overview of roadway capacity methodologies and concepts used in this comprehensive traffic analysis is incorporated by reference from **Appendix L,** pages 12-13 of the Jamul **Indian Village Final** EIS. These pages describe the methodology used for the roadway segment capacity analysis and intersection capacity analysis. This section also defined the "level of service" concept. Level of service (LOS) is a report-card scale used to indicate the quality of traffic flow on roadway segments and at intersections. Level of service ranges from LOS A (free flow, little congestion) to LOS F (forced flow, extreme congestion).

Analysis of Significance

To determine project effects, the County of San Diego has developed a series of thresholds based on allowable increases in volume-to-capacity ratios, which become more stringent as level of service worsens. Where the roadway segment is forecast to operate at LOS E or F and the increase in volume to capacity ratio exceeds 0.02, that increase is a significant project effect and mitigation is recommended. If the roadway is forecast to operate at LOS E or F, but the increase in volume to capacity ratio is 0.02 or less, the effect is insignificant. For signalized intersections the procedure for determining significant effects is similar. Where the intersection is forecast to operate at LOS E or F and the increase in delay exceeds 2 seconds, that increase is a significant project effect and mitigation is recommended. If the intersection is forecast to operate at LOS E or F, but the increase is 2 seconds or less, the effect is considered insignificant.

Project Trip Generation

The detailed trip generation methodology used for the Preferred Project is incorporated by reference from **Appendix L,** pages 27-30 of the Jamul **Indian Village Final** EIS. Sources

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referenced when devising the project trip generation rates included San Diego Association of Governments (SANDAG) *Not-So Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* (dated July 1998), ITE Trip Generation Manual, the County of San Diego's recently revised "Report on the Potential Effects of Tribal Gaming on Northern and Eastern San Diego County", five Northern California casinos, and other similar Gaming projects. Please see **Appendix L** of the Jamul **Indian Village Final** EIS for a detailed discussion of the methodology used for the project trip generation. **Table 3.8-2** summarizes the trips generated by the Preferred Project.

TABLE 3.8-2
TRIP GENERATION PREFERRED PROJECT

Land Use	Unit	Trip Rate	Per	Daily Trips
Phase A				
Casino Gaming Floor Area	73,469 SF	105	KSF	7,714
Patrons	85%			6,557
Employees	15%			1,157
Phase A Subtotal				**7,714**
Phase B				
Hotel	400 rooms	3	Occupied Bedroom	1,200
Patrons	1,200	0.606	Seat	(728)
Employees	50	2	Employee	(100)
Phase B Subtotal				**1,728**
Buildout TOTAL				**9,442**

SOURCE: Katz Okitsu, 2002; MRO Engineers, 2006; AES, 2006.
NOTES: KSF thousand square feet of gaming floor area.

As summarized in **Table 3.8-2,** the Phase A of the Preferred Project would add 7,714 weekday daily trips to the circulation network, with 216 trips occurring in the AM peak hour and 363 trips occurring in the PM peak hour. On the weekend, the project will add 505 trips in the PM peak hour. **Table 3.8-2** also shows that with the construction of both Phase A and B, the Preferred Project would add 9,442 weekday daily trips to the circulation network, with 261 trips occurring in the AM peak hour and 613 trips occurring in the PM peak hour. On the weekend, the project will add 755 trips in the PM peak hour.

Project Trip Distribution and Assignment

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that project related traffic will likely affect. **Appendix E** of this document and **Appendix L** of the Jamul **Indian Village Final** EIS, present a detailed discussion of the trip distribution and assignment assumptions used within this comprehensive traffic analysis. The discussion from each document that is applicable to the intersections discussed on pages 3.8-1 through 3.8-3

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above, is incorporated into this section of the Tribal EIS. The trip distribution information was estimated from a SANDAG Select Zone analysis prepared specifically for this study using the Year 2020 County/Cities travel demand model. Graphics depicting the trip distribution and assignment used within this traffic analysis include **Figures 4, 5, 8, 11,** and **12** of **Appendix E** of this document, and **Figures 7a, 8a, 9a, 9b, 10a, 11a** and **11b** found in **Appendix L** of the previous Jamul EIS.

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Traffic From Other Projects

The traffic study identified the following projects that would add traffic to the roadway network in the near term: (1) Grossmont Union High School District Steele Canyon High School, (2) Simpson's Farm residential development, (3) Simpson's Farm commercial development, and (4) Hidden Valley Estates residential development. Traffic from these projects was added to the background traffic as described in detail within **Appendix** E of this document and **Appendix L** of the Jamul **Indian Village Final** EIS. This discussion is incorporated by reference into this section of the EE. Due to uncertainties in the planning process, some of these projects may not occur, however, they are included here to present the "worst case" analysis.

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Phase A Effects

This section documents near-term conditions in the project site vicinity both without and with Phase A of the Preferred Project. The analysis is based on the SANDAG Cities/Counties Traffic Forecasting Model for the year 2005. The year 2005 traffic volumes also take into account traffic associated with other projects as described in the previous section. The sum of these volumes simulates Year 2005 conditions. Note that this analysis presents a worst-case scenario since among the cumulative projects considered is the Steele Canyon High School, which would not be at peak operations during the summer months, as compared to the proposed casino, which has a peak season during the summer. The traffic conditions and effects may not be as severe as is indicated in this worst-case analysis.

To this background base, net near-term trips resulting from the Preferred Project was added. Through a comparison of the resulting change in delay and level of service, near-term effects can be identified. The near-term circulation network assumes that the planned improvements to SR-94 would be in place. These improvements involve construction of a two-way left turn lane, widened shoulders and improved curves on SR-94 from Pine Lane east to Rancho Miguel Road. Shoulders will be widened to provide eight feet of emergency parking throughout this segment. Also, a traffic signal will be constructed at Steele Canyon Road. This project is currently under construction and expected to be completed by the end of this year.

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Also, the intersection of SR-94 at Jamacha Boulevard will be improved by the County of San Diego to include three eastbound through lanes. However, the Existing Plus Expected

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Development conditions and future scenarios do not assume that the County of San Diego will complete the eastbound improvements to the intersection of SR-94 at Jamacha Boulevard.

Daily Roadway Segment Effects

To determine near-term service levels on study area roadway segments, we compared the County of San Diego and the SANTEC/ITE adopted ADT thresholds for LOS, the daily capacity of the study area roadway segments, and the near-term forecast volumes in the study area. The following roadway segments are forecast to operate at LOS E or worse in the near-term without the project alternatives:

- SR-94, Jamacha Road to Steele Canyon Road; Deleted: /Campo Road
- SR-94, Steele Canyon Road to Lyons Valley Road; Deleted: /Campo Road
- SR-94, Lyons Valley Road to Maxfield Road; and Deleted: /Campo Road
- SR-94, Maxfield Road to Melody Road. Deleted: /Campo Road

With the addition of the Preferred Project, the roadway segments listed above will experience higher delays and will be significantly affected by the addition of the project traffic. The addition of the Preferred Project will also significantly affect the following roadway segments:

- SR-94, Jamacha Boulevard to Jamacha Road.
- SR-94, Melody Road to the Project Access Road Deleted: /Campo Road

This is considered a significant impact. Mitigation measures included in **Section 3.8.3** will reduce **the magnitude of the** impacts, Deleted: to a less than significant level

Peak Hour Intersection Effects

Peak hour intersection volumes under near-term conditions were forecast based on forecast year 2005 traffic volumes plus trips associated with other projects. Net trips associated with the Preferred Project was added to determine the relative effect of traffic generated. **Table 3.8-3** summarizes the results of this analysis. The worksheets used in this analysis are contained in

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TABLE 3.8-3
NEAR - TERM 2005 PEAK HOUR INTERSECTION CONDITIONS
PREFERRED PROJECT

Intersection	Without Project		With Project			
	Average Intersection Delay (sec.)	LOS	Average Intersection Delay (sec.)	LOS	Increase in Delay	Significant?
Weekday AM Peak Hour						
SR-94 at Via Mercado	33.0	C	36.8	D	3.8	Yes+
SR-94 at Jamacha Boulevard	32.5	C	37.9	D	5.4	Yes+
SR-94 at Jamacha Road/SR-54	36.0	D	38.1	D	2.1	Yes+
SR-94 at Cougar Canyon Rd	31.4	C	32.6	C	1.2	No
SR-94 at Steele Canyon Rd	18.7	B	20.1	C	1.4	No
SR-94 at Lyons Valley Rd*	79.8	F	>100	F	**>20.2**	**Yes**
SR-94 at Proctor Valley Rd/Jefferson Rd	62.8	E	64.8	E	2.0	No
SR-94 at Melody Road	17.7	C	23.5	C	5.7	No
SR-94 at Project Access Rd[2]	N/A	N/A	19.5	C	N/A	No
Proctor Valley Rd at Melody Rd.*	7.5	A	7.5	A	0.3	No
Weekday PM Peak Hour						
SR-94 at Via Mercado	20.2	C	23.1	C	2.9	No
SR-94 at Jamacha Blvd	99.2	F	>100	F	**>0.8**	**Yes**
SR-94 at Jamacha Rd/SR-54	40.9	D	49.0	D	8.1	Yes+
SR-94 at Cougar Canyon Rd	19.7	B	26.9	C	7.2	Yes+
SR-94 at Steele Canyon Rd	38.0	D	52.4	D	14.4	Yes+
SR-94 at Lyons Valley Rd*	>100	F	>100	F	**>100**	**Yes**
SR-94 at Proctor Valley Rd/Jefferson Rd	12.0	B	14.2	B	2.2	No
SR-94/Campo Rd at Melody Rd	16.8	C	24.0	C	7.2	No
SR-94 at Project Access Rd	N/A	N/A	39.7	E	**N/A**	**Yes**
Proctor Valley Rd at Melody Rd.*	8.9	A	9.1	A	0.2	No
Saturday PM Peak Hour						
SR-94 at Via Mercado	18.2	B	19.2	B	1.0	No
SR-94 at Jamacha Blvd	>100	F	>100	F	**>100**	**Yes**
SR-94 at Jamacha Rd/SR-54	35.5	D	46.0	D	10.5	Yes+
SR-96 at Cougar Canyon Rd	2.3	A	3.3	A	1.0	No
SR-94 at Steele Canyon Rd	20.4	C	32.9	C	12.5	Yes+
SR-94 at Lyons Valley Rd*	>100	F	>100	F	**>100**	**Yes**
SR-94 at Proctor Valley Rd/Jefferson Rd	14.4	B	19.0	B	4.6	No
SR-94 at Melody Rd	14.7	B	27.1	D	12.4	No
SR-94 at Project Access Rd	N/A	N/A	41.8	E	**N/A**	**Yes**
Proctor Valley Rd at Melody Rd.*	7.9	A	8.2	A	0.3	No

SOURCE: Katz, Okitsu, 2002; AES, 2002

NOTES: *Unsignalized, minor street stop control intersection. Delay is reported for the overall intersection and level of service is reported for the overall intersection and the worst case movement.
+ Although the impact is significant, the intersection would operate at LOS D or better, which is considered acceptable. No mitigation is required

[2] / Applies to both access options proposed.

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Appendix L of the Jamul **Indian Village Final** EIS and **Appendix E** of this document. The near-term intersection analysis assumes that the planned signal at SR-94 at Steele Canyon Road is in place (California Department of Transportation Fact Sheet, 1/2000).

Under near-term conditions without the addition of project traffic the following study intersections are forecast to operate at LOS E or worse:

- SR-94 at Jamacha Boulevard;
- SR-94 at Lyons Valley Road; and,
- SR-94 at Proctor Valley Road/Jefferson Road.

Note that the intersection of SR-94 at Jefferson Road/Proctor Valley Road will not be significantly affected by the addition of the Preferred Project. Although the intersection will continue to operate at LOS E, the addition of the project trips will not increase delay by more than two seconds; therefore, no mitigation measures are recommended. However, significant impacts would occur at the other intersections as the addition of project related trips would increase delays by more than 2 seconds.

In addition to the intersections listed above which are already forecast to operate poorly without the project, the addition of the Preferred Project will create higher delays and significantly affect the intersections of SR-94 at Melody Road. It is expected that the intersection of SR-94 at the project driveway entrance[3] will also operate at an unacceptable service level. This is considered a significant impact. Mitigation measures included in **Section 3.8.3** will reduce these impacts to a less than significant level.

Fire Station Safety Analysis

Phase A of the Preferred Project **will be** operational **following** relocation of the existing fire station, which **currently** operates on land leased from the Jamul tribe, north of the project site and fronting on the west side of SR-94. **Therefore, no impacts to the existing fire station would occur.**

Wastewater Removal Truck Traffic

The trip generation estimates presented in the traffic study reflect all forms of travel to and from the project site, including patrons, employees, and delivery/service trips. In particular, the estimates include truck traffic associated with the removal of wastewater from the site. Section 2 of this document identified 11 average truck trips per day that would be associated with the removal of wastewater. The Supplemental Traffic Study (**Appendix E**) identified up to 22 truck trips assuming a worst case scenario. With the worst case scenario considered, the truck trips

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represent a negligible portion (i.e., under one percent) of the total daily trips at the site and, therefore, will have no measurable impact on traffic operations in the study area.

Phase B Effects

This section documents near-term conditions (2009) in the project site vicinity both without and with the Preferred Project. No intersection or roadway improvements are assumed in conjunction with this analysis scenario. The near-term 2009 analysis is based on the SANDAG Cities/Counties Traffic Forecasting Model for the year 2005 plus traffic associated with the development of other known projects in the study area. In addition, a linear growth rate was determined for each roadway segment based on a comparison of the Cities/Counties Traffic Forecast for the years 2005 and 2020 and applied directly to the 2005 forecasts. The linear growth rate accounts for other projects not specifically included in this analysis. The sum of these volumes simulates Year 2009 conditions. To this background base, net near-term trips resulting from the alternatives were added. Through a comparison of the resulting changes in delay and level of service, near-term effects can be identified.

Daily Roadway Segment Effects

To determine near-term service levels on study area roadway segments, we compared the County of San Diego's and the SANTEC/ITE adopted ADT thresholds for LOS, the daily capacity of the study area roadway segments, and the near-term forecast volumes in the study area. The following roadway segments are forecast to operate at LOS E or worse without the Preferred Project:

- SR-94, Jamacha Road to Steele Canyon Road; **Deleted:** /Campo Road
- SR-94, Steele Canyon Road to Lyons Valley Road; **Deleted:** /Campo Road
- SR-94, Lyons Valley Road to Maxfield Road; **Deleted:** /Campo Road
- SR-94, Maxfield Road to Melody Road; and **Deleted:** /Campo Road
- SR-94, Melody Road to Project Access Road **Deleted:** /Campo Road
- SR-94, Project Access Road to Honey Springs Road **Deleted:** /Campo Road

With the addition of the Preferred Project, the above listed roadway segments will experience higher delays and will be significantly affected by the addition of the project traffic, excluding the roadway segment of SR-94 from the Project Access Road to Honey Spring Road. **Deleted:** /Campo Road

The addition of the Preferred Project will also significantly effect the roadway segments of SR-94 between Jamacha Boulevard and Jamacha Road. This is considered a significant impact.

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TABLE 3.8-4
NEAR - TERM 2009 PEAK HOUR INTERSECTION CONDITIONS
PREFERRED PROJECT

Intersection	Without Project		With Project			
	Average Intersection Delay (sec.)	LOS	Average Intersection Delay (sec.)	LOS	Increase in Delay	Significant ?
Weekday AM Peak Hour						
SR-94 at Via Mercado	50.2	D	55.5	D	5.6	Yes+
SR-94 at Jamacha Blvd	43.7	D	50.1	D	6.4	Yes+
SR-94 at Jamacha Rd/SR-54	38.1	D	42.3	D	4.2	Yes+
SR-94 at Cougar Canyon Rd	36.1	D	44.8	D	8.7	Yes+
SR-94 at Steele Canyon Rd	25.1	C	33.6	C	8.5	Yes+
SR-94 at Lyons Valley Rd*	>100	F	>100	**F**	**>100**	**Yes**
SR-94 at Proctor Valley Road/Jefferson Road	69.2	E	71.0	E	1.8	No
SR-94 at Melody Rd	19.9	C	30.3	D	10.4	No
SR-94 at Project Access Rd	N/A	N/A	24.5	C	N/A	No
Proctor Valley Rd at Melody Rd.*	8.5	A	8.5	A	0.0	No
Weekday PM Peak Hour						
SR-94 at Via Mercado	22.8	C	26.4	C	3.6	No
SR-94 at Jamacha Blvd	>100	F	>100	**F**	**>100**	**Yes**
SR-94 at Jamacha Rd/SR-54	43.6	D	57.3	**E**	**13.7**	**Yes**
SR-94 at Cougar Canyon Rd	26.6	C	76.7	**E**	**50.1**	**Yes**
SR-94 at Steele Canyon Rd	47.6	D	98.0	**F**	**50.4**	**Yes**
SR-94 at Lyons Valley Rd*	>100	F	>100	**F**	**>100**	**Yes**
SR-94 at Proctor Valley Rd/Jefferson Rd	18.0	B	27.8	C	9.8	Yes+
SR-94 at Melody Rd	19.7	C	44.9	**E**	**25.2**	**Yes**
SR-94 at Project Access Rd	N/A	N/A	>50.0	**F**	**N/A**	**Yes**
Proctor Valley Rd at Melody Rd.*	9.2	A	9.3	A	0.1	No
Saturday PM Peak Hour						
SR-94 at Via Mercado	20.0	B	23.3	C	3.3	No
SR-94 at Jamacha Boulevard	>100	F	>100	**F**	**>100**	**Yes**
SR-94 at Jamacha Road/SR-54	37.9	D	49.2	D	11.3	Yes+
SR-96 at Cougar Canyon Rd	4.2	A	7.4	A	3.2	No
SR-94 at Steele Canyon Rd	20.3	C	54.7	D	34.4	Yes+
SR-94 at Lyons Valley Rd*	>100	F	>100	**F**	**>100**	**Yes**
SR-94 at Proctor Valley Rd/Jefferson Rd	15.4	B	24.1	C	8.7	Yes+
SR-94 at Melody Rd	16.4	C	>50.0	**F**	**>50**	**Yes**
SR-94 at Project Access Rd	N/A	N/A	>50.0	**F**	**N/A**	**Yes**
Proctor Valley Rd at Melody Rd.*	8.1	A	8.2	A	0.1	No

SOURCE: Katz Okitsu, 2002; AES, 2002
NOTES: *Unsignalized, minor street stop control intersection. Delay is reported for the overall intersection and level of service is reported for the overall intersection and the worst case movement.
+ Although the impact is significant, the intersection would operate at LOS D or better, which is considered acceptable. No mitigation is required.

Mitigation measures are included in **Section 3.8.3** to reduce impacts to a less than significant level.

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Peak Hour Intersection Effects

Peak hour intersection volumes under Phase B conditions were forecast based on SANDAG'S cities/Counties Traffic Forecasting Model for the year 2005 plus trips associated with other projects. In addition, an annual growth rate was determined and applied directly to the forecast 2005 volumes. Net trips associated with the Preferred Project was added to determine the relative effect of traffic generated. **Table 3.8-4** summarizes the results of this analysis. **Appendix L** of the Jamul **Indian Village Final** EIS and **Appendix E** of this document contain the worksheets used in this analysis. The near-term intersection analysis assumes that the planned signal at SR-94 at Steele Canyon Road is in place (California Department of Transportation Fact Sheet, 1/2001).

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Under near-term conditions without the project alternatives the following study intersections are forecast to operate at LOS E or worse.

- SR-94 at Jamacha Boulevard;
- SR-94 at Lyons Valley Road; and
- SR-94 at Proctor Valley Road/Jefferson Road.

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In addition to the intersections listed above; which are already forecast to operate poorly without the project, the addition of the Preferred Project will create higher delays and significantly affect the intersections listed above.

Note that the intersection of SR-94 at Jefferson Road/Proctor Valley Road will not be significantly affected by the addition of the Preferred Project. Although the intersection will continue to operate at LOS F, the addition of the project trips will not increase delay by more than two seconds; therefore, no mitigation measures are recommended.

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The addition of the Preferred Project also creates higher delays and significantly affects the following intersections:

- SR-94 at Jamacha Road/SR-54
- SR-94 at Cougar Canyon Road;
- SR-94 at Steele Canyon Road;
- SR-94 at Melody Road; and
- SR-94 at the Project Access Road[4].

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[4] / Applies to both access options.

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Under the Preferred Project, declines in intersection performance are due primarily to excessive delays for drivers attempting to turn from Stop-sign controlled approaches onto SR-94. Delays would result from a lack of adequate gaps in traffic on SR-94. This is considered a significant impact. Mitigation measures included in **Section 3.8.3** will reduce impacts to a less than significant level.

REDUCED INTENSITY ALTERNATIVE

The comprehensive traffic impact analysis that was developed for the Reduced Intensity Alternative analyzed in this Tribal EIS/R includes information revealed in the *Jamul Indian Village Traffic Impact Analysis* (Katz, Okitsu & Associates, November 2002) conducted for the project alternatives analyzed in the Jamul **Indian Village Final** EIS, and the *Jamul Indian Village Supplemental Traffic Impact Analysis* (MRO Engineers, August 2006) conducted to address the modifications to the project alternatives analyzed in this Tribal EIS/R. A background summary of these documents and their relevance to the Reduced Alternative is included on pages 3.8-1 through 3.8-3 of this document.

Comprehensive Traffic Analysis

All information regarding existing conditions, near term conditions, and future conditions and the different scenarios included within the traffic study for the Preferred Project were assumed. This includes other "committed" projects within the study area. For purposes of this Tribal EIS/R, the analysis presented within this discussion will address the potential transportation effects resulting from development of Phase A (Existing Plus Project), and Phase B (Near Term Year 2011) for the Reduced Alternative. The Future (2020) effect analysis is presented in the Cumulative Effects section of this Tribal EIS/R (**Section 3.14**).

Project Study Area

The study area roadways and intersections is the same as is described for the Preferred Project. It should be noted, however, that the study area for the Preferred Project includes all roadway segments and intersections that would experience 50 or more peak hour trips in one direction. Since the Reduced Alternative would generate fewer overall vehicle trips, some roadway segments and intersections may experience less than 50 peak hour trips in one direction.

Roadway Capacity Analysis

This analysis is based on the "level of service" concept. Level of service (LOS) is a report-card scale used to indicate the quality of traffic flow on roadway segments and at intersections.

Analysis of Significance

To determine project effects, the County of San Diego has developed a series of thresholds based on allowable increases in volume-to-capacity ratios, which become more stringent as level of

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service worsens. Where the roadway segment is forecast to operate at LOS E or F and the increase in volume to capacity ratio exceeds 0.02, that increase is a significant project effect and mitigation is recommended. If the roadway is forecast to operate at LOS E or F, but the increase in volume to capacity ratio is 0.02 or less, the effect is insignificant. For signalized intersections the procedure for determining significant effects is similar. Where the intersection is forecast to operate at LOS E or F and the increase in delay exceeds 2 seconds, that increase is a significant project effect and mitigation is recommended. If the intersection is forecast to operate at LOS E or F, but the increase is 2 seconds or less, the effect is considered insignificant.

The County of San Diego has developed a series of significance thresholds based on allowable increases in volume-to-capacity ratios, which become more stringent as level of service worsens. The thresholds for the Reduced Intensity Alternative are the same as those described for the Preferred Project.

Project Trip Generation

Trip generation rates for the Reduced Alternative were based on a comparison of trip generation rates assumed for the Preferred Project. As discussed in on pages 3.8-3 and 3.8-4, trip generation for the Preferred Project is assumed to be identical to Alternative A analyzed in the Jamul **Indian Village Final** EIS. As shown in **Table 3.8-5,** buildout of the Reduced Intensity Alternative is assumed to add 3,158 less weekday daily trips than the Preferred Project.

TABLE 3.8-5
TRIP GENERATION - PROJECT COMPARISON

Land Use	Size	Weekday Daily Trips	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday PM Peak Hour
Previous EIS Alternative A					
Casino	73,469 SF [1]	7,714	217	363	505
Hotel	300 Rooms	900	45	63	63
Event Center	24,000 SF	828	0	187	187
TOTAL		**9,442**	**262**	**613**	**755**
Reduced Alternative					
Casino	55,473 SF[1]	5,420	164	274	381
Hotel	150 Rooms	450	23	32	32
TOTAL		**5,870**	**187**	**306**	**413**
Reduced Alternative Incremental Increase		***-3,572***	***-75***	***-307***	***-342***

SOURCE: Katz, Okitsu & Associates, 2002; MRO Engineers, 2006; AES, 2006.
NOTES: [1] Gaming floor area only

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Project Trip Distribution and Assignment

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that project related traffic will likely affect. The trip distribution and assignment assumptions used within the traffic analysis for the Preferred Project is applicable to the Reduced Intensity Alternative.

Traffic From Other Projects

The comprehensive traffic study for the Preferred Project identified and considered other local projects that would add traffic to the roadway network in the near term. All assumptions and methodologies with regard to these projects would also be applicable to the Reduced Intensity Alternative.

Phase A Effects

This section documents near-term conditions in the project site vicinity both without and with Phase A of the Reduced Intensity Alternative. The analysis is qualitative and based on the modeling for the Preferred Project, traffic volumes and associated nearby projects.

Daily Roadway Segment Effects

The following roadway segments are forecast to operate at LOS E or worse in the near-term without any of the project alternatives:

- SR-94, Jamacha Road to Steele Canyon Road;
- SR-94, Steele Canyon Road to Lyons Valley Road;
- SR-94, Lyons Valley Road to Maxfield Road; and
- SR-94, Maxfield Road to Melody Road.

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With the addition of the Reduced Intensity Alternative, the roadway segments listed above would experience higher delays and would be significantly affected by the addition of the project traffic. The addition of the Reduced Alternative would also significantly affect the roadway segments of SR-94 between Jamacha Boulevard and Jamacha Road, and SR-94 between Melody Road and the Project Access Road. The severity of these effects would be less than what could occur under the Preferred Project, since trip generation would be reduced. Mitigation measures included in **Section 3.8.3** would ensure a less than significant effect would occur.

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Peak Hour Intersection Effects

Under near-term conditions without the addition of project traffic the following study intersections are forecast to operate at LOS E or worse:

- SR-94 at Jamacha Boulevard;

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- SR-94 at Lyons Valley Road; and,
- SR-94 at Jefferson Road/Proctor Valley Road.

In addition to the intersections listed above which are already forecast to operate poorly without the project, the addition of the Reduced Intensity Alternative will create higher delays and significantly affect the intersections of SR-94 at Melody Road, and SR-94 at the Project Site Access Road, although to a lesser extent than the Preferred Project. Mitigation measures included in **Section 3.8.3** will ensure less than significant effects would occur.

Fire Station Safety Analysis

Phase A of the Reduced Intensity Alternative **would be** operational **following** the relocation of the existing fire station. **Therefore, no impact to the existing fire station would result from the Reduced Intensity Alternative.**

Wastewater Removal Truck Traffic

The trip generation estimates presented in the traffic study reflect all forms of travel to and from the project site, including patrons, employees, and delivery/service trips. In particular, the estimates include truck traffic associated with the removal of wastewater from the site. With the worst case scenario considered, the truck trips represent a negligible portion (i.e., under one percent) of the total daily trips at the site and, therefore, will have no measurable impact on traffic operations in the study area.

Phase B Effects

This section documents near-term conditions (2009) in the project site vicinity both without and with the Reduced Intensity Alternative.

Daily Roadway Segment Effects

The following roadway segments are forecast to operate at LOS E or worse without the Reduced Intensity Alternative:

- SR-94, Jamacha Road to Steele Canyon Road;
- SR-94, Steele Canyon Road to Lyons Valley Road;
- SR-94, Lyons Valley Road to Maxfield Road;
- SR-94, Maxfield Road to Melody Road;
- SR-94, Melody Road to the Project Access Road; and
- SR-94, Project Access Road to Honey Springs Road.

With the addition of this alternative, the above listed roadway segments would experience higher delays and would be significantly affected by the addition of the project traffic, excluding the roadway segment of SR-94 from the Project Access Road to Honey Spring Road. The addition of

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this alternative would also significantly effect the roadway segments of SR-94 between Jamacha Boulevard and Jamacha Road. The severity of these effects would be less than what is anticipated under the Preferred Project, which would generate more traffic.

Peak Hour Intersection Effects

Under near-term conditions, without any of the project alternatives, the following study intersections are forecast to operate at LOS E or worse.

- SR-94 at Jamacha Boulevard;
- SR-94 at Lyons Valley Road; and
- SR-94 at Jefferson Road/Proctor Valley Road.

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As with the Preferred Project, the intersection of SR-94 at Jefferson Road/Proctor Valley Road would not be significantly affected by the addition of the Reduced Intensity Alternative. Although the intersection would continue to operate at LOS F, the addition of the project trips would not increase delay by more than two seconds; therefore, no mitigation measures are recommended.

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In addition to the intersections listed above, which are already forecast to operate poorly with the project, the addition of the Reduced Intensity Alternative would create higher delays and significantly affect the intersections listed below. Overall effects would be less severe than under Preferred Project.

- SR-94 at Jamacha Road/SR-54
- SR-94 at Cougar Canyon Road; and
- SR-94 at Steele Canyon Road.

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Under the Reduced Alternative, declines in intersection performance are due primarily to excessive delays for drivers attempting to turn from Stop-sign controlled approaches onto SR-94. Delays would result from a lack of adequate gaps in traffic on SR-94. Mitigation measures included in **Section 3.8.3** would ensure a less than significant effect would occur.

NO ACTION ALTERNATIVE

The traffic conditions under the No Action Alternative would be as described for the baseline conditions for each target year. No new traffic would be added to the local roadways or SR 94; therefore, no effects would occur under this alternative.

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3.8.3 MITIGATION

Implementation of the mitigation measures included below would ensure a less than significant effect to traffic would occur from the Preferred Project and the Reduced Intensity Alternative:

A. Contribute to the cost of preparing necessary studies and engineering and design work, as well as construction of operational improvements to SR-94 westerly of the project site. These improvements may consist of passing lane areas, shoulder widening, protected left turn areas and other operational measures deemed feasible and consistent with plans for the corridor.

B. Construct all project access points to include any necessary deceleration or acceleration lanes, restriction of turning movements when necessary, and adequate transition between lanes in consultation with Caltrans.

C. Contribute fairshare, **at a minimum,** to construct and signalize the intersection of SR-94/Lyons Valley Road in consultation with Caltrans.

D. Develop and implement a traffic control management plan to maintain safety and traffic operations within the construction zone.

E. Make a fair share contribution, **at a minimum,** toward the cost to widen the section of SR 94 between Melody and the project access to a four lane collector road (i.e., two travel lanes in each direction).

F. SR-94 at Jamacha Boulevard – To improve the intersection operations, provide a fairshare contribution, **at a minimum,** to re-stripe the northbound approach to include one left-turn lane, one shared left-through lane, and a right-turn lane, and construct an additional northbound right-turn lane. Also, construct an additional eastbound through lane. Note, that the County of San Diego has plans to improve the intersection of Jamacha Boulevard to include three eastbound through lanes. The project is budgeted and scheduled to begin construction in 2003-2004.

G. SR-94 at Lyons Valley Road – Provide a fairshare contribution, **at a minimum,** to construct a signal and provide an additional eastbound left-turn lane and an exclusive southbound right-turn lane.

H. SR-94 at the Project Access Road – The Tribe shall pay for the installation of a traffic signal at this intersection.

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I. SR-94 at Cougar Canyon Road – Provide a fairshare contribution, **at a minimum,** to improve the intersection operations to include an additional eastbound through lane.

J. SR-94 at Steele Canyon Road – Provide a fairshare contribution, **at a minimum,** to improve the intersection operations to include an additional eastbound through lane.

K. SR-94 at Lyons Valley Road –Construct an additional westbound through lane and re-stripe the westbound approach to include one left turn lane, one through lane and one shared through-right turn lane.

L. SR-94 at Melody Road – Provide a fairshare contribution, **at a minimum,** to construct a traffic signal. Construct a northbound left-turn lane and one shared through/right-turn lane, a southbound dedicated left-turn lane and a shared through/right-turn lane, and an eastbound dedicated left-turn lane and one shared through/right-turn lane.

M. Previous dialogue with staff at the County of San Diego has provided information regarding future improvements to the intersection of Jamacha Boulevard. The planned improvements are to include an additional eastbound through lanes at this intersection. If the eastbound improvements are not completed by the time of approval for the alternative of choice, fairshare contributions **(at a minimum)** will be made towards the improvements.

N. Install a traffic signal at the project access point. In conjunction with the signal installation, the intersection lane configuration should be modified as follows:

- **Northbound: Provide a dedicated left-turn lane and one through lane,**
- **Southbound: Provide a free-flow right-turn lane and one through lane, and**
- **Eastbound: Provide a dedicated left-turn lane and a right-turn lane.**

O. Project Access Sight Distance – To ensure safety in the vicinity of the project access point on SR 94, install appropriate signage to provide advance warning of the presence of the project access intersection. Such signage may include some or all of the following standard warning signs: SIGNAL AHEAD (CA MUTCD W3-3), BE PREPARED TO STOP (CA MUTCD W3-4, used as a supplement to W3-3), HILL BLOCKS VIEW (CA MUTCD W7-6), and various signs designating changes in horizontal alignment (CA MUTCD W1-1 through W1-5), as well as appropriate advisory speed plaques. The SIGNAL AHEAD sign should be supplemented with a flashing beacon, as allowed in Section 2C.29 of the *California Manual on Uniform Traffic Control Devices* (CA MUTCD), State of California, Department of Transportation, September 26, 2006.

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Deleted: <#>Install EMERGENCY VEHICLE signs (Manual on Uniform Traffic Control Devices Sign Code W11-8; California Sign Code SW21B) on both northbound and southbound SR 94, in advance of the fire station. The warning sign is a graphic representation of a fire truck that informs drivers they are approaching a fire station. The signs should be placed approximately 500 feet in advance of the fire station, with the exact placement to be determined at time of installation, so as to maximize visibility. ¶
<#>The EMERGENCY VEHICLE sign should be supplemented with flashing yellow warning beacons, to increase the likelihood that passing motorists will notice the signs. ¶

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3.9 RESOURCE USE PATTERNS

3.9.1 ENVIRONMENTAL SETTING

LAND USE

Regional Setting

In 2001, San Diego County's population was approximately 2.9 million people, accounting for 8.2 percent of California's population. San Diego is the third largest county in California; it is also the second fastest growing (County of San Diego, 2001). The county consists of eighteen incorporated cities and numerous unincorporated communities. The metropolitan area of San Diego is the largest in the county, followed by Chula Vista, Oceanside and Escondido, respectively. Approximately fifty-five percent of county lands are held in the public trust as national forests and state, county or local parks (County of San Diego, 2001). There are eighteen Native American reservations within the county, covering 125,000 acres (County of San Diego, 2001).

Guidance Documents

The majority of the project site is within the boundaries of the existing Jamul Indian Village. Land use on the Reservation is regulated and guided by the Tribal Council, the governing body of the Tribal Government.

However, Option 2 for fire protection would involve development on land under the jurisdiction of San Diego County. The zoning designation for the Option 2 Fire Station site is "Specific Plan." Under that designation, permitted uses (without the need for a minor or a major use permit) include "Fire Protection Services." Section 6905 of the County Zoning Ordinances addresses Fire Protection Services, and requires that, prior to the approval of any building permit or grading plan or the construction of any structure to be used as a fire station "a Site Plan of the proposed station shall be submitted to the Director for review and evaluation." (The "Director" is the Director of the County Department of Planning and Land Use ("DPLU")). That provision of the Zoning Ordinance specifies the contents of the required Site Plan. Specifically, the Director will determine if (1) the Site Plan conforms with the intent, purpose and requirements of the applicable zoning, (2) the buildings and structures are located on the site so as to create "a generally attractive appearance and be agreeably related to surrounding development in the natural environment," (3) if feasible, natural topography and scenic features are retained and incorporated into the development, and (4) any grading or earth-moving operations are "planned and will be executed so as to blend with the existing terrain both on and adjacent to the site."

The location of the fire station site also lies within the Multi Species Conservation Program (MSCP) area. The purpose of the MSCP is to protect sensitive species and their habitats that

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exist in the unincorporated areas of San Diego County. Specifically, the fire station site falls within the South County segment of the MSCP. The South County segment can be generally separated into two designations: (1) those areas where take is authorized (non-preserve areas) and (2) Multiple Habitat Planning Areas (MHPA) preserve areas. Within take-authorized areas, projects must still conform to the Ordinance and the Subarea Plan. Land uses within the MHPA preserve areas are generally very limited. Some examples of land uses that may be authorized within the MHPA preserve areas include hand clearing of vegetation for fuels management, habitat restoration, noxious weed control, scientific studies, and recreational trails. Any development within the MHPA must meet specific design and mitigation guidelines.

Project Area Setting

Surrounding land uses are largely rural and semi-rural in nature. The portion of State Route 94 in the project vicinity is a two-lane undivided highway lined with fence posts and utility posts. Undeveloped lands surround the Indian Village. The property to the south consists of approximately 4,800 acres, which belongs to the California Department of Fish and Game (CDFG) for preservation purposes. This area, the Rancho Jamul Ecological Reserve, is to remain undeveloped in perpetuity. A private residence is located approximately 0.25 miles east of the current Indian Village access road and another can be seen approximately 0.25 miles to the northeast. Approximately one mile north of the Indian Village is the unincorporated village of Jamul. Land uses between the town center and the Indian Village consist of scattered housing and small businesses. Rancho Jamul Estates, a low-density residential development, is located approximately 0.7 miles south of the Indian Village driveway.

Project Site

The existing Jamul Indian Village is located on approximately 6.03 acres of Tribal trust land in southern San Diego County. The rectangular shaped Indian Village is located off State Route 94 approximately 1-mile south of Jamul. All tribal housing and offices located on the site will be removed. The topography of the Indian Village consists of gentle hills with rock and rock outcrop features. A drainage channel crosses the property in a north-south direction. This channel is narrow with light stream flow much of the year. Access to the area is from the Indian Village driveway located south of the fire station driveway.

A 4-acre parcel located immediately north of the Indian Village and adjacent to State Route 94 is owned by the Tribe. The San Diego Rural Fire Protection District Fire Station #11 is located at the northernmost 91 acres of this parcel. The Fire Station consists of two buildings, one for administrative offices, and the other is used to house firefighters and equipment. The undeveloped portion of the parcel, between the Indian Village and the fire station is devoid of vegetation. Two paved driveways traverse the vacant land between the Fire Station and the Indian Village. A children's play area occupies a small portion of the parcel immediately north

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of the Indian Village. This parcel is zoned as General Agriculture with a County General Plan designation as Estate Residential. Based on the County's General Plan, acceptable uses for this area are agriculture or residential development on minimum two-acre lots (County of San Diego, 2000a). This parcel is also guided by the Metro-Lakeside-Jamul Segment of the MSCP as previously discussed.

AGRICULTURE

Consultation with the Natural Resource Conservation Service (NRCS) showed that the affected area does not contain prime or unique farmland, or farmland of statewide importance. Although the area surrounding the Jamul Indian Village consists of open space and agricultural land, there are no Williamson Act Contracts within the area or adjacent to the project site. A detailed description of the agricultural resources on the project site is incorporated by reference from **Section 3.8.3**, page 3-69 of the Jamul Indian Village Final EIS.

3.9.2 ENVIRONMENTAL CONSEQUENCES

PREFERRED PROJECT

The impact assessment below for resource use patterns contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul EIS impact assessment of Alternative A was found to be generally applicable to the Preferred Project due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

Land Use

The County of San Diego land use regulations would not apply to the project area on the existing Indian Village. The only applicable land use regulations on the Reservation are those that are Tribal. The Tribal Government relies upon the Tribal Council, the governing body of the Tribal Government, to guide and regulate land use on tribal lands. The Tribal Council has approved dedication of the existing Indian Village for a gaming facility, hotel, and supporting uses. The Tribal Government desires to work cooperatively with local and State authorities on matters related to land use. Accordingly, County land use regulations and project effects are assessed below.

Under the Preferred Project, the casino, hotel, and other supporting uses would be constructed on the Indian Village site. This would not conflict with current or future land use plans. The Tribal Council has already approved the construction of a casino and event center in this area. As a sovereign nation, the Tribe has identified this as an acceptable use.

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The development of Option 2 Fire Station would need to be approved by San Diego County through their site plan review process mentioned above. Following review and evaluation of the Site Plan, a number of other approvals are required from the County prior to construction. DPLU also would need to approve the design for the entrance and the physical tie- in to Melody Road, a County-maintained road.

Development of the Preferred Project would not significantly affect surrounding land uses. Land uses surrounding the existing project site include residential subdivisions and undeveloped land. To the south, the California Department of Fish and Game has created the Rancho Jamul Ecological Reserve. This area consists of approximately 4,800 acres that are to remain undeveloped in perpetuity. No significant impacts, such as precluding existing or planned land uses or disruption of access, have been identified. The proposed fire station is a low intensity public service facility that would be a positive land use contribution to the surrounding area.

Agriculture

The area affected by the Preferred Project does not contain prime or unique farmlands, or farmland of statewide importance. The San Diego County Department of Planning and Land Use has not issued or identified any Williamson Act contracts on lands affected by the Preferred Project. The parcel adjacent to SR 94 and directly north of the Jamul Indian Village is zoned as General Agriculture. However, the land is not in agricultural use and is currently developed with a fire station that will be removed in 2008.

REDUCED INTENSITY ALTERNATIVE

The impact assessment below for resource use patterns contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul EIS impact assessment of the Alternative A Variant was found to be generally applicable to the Reduced Intensity Alternative due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

Land Use

The County land use regulations would not apply to the project area on the existing Indian Village. The only applicable land use regulations on the Reservation are those that are Tribal. The Tribal Government relies upon the Tribal Council, the governing body of the Tribal Government, to guide and regulate land use on tribal lands. The Tribal Council has approved dedication of the existing Indian Village for a gaming facility. The Tribal Government desires to work cooperatively with local and State authorities on matters related to land use. As such, County land use regulations and project effects are assessed below.

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Under the Reduced Intensity Alternative, the casino, hotel, and other supporting uses would be constructed on the Indian Village site. This would not conflict with current or future land use plans. The Tribal Council has already approved the construction of the proposed facilities in this area. As a sovereign nation, the Tribe has identified this as an acceptable use.

The development of the Option 2 fire station south of Melody Road would have the same issues as identified for the Preferred Project. Please see discussion above.

Land uses surrounding the existing project site include residential subdivisions and undeveloped land. To the south, the CDFG has created the Rancho Jamul Ecological Reserve. This area consists of approximately 4,800 acres that are to remain undeveloped in perpetuity. Development of the Reduced Intensity Alternative is not projected to significantly effect surrounding land uses. No significant effects, such as precluding existing or planned land uses or disruption of access, have been identified.

Agriculture

As with the Preferred Project, the Reduced Intensity Alternative does not contain prime or unique farmlands, or farmland of statewide importance. The San Diego County Department of Planning and Land Use has not issued or identified any Williamson Act contracts. Parcel #1 is zoned as General Agriculture. However, the parcel is developed with a fire station that will be removed at the end of 2008. Therefore the development of an access driveway on this parcel would not result in a net loss of available agricultural land.

NO ACTION ALTERNATIVE

Land Use

Under this alternative, the tribe would have no means of attaining economic self-sufficiency. While all current land uses would be retained, some of these uses are not consistent with the County General Plan/zoning designation or MSCP designations.

Agriculture

Land uses would remain the same and no effects to agriculture would occur.

3.9.3 MITIGATION

The following mitigation will reduce the identified potentially significant impacts to a less than significant level:

A. The Tribe shall submit a site plan to the County of San Diego for a plan review. No development shall be allowed unless and until the County approves the site

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plan. The Tribe may be required to compensate for the loss of MSCP land using a 2:1 replacement ratio. Option 1 or 3 shall be implemented if the County denies the application for construction and operation of a fire station.

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3.10 PUBLIC SERVICES

3.10.1 ENVIRONMENTAL SETTING

WATER SUPPLY

Water in San Diego County is imported primarily from the Colorado River and the Sacramento River Delta through the State Water Project. The Otay Water District, which is a member of the San Diego County Water Authority (SDCWA), is the water retailer nearest the project area. Currently, the existing Jamul Indian Village receives water form the Otay Water District through an eight-inch water main. A detailed description of the water supply for the project area, including figures illustrating the location of water mains, is incorporated by reference from **Section 3.9.1**, page 3-70 through 3-71 of the Jamul EIS.

WASTEWATER SERVICE

The project area is not within a wastewater treatment service district, and no treatment facilities currently exist on the property. The Otay Water District operates a reclamation plant but the treatment service area ends approximately 2 miles west of the project site. Existing development on Jamul Indian Village is connected to a septic system. The leach field associated with this system is located to the west of Jamul Creek. A complete description of the existing wastewater service for the project site is incorporated by reference from **Section 3.9.2**, page 3-72 of the Jamul EIS.

SOLID WASTE SERVICE

The California Integrated Waste Management Act (Act), sets forth policies and mandated requirements for local governments regarding solid waste. The priority objective of the Act was to encourage diversion of waste from landfills. Waste diversion methods include reducing the amount of waste generated at the source (source reduction), reuse, recycling and composting. Attempting to enforce this prioritization, the Act requires that all local jurisdictions, cities, and counties divert 50 % of the total waste stream from the landfill by the year 2000 (using 1990 as the base year). According to SANDAG (2002b), the San Diego Region diverted 46.2 percent of its solid waste in 2000. Unincorporated San Diego County, which includes the Jamul region, diverted 44 percent of its solid waste in 2000, just under the diversion rate for San Diego County. The unincorporated San Diego County region was granted a time extension by the CIWMB for complying with the Act required 50 percent diversion rate. The extension expired in August 2004, however the Board has not completed review of the official diversion rate at this time (CIWMB, 2006). A detailed discussion of the Act and the local solid waste collection and disposal options for the project site is incorporated by reference from **Section 3.9.3**, page 3-72 through 3-75 of the Jamul EIS.

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ELECTRICITY, NATURAL GAS AND TELECOMMUNICATIONS

Electrical and telecommunication services are provided to the project site through existing infrastructure. No natural gas service exists in the project area. A detailed description of the existing electrical, gas, and telecommunications services for the project area is incorporated by reference from **Section 3.9.4**, page 3-75 of the Jamul EIS.

PUBLIC HEALTH AND SAFETY

Law Enforcement

The San Diego County Sheriff's Department provides general public safety and law enforcement service for the area of the Preferred Project. The Jamul/Dulzura communities contain approximately 168 square miles and have a combined population of 10,270 citizens. The Jamul area currently consists of nine beat areas and is patrolled twenty-four (24) hours a day by a one-person patrol unit from the Lemon Grove Station. The Jamul Indian Village and the project site areas south of Melody Road are located within beat 631. The average response time to calls within this beat during fiscal year 2001/2002 was 19.1 minutes for priority calls and 45.3 minutes for non-priority calls.

The California Highway Patrol is the chief law enforcement agency for traffic related issues on public highways and roads leading up to the project area. The station that services the Jamul area is located in the City of El Cajon.

Fire Protection

The Jamul Indian Village currently receives fire protection from both the California Department of Forestry (CDF) and the San Diego Rural Fire Protection District. The San Diego Rural Fire Protection District station typically provides first response to any fire within the Jamul Indian Village. The nearest CDF stations are staffed year-round (the "fire season") and are located in Jamul, Delzura, and El Cajon.

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Emergency Medical Services

Emergency medical and ambulance service to the project area is a joint venture between the San Diego Rural Fire Protection District and American Medical Response (AMR). The Rural Fire Protection District is not obligated to service the Jamul Indian Village, but currently responds to medical emergencies as a courtesy to the Jamul Tribal Government. The nearest hospitals to the site that would provide trauma care are: 1) Scripps Mercy Hospital, 2) UC San Diego Medical Center, and 3) Sharp Memorial Hospital.

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A detailed description of the law enforcement, fire protection, and emergency medical services available to the project site and surrounding area is incorporated by reference **Section 3.9.5**, page 3-75 through page 3-80 of the Jamul EIS.

3.10.2 ENVIRONMENTAL CONSEQUENCES

PREFERRED PROJECT

The impact assessment below for public services contains a modified version of information originally published in the Jamul EIS. The Jamul EIS impact assessment of Alternative A was found to be generally applicable to the Preferred Project due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

Water Supply

The following analysis is based on information included in the "Water, Wastewater, Recycled Water Feasibility Study" included as **Appendix B** of the Jamul EIS. This study analyzed the effects of the alternatives proposed in the Jamul EIS and did not specifically address the Preferred Project. However, due to identical project components, the information contained in the study was found to be sufficient for a complete analysis of the Preferred Project. This analysis is provided below.

Phase A of the Preferred Project involves the construction of a casino and supporting uses on the Jamul Indian Village site. Estimates of water demand from new facilities are typically based on the wastewater flow produced by the projected occupants. In general, water supply to a proposed development is roughly equivalent to wastewater flows from the proposed development. There are, however, some significant exceptions to this rule. Water that is used for landscape irrigation for instance, is not returned to the wastewater stream, but is instead lost through plant evapo-transpiration or percolation through soils. There may also be significant seasonal increases in wastewater flows due to inflow and infiltration (I&I). For the purposes of this document it was assumed that because all of the facilities, including piping, will be new, system losses and I&I will be negligible. Average day water demand was estimated assuming 95% of the water demand would ultimately lead to the wastewater system. This assumes 5% of the water demand is lost in the system due to leaks and other uses (HSE, 2002).

Water systems must also be designed to meet diurnal variations in water demand, such as maximum day and peak hour demand. Based on previous gaming facility designs, peaking factors of 2.0 and 3.0 were used to estimate maximum day and peak hour demand, respectively. These peaking factors are consistent with the American Water Works Association (AWWA) guidelines for water system design.

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Water demand estimates for the Preferred Project were calculated based on information provided in the "Water, Wastewater, Recycled Water Feasibility Study" included as **Appendix B** of the Jamul EIS. These estimates are summarized in **Table 3.10-1**. Design water demands for determining water supply requirements and for sizing water distribution facilities are summarized in **Table 3.10-2**. These estimates are made without consideration to supplemental supply of recycled water for nonpotable uses.

TABLE 3.10-1
PREFERRED PROJECT
ESTIMATED WATER DEMAND (GPD) WITHOUT THE USE OF RECYCLED WATER[a]

Water Demands:	Amount	
	Phase A	Phase B
Casino:		
Casino	129,474	129,474
Restaurant	34,089	34,089
Human Resources Facility	758	758
Hotel	-	39,748
Fire station	1,579	1,579
Gross Water Demand:	**165,900**	**205,648**

SOURCE: HSE, 2002; AES 2006.
NOTES: [a] Assumes a five percent system loss from wastewater flows.

TABLE 3.10-2
PREFERRED PROJECT
DESIGN WATER DEMAND (GPM) WITHOUT THE USE OF RECYCLED WATER

Flow condition:	Amount	
	Phase A	Phase B
Average day demand[a]	115	143
Maximum day demand[b]	230	286
Peak hour demand[c]	346	428
Recommended water supply capacity:	**346**	**428**

SOURCE: HSE, 2002; AES, 2006
NOTES: [a] Estimated from anticipated wastewater flow plus allowances for system losses.
[b] Maximum day peaking factor of 2.0 applied.
[c] Peak hour peaking factor of 3.0 applied.

The use of recycled water from the wastewater treatment plant has been planned for use in each alternative. Recycled water in this document means wastewater that has been treated sufficiently to meet the California Department of Health Services' (DHS) comprehensive recycled water regulations that define treatment processes, water quality criteria, and treatment reliability requirements for public use of recycled water. These

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regulations are contained in Title 22, Division 4, Chapter 3 of the California Code of Regulations, more commonly referred to as Title 22. Approved by the State in December 2000, Title 22 prescribes recycled water criteria and divides them into several categories based upon the extent of public access or risk of exposure. In general, Title 22 regulations are more stringent for uses with high potential for public contact and less stringent for uses with low potential for public contact.

Depending on the use, Title 22 establishes four levels of treatment required for recycled water: undisinfected secondary, undisinfected secondary-23, undisinfected secondary-2.2, and disinfected tertiary. The proposed wastewater treatment plant would treat to the disinfected tertiary level, the highest level of treatment categorized by Title 22. This category of recycled water includes secondary effluent that has undergone tertiary treatment and has been disinfected to a level such that the median coliform bacteria in the water does not exceed 2.2 most probable number (MPN) of coliform bacteria per 100 mL. Title 22 defines the tertiary treatment process as wastewater that has been oxidized, coagulated, clarified, and filtered. The recycled water turbidity should not exceed a turbidity level of two nephelometric turbidity units (NTU) on average, should not exceed five NTU more than five percent of the time during any 24-hour period, and should never exceed ten NTU. Approved uses of tertiary recycled water include: irrigation of food crops, parks and playgrounds, residential landscaping, pasture for milk animals, vineyards; supply for non-restricted recreational impoundments and fish hatcheries; toilet flushing and fire fighting.

The use of recycled water will significantly reduce potable water demands on-site. Recycled water would be used for toilet flushing within the casino and hotel. All facilities will be double plumbed. According to the "Water, Wastewater, Recycled Water Feasibility Study" conducted for the alternatives analyzed within the Jamul EIS, an estimated eighty percent of the water used by facility patrons will be used for toilet flushing (HSE, 2002). Water uses with potable applications would remain on potable water service. The revised water demands, assuming the use of recycled water in the project, are presented in **Table 3.10-3**. The revised design water demand for determining water supply requirements and for sizing water distribution facilities are summarized in **Table 3.10-4**.

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TABLE 3.10-3
PREFERRED PROJECT
ESTIMATED WATER DEMAND (GPD) WITH THE USE OF RECYCLED WATER[a]

	Amount – Preferred Project	
Water Demands:	**Phase A**	**Phase B**
Casino:		
Casino	25,895	25,895
Restaurant	23,397	23,397
Human Resources Facility	152	152
Hotel	-	26,897
Fire station	947	947
Net Water Demand:	**50,391**	**77,288**

SOURCE: HSE, 2002; AES, 2006.
NOTES: [a] Assumes a five percent system loss from wastewater flows.

TABLE 3.10-4
PREFERRED PROJECT DESIGN WATER DEMAND (GPM)
WITH THE USE OF RECYCLED WATER

Flow condition	**Phase A**	**Phase B**
Average day demand	35	54
Maximum day demand[a]	70	107
Peak hour demand[b]	105	161
Recommended water supply capacity:	**105**	**161**

SOURCE: HSE, 2002; AES, 2006.
NOTES: [a] Maximum day peaking factor of 2.0 applied.
[b] Peak hour peaking factor of 3.0 applied.

By using recycled water, the net water demand is decreased from 205,648 gpd to 77,288 gpd and the recommended water supply capacity is decreased from 428 gpm to 161 gpm.

The project site is within the Otay Water District's service boundary. Water service would be provided by the Otay Water District through existing water mains along Melody Road, Highway 94, and within the Jamul Indian Village. Water facility requirements for Phase A would consist of lateral connections from Otay's main water line and distribution piping to service the various facilities on site. Water provided by the Otay Water District meets federal and state water quality drinking water requirements, therefore, no additional treatment is required. No other water facilities are recommended. Preliminary analysis of the on-site water system indicates adequate water pressure is available in the existing Otay Water District water main along Highway 94 to service the project despite the changes in topography on-site. Consequently, a booster station will not be necessary to increase water pressure to customers. On-site storage is to meet

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emergency and fire conditions. Water supply related impacts resulting from the Preferred Project are less than significant.

Wastewater

Impacts of the Preferred Project associated with Wastewater were also determined based in information provided in the "Water, Wastewater, Recycled Water Feasibility Study" included as **Appendix B** of the Jamul EIS. Although the study did not specifically address the Preferred Project, due to similarities with Alternative A analyzed within the Jamul EIS, the information contained in the study was found to be sufficient for a complete analysis of the Preferred Project. This analysis is provided below.

As part of the project, a wastewater treatment plant (WWTP) will be constructed under the entrance drive to service the development. This WWTP will handle only wastewater produced by the facilities developed on the Jamul Indian Village; it is not intended to service additional flow beyond the project's property boundary.

The Jamul Indian Village will implement water and wastewater systems that maximize the use of recycled water to minimize water demand and disposal requirements. Recycled water will be used for toilet flushing within the casino and hotel.

Table 3.10-5 summarizes projected average and peak wastewater flows for the project. As described in the water supply section above, these flows are equal to 95% of the overall projected water demand (not discounting the use of recycled water). As seen from the table, a wastewater treatment capacity of approximately 391,000 gallons per day is needed for the wastewater treatment plant to allow for peak wastewater flows. The use of recycled water would not affect the design flow for the treatment and collection system. However, wastewater disposal requirements would be reduced since a portion would be diverted to the reclamation system. The estimated wastewater disposal requirements shown in **Table 3.10-6** are equal to approximately 95% of the water demand after the use of recycled water. As can be seen from the table, the average wastewater disposal requirement for the Preferred Project is 73,423 gpd after reclamation. This is the amount that will need to be stored and disposed off-site.

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TABLE 3.10-5
PREFERRED PROJECT
DAILY WASTEWATER FLOWS (GPD) AND CAPACITY REQUIREMENTS

	Amount	
Flow condition:	**Phase A**	**Phase B**
Average day flow[a]	158,000	196,000
Peak day flow[b]	316,000	391,000
Recommended wastewater treatment capacity:	**391,000**	

SOURCE: HSE, 2002; AES, 2006.
NOTES: [a] Rounded up to the nearest 1,000
[b] Peaking factor of 2.0 applied.

TABLE 3.10-6
PREFERRED PROJECT
AVERAGE DAILY WASTEWATER DISPOSAL REQUIREMENTS (GPD) WITH RECLAMATION[A]

	Amount	
Facility:	**Phase A**	**Phase B**
Casino:		
Casino	24,600	24,600
Restaurant	22,227	22,227
Human Resource Facility	144	144
Hotel	-	25,552
Fire station	900	900
Net Off-site Disposal Requirement:	**47,871**	**73,423**

SOURCE: HSE, 2002; AES, 2006.
NOTES: [a] 95% of water demand with recycled water uses. The disposal requirements for project components are larger than Alternative A analyzed in the Jamul EIS because recycled water is not used for irrigation under the Preferred Project.

Wastewater generated from the proposed facilities would flow by gravity through a series of pipes to the wastewater treatment facility located under the entrance drive to the parking garage. The wastewater would be treated in to a level that meets California Title 22 recycled water quality standards. One hundred percent of wastewater flows would be treated to a level that would make it suitable for all recycled water uses and effluent disposal strategies identified for this project. Wastewater will be treated using an immersed MBR wastewater treatment plant. The MBR system is a state-of-the-art, advanced wastewater treatment process that utilized membrane technology, comparable to that used for production of potable water. This process was selected to achieve high quality tertiary effluent for the purposes of on-site reuse and disposal. The MBR system has been used widely throughout the country to handle flows up to five million gallons per day. The MBR process has the ability to handle high BOD and TSS levels typically observed in casino wastewater. The MBR also handles variations in flow better

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than typical activated sludge systems. The MBR system is also approved by DHS for Title 22 applications. The MBR system will be designed for nitrification/denitrification in order to reduce the level of nitrates in the effluent. Additionally, the effluent will be disinfected by ultraviolet (UV) light. By selecting UV disinfection, the concern over disinfection byproducts entering the groundwater is eliminated. Typical effluent quality is shown in **Table 3.10-7**.

TABLE 3.10-7
TYPICAL MBR EFFLUENT QUALITY

Water Quality Constituent:	Effluent Quality
Biochemical Oxygen Demand	<1 mg/L
Total Suspended Solids	0 mg/L
Ammonia	<0.2 mg/L
Nitrate	8 mg/L
Total Coliform	<2.2 MPN/100mL
Turbidity	<0.1 NTU

SOURCE: HSE, 2002.

MBR systems are known for high rates of organics removal and can be further designed to target nutrients, including nitrogen and phosphorus. Compared with other wastewater treatment plant designs, the MBR system is more reliable and consistent in producing high quality effluent. The only treatment design that is more advanced is a reverse osmosis system. Reverse osmosis systems are designed for potable water systems and are generally cost-prohibitive.

Biosolids produced by the wastewater treatment plant would be dewatered and bagged onsite. After periodic dewatering, the dewatered biosolids would be trucked off-site for disposal at the Otay or Sycamore Sanitary Landfills. The frequency of this operation will depend on the solids wasting frequency in the wastewater plant. All biosolids dewatering and storage facilities would be contained and the foul air scrubbed to minimize odors.

Recycled Water System

The proposed recycled water system will include a recycled water storage tank, distribution and disposal system, the recycled water transmission and distribution pipelines, and the gaming facility's internal recycled water piping system. The gaming facility will be designed with a dual plumbing system (one for potable water and one for recycled water).

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Recycled water would be produced by the wastewater treatment plant at the rate that wastewater is received at the plant. The recycled water storage tank would contain, at a minimum, sufficient recycled water at all times to meet the gaming facility's toilet flushing requirements. This storage tank will be located adjacent to the wastewater treatment plant under the parking garage, and would be large enough to handle 1,000,000 gallons.

Surplus recycled water from the recycled water storage tank would be hauled off-site for disposal by trucks. As shown above in **Table 3.10-6**, on average, approximately 73,423 gallons of treated wastewater would be transported off-site daily for disposal. This would require 11 trucks per day with a carrying capacity of 6,700 gallons. Peak day wastewater disposal would require approximately 22 trucks. The destination and ultimate disposal method of the recycled water would include one of the following options:

Landscape Irrigation. Effluent from the WWTP will be used to irrigate landscaping on the access road, and in the vicinity of the gaming facility. Landscaped irrigation will occur primarily from March to November.

Wastewater Trucking. Approximately 11 trips per day will be made to transport treated wastewater from the project site to the Mesa Grande Reservation where it will be used for irrigation purposes.

Solid Waste

Solid Waste generated by the Preferred Project is expected to be identical to that projected for Alternative A described in the Jamul EIS. Because of the relative size of each project and the identical project components, information pertaining to the development of Alternative A has been used to determine the effects of the Preferred Project.

Waste generation resulting from the Preferred Project's various components was estimated to be 6.03 tons per day or less. This estimate is based on information provided by Waste Management, Inc. in regards to the development proposed by Alternative A. The Preferred Project would include a 30 cubic yard compactor to reduce the volume of trash being produced. To reduce the volume of trash even further, a streamline compactor would be used to reduce the water content of the trash.

Construction of the Preferred Project is expected to result in a temporary increase in waste generation. Potential solid waste streams from construction are expected to include the following:

- Paper, wood, glass, and plastics from packing materials, waste lumber, insulation, and empty non-hazardous chemical containers;
- Excess concrete from construction practices;

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- Excess metal, including steel from welding/cutting operations, packing materials, and empty non-hazardous chemical containers, and aluminum from packing materials and electrical wiring.

Waste that cannot be recycled would be disposed of at the Otay Landfill, which accepts construction/demolition materials.

Waste sludge and solids residual will be disposed of by mechanical dewatering. Waste activated sludge (WAS) and biosolids residual produced by the wastewater will be dewatered on-site by means of a belt filter press and ultimately hauled off site for disposal. Both the Otay and Sycamore Sanitary Landfills accept biosolids (CIWMB, 2002a). The frequency of this operation will depend on the solids wasting frequency in the wastewater plant. Solids wasting at the proposed treatment plant would likely vary between 5,000-10,000 gallons per month at 1.5% solids, resulting in a minimal increase to the disposal of solid waste once a month (Jones, 2002). The above estimate of waste productions includes the generation of biosolids from the wastewater treatment plant.

The Jones Disposal Company (a subsidiary of Waste Management, Inc.) currently provides solid waste service to the Jamul Indian Village. The Tribe would enter into a contract with the company to extend service to the gaming facility. The waste would be shipped to a transfer station in El Cajon, where recyclable materials are removed, thus reducing the amount of waste sent to either the Otay Landfill or the Sycamore Sanitary Landfill. The transfer station is located in the City of El Cajon, and currently receives 1,500 tons of solid waste per day, leaving 500 tons of spare capacity (Drewek, 2002). The Otay Landfill is located in the City of Chula Vista, and receives an average of 3,439 tons of solid waste per day, leaving a spare capacity of 1,561 tons (CIWMB, 2002a). The Sycamore Sanitary Landfill is located in the City of San Diego, and receives 2,491 tons of solid waste per-day, leaving a spare capacity of 809 tons (CIWMB, 2002a).

The Preferred Project is expected to generate 6.03 tons per day which represents approximately 0.4% of the transfer station's daily intake and 1.2% of the transfer station's spare capacity. Solid waste generation resulting from the projects would represent 0.2% of the landfills' daily intakes, 0.4% of the Otay Landfill's spare capacity, and 0.7% of the Sycamore Sanitary Landfill's spare capacity. The project's projected solid waste generation is considered an insignificant contribution to the waste stream and is not expected to decrease the life expectancy of either landfill. San Diego County, in consultation with the California Integrated Waste Management Board (CIWMB), regulates landfills through the issuance of permits to ensure that environmental effects to groundwater; soil and air are minimized.

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Waste generated at the project will be handled appropriately through disposal at the above facilities. Landscaping and maintenance staff will pick up any trash that is left on site. Decorative trash and recycling receptacles will be placed strategically throughout the project to encourage people not to litter at the project site. There will be no open interfaces between the patrons of the above facilities and the DFG Wildlife reserve that could cause occasional litter by patrons. The constant presence of roving security guards should also help prevent littering at the project. The Caltrans Adopt a Highway Program found that all adoptable stretches of Highway 94 around Jamul (from the junction of 94 and 54 south past Daley Ranch) have been adopted and are being maintained free of garbage. The Preferred Project will not result in a significant solid waste effect. Solid waste effects would be reduced by mitigation measures described below in **Section 3.10.3.**

Electricity, Natural Gas, and Telecommunications

Underground Service Alert (USA) provides a free "Dig Alert" service to all excavators (contractors, homeowners and others), in Southern California. The excavator's one call to USA will automatically notify all USA Members (utility service providers) who may have underground facilities at their work site. In response, the USA Members will mark or stake the horizontal path of their underground facilities, provide information about, or give clearance to dig. This simple safety service protects the excavator from personal injury and underground facilities from being damaged.

The utility companies will be responsible for the timely removal or protection of any existing utility facilities located within construction areas. The Joint Utilities Coordination Committee has developed procedures to assist cities, counties and utilities in coordinating public improvement projects to alleviate scheduling and construction conflicts.

Because of the similarities in proposed development, it is expected that the Preferred Project would result in similar or reduced levels of energy usage as Alternative A analyzed within the Jamul EIS. Based on the "Electrical Load Analysis" performed for Alternative A analyzed within the Jamul EIS, it has been estimated that Phase A of the proposed development will have a peak demand load of 6.59 megawatts (Martinez, 2002). It has been estimated that Phase B will have a peak demand load of 2.84 megawatts. The Preferred Project's estimated peak demand load can be determined by adding the estimates for Phases A and B, for a total of 9.43 megawatts (Martinez, 2002). This is a conservative estimate based on National Electricity Code (NEC) calculations, which generally overestimate project demands to assure adequate power is supplied.

According to Jose Rosales (2001) of San Diego Gas & Electric (SDG&E), a substantial difference between the NEC calculation and actual load demand is common, as exampled by the Golden Acre Casino, which has a demand load approximately 50 percent of that estimated

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using NEC calculations. Thus, actual peak demand load for Phase A and B is expected to be 60 percent of the NEC calculation – approximately 5.66 megawatts. The proposed facilites are being designed in compliance with the NEC and all State and County amendments, including the California State Building Code Title 24 regulations for energy-saving design. Project grades will be coordinated to assure clearances as required by California Public Utilities Commission General Order 95.

The project site is served by one SDG&E circuit via a 12-kilovolt aerial cable along State Route 94. This circuit, which serves the Jamul area, is rated to carry approximately ten megawatts. SDG&E planners and engineers are currently estimating the existing capacity and determining whether upgrades in existing infrastructure are necessary. It is possible that, depending on the peak demand load addition and timing, reconductoring, as well as load transfers among the nearby circuits, may be necessary to serve Phase A. This reconductoring would involve replacing the existing lines with higher capacity lines along the current power poles that exist in the project area. If it is determined that reconductoring is needed at the project site, additional arms or brackets would be installed on the existing poles to support the higher capacity cable. Improvements on the project site would include necessary upgrades (Hom, 2002).

Emergency generators will be provided to assure full capacity service to the proposed project in the event of a loss of service from the SDG&E grid. Use of the generators would be restricted to emergency purposes only. Three 1.5 megawatt diesel generators and one 1.5 megawatt backup generator will provide a total of six megawatts for the casino. The generators will be located near the loading dock on the entry level of the casino building and will have noise attenuating housing that will minimize noise.

There will be a one-day supply of fuel on-site. However, with refueling, longer periods of grid power failure would not disrupt the operation of the proposed project. Diesel fuel for the generators will be stored in four 2,000-gallon tanks. There will also be a liquid propane tank located along with the diesel fuel tanks to provide propane to the kitchen facility. The tanks will be located above ground and will be double-walled to provide for leak-detection and containment. Additionally, the tanks will have a pre-cast concrete encasement to further protect against the possibility of a leak.

When taken on a regional level, the proposed project would not likely constitute a significant increase in demand. According to the California Energy Commission (CEC), three new 'major' power plants have come on-line in 2001 providing 1,415 megawatts to California. In 2002 four power plants have come on-line, providing an additional 2,038 megawatts (CEC, 2002).

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According to Glenda Magtanong (2002) at Pacific Bell, the Tribal Government may need to provide upgraded telecommunication facilities (larger cable) in order to service the proposed facilities. The Jamul Tribal Government will coordinate with the desired service providers for additional utilities and/or upgrades of existing utilities.

As described above, propane would be used instead of natural gas for the kitchen facilities. The Preferred Project would not affect area natural gas facilities or supply.

Implementation of the Preferred Project is expected to result in a less than significant effect to electricity, natural gas, and telecommunications. Mitigation measures have been identified in **Section 3.10.3** to reduce the energy demand of the project.

Public Health and Safety

Law Enforcement

In August 2000, the County of San Diego commissioned a study to assess the impacts of Tribal gaming facilities on County resources. This study did not find significant impacts relating to law enforcement. The report states, "the historical data does not indicate any significant change in service calls since the casinos were expanded from their original bingo facilities" (County of San Diego, 2000b). A report by the National Criminal Justice Reference Service (NCJRS) reaffirms this information, stating, "casinos do not appear to have any general or dramatic effect on crime, especially in communities that do not have a high concentration of casinos" (NCJRS, 2000). The Tribe recognizes, however, that the operation of the gaming facilities under the Proposed Action may increase demands on the San Diego County Sheriff's Department.

Consistent with Section 8.0 of the Tribal-State Compact, the Tribe is committed to providing on-site security for casino operations to reduce and prevent criminal and civil incidents. The Tribe will also implement the mitigation measures listed below and in **Section 3.10.3** to reduce potential effects.

- All security guards will carry two-way radios so as to respond to back up and emergency related calls. This will aid in the prevention of criminal activity within gaming facilities.
- The Tribe will adopt a Responsible Alcoholic Beverage Policy" which would include but not be limited to carding patrons and refusing service to those who have had enough to drink. This policy would be discussed with the San Diego Sheriff's Office.

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- All parking areas will be well lit and monitored by parking staff, and/or roving security guards at all times during operation. This will aid in the prevention of auto theft and other related criminal activity.
- Areas surrounding the gaming facilities will have "No Loitering" signs in place, will be well lit and will be patrolled regularly by roving security guards. This will aid in the prevention of illegal loitering and all crimes that relate to, or require illegal loitering.
- The Tribe will provide traffic control with appropriate signage and the presence of peak-hour traffic control staff. This will aid in the prevention of off-site parking, which could create possible security issues.
- The Tribe may enter into an agreement with the Sheriff to pay for additional law enforcement service.

Under Public Law 280, the State of California and other local law enforcement agencies have enforcement authority over criminal activities on Tribal land. The Tribe may enter into a service agreement with the San Diego County Sheriff's Department to address criminal issues. The Sheriff's Department does not, however, have authority over civil matters on Tribal lands.

Based on information provided by the CHP, the increase in traffic along SR 94 could increase service demands on the El Cajon Office. The CHP is obligated to provide traffic control assistance, handle disabled vehicles, and to enforce traffic regulations along SR 94, which is a special duty line beat. The SR 94 in the area of the project site is considered to be a low priority area, based on service requirements in other more populated areas of the County. Potential effects to patrol demands are based upon the ability of roadways to safely handle traffic. As noted in the transportation discussion in **Section 3.8**, the Preferred Project will result in significant effects to the level of service on SR 94. The Tribe has identified fair-share contributions to traffic improvements in order to mitigate effects to SR 94 (see **Section 3.8.3**). These measures will assist in reducing congestion and operation effects and thereby are expected to reduce the increased demand for CHP service.

The measures described above including a service agreement with the San Diego's Sheriff Department, will also assist in reducing law enforcement calls to the CHP.

The aforementioned measures will ensure a less than significant effect on law enforcement.

Fire Protection / Emergency Medical Service

Construction may introduce potential sources of fire to the project site. During construction, equipment and vehicles may come in contact with wildland areas and accidentally spark and ignite vegetation. Equipment used during grading and construction activities may also create

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sparks which could ignite chaparral and/or dry grass on the project site. This risk, which is similar to those that are found at other construction sites, would be considered potentially significant. Mitigation measures described below in **Section 3.10.3** will reduce this risk to a less than significant level.

Development of public facilities on-site could create additional concerns for property damage and public safety from fires and further complicate firefighting responsibilities in the area. However, the project has been designed so that the majority of land uses which could ignite fires (such as the disposal of cigarettes, and the use of cars) would occur north of the casino building thereby reducing the potential for fires to occur to the California Department of Fish and Game property to the south. It should also be noted that vegetation in and around the developed areas would be irrigated, further minimizing the risk of fire. Additionally, the timely detection of fires by individuals working in the proposed facilities and early intervention can reduce the size and duration of fires.

The proposed facilities will be designed to comply with Uniform Building Codes as amended by the State of California and the Jamul Tribal Gaming Authority will be given a certificate of occupancy by the Tribal Government once construction is complete. The Tribe has agreed via a compact with the State to meet the California codes, including the National Fire Protection Association (NFPA) codes adopted by the State. Other NFPA codes will be used as guidance, where applicable. All enclosed structures would be fitted with **features identified in Section 2.2A.5 of this document. These features include:**

- **Complete automatic fire sprinklers, including in the garage.**

  The fire sprinkler system operates when there is heat present only, so only those sprinklers near a fire will activate. Pulling a fire alarm station will not cause sprinklers to activate in a room.

- **Fire alarm system with pre-recorded voice notification**

  The fire alarm system will activate on the floor of alarm, the floor above and the floor below. This activation will occur whenever there is a sprinkler activation, a smoke detector activation or a manual pull station activation. A pre-recorded message will tell occupants what is occurring and what they should do.

- **Smoke Control system**

  The smoke control system will activate to draw smoke from the fire floor and pressurize the adjacent 2 floors. This will limit the amount of smoke migration to other floors while improving visibility on the fire floor. This system will assist both the general public and fire fighters.

- **Pressurized exit stairs**

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Exit stairs will be pressurized, with a fan, to prevent smoke migration into the stair and to other floors. This protects the stairs, which are one of the most critical aspects of building safety.

- **Emergency generator**

  The fire pump, fire alarm system, smoke control system, star pressurization fans and at least one elevator to each floor will be provided an electric generator in the event that electricity is lost to the building.

- **Fire water tank and pump**

  As a secondary water supply a tank will be provided on site to store water.

- **Rescue Breathing air filling stations in the building (2)**

  Stored pressurized firefighting breathing air will be provided in the building with filling stations. This air reduces the manpower needed to bring spar air bottles and to the fire floor during an emergency. This reduces the work required by firefighters.

- **Radio Repeater for firefighter's communication**

  A radio repeater system will be provided so that firefighter's can use the portable radios that they carry on the fire trucks instead of a firefighter's telephone system (which requires them to get a handset in the fire command center and carry it in the building). This provided greater firefighter safety.

- **Fire Command Center**

  A Fire Command Center will be provided. The fire command center will have equipment and information that is necessary for the fire ground commander to operate a major incident in the building.

The automatic fire sprinkler systems, using quick response sprinkler heads where appropriate, will limit fire size and control or extinguish fires with little need for fire fighter intercession. Smoke detectors will be installed in mechanical and electrical rooms, and normally unoccupied spaces. They will not be installed in public areas. Activation of sprinklers provides adequate alarm for these spaces. This fire sprinkler and smoke detector approach meets or exceeds current code requirements.

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The facilities will be constructed to meet adequate fire flow requirements. A fire flow of at least 1,500 gpm (after applying sprinkler credits) would be provided by the Otay Water District. In addition, adequate water will be available for fire fighting by providing an on-site water storage tank, pump system, and emergency backup system

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near the proposed wastewater treatment facility. It would be premature to determine the necessary number of fire pumps at this stage in the project design. If only one is provided, it will be either diesel, or provided with emergency power, thereby meeting the requirements of the CFC, UFC, and the California Building Code (CBC). Standpipe outlets will be provided in the proposed parking garage. According to ArupFire, "The proposed building systems and features will result in a building which is safe, and which provides appropriate (fire) protection for a building of this type." Nonetheless, mitigation measures have been added below to Section 3.10.3 that will further reduce impacts to fire protection.

In addition to the built-in features identified above, the Tribe will form their own Jamul Fire Department on-site. The San Miguel Fire District will enter into a Consulting Agreement with the Tribe to assure that the Jamul Fire Department is designed, constructed, staffed, and operation in a manner that meets NFPA standards, as well as applicable fire codes. The Tribe and San Miguel Fire District have identified the following features that will be used to establish and operate the fire department:

The Jamul Indian Village Fire Station will be of sufficient size to house the necessary personnel and equipment specified below:

- Advanced Life Support:

  The Advanced Life Support (ALS) ambulance is proposed to be stationed at the Indian Village site and staffed with one Paramedic and one Emergency Medical Technician. Fire Engine and Truck staffing is proposed to include four person constant staffing with one Firefighter/Paramedic at all times. The minimum medical training level of all emergency personnel is proposed to be Emergency Medical Technician with Defibrillator and Combi-Tube Certifications (EMT-D/C).

  The normal response time for the ambulance is expected to be the same as the current response time for the Rural Fire Protection District ambulance since it would be stationed at the nearly the same location. It is proposed that the Tribe would enter into a Mutual Aid Agreement with the Grossmont Rural ALS Program. This Mutual Aid agreement would provide the Indian Village with redundant ALS ambulance response from the Jamul area and double the ALS unit hours available in that area.

  The Tribe will enter into a contractual agreement with the SM District for medical direction, EMT/Paramedic continuing education, and program quality assurance and improvement programs.

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- Emergency calls for service, dispatching personnel and equipment and managing response data (911/dispatch/information management and reporting):

  The Tribe would establish a contract with the Heartland Communication Facility Authority (HCFA). The Authority provides comprehensive dispatching services with state-of-the-art equipment and employs a Records Management System.

  The capability exists to separately track incidents evolving from the Indian Village. This capability would serve to maintain the identity and autonomy of the Indian Village fire operations. There are two ways that participation by the Indian Village in the communications system could be accomplished: 1) the Indian Village could contract separately with HCFA; or 2) the Indian Village could apply for membership as a JPA member of HCFA.

- Vehicle and equipment maintenance program:

  The vehicle and equipment maintenance program would include replacement or reserve vehicles provided when the Indian Village equipment is out of service, how emergency and routine maintenance will be performed, and related matters.

  The Village proposes to contract with the SM District for fire apparatus and associated equipment, reserve apparatus, and apparatus repair and maintenance programs. The SM District will implement the same maintenance program for the Indian Village apparatus that the SM District uses for its own apparatus. The goal of the Fleet Maintenance Facility is to assure the dependability of the Indian Village's vehicle fleet. This is accomplished through continuing education of mechanics on staff, as well as performing diagnosis, maintenance, and repairs. Repairs and related documentation of vehicle repairs are recorded accurately and in a timely manner. Vehicle accident/body or frame damage would be reimbursed directly to the agency performing those repairs by the Indian Village.

  The SM District's state-of-the-art maintenance facility allows its fleet maintenance personnel to inspect, diagnose, maintain and repair gasoline and diesel engines, air and hydraulic brake systems, steering, suspension, drive train, electrical systems, fire pumps, and accessories. All power systems listed can be serviced on any vehicle. The maintenance program

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for fire apparatus consists of daily, weekly, semi-annual, and annual services. The Indian Village will consider contracting for Fire Apparatus from the Districts' excellent Reserve Fleet. These apparatus are fully equipped with State of the Art equipment to the same standard as all SM District first line apparatus.

A contract between the Indian Village and the SM District will provide reserve apparatus during scheduled maintenance and emergency out-of-service periods.

- Service Delivery Plan:

The Indian Village would submit for participation in the Heartland Zone and the Rural Fire Protection District Automatic Aid Agreement's. The Jamul Indian Village Fire Station and response resources would become another asset available to the Rural Fire Protection District and the Heartland Zone. This would provide for an adequate first response to all Indian Village alarms with a system of redundancy for augmentation of initial responses when necessary.

The staffing standards of apparatus vary with each participating agency. The minimum required staffing for an engine or a truck participating in the Heartland Automatic Aid Agreement is three personnel: a Captain, an Engineer (or operator), and a Firefighter. The Indian Village will adopt four-person staffing of their engine and truck apparatus and three-person staffing of Rescue 23 in the SM District to improve mutual and automatic aid support to the Indian Village and associated roadways. The apparatus and personnel response numbers listed in the scenarios below assume the availability of the Indian Village apparatus augmented by other Rural and Heartland resources at the three-person staffing level.

The remote location and extended response time of back up units justifies the recommended staffing level of Indian Village resources.

The estimated response levels to various Indian Village incidents is included in Appendix B.

The contract will include staffing with a Captain, Engineer, and Firefighter. This would ensure a rapid mutual aid rescue response to traffic accidents associated with existing local traffic as well as increased Indian Village casino traffic and provide essential support to high-rise and other structure related incidents via Automatic and Mutual Aid.

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Additionally, the Jamul Indian Village Fire Department would design and purchase a Mini-Pumper for response to vehicle fires within the parking structure. This vehicle would be maintained under the previously described maintenance contract.

- Mutual Aid Program:

  Participation in any mutual or automatic aid agreements is subject to negotiation between the Indian Village and those agencies. This would provide for an adequate first response to all Indian Village alarms with a system of redundancy for augmentation of initial responses when necessary.

  Under the auspices of the Heartland Agreement, the Indian Village can expect to respond to multiple engine alarms in the San Diego Rural Fire District and the Southern parts of the SM District. These agreements would also include Medical mutual aid.

  The Heartland Automatic Aid Agreement includes provisions to maintain coverage through systematic move-up of engines to vacated areas Move-up would normally be indicated whenever the Village engine would be committed for more than one hour.

- Fire Protection Programs:

  The Indian Village would contract with the SM District for Fire Prevention Services including the training of the engine company personnel to provide basic inspection services. This training would be contracted via the SM District. The Indian Village response personnel would have access to the Fire Marshal and the Fire Inspectors whenever a situation arises beyond their scope of expertise. The SM District is able to provide Plan Checking services according to the desires of the Village.

- Recruitment, Hiring and Training Process:

  Approximately 9 months prior to establishing a Jamul Indian Village Fire Department, recruitment would be initiated for experienced Fire Captains, Fire Engineers, and entry level Firefighter Paramedics and Firefighers. Additionally, the Tribe would recruit and hire a Part-Time Fire Chief who would assist in the recruitment and hiring process with support from the SM District via a contract for services. The SM District would work with the Jamul Indian Village Fire Chief to develop the

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recruitment materials, process, and implementation plan for review and approval of the Indian Village.

The implementation of the program identified above by the Tribe will result in a net beneficial impact to the surrounding community. The compliance with applicable codes and standards such as the fire codes and NFPA standards (implemented with the program above) will assure that adequate, qualified fire protection services are provided for the Jamul Indian Village. The adoption of mutual aid agreements with other neighboring fire districts will provide additional fire protection to the surrounding community, while at the same time assuring that qualified backup is available if an incident were to occur at the Indian Village.

The use of the proposed casino by patrons and employees will result in an increased demand for emergency medical services. Grossmont Hospital, Scripps Mercy Hospital, UC San Diego Medical Center, and Sharp Memorial Hospital could provide emergency medical services to the proposed facilities. Emergency air transportation would be provided by Mercy Air. Calls to 911 are dispatched to the nearest available ambulance. Local emergency medical services will be contracted from American Medical Response or another emergency medical services provider.

REDUCED INTENSITY ALTERNATIVE

The impact assessment below for public services contains a modified version of information originally published in the Jamul EIS. The Jamul EIS impact assessment of the Alternative A Variant was found to be generally applicable to the Reduced Intensity Alternative due to similar scale, uses, location, and timing of the development. A modification of the Jamul EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

Water Supply

Phase A of the Reduced Intensity Alternative involves the construction of a casino, a new fire station, and supporting uses on the existing reservation. Water demand estimates for this development are summarized in **Table 3.10-8**. The estimates for the Reduced Intensity Alternative are straight percentage reductions in water use based on the relative size of the respective facility components. Design water demands for determining water supply requirements and for sizing water distribution facilities are summarized in **Table 3.10-9**. These estimates are made without consideration to supplemental supply of recycled water for nonpotable uses.

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Deleted: The facilities will be constructed to meet adequate fire flow requirements. A fire flow of at least 1,500 gpm (after applying sprinkler credits) would be provided by the Otay Water District. In addition, adequate water will be available for fire fighting by providing an on-site water storage tank, pump system, and emergency backup system near the proposed wastewater treatment facility. It would be premature to determine the necessary number of fire pumps at this stage in the project design. If only one is provided, it will be either diesel, or provided with emergency power, thereby meeting the requirements of the CFC, UFC, and the California Building Code (CBC). Standpipe outlets will be provided in the proposed parking garage. According to ArupFire, "The proposed building systems and features will result in a building which is safe, and which provides appropriate (fire) protection for a building of this type." Nonetheless, mitigation measures have been added below to **Section 3.10.3** that will further reduce impacts to fire protection. ¶
The Jamul Indian Village will create a fire department to provide fire protection to the Phase A and B facilities, including the proposed casino. Fire protection services for the surrounding area outside of the project site will continue to be provided by the San Diego Rural Fire Protection District. The existing San Diego Rural Fire Protection District station located on the northeastern corner of the project site would be relocated following expiration of the existing lease in 2008 it is a function of the existing lease terms (i.e., lease expiration date) and not a function of the project. ¶

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TABLE 3.10-8
REDUCED INTENSITY ALTERNATIVE
ESTIMATED WATER DEMAND (GPD) WITHOUT THE USE OF RECYCLED WATER[a]

Water Demands:	Reduced Intensity Alternative Amount	
	Phase A	Phase B
Casino:		
Casino	75,094	75,094
Restaurant	29,657	29,657
Human Resources Facility	758	758
Hotel	-	14,906
Fire station	1,579	1,579
Gross Water Demand:	**107,088**	**121,994**

SOURCE: HSE, 2002; AES 2006.
NOTES: [a] Assumes a five percent system loss from wastewater flows.

TABLE 3.10-9
REDUCED INTENSITY ALTERNATIVE
DESIGN WATER DEMAND (GPM) WITHOUT THE USE OF RECYCLED WATER

Flow condition:	Amount	
	Phase A	Phase B
Average day demand[a]	74	85
Maximum day demand[b]	149	169
Peak hour demand[c]	223	254
Recommended water supply capacity:	**223**	**253**

SOURCE: HSE, 2002; AES, 2006.
NOTES: [a] Estimated from anticipated wastewater flow plus allowances for system losses.
[b] Maximum day peaking factor of 2.0 applied.
[c] Peak hour peaking factor of 3.0 applied.

The use of recycled water from the wastewater treatment plant has been planned for use in the proposed development, and would significantly reduce potable water demands on-site. Facilities would be double plumbed excluding the tribal housing and government/health center. Water uses with potable applications would remain on potable water service. The revised water demands for the Reduced Intensity Alternative, assuming the use of recycled water in the project, are presented in **Table 3.10-10.** Estimates for the Reduced Intensity Alternative are based on straight percentage reductions based on the respective square footage of facility components. The revised design water demand for determining water supply requirements and for sizing water distribution facilities are summarized in **Table 3.10-11.**

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TABLE 3.10-10
REDUCED INTENSITY ALTERNATIVE
ESTIMATED WATER DEMAND (GPD) WITH THE USE OF RECYCLED WATER[a]

Water Demands:	Amount – Reduced Intensity Alternative	
	Phase A	Phase B
Casino:		
Casino	15,278	15,278
Restaurant	20,355	20,355
Human Resource Facility	152	152
Hotel	-	10,087
Fire station	947	947
Net Water Demand:	**36,732**	**46,819**

SOURCE: HSE, 2002, AES, 2006.
NOTES: [a] Assumes a five percent system loss from wastewater flows.

TABLE 3.10-11
REDUCED INTENSITY ALTERNATIVE
DESIGN WATER DEMAND (GPM) WITH THE USE OF RECYCLED WATER

Flow condition:	Amount	
	Phase A	Phase B
Average day demand	26	33
Maximum day demand[a]	51	65
Peak hour demand[b]	77	98
Recommended water supply capacity:	**77**	**98**

SOURCE: HSE, 2002; AES, 2006.
NOTES: [a] Maximum day peaking factor of 2.0 applied.
[b] Peak hour peaking factor of 3.0 applied.

By using recycled water, the net water demand is decreased from 121,994 gpd to 46,819 gpd and the recommended water supply capacity is decreased from 253 gpm to 98 gpm.

As with the Preferred Project, the project site is within the Otay Water District's service boundary. Water service would be provided by the Otay Water District through existing water mains along Melody Road, Highway 94, and within the Jamul Indian Village. Water facility requirements for Phase A would consist of lateral connections from Otay's main water line and distribution piping to service the various facilities on site. Water provided by the Otay Water District meets federal and state water quality drinking water requirements. No additional treatment is required. No other water facilities are recommended. Preliminary analysis of the on-site water system indicates adequate water pressure is available in the existing Otay Water District water main along Highway 94 to service the project. A booster station would not be necessary to increase water pressure to customers. On-site storage is also not recommended since Otay has adequate reserves

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built in to its supply and distribution system to meet emergency, operational, and fire conditions. The Reduced Intensity Alternative would have less than significant impacts associated with water supply.

Wastewater

A WWTP would be constructed on the property to serve the development. This WWTP would handle only wastewater produced by the project site facilities; it would not be used to service additional flow beyond the project's property boundary.

As with Alternative A, the Jamul Indian Village would implement water and wastewater systems that maximize the use of recycled water to minimize water demand and disposal requirements. Recycled water would be used for toilet flushing within the casino, and hotel.

Table 3.10-12 summarizes projected average and peak wastewater flows for the Reduced Intensity Alternative. As described in the water supply section above, these flows are equal to 95% of the overall projected water demand (not discounting the use of recycled water). As seen from the table, a wastewater treatment capacity of approximately 232,000 gallons per day is needed for the wastewater treatment plant to allow for peak wastewater flows. The estimated wastewater disposal requirements shown in **Table 3.10-13** are equal to approximately 95% of the water demand after the use of recycled water. As can be seen from the table, the average wastewater disposal requirement for the Reduced Intensity Alternative is 44,478 gpd after reclamation. This is the amount that will need to be stored and/or discharged off-site (as opposed to the amount that flows into the wastewater treatment plant).

TABLE 3.10-12
REDUCED INTENSITY ALTERNATIVE
DAILY WASTEWATER FLOWS (GPD) AND REQUIREMENTS

	Amount	
Flow condition:	**Phase A**	**Phase B**
Average day flow[a]	102,000	116,000
Peak day flow[b]	204,000	232,000
Recommended wastewater treatment capacity:	**232,000**	

SOURCE: HSE, 2002; AES, 2006.
NOTES: [a] Rounded up to the nearest 1,000
[b] Peaking factor of 2.0 applied.

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TABLE 3.10-13
PREFERRED PROJECT
AVERAGE DAILY WASTEWATER DISPOSAL REQUIREMENTS (GPD) WITH RECLAMATION[A]

	Amount	
Facility:	**Phase A**	**Phase B**
Casino:		
Casino	14,514	14,514
Restaurant	19,337	19,337
Human Resources Facility	144	144
Hotel	-	9,583
Fire station	900	900
Net Off-site Disposal Requirement:	**34,895**	**44,478**

SOURCE: HSE, 2002; AES, 2006.
NOTES: * 95% of water demand with recycled water uses

As described for the Preferred Project, wastewater generated from the gaming facility would flow by gravity through a series of pipes into the wastewater treatment plant located under the entrance drive to the parking garage. All technology to control noise and odor would be the same under this alternative. Emergency stand-by power would be as per the Preferred Project. As described for the Preferred Project, wastewater would be treated in the wastewater treatment plant to a level that meets California Title 22 recycled water quality standards. Biosolids produced by the wastewater treatment plant would be dewatered and bagged onsite. After periodic dewatering, the dewatered biosolids would be trucked off-site for disposal at the Otay or Sycamore Sanitary Landfills. The frequency of this operation would depend on the solids wasting frequency in the wastewater plant. All biosolids dewatering and storage facilities would be contained and the foul air scrubbed to minimize odors.

Additionally, recycled wastewater not utilized for reclamation purposes would be stored temporarily in the storage basin located adjacent to the treatment plant under the entrance drive to the parking garage. Approximately 7 truck trips would be required to transport the average daily disposal requirement of 44,334 gallons. The destination and ultimate disposal method of the recycled wastewater would be identical to those methods described above for the Preferred Project.

Recycled Water System

The proposed recycled water system would be the same as is described for the Preferred Project, including a recycled water storage tank located near the wastewater treatment plant, distribution and disposal system, and recycled water transmission and distribution pipelines, etc. The volume of recycled water and the size of the storage tank would be reduced relative to the Preferred Project. Surplus recycled water from the recycled water storage tank not utilized for reclamation purposes would be stored and hauled off site for disposal.

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Approximately 7 trucks would be required to transport the average daily disposal requirement of 44,478 gallons. The recycled wastewater would be disposed of by one of the alternatives described for the Preferred Project including any combination of the subsurface disposal, seasonal storage, and landscaped irrigation. The relative size of each disposal area under the Reduced Intensity Alternative would be reduced, as compared to the larger the Preferred Project. Surface water discharge and sprayfield disposal are not considered as alternatives for disposal.

As with the Preferred Project, it is not expected that operation of the much smaller Reduced Intensity Alternative would result in significant adverse effects to surface or ground water quality.

Solid Waste

The waste generation resulting from the Preferred Project's various components is estimated to be 6.03 tons per day (Afifi, 2002). The Reduced Intensity Alternative is expected to generate considerably less solid waste since the casino facility would be approximately 59 percent smaller overall and the hotel would be downsized by 50 percent. The relocation of the existing residences from Parcel #2 to Parcel #3 is not expected to result in an increase to the solid waste stream beyond the current conditions. As with the Preferred Project, a compactor would be utilized to reduce the volume of trash being produced. To reduce the volume of trash even further, a streamline compactor will be used to reduce the water content of the trash.

Construction of the Reduced Intensity Alternative's components is expected to result in a temporary increase in waste generation. Potential solid waste streams from construction are expected to include the following:

- Paper, wood, glass, and plastics from packing materials, waste lumber, insulation, and empty non-hazardous chemical containers;
- Excess concrete from construction practices;
- Excess metal, including steel from welding/cutting operations, packing materials, and empty non-hazardous chemical containers, and aluminum from packing materials and electrical wiring.

Waste that cannot be recycled would be disposed of at the Otay Landfill, which accepts construction/demolition materials.

Waste sludge and solids residual would be disposed of by mechanical dewatering. Waste activated sludge (WAS) and biosolids residual produced by the wastewater would be dewatered on-site by means of a belt filter press and ultimately hauled off site for disposal.

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The total volume of these solids would be reduced relative to Alternative A. Both the Otay and Sycamore Sanitary Landfills accept biosolids (CIWMB, 2002a). The frequency of this operation would depend on the solids wasting frequency in the wastewater plant (HSE, 2002). Solids wasting at the proposed treatment plant would be reduced under the Reduced Intensity Alternative and would likely be considerably less than the 5,000-10,000 gallons per month estimated for the Preferred Project. This would result in a minimal increase in the disposal of solid waste once a month.

The Jones Disposal Company currently provides solid waste service to the Jamul Indian Village. The Indian Village would enter into a contract with the company to extend service to the gaming facility. The waste would be shipped to a transfer station in El Cajon, where recyclable materials are removed, thus reducing the amount of waste sent to either the Otay Landfill or the Sycamore Sanitary Landfill.

As with the Preferred Project, projected solid waste generation from the Reduced Intensity Alternative is considered an insignificant contribution to the waste stream and is not expected to decrease the life expectancy of either landfill. San Diego County, in consultation with the CIWMB, regulates landfills through the issuance of permits to ensure that environmental effects to groundwater; soil and air are minimized.

Waste generated at the project would be handled appropriately through disposal at the above facilities. Landscaping and maintenance staff collect any trash that is left on site. Decorative trash and recycling receptacles would be placed strategically throughout the project to encourage people not to litter at the project site. There would be no open interfaces between the patrons of the above facilities and the DFG Wildlife reserve that could cause occasional litter by patrons. The presence of roving security guards should also help prevent littering. The Caltrans Adopt a Highway Program found that all adoptable stretches of Highway 94 around Jamul (from the junction of 94 and 54 south past Daley Ranch) have been adopted and are being maintained free of garbage. The Proposed Acton Variant Alternative would not result in a significant solid waste effect. As with all of the project alternatives, solid waste effects would be reduced by mitigation measures described in **Section 3.10.3**.

Electricity, Natural Gas, and Telecommunications

Underground Service Alert (USA) provides a free "Dig Alert" service to all excavators (contractors, homeowners and others), in Southern California. This simple safety service protects the excavator from personal injury and underground facilities from being damaged. The utility companies would be responsible for the timely removal or protection of any existing utility facilities located within construction areas. The Joint Utilities Coordination Committee has also developed procedures to assist cities, counties and utilities in coordinating public improvement projects to alleviate scheduling and construction conflicts.

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The estimated peak demand load for Alternative A was 10.539.43 megawatts (Martinez, 2002). This is a conservative estimate based on National Electricity Code (NEC) calculations, which generally overestimate project demands to assure adequate power is supplied. The Reduced Intensity Alternative would result in considerably smaller energy demands, perhaps as much as half.

According to Jose Rosales (2001) of San Diego Gas & Electric (SDG&E), a substantial difference between the NEC calculation and actual load demand is common. Thus, actual peak demand load for Phase A and B under Alternative A is expected to be 60 percent of the NEC calculation – approximately 4.615.66 megawatts. As such, the Reduced Intensity Alternative could also be expected to demand proportionately less power.

The project site is served by one SDG&E circuit via a 12KV aerial cable along State Route 94. This circuit, which serves the Jamul area, is rated to carry approximately ten megawatts. SDG&E planners and engineers are currently estimating the existing capacity and determining whether upgrades in existing infrastructure are necessary under Alternative A. It is possible that reconductoring may be recommended to serve Phase A of this alternative. Reconductoring is less likely under the Reduced Intensity Alternative. Reconductoring would involve replacing the existing lines with higher capacity lines along the current power poles that exist in the project area. If it is determined that reconductoring is needed at the project site, additional arms or brackets would be installed on the existing poles to support the higher capacity cable. No transmission lines exist within the project site, therefore no relocation is necessary.

As with Alternative A, emergency generators would be provided to assure full capacity service to the project in the event of a loss of service from the SDG&E grid. Use of the generators would be restricted to emergency purposes only. The generators would be located near the loading dock of the casino building and would have noise attenuating housing that would minimize noise. The wastewater treatment plant would be served by one emergency diesel generator.

As with Alternative A, there would be a supply of fuel on-site, although it would be smaller due to reduced energy demands. However, with refueling, longer periods of grid power failure would not disrupt the operation of the project. Diesel fuel for the generators would be stored in 2,000-gallon tanks. There would also be a liquid propane tank located along with the diesel fuel tanks to provide propane to the kitchen facility. The tanks would be located above ground and will be double-walled to provide for leak-detection and containment. Additionally, the tanks would have a pre-cast concrete encasement to further protect against the possibility of a leak.

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As with the Preferred Project, the Reduced Intensity Alternative would not likely constitute a significant increase in demand. According to the California Energy Commission (CEC), three new 'major' power plants have come on-line in 2001. In 2002 four power plants have come on-line.

According Pacific Bell, the Tribal Government may need to provide upgraded telecommunication facilities (larger cable) in order to service the proposed facilities under Alternative A. This may or may not be necessary under the Reduced Intensity Alternative, but regardless the Jamul Tribal Government would coordinate with the desired service providers for additional utilities and/or upgrades of existing utilities.

As described above, propane would be used instead of natural gas for the kitchen facilities. This alternative would not affect area natural gas facilities or supply.

Implementation of the Reduced Intensity Alternative is not expected to result in a significant effect to electricity, natural gas, and telecommunications. The mitigation measures identified in **Section 3.10.3** would reduce the energy demands of the alternative.

Public Health And Safety

Law Enforcement

In August 2000, the County of San Diego commissioned a study to assess the impacts of Tribal gaming facilities on County resources. This study did not find significant impacts relating to law enforcement. The Tribe recognizes, however, that the operation of the gaming facilities may result in law enforcement increase demands on the San Diego County Sheriff's Department. that include, but are not limited to, in-house security needs, auto theft/burglary, and illegal loitering. The Reduced Intensity Alternative may create a need for additional enforcement services from the County Sheriff's Department. In addition, private enforcement services may need to be provided by the Casino owner/operator for 24-hour security at the project site.

Consistent with Section 8.0 of the Tribal-State Compact, the Tribe is committed to providing will provide on-site security for casino operations concerning the casino to reduce and prevent criminal and civil incidents. Under Public Law 280, the State of California and other local law enforcement agencies have enforcement authority over criminal activities on Tribal land. The Tribe would also implement the mitigation measures described for the Preferred Project and in **Section 3.10.3** to reduce potential effects.

Under Public Law 280, the State of California and other local law enforcement agencies have enforcement authority over criminal activities on Tribal land. The Tribe may enter into a service agreement with the San Diego County Sheriff's Department to address criminal

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issues. The Sheriff's Department does not, however, have authority over civil matters on Tribal lands.

The aforementioned measures would ensure a less than significant effect on law enforcement.

Fire Protection / Emergency Medical Service

Construction may introduce potential sources of fire to the project site. During construction, equipment and vehicles may come in contact with wildland areas and accidentally spark and ignite vegetation. This risk, which is similar to those that are found at other construction sites, would be considered potentially significant. Mitigation measures described in **Section 3.10.3** would reduce this risk to a less than significant level.

Development of public facilities on-site could create additional concerns for property damage from fires and further complicate firefighting responsibilities in the area. However, the project would been designed so that the majority of land uses which could ignite fires would occur north of the casino building thereby reducing the potential for fires to occur to the CDFG property to the south. Vegetation in and around the developed areas would be irrigated, further minimizing the risk of fire. Additionally, the timely detection of fires by individuals working in the proposed facilities, early intervention, and firebreaks created by driveways and roads, can reduce the size and duration of fires.

The proposed facilities would be designed to comply with Uniform Building Codes and all fire safety components of the facilities would be as described under the Preferred Project, including sprinkler systems, fire flow requirements, water storage, etc.

The Tribe would create a fire department to provide fire protection to the Phase A and B facilities, including the casino. Fire protection services for the surrounding area outside of the project site would continue to be provided by the San Diego Rural Fire Protection District. Fire protection to the Jamul Indian Village would not be necessary from the district after the construction of the proposed new fire station. While, the existing San Diego Rural Fire Protection District station located on the southeastern corner of the project site would be relocated following expiration of the existing lease in 2009 it is a function of the existing lease terms (i.e., lease expiration date) and not a function of the project.

The use of the proposed casino by patrons and employees would result in an increased demand for emergency medical services. Various nearby hospitals could provide emergency medical services to the proposed facilities. Emergency air transportation would be provided by Mercy Air. Calls to 911 would be dispatched to the nearest available ambulance. Local emergency medical services would be contracted from American Medical Response or another emergency medical services provider.

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NO ACTION ALTERNATIVE

Water Supply

Under the No Action Alterative the Jamul Indian Village would continue to receive water supply from the Otay Water District. No development would take place. Thus, no additional water supply would be necessary. A less-than-significant effect would result from the No Action Alternative.

Wastewater

No increase in wastewater treatment or discharge will occur under the No Action Alternative. The individual septic systems would continue as the waste water treatment method on the Jamul Indian Village site. A less-than-significant effect would result.

Solid Waste

No increased development would take place under this alternative. Thus, the No Action Alternative would not result in increased solid waste production. A less-than-significant effect would result from the No Action Alternative.

Electricity, Natural Gas, and Telecommunications

No increased development would take place under this alternative. Thus, the No Action Alternative would not result in additional effects to electricity, natural gas, or telecommunications. The Tribe would not contribute to the expansion of utility service in and around the project site.

Public Health and Safety

Law Enforcement

No increased development would take place under this alternative. Thus, the No Action Alternative would not result in additional effects to law enforcement.

Fire Protection / Emergency Medical Service

No increased development would take place under this alternative. Thus, an increased need for fire protection and emergency medical services would not result. The Tribe would not fund the construction or operation of a fire station. The existing fire station on tribal property just north of the Jamul Indian Village will be removed in 2009 when the existing lease expires. It is assumed that the Rural Fire Protection District has adequately planned for the removal and relocation of the station. A less-than-significant effect would result from the No Action Alternative.

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3.10.3 MITIGATION

WATER SUPPLY

The following mitigation measures are recommended for the Preferred Project and Reduced Intensity Alternative:

A. Recycled water from the wastewater treatment facility will be used for toilet flushing in the casino and hotel complex to significantly reduce potable water demands on-site.

Solid Waste

The following mitigation measures are recommended for the Preferred Project and Reduced Intensity Alternative:

B. Construction waste will be recycled to the fullest extent practicable by diverting green waste and recyclable building materials from the solid waste stream.

C. As part of the General Assistance Program (GAP) administered by the EPA, the Tribe will adopt a Solid Waste Management Plan that addresses recycling and solid waste reduction on the Indian Village site. Measures adopted under this plan will be applied to the design of the hotel, casino and retail facilities. These measures will include but would not be limited to:

   1. Installation of a trash compactor for cardboard and paper products.
   2. Installation of recycling bins throughout the facilities for glass, cans and paper products.

ELECTRICITY AND NATURAL GAS

The following mitigation measures are recommended for the Preferred Project and Reduced Intensity Alternative:

D. The project's air conditioning refrigeration systems will utilize the most environmentally friendly refrigerants available. The chillers will be of the highest energy efficiency available, utilizing only ½ kilowatts per cooling ton capacity.

E. The air handling systems will utilize outside air economizers cycles to take advantage of free cooling when the outside air temperature is below 55 degrees F. Economizer cycles, when utilized in a dry cool climate such as San Diego's can serve 20 to 30 percent of the cooling needs thus saving energy.

F. The casino and hotel complex will be equipped with a direct digital energy management and control system to perform energy conservation measures such as optimum start/stop,

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duty cycling and demand limiting. This management system will insure that the project will not consume any more energy than is absolutely necessary.

G. The facilities will not exceed the State of California Title 24-energy code

PUBLIC HEALTH AND SAFETY

Law Enforcement

The following mitigation measures are recommended for the Preferred Project and Reduced Intensity Alternative:

H. The Tribe will provide on-site security for casino operations to reduce and prevent criminal and civil incidents.

I. The Tribe will adopt a "Responsible Alcoholic Beverage Policy" which would include but not be limited to carding patrons and refusing service to those who have had enough to drink. This policy would be discussed with the San Diego Sheriff's Office.

J. All security guards will carry two-way radios so as to respond to back up and emergency related calls. This will aid in the prevention of criminal activity within gaming facilities.

K. All parking areas will be well lit and monitored by parking staff, and/or roving security guards at all times during operation. This will aid in the prevention of auto theft and other related criminal activity.

L. The Tribe will provide traffic control with appropriate signage and the presence of peak-hour traffic control staff. This will aid in the prevention of off-site parking, which could create possible security issues.

M. The Tribe will enter into an agreement with the Sheriff to pay for this additional law enforcement service.

Fire Protection / Emergency Medical Service

The following mitigation measures are recommended for the Preferred Project and Reduced Intensity Alternative, Fire Protection Option2:

Any construction equipment that normally includes a spark arrester will be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws. During construction, staging areas, wilding areas, or areas slated for development using spark-producing equipment will be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor will keep these areas clear of combustible materials in order to maintain a firebreak.

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N. The Tribal Government will make reasonable provisions for adequate emergency, fire, medical, and related relief and disaster services for patrons and employees.

O. The Tribe shall use fire resistant construction materials and equip the casino and hotel complex with automatic sprinkler systems. The automatic sprinkler systems shall be designed to meet or exceed the NFPA standards governing the different occupancies associated with the project structures.

P. Through the use of modern construction and fire engineering techniques, the Tribe shall build-in automatic systems designed to contain any fire to the room of origin.

Q. Through the use of modern fire engineering technology the Tribe shall create and maintain a facility equipped with the latest early detection systems. This would rely on automatic sprinkler systems in the occupied areas and smoke detection, along with automatic sprinkler systems, in the areas of the facility that are normally unoccupied, such as storerooms and mechanical areas.

The following mitigation measures are recommended for the Preferred Project and Reduced Intensity Alternative, Fire Protection Option 2:

S. Implement mitigation measures P through R above.

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3.11 OTHER VALUES

3.11.1 ENVIRONMENTAL SETTING

VISUAL RESOURCES

Regulatory Setting

Guidance for regional aesthetic values is afforded by the regional, subregional and local regulatory setting. The majority of the project site is within the boundaries of the existing Jamul Indian Village, while Option 2 for fire protection entails construction of a fire station within the jurisdiction of San Diego County. Land use on the Reservation is regulated and guided by the Tribal Council, the governing body of the Tribal Government. Land use planning for the fire station site is guided by the Jamul-Dulzura Subregional Plan (Subregional Plan), a part of the San Diego County General Plan, 1995. Generally, the area consists of small rural and semi-rural communities. According to the Land Use Element of the Subregional Plan, commercial land uses should be directed to the region's more level land in the imported water service area, and commercial development should be limited to the Jamul Country Town boundary. The project area is south of this boundary, as delineated on the Subregional Plan map.

Regional Context

The project site is located in southwestern San Diego County approximately 15 miles east of the center of the City of San Diego, and approximately one mile south of the community of Jamul. The project lies on moderately steep slopes in the Jamul Mountains, which surround the site on all sides. State Route 94 transects the region on its course between Interstate 5 in the City of San Diego, and Interstate 8 near the community of Manzanita in eastern San Diego County. SR-94 passes through a number of distinct viewsheds, separated from each other by the mountainous topography of the region.

Project Area Viewshed

The visual character of the project area viewshed is mainly influenced by topography and surrounding land uses that shape local viewing corridors to and from the project site. The topography of the project area generally ranges from approximately 870 feet to 960 feet above mean sea level. For the purpose of this analysis, the maximum current elevation is used to generalize the project site's range of visibility. The project area slopes downward from the east and west towards the intermittent drainage that transects the site. Surrounding land uses are largely rural and semi-rural in nature. Undeveloped lands immediately surround the project site. A private residence is located approximately ¼ mile east of the current Indian Village access road and another can be seen approximately ¼ mile to the northeast. Approximately one mile north of the Indian Village is the unincorporated village of Jamul. Land uses between the town center and

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the Indian Village consist of scattered housing and small businesses. Rancho Jamul Estates, a low-density residential development, is located 0.7 miles south of the Indian Village driveway.

The project area viewshed, shown in **Figure 3.11-1,** is comprised of three viewing corridors, or *vistas.* Each of these vistas provides a line-of-sight that can be characterized uniquely from among the other vistas. **Vista A,** shown in **Figure 3.11-2,** is the line-of-sight corridor between the project site and the residences to the north and to the east. As such, it is classified a *residential vista.* **Vista B**, included in **Figure 3.11-3**, is the line-of-sight afforded between the project site and the portion of Melody Road north of the project site, extending approximately 1,000 feet west and 1,000 feet east of SR-94. Vista B is classified as a *commuter vista.* **Vista C** , shown in **Figure 3.11-4**, is a commuter vista that includes a portion of SR-94 and a portion of Peaceful Valley Ranch Road, just east of the project site. The portion of SR-94 within the Vista C is a segment approximately 2,000 feet long, beginning on its north end approximately 500 feet north of Melody Road and ending approximately 300 feet south of Peaceful Valley Road. The portion of Peaceful Valley Road within Vista C extends approximately 500 feet east of SR-94. No roads or residences occur within view south of the project site; therefore, nothing south of the project site is considered for analysis in this viewshed. Topography is the most influential characteristic of the regional viewshed, and its role in delineating the vistas introduced here is explained in detailed discussion of each vista, below.

Identification of Vistas within the Viewshed

Vistas within the viewshed are described by expressing the strength of the viewing experience, framed within the analytical criteria listed below in the impacts discussion. While the viewing experience is personal and subjective in nature, the application of these criteria allows for an objective, baseline assessment of the visual environment and subsequent visual impacts of the proposed project described in **Section 2.0**.

Vista A – Residential Vista

Vista A is a residential vista, experienced by residents to the north and east of the project site. The view from the residences is generally framed by near and distant topography, with sage scrub dominating the view until the vegetation transitions into a band of live oak along the margins of the drainage that bisects the project site. The topography on and off site offers a sustained, variable partial view of the project site to approximately 12 residences within this vista, as topographic line-of-sight analysis shows in **Figure 3.11-2.** Viewers are all topographically up-grade of the project site, and removed from the project site by approximately 1,400 feet to approximately 2,600 feet northwest of the site, by approximately 1,200 to 2,000 feet northeast of the site, and by approximately 1,800 feet east of the project site.

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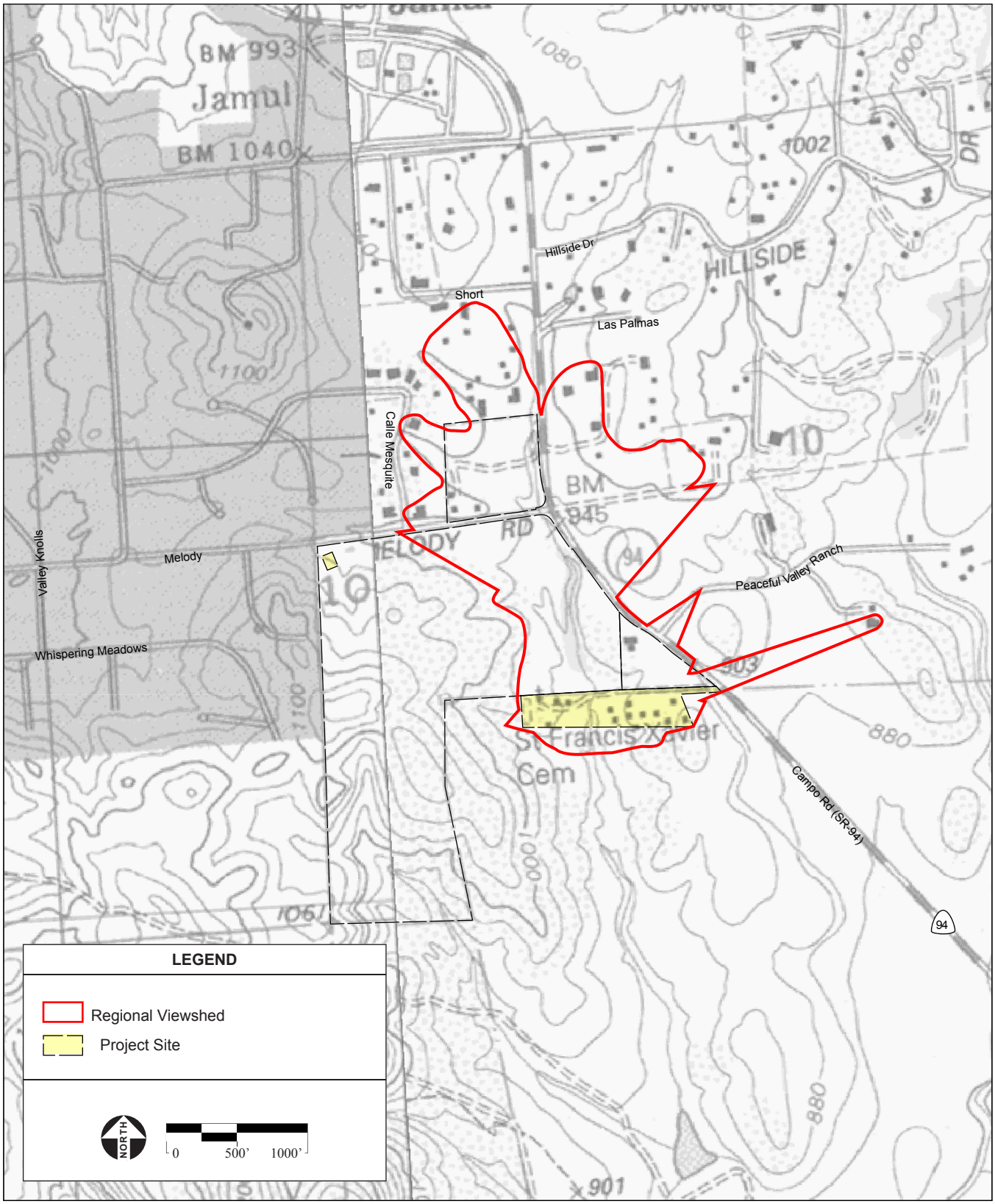
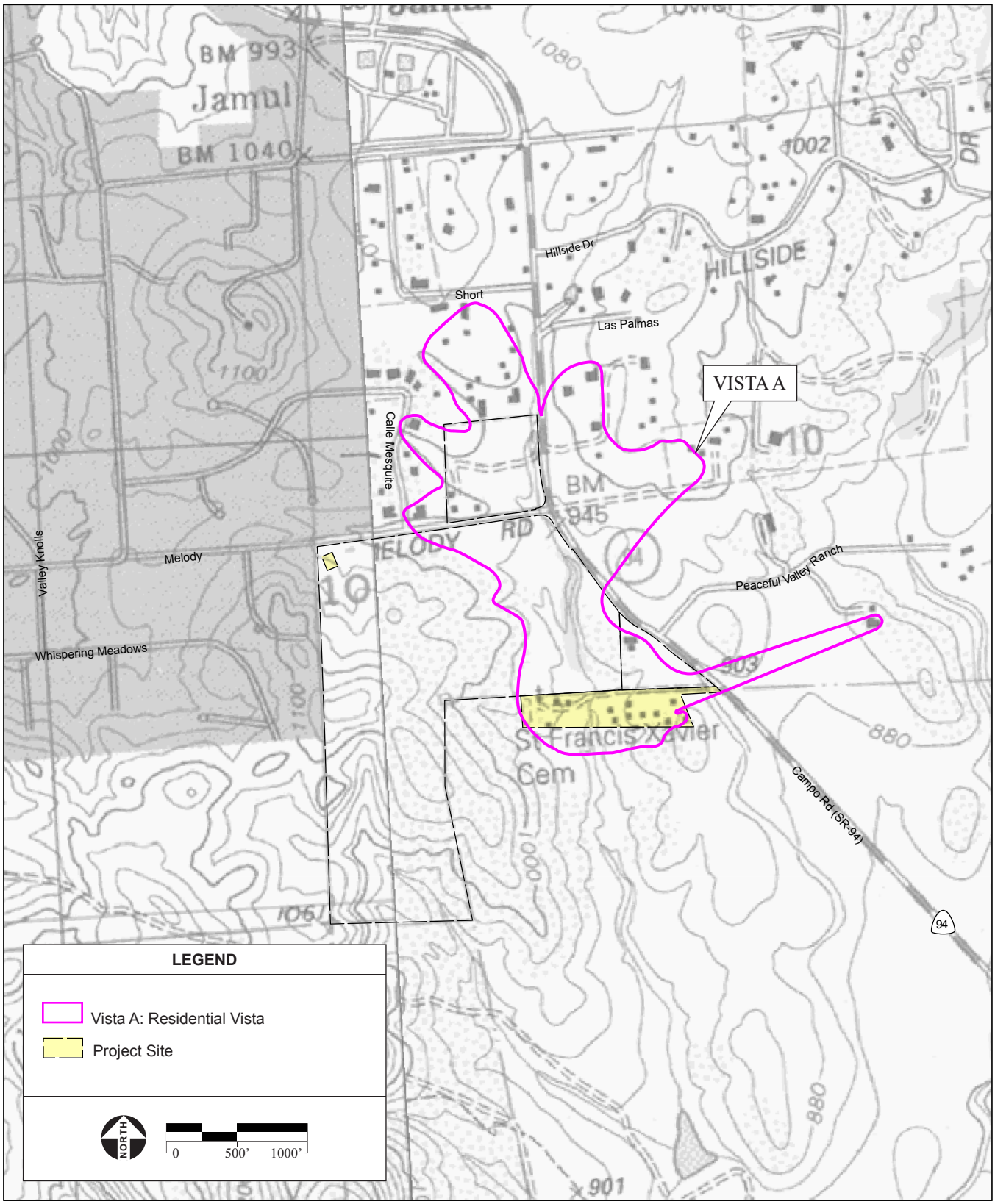


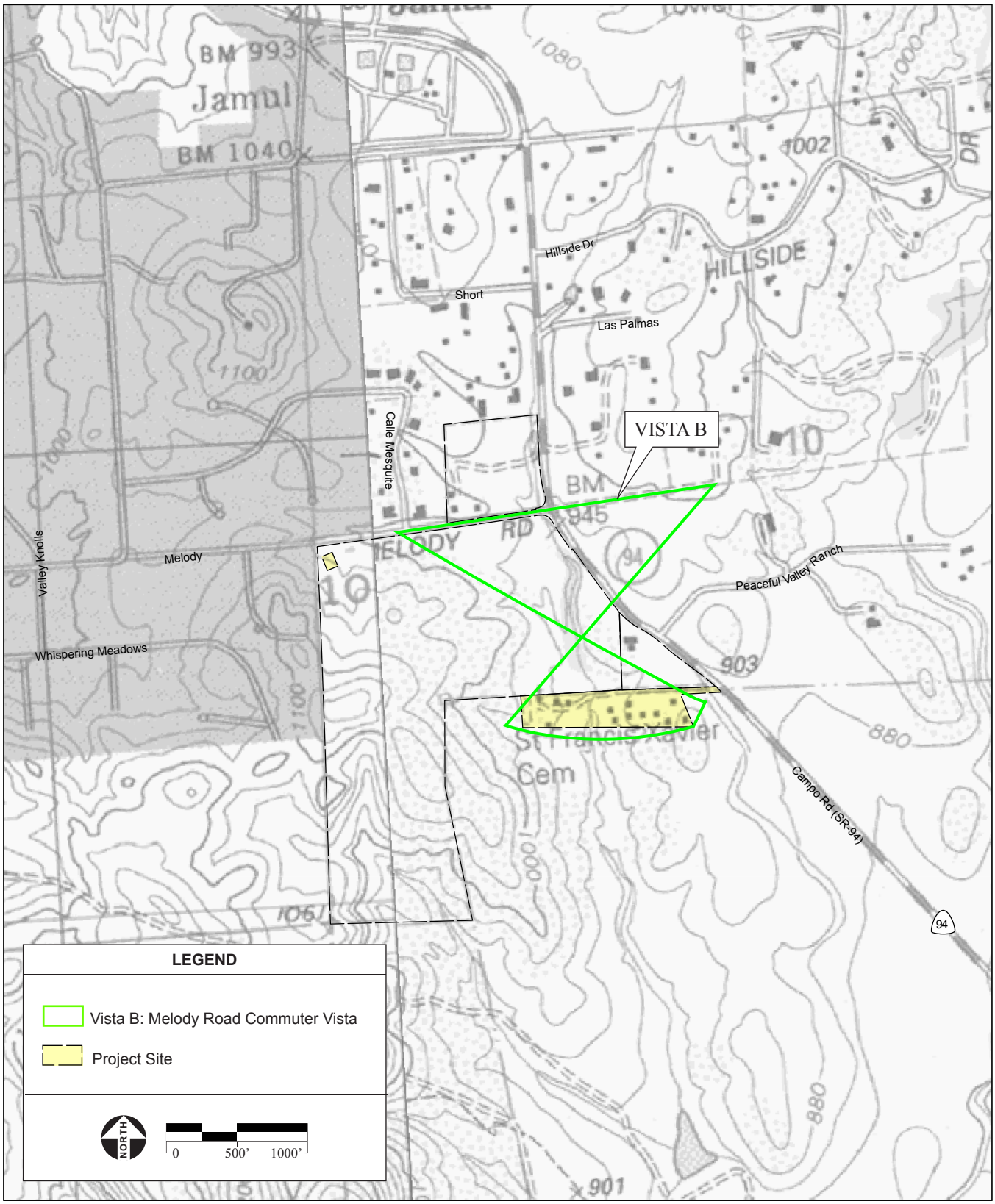
SOURCE: "Jamul MTS, CA" & "Dulzura, CA" USGS 7.5 Minute Topographic Quadrangles; Section 10, T17S, R1E, San Bernardino Baseline & Meridian; AES, 2006

Figure 3.11-1
Regional Viewshed



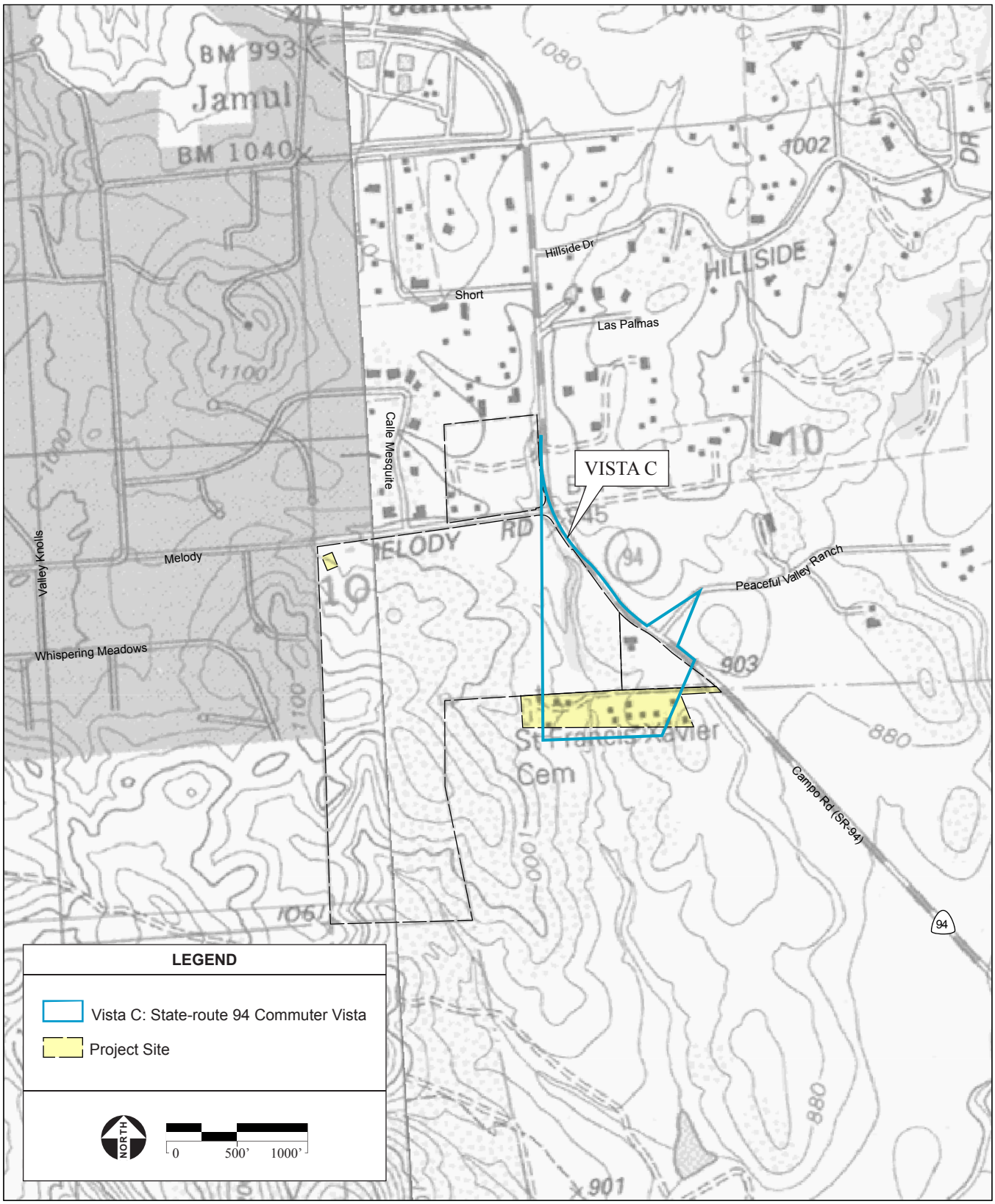
SOURCE: "Jamul MTS, CA" & "Dulzura, CA" USGS 7.5 Minute Topographic Quadrangles; Section 10, T17S, R1E, San Bernardino Baseline & Meridian; AES, 2006

Figure 3.11-2
Residential Vista



SOURCE: "Jamul MTS, CA" & "Dulzura, CA" USGS 7.5 Minute Topographic Quadrangles; Section 10, T17S, R1E, San Bernardino Baseline & Meridian; AES, 2006

Figure 3.11-3
Melody Road Commuter Vista



SOURCE: "Jamul MTS, CA" & "Dulzura, CA" USGS 7.5 Minute Topographic Quadrangles; Section 10, T17S, R1E, San Bernardino Baseline & Meridian; AES, 2006

Figure 3.11-4
State-route 94 Commuter Vista

Vista B – Melody Road Commuter Vista

Melody Road, north of the project site, is a commuter vista generally providing thoroughfare between SR-94 and the residential areas to the east and to the west. On westbound Melody Road, the view to the project site begins at the origin of the Road itself, approximately 1,000 feet east of SR-94. Development along this portion of Melody Road is sparse, and westbound vehicular use is correspondingly limited. The western portion of the project site appears downgrade and to the left, approximately 2,100 feet distant and against a backdrop comprised mainly of mountains. The general view is framed by rural and semi-rural land uses and sage scrub chaparral. A more complete view of the project site occurs as the commuter progresses westward. Approximately 250 feet east of SR-94, the project site is directly to the left of the commuter until westward transition places the project site out of forward-oriented view at the commuter's left flank. Turning either left or right onto SR-94 removes the commuter from this vista. The SR-94 commuter vista is described below. Though the duration of this view is reliant upon traffic conditions, a westbound commuter traveling within this vista at 30 miles per hour (MPH) would experience the view to the project site for approximately half a minute.

On eastbound Melody Road, the view to the project site begins approximately 1,000 feet west of SR-94. Residential development is more intensive along this portion of Melody Road than on the westbound portion east of SR-94, which offers a commuter view to local residents outside of the residential vista described above. The eastern portion of the project site appears downgrade and to the right, approximately 2,500 feet in distance, and against a backdrop that includes mountainous terrain and SR-94 as it undulates in and out of view in its intercourse with the foreground topography. The view to the project site becomes more complete as the commuter progresses east, until it is directly to the right, approximately 1,200 feet removed when the commuter is approximately 250 feet east of SR-94. Progressing eastward on Melody Road, the project site is removed from forward-oriented view at the commuter's right flank. Turning either left of right onto SR-94 removes the commuter from this vista, as described above, as the commuter enters the SR-94 commuter vista. Though the duration of this view is reliant upon traffic conditions, an eastbound commuter traveling within this vista would experience the view to the project site for approximately half a minute.

Vista C – SR-94 Commuter Vista

Vista C is a commuter vista, oriented to the eastern side of the project site along a portion of SR-94 approximately 2,000 feet long. The vista segment extends from just east of the project site, to approximately 500 feet north of Melody Road, and includes approximately 500 feet along Peaceful Valley Road from its connection with SR-94. There is significantly more local development along SR-94 north of the project site than south of

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the project site, although a residential community served by Rancho Jamul Drive, adjoining SR-94 approximately 0.8 miles south of the project site, would also be a source of passing residential traffic. The southbound route of SR-94 also provides access to the U.S.-Mexico border at Tecate, Mexico. It is therefore anticipated that a moderate flow of commercial traffic passing the project site would be more prevalent than for residential commuters except at AM and PM peak hours. Residential commuters are anticipated to mostly commute to and from the metropolitan San Diego area.

Southbound SR-94 commuters enter the vista approximately 700 feet north of Melody Road, with the project site appearing directly forward, downgrade and approximately 1,900 feet distant. After crossing Melody Road, SR-94 curves approximately 40 degrees to the left, thereafter winding slightly to the right in its intercourse with the hilly terrain. The project site is at the commuter's right quarter for this segment, which continues for approximately 1,000 feet, where SR-94 curves to the left approximately 10 degrees on a downgrade, placing the project site from 400 feet to 250 feet away, directly to the right, for a distance of approximately 850 feet until the project site disappears from view behind the local terrain. While the duration of visibility is reliant upon traffic conditions in a commuter vista, a commuter traveling through this vista at 60 MPH would experience this view for approximately 30 seconds.

The northbound view presents the project site as it emerges from behind the terrain and into view directly on the left hand side at approximately 250 feet of distance, flanked by live oak and sage scrub chaparral against a mountain backdrop. Continuing northbound within the vista, the point of view is elevated due to the localized vertical curvature of SR-94, and the view to the left opens up to emphasize the mountainous backdrop, as the foreground appears to descend from view. SR-94 enters a gradual curve to the left here, and as a result the project site remains directly to the left for approximately 850 feet, until SR-94 curves to the right approximately 10 degrees, and the project site is removed from forward-oriented view at the commuter's left flank. While the duration of visibility is reliant upon traffic conditions, a northbound SR-94 commuter traveling at 60 MPH experiences this view for approximately 16 seconds.

Peaceful Valley Road adjoins SR-94 directly north of the project site, providing SR-94 access to approximately 4 households. Westbound commuters enter the vista approximately 500 feet east of SR-94 after passing occluding terrain features. Upon reaching the intersection with SR-94, the project site appears directly forward at similar elevation, and approximately 400 feet distant. It is partially occluded by terrain, with mountains in the background and SR-94 directly in the foreground. The project sight disappears from view at the commuter's left flank after turning right onto SR-94 and progressing for approximately 350 feet. For left-turning commuters, the project site comes directly to a right side view, and remains in view for approximately 500 feet

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before disappearing behind local terrain features. While duration of visibility is reliant upon traffic conditions, deceleration and stopping time, the cumulative duration of visibility for right-turning commuters from Peaceful Valley Road is expected to be approximately 30 seconds, while left-turning commuters may experience view for approximately 35 seconds.

NOISE

Acoustical Background and Terminology

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq) over a given time period (usually one hour). The Leq is the foundation of the Day-Night Average Level noise descriptor, Ldn, and shows very good correlation with community response to noise. Ldn-based noise standards are commonly used to assess noise effects associated with traffic, railroad, and aircraft noise sources. A detailed explanation of acoustical background and terminology is included in the Jamul Indian Village Final EIS and incorporated by reference from **Section 3.10.1**, page 3-80 through 3-81.

Description of the Affected Environment

Sensitive noise receptors in the vicinity of the project site include residential housing to the north and west of the project site. The nearest residential home is located approximately 1,600 feet to the west of the existing Jamul Indian Village. The noise environment in the project vicinity is defined primarily by traffic on SR 94, and marginally by traffic on Melody Road. A noise monitoring survey was conducted on May 21, 2002 to quantify the existing ambient noise levels at the nearest sensitive noise receptors. The data collected indicated that average ambient noise levels during daytime hours ranged from 50 to 66 dB Leq and nighttime noise levels ranged from 42 to 64 dB Leq. These levels are consistent with levels expected for semi-rural areas affected by local traffic noise, with the noise levels measured on the portion nearest Hwy 94 being the most elevated. A detailed description of the methodology used in the noise monitoring survey is included in the Jamul Indian Village Final EIS and incorporated by reference from **Section 3.10.1**, page 3-82 through 3-85.

Regulatory Environment

Noise criteria used in this study include the Federal Highway Administration (FHWA) Noise Abatement Criteria for the assessment of noise consequences related to surface traffic. In addition, environmental consequences are also evaluated relative to the change in ambient noise conditions at existing noise-sensitive uses in the project vicinity which would result from the

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project. These criteria are discussed in detail in **Section 3.10.1** of the Jamul Indian Village Final EIS, page 3-85 through 3-86.

HAZARDOUS MATERIALS

Introduction

Hazardous materials are subject to numerous laws and regulations at all levels of government. With respect to tribal lands, presidential memorandums outline Federal Indian Policy, and provide direction and guidance for federal governmental agencies regarding the administration of their responsibilities on Indian reservations and tribal lands. However, these agencies recognize that tribal governments are sovereign entities and thus these agencies are to work directly with these tribal governments in their capacity as independent entities, and not as political subdivisions of other governments. This is broadly described as a "government-to-government" relationship.

At the federal level, human exposure to chemical agents, and in some cases the environment and wildlife, is regulated primarily by four regulatory agencies: The U.S. Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the Occupational Safety and Health Administration (OSHA), and the Consumer Product Safety Commission (CPSC). The CPSC plays a limited role (primarily the labeling of consumer products) in regulating hazardous substances as they pertain to the proposed project. The FDA primarily regulates food additives and contaminants, human drugs, medical devices, and cosmetics. Similarly, the FDA plays a limited role in regulating hazardous substances as they pertain to the proposed project. In addition to these regulatory agencies, the U.S. Department of Transportation (DOT) regulates the interstate transport of hazardous materials.

Existing Conditions

A Level I Survey was conducted for the project area on May 19, 2000. The survey included a Contaminant Survey Checklist, and an area reconnaissance in accordance with the standard practice for American Society for Testing and Materials (ASTM) Practice E 1527-00 Environmental Site Assessments and Bureau of Indian Affairs (BIA) guidelines. The purpose of this assessment is to identify environmental conditions and hazardous materials involvement that may pose a material risk to human health or to the environment, or in any way affect the proposed use of the subject property. The survey observed scattered household debris along SR 94 to the east of the project site and along the unnamed dirt road that runs near the fire station, and abandoned residential area. Discarded chemical products or drums were not observed on the subject property. Several five-hundred-gallon propane tanks associated with the past residential housing were also observed. These tanks have since been removed form the Jamul Indian Village site. No additional assessment (Phase II) was warranted or recommended by the survey results. A detailed description of the Level I Survey is incorporated by reference from the **Section 3.10.2,** page 3-87 and **Appendix H** of the Jamul Indian Village Final EIS.

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Project Area Assessment Report

A project area assessment report, was conducted by Environmental Data Resources, Inc. (EDR) on July 23, 2002 for records of known storage tank sites and hazardous materials generation, storage, or contamination on or near the subject property. Databases were searched for sites and listings up to 1 mile from a point roughly equivalent to the center of the subject property. Additionally, data from the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) was reviewed. No oil or gas wells were identified within a 1-mile radius of the subject property. The project site does not reveal any indications of hazardous material use on-site.

According to EDR's search of government regulatory databases in the project area, there are no known contaminant sites located on, or within ½-mile of, the project site. Two past hazardous materials incident sites were identified within a ½ mile to a mile of the project site. However, these incidences have since been remediated within appropriate regulatory guidelines. Therefore the sites do not pose an environmental threat to the project area. A detailed discussion of the project area assessment report is incorporated by reference from **Section 3.10.2**, pages 3-87 through 3-89 and **Appendix H** of the Jamul Indian Village Final EIS.

3.11.2 ENVIRONMENTAL CONSEQUENCES

PREFERRED PROJECT

Visual Resources

Significance Criteria

Criteria used to determine if the project would have a significant visual impact include 1) obstruction of a scenic view from public viewing areas; 2) introduction of physical features that are substantially out of character with planned or existing development within adjacent areas; 3) alteration of the natural landscape characteristics of the site of which the scale or degree of change appears as a substantial, obvious, and disharmonious modification of the overall scene, to the extent that it clearly dominates the view; or 4) disruption of adjacent residential areas from new nighttime lighting.

The visual experience within each vista is comprised of the following constituent elements:

1. Clarity in Line of Sight—the overall visibility of the object within the viewshed, influenced by such factors as trees, buildings, topography or any other potential visual obstruction within the viewshed.

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2. Duration of Visibility—the amount of time the object is exposed to viewers within the viewshed. For example, a passing commuter will experience a shorter period of viewing time than a resident within the viewshed.
3. Proximity of the Viewer—the effects of foreshortening due to the distance of the viewer from the object will influence the dominance of the object in the perspective of the viewer within the viewshed.
4. Number of Viewers—the number of viewers anticipated to experience the visual character of the object in forward-oriented view (i.e., not through a rear-view mirror). A densely populated residential district, or a busy highway within the viewshed of the object would present more viewers than unpopulated areas.

The Regional Viewshed

As noted above, the visual character of the project area viewshed is mainly influenced by topography and surrounding land uses that shape local viewing corridors to and from the project site. The view of the project site under existing conditions would be altered by the construction of the proposed project. The proposed facilities would be approximately 200 feet high (the hotel tower is approximately 250 feet). Both the elevation and the massing of the proposed facilities would alter the visual prominence of the project site from the outlying areas.

Vista A – Residential Vista

Within **Vista A**, residents to the north of the project site would experience a view the proposed structure that obscures view to the portion of SR-94 south of the project site, with limited occlusion of the mountains on the horizon. In that the view from the residences is generally framed by near and distant topography, the western portion of the facilities would be occluded by foreground topography on the right margin of the visual aspect. For residents northwest of the project site, a portion of the proposed structure would emerge into view from behind the hilly foreground, though little to no obstruction of the mountains to the east would be expected. For the residents east of the project site, the proposed structure would emerge from behind the topography in the foreground, and would be framed by the mountains to the east, which would continue to dominate the view. In general, a larger number of residents in and out of this viewshed will potentially be offered a view of some portion of the proposed structures, though the prominence of the facilities will decrease with the distance, the altitude of the viewer and topographical obstructions between the viewer and the proposed facilities. The general character of the area, however, would change to include a visibly commercial element to a largely residential area.

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Vista B – Melody Road Commuter Vista

The Melody Road commuter vista would generally expand to include portions of tributary streets, such as Proctor Valley Road and Calle Mesquite, west of SR-94. Commuters on these tributaries would experience an emerging view of the upper portion of the proposed structure on near-approach to Melody Road. Commuters traveling eastbound toward SR-94 would observe the proposed facilities increasing in prominence, until it dominates the view southward at SR-94. On the portion of Melody Road east of SR-94, westbound commuters would be offered a view of the upper levels of the proposed facilities to the southwest, which would emerge from behind foreground topography into a more complete view as the viewer progresses westward. The mountains in the background would continue to dominate the view until the commuter is at SR-94, at which point the proposed facilities would command the southward line of sight.

Vista C – SR-94 Commuter Vista

Southbound SR-94 commuters would begin to see the upper portion of the proposed structure immediately north of Melody Road, as it emerges from behind residences and foreground topography. The subsequent approach to Melody Road would bring the structure into full view, until it dominates the southward view from the intersection with Melody Road, occluding the view to the valley floor. Continuing southbound as SR-94 curves to the left, the proposed facilities continue to appear to the right quarter, as they relinquish their visual dominance to the mountains to the west. When Las Palmas Road is directly to the left, the southward view opens up as the facilities shift directly to the right side, and the facilities pass out of forward-oriented view.

The northbound view presents the top of the proposed facilities as it emerges into view from behind the foreground topography, directly forward, from approximately the intersection of SR-94 and Rancho Jamul Drive. The structure shifts gradually to the left quarter on approach, increasing in apparent size until adjacent to Campo Road, where the structure would suddenly come into full view directly left. The mountains to the west continue to dominate the vista in this perspective. Continuing north, the facilities drop back and out of forward-oriented view.

Where Peaceful Valley Road adjoins SR-94 directly north of the project site, the effects of foreshortening grant visual dominance to the proposed facilities in a southward perspective. Westbound commuters first see the upper portion of the proposed structure immediately upon joining the road, as a minor component of a southwesterly view. Continuing westbound, the structure emerges from behind foreground topography, and into clear view upon reaching the apex of a hill approximately 170 yards east of SR-94.

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Assessment

The criteria used to determine if the project would have a significant visual impact are stated in **Section 3.11.2** and include 1) obstruction of a scenic view from public viewing areas; 2) introduction of physical features that are substantially out of character with planned or existing development within adjacent areas; 3) alteration of the natural landscape characteristics of the site of which the scale or degree of change appears as a substantial, obvious, and disharmonious modification of the overall scene, to the extent that it clearly dominates the view.

Vista A – Residential Vista

Within **Vista A**, the proposed facilities would be visible to residents in a manner that is subordinate to the distant landscape and does not occlude the skyline. The massing of the building and its commercial use would not be consistent with the sizes or uses for structures in the area, and its construction would not be consistent with the vision of the guidance documents regulating land uses in the immediate vicinity of the project site. The visual impact within **Vista A** is therefore considered a significant impact.

Vista B – Melody Road Commuter Vista

The Melody Road commuter vista would be dominated in southward views by the proposed facilities near the intersection with SR-94. However, with increased distance from SR-94 the prominence of the proposed facilities decreases in significance. Based on the criteria set forth above, however, the dominance of the proposed facilities in southbound view would occlude the view to the valley to the south. This would be a significant visual impact.

Vista C – SR-94 Commuter Vista

Southbound SR-94 commuters would begin to see the upper portion of the proposed structure immediately north of Melody Road, and it would emerges from behind residences and foreground topography to dominates the southward view from the intersection with Melody Road, occluding the view to the valley floor. Based on the criteria identified above, this would be a significant impact.

The northbound SR-94 view is not dominated by the proposed facilities. The impact is considered less than significant.

Where Peaceful Valley Road adjoins SR-94 directly north of the project site, the effects of foreshortening grant visual dominance to the proposed facilities in a southward perspective. This and the inconsistency of the proposed facilities with surrounding land uses is considered a significant visual impact, based on the criteria identified above.

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Noise

The impact assessment below for noise contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul Indian Village Final EIS impact assessment of Alternative A was found to be generally applicable to the Preferred Project due to similar scale, uses, location, and timing of the development. A modification of the Jamul Indian Village Final EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

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Overview

The project has the potential to affect the existing ambient noise environment in the immediate project vicinity due to the following noise sources:

- Increases in traffic volumes on the local roadway network as a result of the project alternatives would result in increases in traffic noise levels along roadways, which serve the project site.
- Construction activities associated with the development of the project alternatives would cause short-term increases in the ambient noise environment.
- On-site traffic flow and parking lot activities associated with the project alternatives would cause increases in the ambient noise environment.
- Truck deliveries/loading dock activities associated with the ongoing operation of the casino and hotel complex would result in intermittent increases in ambient noise in the immediate vicinity of loading dock areas.
- Mechanical equipment associated with the heating, ventilating, and air conditioning (HVAC) systems as well as refrigeration equipment associated with food cold storage could cause an appreciable permanent increase in ambient noise levels in the immediate project vicinity.

Methodology

To evaluate changes in the ambient noise environment, which would result from the Preferred Project, a combination of noise surveys, use of existing acoustical literature, and application of accepted noise prediction methodologies was employed. Absolute noise levels generated by the on-site noise sources described above were compared against existing ambient noise criteria to evaluate the consequences of on-site noise sources relative to existing residential uses located in the project vicinity.

Changes in off-site traffic noise levels which would result from the project alternatives were compared against the 3 dB significance criteria to evaluate traffic noise consequences at existing residential land uses located along the roadway network which would serve the

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project site. Finally, absolute traffic noise levels predicted at the noise-sensitive components of the project alternatives were compared against the FHWA Noise Abatement Criteria to evaluate the consequences of traffic noise relative to uses proposed under the project alternatives (i.e. relocated tribal housing and the proposed hotel).

A more specific description of the methodology employed in the evaluation of environmental consequences for each of these project components follows.

Construction Noise Evaluation Methodology

Activities associated with construction within the project site will result in temporary periods of elevated noise levels. Specifically, activities involved in construction would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet, as indicated in **Table 3.11-1.**

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A significant project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites. This noise increase would be of short duration, and would likely occur primarily during daytime hours. Nonetheless, the proximity of nearby residences to certain aspects of the project construction would ensure substantial short-term increases in noise during construction.

TABLE 3.11-1
CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dB at 50 feet
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85

SOURCE: *Environmental Noise Pollution*, Patrick R. Cunniff, 1977.

Wastewater Treatment Facility Noise Evaluation Methodology

To evaluate noise consequences associated with the operation of the wastewater treatment facility, the proposed facility plans were analyzed with noise emission data from the equipment manufacturer and photographs of similar equipment at other installations.

According to information provided, the only noise-producing components of the wastewater treatment facility are blowers which will be located within the blower room of the operations building, and pumps which will be located within shielded headworks. The concrete block construction of the blower room and proposed sound absorbing materials located within that room are anticipated to render blower noise to levels well

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below 45 dB Leq off-site. A similar finding is reached for the pumps located within the headworks.

Mechanical Equipment Noise Evaluation Methodology

Although information pertaining to specific equipment types, sizes, location, and sound output is not available at the time this study was prepared, it is likely that a combination of chillers, compressors, fans, condensers, pumps and cooling towers would be needed to meet the project's refrigeration and HVAC requirements. While specific noise levels at nearby residential uses cannot be accurately quantified at this time, recognition of the noise-generation of such equipment should be included in the assessment of potential environmental noise consequences.

Truck Deliveries and Loading Dock Activity Noise Evaluation Methodology

Truck deliveries are an integral part of commercial activities, as the delivery of food and/or merchandise to such facilities is a routine occurrence. To determine typical loading dock noise levels, noise level data collected at a busy grocery store were utilized. The noise level data in question was collected at a distance of 50 feet from the loading dock. During the one hour sample of loading dock noise levels, there were 3 semi-truck arrivals and 4 semi-truck departures, unloading activities, 1 semi truck pass by on the service road, and 4 step side delivery trucks at the adjacent delivery area. This level of activity is estimated to represent a reasonable worst-case hour of loading dock activity associated with the Preferred Project.

The data indicated that during a busy hour of loading dock operations, the measured hourly average (L_{eq}) noise level was 60 dB at a distance of 50 feet from the loading dock. Based upon this datum, loading dock noise levels were predicted at the nearest residences to project site for each project alternative. The location of these the nearest residences is incorporated by reference from **Figure 3-21**, page 3-83 of the Jamul Indian Village Final EIS. **Table 3.11-2** shows the results of the loading dock noise level predictions.

On-Site Traffic and Parking Lot Noise Evaluation Methodology

To evaluate noise levels due to on-site traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. Inputs to the model consisted of parking lot capacities and peak hour project trip generation figures.

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TABLE 3.11-2
GENERAL DISTANCES TO MAJOR LOADING DOCK AREAS AND PREDICTED NOISE LEVELS

	Preferred Project	
Residence	**Distance**	**Leq**
1	2200	27
2	2300	27
3	2400	26
4	2400	26
5	2100	28
6	2000	28
7	2100	28
8	2400	26
9	2200	27
10	1700	29

SOURCE: Bollard and Brennan, 2002
NOTES: Distances were scaled from project site plans.

Idle buses typically generate an average noise level between 60 and 65 dB Leq at a distance of 50 feet. At a distance of 100 feet, idling busses are predicted to generate an average noise level of approximately 55-60 dB Leq, and general parking lot activity would generate an average noise level of approximately 50 dB Leq based on a vehicle speed of 15 mph in the parking lot and 1,000 peak hour parking lot movements (estimate for computation purposes).

Off-Site Traffic Noise Evaluation Methodology

To evaluate noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The FHWA model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly Leq values for free-flowing traffic conditions.

Traffic volumes existing and future, project and no-project conditions, were obtained from Katz Okitsu and Associates, traffic consultants, published Caltrans traffic counts, and Bollard & Brennan, Inc. field observations. This input data was based on projected traffic counts for Alternative A analyzed in the Jamul Indian Village Final EIS. Traffic counts for the Preferred Project are slightly lower. Therefore the projected noise levels of the Preferred Project are slightly exaggerated and should be considered conservatively. The FHWA Model input data is incorporated by reference from **Appendix M** of the Jamul Indian Village Final EIS.

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The traffic noise prediction model results are provided in **Table 3.11-3** for the Preferred Project.

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Noise Effects

Off-Site Traffic Noise Effects

The Preferred Project could result in changes in traffic noise levels as identified in **Table 3.11-2**. These noise levels were projected for Alternative A analyzed in the Jamul Indian Village Final EIS. According to the table, project related traffic noise level increases are predicted to exceed 10 dB on Melody Road. This projected change was associated with the previously proposed entrance along Melody Road. This entrance is no longer proposed. Site access for the Preferred Project would be located just north of the project site along SR 94. Therefore, it is predicted that this noise increase would actually occur along the road segment of SR 94 south of Melody Road. This estimated increase is expected to be consistent with the 3 dB noise increase projected for the segment of SR 94 south of Maxfield Road. Traffic counts for the revised traffic study do not show a significant increase in project related traffic on Melody Road west of SR-94 (refer to **Section 3.8.2**, page 3.8-11). Regardless, significant noise receptors are not located along this roadway segment.

TABLE 3.11-3
PROJECT RELATED INCREASES IN TRAFFIC NOISE LEVELS FOR ALTERANTIVE A

Roadway	From	Year 2009		
		No Project	Project	Change
SR 94	West of Jamacha Rd.	72	73	1
	East of Cougar Canyon	70	71	1
	West of Vista Sage Ln.	69	71	2
	North of Maxfield Rd.	66	69	3
	South of Maxfield Rd.	65	68	3
	South of Melody Rd.	65	68	3
Jamacha Blvd.	South of Hwy 94	64	64	0
	North of Hwy 94	67	67	0
Steele Cyn Rd.	North of Hwy 94	60	60	0
Vista Diego Rd.	North of Hwy 94	60	60	0
Proctor Valley Rd.	South of Maxfield Rd.	58	58	0
	West of Whispering Meadows	54	55	1
Melody Rd.	East of Whispering Meadows Ln.	51	52	1
	West of SR-94	51	61	10

SOURCE: Bollard & Brennan, Inc. using FHWA RD-77-108 with inputs from the Traffic Section and Caltrans; AES, 2006.

If the projected noise increase identified in the above table was to occur along Melody Road regardless of the new entrance location, because there are no existing residences along this roadway segment, the predicted 10 dB increase in noise traffic levels would not constitute a

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significant environmental consequence. The traffic noise level increase at the nearest residence to the northwest is not predicted to be significant.

Construction Noise Effects

Construction activities will result in short-term increases in the local ambient noise environment in excess of the 3 dB threshold of significance. Because construction activities will be temporary in nature, no significant environmental consequences are identified for such activities, provided they occur during normal daytime hours.

On-Site Traffic Flow and Parking Noise Effects

On site traffic activities, including vehicles arriving and departing, engines starting and stopping, car doors opening and closing, and busses idling, would increase ambient noise levels in the vicinity of the project site. This increase would occur predominantly north of the project site where the site entrance to the structured parking area and Porte Cochere would be located. The walls of the parking structure and the casino building would attenuate noise levels to the south of the project site. Noise levels to the north are predicted to be approximately 50-60 dB Leq at a distance of 100 feet from the effective noise center of the parking area. Because sensitive receptors are not located within the affected area, it is not expected that significant adverse off-reservation impacts would occur. Mitigation has been identified in **Section 3.11-3** to ensure adverse impacts would not occur.

Wastewater Treatment Facility Noise Effects

The wastewater treatment facility would be housed under the driveway entrance to the parking structure. Because the facility would be enclosed on three sides and above by the casino and parking structure, any noise created would not be audible off-reservation. Therefore, wastewater treatment facility noise levels are not identified as a significant noise consequence.

Truck Delivery / Loading Dock Noise Effects

The loading dock would be located within the proposed casino structure adjacent to the porte esche. Loading dock noise levels created by truck deliveries would be audible north of the project site along areas near the entrance to the port esche. Sensitive receptors are not located in the potentially affected area. Therefore no significant noise consequences are identified for this aspect of the project.

Mechanical Equipment Noise Effects

Due to the considerable distance between the proposed casino complex and the nearest residences, mechanical equipment noise associated with these uses is not expected to approach significant noise levels at those residential areas. Nonetheless, because mechanical

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equipment noise levels can be highly variable, the equipment should be designed and installed so as to generate average noise levels of 45 dB Leq or less at the existing residential property lines. This can likely be accomplished by isolating and screening mechanical equipment. These measure are included as mitigation in **Section 3.11.3.**

Effects of On-Site Noise Sources on the Conservation Area

The project site is bordered to the south by a conservation area. The proposed casino and hotel complex are located in relatively close proximity to the conservation area. Noise sources which would be audible at the conservation area could include mechanical equipment associated with the casino and hotel structure. Ambient noise level data collected in the vicinity of the interface of the conservation area and casino site indicate that measured background levels ranged from 42 to 65 dB Leq. Noise generated by the on-site noise sources is not expected to significantly exceed the measured existing ambient noise levels in this area. As a result of the elevated background noise levels in this area no significant noise consequences are identified for the conservation area as a result of the project.

Hazardous Materials

The impact assessment below for hazardous materials contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul Indian Village Final EIS impact assessment of Alternative A was found to be generally applicable to the Preferred Project due to similar scale, uses, location, and timing of the development. A modification of the Jamul Indian Village Final EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

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Existing Sources

There is no reportable hazardous materials contamination in or near the project area. Therefore, implementation of Alternative A will not cause the environment or public to be affected by hazardous materials currently in the project area.

Construction

During grading and construction the use of hazardous materials would include substances such as gasoline, diesel fuel, motor oil, hydraulic fluid, solvents, cleaners, sealants, welding flux, various lubricants, paint, and paint thinner. These materials would be used for the operation and maintenance of equipment, and directly in the construction of the facilities. Regular fueling and oiling of construction equipment would be performed daily. To reduce the potential for accidental releases, fuel, oil, and hydraulic fluids would be transferred directly from a service truck to construction equipment tanks and would not otherwise be stored onsite. Paint, thinner, solvents, cleaners, sealants, and lubricants used during

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construction would be stored in a locked utility building, handled per the manufacturers' directions, and replenished as needed.

The most likely possible incidents would involve the dripping of fuels, oil, and grease from construction equipment, and during handling and transfer from one container to another. The small quantities of fuel, oil, and grease that may drip would have low relative toxicity and concentrations. Typical construction management practices limit and often eliminate the effect of such accidental releases. An accident involving a service or refueling truck would present the worst-case scenario for the release of hazardous materials. Depending on the relative hazard of the hazardous material, if a spill were to occur of significant quantity, the accidental release could pose both a hazard to construction employees as well as the environment. This effect is potentially significant.

Equipment used during grading and construction activities may create sparks that could ignite dry grasses and weeds on the project sites. During construction, the use of power tools and acetylene torches may also increase the risk of fire. This risk, similar to that found at other construction sites, is potentially significant.

Mitigation has been included within **Section 3.11.3** to reduce the significance of the hazardous materials effects.

Operation

The U.S. Department of Labor Occupational Safety and Health Administration (OSHA) regulations include provisions that require facilities to document the potential risk associated with the storage, use, and handling of toxic and flammable substances. OSHA regulations are codified in 29 CFR Parts 70-71, 1990-1990, 2200-2205, and 2400.

During operation of the facilities included under the Preferred Project, the majority of waste produced would be nonhazardous. The small quantities of hazardous materials that would be generated would include motor oil, hydraulic fluid, solvents, cleaners, lubricants, paint, and paint thinner. These materials would be generated from the use and maintenance of the sewage treatment facility, fire station, casino, emergency generators, and other project facilities. The amount and type of hazardous materials that would be generated are common to commercial sites and do not pose unusual storage, handling or disposal issues.

Diesel fuel storage tanks will be needed for the operation of: three emergency generators provided for the casino and wastewater treatment plant, one emergency generator and one fire pump provided for the hotel/casino. The fuel tanks will be housed above ground under the individual generator units. The largest generators will have storage tanks of approximately 2,000 gallons. The storage tanks will have double walls with integrated leak detection systems. If a leak were to occur within the inner tank, the outer tank would contain the leak,

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while a pressure sensor would signal the leak on the indicator panel of the generator unit. Security personnel will monitor the generator units. Security personnel will be on site at all times and will be trained in emergency response procedures. The generators will be located in areas that are easily accessed by maintenance and emergency personnel, near the service entrance/loading docks of these facilities.

Based upon the amount and type of hazardous materials that will be stored, used, and generated during operation of the Preferred Project, effects to the environment or public are considered to be less than significant.

REDUCED INTENSITY ALTERNATIVE

Visual Resources

Significance Criteria

The criteria used to determine if the Reduced Intensity Alternative would have a significant visual impact are identical to those described above for the Preferred Project. These criteria include 1) obstruction of a scenic view from public viewing areas; 2) introduction of physical features that are substantially out of character with planned or existing development within adjacent areas; 3) alteration of the natural landscape characteristics of the site of which the scale or degree of change appears as a substantial, obvious, and disharmonious modification of the overall scene, to the extent that it clearly dominates the view.

The Regional Viewshed

The view of the project site under existing conditions would be altered by the construction of the proposed project. The proposed facilities under the Reduced Intensity Alternative would be approximately half as tall as the Preferred Project. The facilities would be approximately 100 feet high. Both the elevation and the massing of the proposed facilities would alter the visual prominence of the project site from outlying areas, although to a lesser extent than the Preferred Project.

Assessment

Vista A – Residential Vista

Within **Vista A**, the proposed facilities would be visible to residents in a manner that is subordinate to the distant landscape and does not occlude the skyline. The massing of the building and its commercial use would not be consistent with the sizes or uses for structures in the area, and its construction would not be consistent with the vision of the guidance documents regulating land uses in the immediate vicinity of the project site. As

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with the Preferred Project, the visual impact within **Vista A** is therefore considered a significant impact.

Vista B – Melody Road Commuter Vista

As with the Proposed Project, based on the criteria set forth above, the dominance of the proposed facilities in southbound view would occlude the view to the valley to the south. This would be a significant visual impact.

Vista C – SR-94 Commuter Vista

Southbound SR-94 commuters would begin to see the upper portion of the proposed structure immediately north of Melody Road, and it would emerge from behind residences and foreground topography to dominate the southward view from the intersection with Melody Road, occluding the view to the valley floor. This would be a significant impact.

The northbound SR-94 view is not dominated by the proposed facilities. The impact is considered less than significant.

Where Peaceful Valley Road adjoins SR-94 directly north of the project site, the effects of foreshortening grant visual dominance to the proposed facilities in a southward perspective. This and the inconsistency of the proposed facilities with surrounding land uses is considered a significant visual impact.

Noise

The impact assessment below for noise contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul Indian Village Final EIS impact assessment of the Alternative A Variant was found to be generally applicable to the Reduced Intensity Alternative due to similar scale, uses, location, and timing of the development. A modification of the Jamul Indian Village Final EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

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Overview

This Reduced Intensity Alternative has the potential to affect the existing ambient noise environment in the immediate project vicinity due to the following noise sources:

- Increases in traffic volumes on the local roadway network would result in increases in traffic noise levels along roadways, which serve the project site.
- Construction activities associated with the project alternatives would cause short-term increases in the ambient noise environment.

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- On-site traffic flow and parking lot activities associated with the project would cause increases in the ambient noise environment.
- Operation of the wastewater treatment facility could cause an increase in the ambient noise environment in the immediate vicinity of that facility.
- Truck deliveries/loading dock activities associated with the ongoing operation of the casino, hotel, retail uses, and restaurants, would result in intermittent increases in ambient noise in the immediate vicinity of loading dock areas.
- Mechanical equipment associated with the heating, ventilating, and air conditioning (HVAC) systems as well as refrigeration equipment associated with food cold storage could cause an appreciable permanent increase in ambient noise levels in the immediate project vicinity.

Noise Effects

Off-Site Traffic Noise Effects

The Reduced Intensity Alternative would result in changes in traffic noise levels. However, since traffic noise level increases for the much larger Preferred Project are only predicted to exceed 3 dB on SR 94, where there are no residences, these changes are considered even less of an environmental consequence.

Construction Noise Effects

As with the Preferred Alternative, construction activities would result in short-term increases in the local ambient noise environment in excess of the 3 dB threshold of significance. Because construction activities would be temporary in nature, no significant environmental consequences are identified for such activities, provided they occur during normal daytime hours.

On-Site Traffic Flow and Parking Noise Effects

Under the Preferred Alternative, on site traffic activities, including vehicles arriving and departing, engines starting and stopping, car doors opening and closing, and busses idling, were predicted to increase noise levels noise levels north of the project site. Although internal traffic and the size of the parking area would be reduced under this alternative, the types of noise would be the same and noise levels are assumed to be the same. Noise levels to the north are predicted to be approximately 50-60 dB Leq at a distance of 100 feet from the effective noise center of the parking area. The walls of the parking structure and the casino building would attenuate noise levels to the south of the project site. Because sensitive receptors are not located within the affected area, it is not expected that significant adverse off-reservation impacts would occur. Mitigation has been identified in **Section 3.11-3** to ensure adverse impacts would not occur.

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Wastewater Treatment Facility Noise Effects

As with the Preferred Alternative, the wastewater treatment facility would be housed within the basement levels of the parking structure. Because the facility would be enclosed within the parking structure, any noise created would not be audible off-reservation. Therefore, wastewater treatment facility noise levels are not identified as a significant noise consequence.

Truck Delivery / Loading Dock Noise Effects

Due to the considerable distance between the proposed casino and hotel complex and the nearest residences, As with the Preferred Project, the loading dock would be located within the proposed casino structure adjacent to the porte esche. Loading dock noise levels created by truck deliveries would be audible north of the project site along areas near the entrance to the port esche. Sensitive receptors are not located in the potentially affected area. Therefore no significant noise consequences are identified for this aspect of the project. Truck delivery and loading dock noise effects would be reduced relative to the preferred alternative.

Mechanical Equipment Noise Effects

Due to the considerable distance between the proposed casino and hotel complex and the nearest residences, mechanical equipment noise associated with these uses is not expected to approach significant noise levels at those residential areas. Nonetheless, because mechanical equipment noise levels can be highly variable, the equipment should be designed and installed so as to generate average noise levels of 45 dB Leq or less at the existing residential property lines. This can likely be accomplished by isolating and screening mechanical equipment.

Effects of On-Site Noise Sources on Conservation Area

The project site is bordered to the south by a conservation area. The hotel, casino and events center would be located in relatively close proximity to the conservation area. Noise sources which would be audible at the conservation area could include the loading dock activities, on-site traffic, and mechanical equipment associated with the casino and hotel complex. Ambient noise level data collected in the vicinity of the interface of the conservation area and casino site indicate that measured background levels ranged from 42 to 65 dB Leq. Noise generated by the on-site noise sources is not expected to significantly exceed the measured existing ambient noise levels in this area. As a result of the elevated background noise levels in this area no significant noise consequences are identified for the conservation area as a result of the Reduced Intensity Alternative.

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Hazardous Materials

The impact assessment below hazardous materials a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul Indian Village Final EIS impact assessment of the Alternative A Variant was found to be generally applicable to the Reduced Intensity Alternative due to similar scale, uses, location, and timing of the development. A modification of the Jamul Indian Village Final EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

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Existing Sources

There is no reportable hazardous materials contamination in or near the project area. Therefore, implementation of this alternative is not expected to cause the environment or public to be affected by hazardous materials.

Construction

During grading and construction the use of hazardous materials would include substances such as gasoline, diesel fuel, motor oil, hydraulic fluid, solvents, cleaners, sealants, welding flux, various lubricants, paint, and paint thinner. These materials would be used for the operation and maintenance of equipment, and directly in the construction of the facilities. Standard precautions, as described for the Preferred Alternative, would be taken including storage and handling protocols to reduce the potential for accidental releases.

The most likely possible incidents would involve the dripping of fuels, oil, and grease from construction equipment, and during handling and transfer from one container to another. The small quantities of fuel, oil, and grease that may drip would have low relative toxicity and concentrations. Typical construction management practices limit and often eliminate the effect of such accidental releases. An accident involving a service or refueling truck would present the worst-case scenario for the release of hazardous materials. Depending on the relative hazard of the hazardous material, if a spill were to occur of significant quantity, the accidental release could pose both a hazard to construction employees as well as the environment. This effect is potentially significant.

Equipment used during grading and construction activities may create sparks that could ignite dry grasses and weeds on the project sites. During construction, the use of power tools and acetylene torches may also increase the risk of fire. This risk is potentially significant.

Mitigation has been included within **Section 3.11.3** to reduce the significance of the hazardous materials effects of the Reduced Intensity Alternative.

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Operation

Compliance with OSHA regulations would reduce the potential risk associated with the storage, use, and handling of toxic and flammable substances during operation of the facilities included under the Reduced Intensity Alternative.

The majority of waste produced would be nonhazardous. The small quantities of hazardous materials that would be generated would include motor oil, hydraulic fluid, solvents, cleaners, lubricants, paint, and paint thinner. These materials would be generated from the use and maintenance of the sewage treatment facility, fire station, casino, emergency generators, and other project facilities. The amount and type of hazardous materials that would be generated are common to commercial sites and do not pose unusual storage, handling or disposal issues.

Diesel fuel storage tanks would be needed for the operation of emergency generators provided for the casino and other facilities. The fuel tanks will be housed above ground within the individual generator units. The largest generators will have storage tanks of approximately 1,000 gallons. The storage tanks will have double walls with integrated leak detection systems. If a leak were to occur within the inner tank, the outer tank would contain the leak, while a pressure sensor would signal the leak on the indicator panel of the generator unit. Security personnel would monitor the generator units. Security personnel would be on site at all times and will be trained in emergency response procedures. The generators will be located in areas that are easily accessed by maintenance and emergency personnel, near the service entrance/loading docks of these facilities.

Based upon the amount and type of hazardous materials that would be stored, used, and generated during operation of this alternative, effects to the environment or public are considered to be less than significant.

NO ACTION ALTERNATIVE

Visual Resources

No change in land uses on the project site would occur under the No Action Alternative. As such, the visual environment would remain the same and no effect would occur.

Noise

The No Action Alternative would result in a continuation of existing uses on the project site. As such, the No Action Alternative would not increase the ambient noise environment through construction or operation of facilities. No effect would result under the No Action Alternative.

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Hazardous Materials

There is no reportable hazardous materials contamination in or near the project area. Existing uses on the project site would continue under the No Action Alternative. No effects to hazardous materials would result from the No Action Alternative.

3.11.3 MITIGATION

VISUAL RESOURCES

The following mitigation measures would reduce the magnitude of the effects to visual resources:

A. Lighting for exterior illumination will be downcast, so as to avoid glare overflowing off-site.

B. Illuminated signage will be limited to the northern side of the project site.

C. The proposed casino hotel complex would incorporate native building materials, sensitive architecture, and earth tones of paint to blend with the landscape.

NOISE

On-Site Traffic Flow and Parking Noise Consequences

The following mitigation will reduce the identified potentially significant impacts to a less than significant level:

A. Bus drivers should turn off busses when not in use to reduce idling noise.

B. The parking garage should include barriers to a height of four feet on the north, south and west sides of the structure

HAZARDOUS MATERIALS

The following mitigation will reduce the identified potentially significant impacts to a less than significant level:

A. Personnel will follow written standard operating procedures (SOPs) for filling and servicing construction equipment and vehicles. The SOPs, which are designed to reduce the potential for incidents involving the hazardous materials, will include the following:

1. Refueling would be conducted only with approved pumps, hoses, and nozzles.
2. Catch-pans would be placed under equipment to catch potential spills during servicing.

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3. All disconnected hoses would be placed in containers to collect residual fuel from the hose.
4. Vehicle engines would be shut down during refueling.
5. No smoking, open flames, or welding would be allowed in refueling or service areas.
6. Refueling would be performed away from bodies of water to prevent contamination of water in the event of a leak or spill.
7. Service trucks would be provided with fire extinguishers and spill containment equipment, such as absorbents.
8. Should a spill contaminate soil, the soil would be put into containers and disposed of in accordance with local, state, and federal regulations.
9. All containers used to store hazardous materials would be inspected at least once per week for signs of leaking or failure. All maintenance and refueling areas would be inspected monthly. Results of inspections would be recorded in a logbook that would be maintained onsite.
10. Staging areas, welding areas, or areas slated for development using spark-producing equipment would be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor will keep these areas clear of combustible materials in order to maintain a firebreak.
11. Any construction equipment that normally includes a spark arrester will be equipped with an arrestor in good working order.

B. The amount of hazardous materials used in project construction and operation will be consistently kept at the lowest volumes needed.

C. The least toxic material capable of achieving the intended result are consistently used to the extent practicable.

D. A hazardous materials and hazardous waste minimization program shall be developed, implemented, and reviewed annually by the Tribe to determine if additional opportunities for hazardous materials and hazardous waste minimization are feasible, for both project construction and operation.

E. The contractor will be requested to minimize the use of hazardous materials during the project's construction to the fullest extent practicable.

F. Minimize use of pesticides and toxic chemicals to the greatest extent feasible in landscaping or using less toxic alternatives.

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3.12 ENVIRONMENTAL JUSTICE

3.12.1 ENVIRONMENTAL SETTING

POLICY/REGULATORY CONSIDERATIONS

Executive Order 12898 requires federal agencies to develop an Environmental Justice Strategy that addresses disproportionately high and adverse human health or environmental effects associated the implementation of the programs, policies and activities on minority and low-income populations. A detailed description of the Executive Order 12898 is incorporated by reference form **Section 3.11** of the Jamul Indian Village Final EIS, page 3-93.

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AFFECTED ENVIRONMENT

Demographic information for San Diego County Census Tracts 213.03 and 213.04 was selected to provide a representation of the affected environment. These areas are undoubtedly somewhat larger than the affected area, but are closely associated. A detailed description of how census tracts are utilized and designed is incorporated by reference form **Section 3.11** of the Jamul Indian Village Final EIS, page 3-95.

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RACE

According to the 2000 Census, the majority of San Diego County residents are white. The population surrounding the project site (ie Census Tracts 213.03 and 213.04) is approximately 96 percent white. A detailed description of the racial composition of the population residing in the affected area is included in the Jamul Indian Village Final EIS and incorporated by reference from **Section 3.11**, page 3-95.

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INCOME

Although the Census does not contain information for Jamul Indian Village census division, other sources report that the Tribe has a 78 percent unemployment rate as opposed to 6.3 for the County of San Diego in 1995. Additional statistics indicate that the economic status of the Tribe is well below that of the affected area and San Diego County. A detailed description of the income levels for the Tribe and affected area is included in the Jamul Indian Village Final EIS and incorporated by reference from **Section 3.11**, page 3-95.

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3.12.2 ENVIRONMENTAL CONSEQUENCES

According to the Council and Environmental Quality's *Environmental Justice Guidance Under the National Environmental Policy Act*, low-income populations in an affected area should be identified with the poverty thresholds from the Census Bureau. Minorities are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic Origin; or Hispanic. Minority populations should be identified where

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either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

A significant environmental justice effect would result if it results in a disproportionately high, adverse effect to minority and low-income populations if such an effect occurs with greater frequency for these populations than for the general population as a whole.

PREFERRED PROJECT

The impact assessment below for environmental justice contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul Indian Village Final EIS impact assessment of Alternative A was found to be generally applicable to the Preferred Project due to similar scale, uses, location, and timing of the development. A modification of the Jamul Indian Village Final EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

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> In order to determine whether a proposed action is likely to have disproportionately high and adverse effects, agencies must identify a geographic scale for which they will obtain demographic information. In this case, San Diego County Census Tracts 213.03 and 213.04 were selected, as these areas are most closely associated with the affected environment. Smaller block groups within these tracts were also examined. Unincorporated San Diego County and the Jamul Census Designated Place (CDP) were also examined for comparison.
>
> The Preferred Project has the potential to result in the range of environmental effects described in Sections 3.2 through 3.11 above. However, according to the U.S. Census, with the exception of members of the Jamul Indian Village itself, there are no low-income or minority populations within the affected area. All of the geographic areas of measurement have higher household incomes and lower poverty rates than the county as a whole. Therefore, the project would not result in environmental justice effects.
>
> The Jamul Indian Village has a very high percentage of low-income and minority tribal members, the majority of which are Native American. While it could be argued that the project would result in disproportionate effects to this community, as the intensity of development would be greatest on site, such an argument would not be consistent with the spirit and intent of *Executive Order 12898*, which instructs federal agencies to consider environmental justice effects prior to approving projects being proposed in low-income and minority areas. In this case, the project proponent is the minority and low-income community that is asking for project approval. The purpose and need for the Preferred Project is to improve the overall economic conditions and quality of life of the Tribe. No adverse environmental justice effects are anticipated.

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REDUCED INTENSITY ALTERNATIVE

The impact assessment below for environmental justice contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul Indian Village Final EIS impact assessment of the Alternative A Variant was found to be generally applicable to the Reduced Intensity Alternative due to similar scale, uses, location, and timing of the development. A modification of the Jamul Indian Village Final EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

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> The Reduced Intensity Alternative has the potential to result in the range of environmental effects described in Sections 3.2 through 3.11 above. However, according to the U.S. Census, with the exception of members of the Jamul Indian Village itself, there are no low-income or minority populations within the affected area. All of the geographic areas of measurement have higher household incomes and lower poverty rates than the county as a whole. Therefore, the project would not result in environmental justice effects.
>
> The Jamul Indian Village has a very high percentage of low-income and minority residents, the majority of which are Native American. While it could be argued that the project would result in disproportionate effects to this community, as the intensity of development would be greatest on site, such an argument would not be consistent with the spirit and intent of *Executive Order 12898*, which instructs federal agencies to consider environmental justice effects prior to approving projects being proposed in low-income and minority areas. No adverse environmental justice effects are anticipated as a result of the Reduced Intensity Alternative.

NO ACTION ALTERNATIVE

Under the No Action Alternative, none of the effects identified for the Preferred Project or Reduced Intensity Alternative would occur. The site would continue to support existing land uses.

3.12.3 MITIGATION

No mitigation is required.

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3.13 GROWTH-INDUCING EFFECTS

3.13.1 INTRODUCTION

A growth inducing effect can be defined as an effect that fosters economic or population growth, or the construction of additional housing, either directly or indirectly. Direct growth inducement could result, for example, if a project involved the construction of new housing. Indirect growth inducement could result if a project established substantial new permanent employment opportunities (e.g., new commercial, industrial, or governmental enterprises) or if it would remove obstacles to population growth (e.g., expansion of a waste water treatment plant that could allow more construction in the service area).

3.13.2 ENVIRONMENTAL CONSEQUENCES

PREFERRED PROJECT

The impact assessment below for growth inducing effects contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul Indian Village Final EIS impact assessment of Alternative A was found to be generally applicable to the Preferred Project due to similar scale, uses, location, and timing of the development. A modification of the Jamul Indian Village Final EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

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The proposed casino and hotel complex is expected to result in both temporary and permanent employment. An estimated 939 temporary construction jobs would be created in the development of the facilities. Employment is estimated to be 1,827 following construction of Phase A and 1,915 following construction of Phase B. It has been estimated that 50 percent of the total permanent jobs would be new jobs – jobs created in the economy rather than lateral shifts from one job to another without labor force replacement. The total *new* permanent jobs that would be created are therefore estimated to be 914 following construction of Phase A increasing to 958 following construction of Phase B. It is estimated that only five percent of the casino and hotel employees would come from the Jamul Subregional Area (SRA), due to the limited number of available employees and the limited amount of housing. The remaining 95 percent of employees would come from other residential areas, primarily from the east and southeast suburban areas.

Employees can be expected to occupy vacant housing units available within the region, primarily in the East and South Suburban residential areas where 10,709 vacant units are estimated to be available. SANDAG has estimated that, in addition to the 10,709 vacant units currently available, the East and South Suburban areas will experience a significant amount of residential growth – a total of 108,927 units by 2020. The existing vacant units coupled

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with the projected growth in residential units is expected to accommodate the indirect and induced employment generated from the casino and hotel.

A higher jobs/housing ratio can be expected to increase marginally in the short term, however this is not seen as adverse, due to the currently low jobs/housing ratio in the Jamul Subregional Area. Additionally, it can be assumed that the development of any additional housing within San Diego County would be subject to approval by County land use plans and ordinances. The County would determine the consistency of proposed housing development with the goals and policies of the San Diego County General Plan. Therefore, the proposed casino and hotel development would not likely induce "disorderly" residential growth within San Diego County either directly or indirectly.

The creation of temporary and permanent jobs is expected to result in increased demand for goods and services, which may result in commercial growth within San Diego County. Demand for goods and services is expected to be most significant in the East and South Suburban areas where the majority of employees are expected to reside. As discussed in **Section 3.7**, SANDAG has forecasted that the East and South Suburban areas will experience an estimated growth in population of 361,631 by 2020. The employees of the casino and hotel development would constitute only a small portion of total growth in population expected. Additionally, commercial growth within the East and South Suburban areas and other areas of San Diego County are to occur over a wide geographic area, supporting existing businesses as well as new businesses. It is assumed that commercial development within San Diego County would be subject to approval by County land use plans and ordinances. Therefore, the proposed casino and hotel development would not likely induce "disorderly" commercial growth within San Diego County either directly or indirectly.

REDUCED INTENSITY ALTERNATIVE

The impact assessment below for growth-inducing effects contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul Indian Village Final EIS impact assessment of the Alternative A Variant was found to be generally applicable to the Reduced Intensity Alternative due to similar scale, uses, location, and timing of the development. A modification of the Jamul Indian Village Final EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

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Under the Reduced Intensity Alternative, the casino and hotel complex is expected to result in both temporary and permanent employment, although to a lesser extent than is anticipated under the Preferred Project. Perhaps as few as half of the estimated 939 temporary construction jobs estimated for the Preferred Project would be created. Total permanent employment would also be reduced relative to the Preferred Project. Perhaps as few as half of the 1,827 jobs estimated for Phase A and 1,915 jobs estimated for Phase B would be created. As with the Preferred Project, it is estimated that 50 percent of the total permanent

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jobs would be new jobs – jobs created in the economy rather than lateral shifts from one job to another without labor force replacement. The total *new* permanent jobs that would be created could therefore be as few as 457 following construction of Phase A increasing to 479 following construction of Phase B. As with the Preferred Project, it is estimated that only five percent of the casino and hotel employees would come from the Jamul Subregional Area (SRA), due to the limited number of available employees and the limited amount of housing. The remaining 95 percent of employees would come from other residential areas, primarily from the east and southeast suburban areas.

Employees can be expected to occupy vacant housing units available within the region, primarily in the East and South Suburban residential areas where 10,709 vacant units are estimated to be available. SANDAG has estimated that, in addition to the 10,709 vacant units currently available, the East and South Suburban areas will experience a significant amount of residential growth – a total of 108,927 units by 2020. As with the Preferred Project, the existing vacant units coupled with the projected growth in residential units is expected to accommodate the indirect and induced employment generated from the casino and hotel.

As with the Preferred Project, a higher jobs/housing ratio would result marginally in the short term, however this is not seen as adverse, due to the currently low jobs/housing ratio in the Jamul Subregional Area. Additionally, the development of any new housing within the County would be subject to approval by the County. The County would determine the consistency of proposed housing development with the goals and policies of the San Diego County General Plan. Therefore, the casino and hotel development under the Reduced Intensity Alternative would not likely induce "disorderly" residential growth within San Diego County either directly or indirectly.

The creation of temporary and permanent jobs is expected to result in increased demand for goods and services, which could result in commercial growth within San Diego County, although to a lesser extent than under the Preferred Project. Demand for goods and services is expected to be most significant in the East and South Suburban areas where the majority of employees are expected to reside. SANDAG has forecasted that the East and South Suburban areas will experience an estimated growth in population of 361,631 by 2020. The employees of the casino and hotel development would constitute only a small portion of total growth in population expected. Additionally, commercial growth within the East and South Suburban areas and other areas of San Diego County are to occur over a wide geographic area, supporting existing businesses as well as new businesses. Commercial development within the County would be subject to approval by the County and must be found consistent with County land use plans and ordinances. Therefore, the casino and hotel development under the Alternative would not likely induce "disorderly" commercial growth within San Diego County either directly or indirectly. Overall, the growth-inducing effects of the project would be reduced under this alternative as compared to the larger Preferred Project.

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NO ACTION ALTERNATIVE

The No Action Alternative would not result in economic growth for the Jamul Indian Tribe. As such, no jobs would be created resulting in the potential need for housing and spurring the growth in commercial development. No effect would result.

3.13.3 MITIGATION

No mitigation is required.

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3.14 CUMULATIVE EFFECTS

3.14.1 INTRODUCTION

Cumulative effects analysis broadens the scope of analysis to include effects beyond those solely attributable to the implementation of the alternatives. Cumulative effects are defined as the effects:

> on the environment which result from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions regardless what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time (40 CFR Sec. 1508.7).

The analysis in this section expands the geographic and temporal borders to include the effects on specific resources, ecosystems, and human communities that occur incrementally in conjunction with other actions, projects and trends.

The cumulative analysis begins with: 1) identifying past, present, and future actions and projects in association with the status of the resources, ecosystems, and human communities that may be affected, and 2) defining geographic borders and time frame of the analysis.

This cumulative analysis of the Preferred Project and alternatives is tiered from the analyses contained within the Jamul Indian Village EIS. The Jamul Indian Village Final EIS compiled a list of related projects with consultation with the San Diego Department of Public Works, San Diego Department of Planning and Land Use, Caltrans, and the San Diego Association of Governments (SANDAG). The status of affected resources is based upon the information provided in the setting discussion of each resource area, from specific resource studies that have been undertaken for the alternatives analyzed within the Jamul Indian Village Final EIS, and additional review and analysis.

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The geographic boundaries of the cumulative effects zone have been determined by the nature of the resources affected and the distance that effects may travel. As an example, increased sedimentation of waterways that result from a project are limited to the watershed in which they occur. As a result, it is only necessary to examine incremental effects within that watershed. Air quality emissions from a project, however, travel over far greater distances and therefore necessitate analysis on a county, air basin, or regional level. For this analysis, the geographic boundaries of the cumulative effects zone is generally that of San Diego County, although with many resources (water, biological etc.) smaller natural or cultural boundaries are used.

The time frame of the cumulative effects analysis extends to 2020. This date was chosen as it corresponds with the time frame of SANDAG's *2020 Regional Transportation Plan* (RTP) at the

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time the Jamul Indian Village Final EIS was drafted. Beyond 2020, information on growth patterns and future activities becomes scarce and uncertainties increase, limiting the usefulness of such analysis. For many resources, information is unavailable to extend meaningful analysis to 2020; however, attempts have been made to provide all relevant information.

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LIST OF RELATED ACTIONS AND PROJECTS

The cumulative analysis is based on a list of actions and projects that are expected to affect the project related impacts. This analysis incorporates the same list contained within the Jamul Indian Village Final EIS. This list includes three roadway improvement projects, the development of a high school approximately 4 miles form the project site, and two residential housing development projects that would result in the addition of 632 single family homes within 2 miles of the project site. A detailed description of these projects and their location is included in the Jamul Indian Village Final EIS and incorporated by reference from **Section 4.13**, page 4.13-2 through 4.13-4.

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3.14.2 ENVIRONMENTAL CONSEQUENCES

PREFERRED PROJECT

The cumulative impact assessment below contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul Indian Village Final EIS impact assessment of Alternative A was found to be generally applicable to the Preferred Project due to similar scale, uses, location, and timing of the development. A modification of the Jamul Indian Village Final EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

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Land Resources

The key topographic features of the project site would be preserved under this alternative. Soil erosion would be minimized through incorporation of the Erosion Control Plan. No significant mineral resources are known to exist on the project site. Cumulative effects are therefore considered to be less than significant.

Water Resources

Due to the project features incorporated into the project, including the Erosion Control Plan and the wastewater treatment facility, Alternative A would not have significant cumulative effects on water quality when it is combined with cumulative conditions in the project area.

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Air Quality

Emissions and air quality impacts of the Preferred Project would occur primarily as a result of construction activities and traffic generated. As construction activities and traffic counts for the Preferred Project would be slightly less than Alternative A analyzed in the Jamul Indian Village Final EIS, it can be assumed that air quality emissions would also be slightly reduced.

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This cumulative air quality assessment focuses on the long-term operational effects of the Preferred Project on ozone, PM_{10}, and CO. For ozone and PM_{10}, which are generally regional pollutants, the cumulative air quality effects of the Preferred Project have been assessed by comparing the incremental emissions associated with the Preferred Project to county-wide emissions forecasted by the California Air Resources Board (CARB) for long-term 2020 background conditions. On-road vehicle emissions account for a significant portion of the emissions inventory of CARB. Because the forecasted 2020 emissions inventory of CARB includes the effects of projected growth in the region associated with increase in population and construction of new residential/commercial developments, it is assumed that the regional inventory emission levels shown in **Table 3.14-1** include the effects from the related projects discussed above.

TABLE 3.14-1
PROJECT-RELATED EMISSIONS AS A PERCENT OF COUNTY TOTAL
YEAR 2020 CONDITIONS (TONS PER DAY)

Emission Categories	No Project Alternative	Preferred Project
Reactive Organic Gases		
Project- Related Emissions	0.00	5.46
County- Wide Total	248	248
Project Percent of Total	0.000%	0.006%
Nitrogen Oxides		
Project- Related Emissions	0.00	6.07
County- Wide Total	164	164
Project Percent of Total	0.000%	0.010%
Inhalable Particulates (PM_{10})		
Project- Related Emissions	0.00	12.6
County- Wide Total	150	150
Project Percent of Total	0.000%	0.023%

SOURCE: URBEMIS 2002 Emissions Model for 2020 Preferred Project emissions, Michael Brandman Associates, and California Air Resources Board website http://www.arb.ca.gov/app/emsinv/fcemssumcat.html for 2020 county-wide forecasts.

For CO, which is generally a localized microscale pollutant, the cumulative air quality effects of the Preferred Project have been assessed by a procedure described in the *Transportation Project-Level Carbon Monoxide Protocol (Protocol)* (Garza, *et al*, 1997), and discussed more

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completely in Section 3.4 of this Environmental Evaluation, that ascertains effects of a project on level of service of intersections. According to the *Protocol*, projects that would result in operation of a signalized intersection worsening from LOS D or better to LOS E or F or the worsening of a signalized intersection already operating at LOS E or F are considered to have the potential for resulting in a significant CO air quality impact.

Ozone Precursor and PM_{10} Emissions Generated by Operation of the Preferred Project – Long-Term 2020 Conditions

Operation of the Preferred Project during long-term 2020 conditions would result in the generation of ROG, NO_X, and PM_{10} emissions. **Table 3.14-1** presents an estimate of these operational emissions. Operation of the Preferred Project is estimated to result in 5.5 tpy of ROG, 6.1 tpy of NO_X, and 12.6 tpy of PM_{10} emissions.

As shown in **Table 3.14-1,** ozone precursor and PM_{10} emissions associated with the Preferred Project would represent less than 0.03% of the county-wide total. Because the incremental effect of this alternative is a small portion of the countywide total, this effect is considered less than significant.

Carbon Monoxide Hot Spots Generated by Operation of the Preferred Project – Long-Term 2020 Conditions

An initial screening using the procedures of the potential impact of the Preferred Project was conducted. The screening procedures were applied to traffic analysis results presented in this Environmental Evaluation for Year 2020 conditions. The traffic analysis presents peak hour LOS at study intersections. Both the LOS results, and a comparison of LOS with and without the proposed project, are used to determine whether CO concentrations in excess of the air quality standards would occur.

As shown in the *Transportation* section of this Environmental Evaluation and in the Final Supplemental Traffic Impact Analysis (MRO Engineers, 2006), all of the study intersections would operate at, or will be mitigated to, LOS D or better under 2020 conditions with the Preferred Project. Based on the *Protocol*, the cumulative conditions of the Preferred Project is considered to not have the potential for resulting in a significant CO air quality impact. Therefore, this impact is considered less-than-significant. No mitigation measures are required.

Biological Resources

The purpose of this assessment is to analyze the potential cumulative effects of the Preferred Project on biological resources including wildlife and habitats, state and federally listed species, migratory birds, and jurisdictional "waters of the U.S.".

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San Diego County MSCP Subarea Plan

The majority of development under the Preferred Project would occur completely within the boundaries of the existing Jamul Indian Village. However, the location of the fire station under Fire Protection Option 2 would take place within a segment of the MSCP Subarea Plan designated as developable, where "take" is authorized. Therefore, the Preferred Project is not anticipated to result in significant cumulative effects to the San Diego County MSCP Subarea Plan. The 4-acre parcel that contains the access point for Option 1 vehicle access would not experience additional development beyond the paved roadway.

Wildlife and Habitats

The Preferred Project is not anticipated to result in significant direct or indirect effects to wildlife and habitats. However, disturbance to habitats and increases in human activity within the proposed project area could incrementally contribute to past, present and future effects to wildlife and habitats within the project vicinity.

Given the existing degraded condition of habitats within proposed development areas, and the level of human activity currently existing within the project vicinity, the Preferred Project is not anticipated to result in significant cumulative effects to wildlife and habitats.

Federally and State Listed Species

The Preferred Project will not involve direct effects to any federal or state listed species and potential indirect effects will be mitigated by implementation of the measures identified in **Section 3.5.3** of this document. Therefore, the Preferred Project is not anticipated to result in significant cumulative effects to federal or state listed species.

Migratory Birds

The Preferred Project is not anticipated to result in significant direct or indirect effects to nesting migratory birds. However, disturbance to habitats and increases in human activity within the proposed project area could incrementally contribute to past, present and future effects. Given the existing degraded condition of habitats within proposed development areas, and the level of human activity currently existing within the project vicinity, the Preferred Project is not anticipated to result in significant cumulative effects to nesting migratory birds.

Waters of the U.S.

The Preferred Project would not directly affect any "waters of the U.S." Adverse indirect effects to "waters of the U.S." would be avoided by the implementation of project features

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designed to prevent increased erosion and sedimentation. Therefore, the Preferred Project is not anticipated to result in significant cumulative effects to "waters of the U.S.".

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Cultural Resources

No impacts to historic properties would occur as the result of this undertaking. Therefore, no cumulative effects to cultural resources would occur as a result of the development of the Preferred Project.

Socioeconomic Conditions

The Preferred Project would introduce a new source of economic activity in San Diego County. The creation of jobs and increased sales tax revenue that would result from the project are considered to be beneficial effects. Public services that could potentially be affected include law enforcement, and transportation. Potential effects to these services will be offset from the Tribe's provision of the service, or financial reimbursement for the service. Effects to schools, libraries, and parks are expected to occur over a wide geographic area and would therefore be minor. Potential increased social costs associated with gambling (including lost productivity, increased theft, criminal prosecution and incarceration, therapy and social welfare) may occur, however, no significant cumulative socioeconomic effects are anticipated.

Transportation

This traffic analysis and its associated appendices are presented in its entirety within **Appendix D** of this Tribal EIS/R and **Appendix L** of this Jamul Indian Village Final EIS, and are hereby incorporated by reference within this section of the document. An explanation of the methodology used within the study, the trip generation of each alternative, and the standards of significance, are presented in **Section 3.8.2**. Background traffic conditions used in the modeling were obtained from the traffic study of the project alternatives. The 2020 conditions are based on the SANDAG Year 2020 Cities/County forecast, and the incorporation of the Preferred Project discussed above.

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Daily Roadway Segment Effects

To determine Long-term General Plan service levels on study area roadway segments, we compared the County of San Diego's and the SANTEC/ITE's adopted ADT thresholds and classifications for LOS, the daily capacity of the study area roadway segments, and the forecast volumes in the study area. The following roadway segments are forecast to operate at LOS E or worse in the near-term without any of the alternatives and without improvements:

- SR-94, Jamacha Road to Steele Canyon Road;

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- SR-94, Steele Canyon Road to Lyons Valley Road;
- SR-94, Lyons Valley Road to Maxfield Road;
- SR-94, Maxfield Road to Melody Road;
- SR-94, Melody Road to the Project Access Road;
- SR-94, Project Access Road to Honey Springs Road; and
- Lyons Valley Road, SR-94/Campo Road to Jefferson Road.

All remaining study roadway segments will operate at LOS D or better.

With the addition of the Preferred Project, the above listed roadway segments will experience higher delays and will be significantly affected by the addition of the project traffic with the exception of SR-94 from the Project Access Road to Honey Springs Road and Lyons Valley Road between SR-94 and Jefferson Road. The roadway segment of Lyons Valley Road between SR-94 and Jefferson Road will continue to operate at LOS E and will not be significantly affected due to the addition of project traffic. No mitigation measures are recommended.

The addition of the Preferred Project will also significantly effect the roadway segment of SR-94 from Jamacha Boulevard to Jamacha Road. Implementation of mitigation measures included in **Section 3.8.3** will ensure a less than significant effect would occur.

Peak Hour Intersection Effects

Long-term peak hour traffic volumes were derived from SANDAG's Rural Route 94 Corridor study and Year 2020 Cities/County forecasts. As a base condition, no intersection improvements are assumed other than those mentioned in the Near-Term scenarios. **Appendix D** of this Tribal EIS/R and **Appendix L** of the Jamul Indian Village Final EIS, contain the worksheets used in this analysis.

Table 3.14-2 shows that without the project and without any improvements (beyond those planned and scheduled to be in place by Year 2020), the following intersections would operate at LOS E or worse:

- SR-94 at Jamacha Boulevard;
- SR-94 at Jamacha Road;
- SR-94 at Cougar Canyon Road;
- SR-94 at Steele Canyon;
- SR-94 at Lyons Valley Road;

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- SR-94 at Jefferson Road; and
- SR-94 at Melody Road.

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Table 3.14-2 also shows that the addition of the Preferred Project will create higher delays and significantly effect all of the intersections listed above with the exception of the following:

- SR-94 at Jamacha Road; and
- SR-94 at Jefferson.

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Although these two intersections listed above will continue to operate at LOS E or worse, the addition of the project traffic will not increase intersection delay by more than two seconds; therefore no mitigation measures are recommended for these intersections. Additionally, significant intersection delays are expected at SR-94 with the Project Access Road. Implementation of the mitigation measures included in **Section 3.8.3** would ensure a less than significant effect would occur at the project impacted intersections.

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Public Services

San Diego County governs land use in the project vicinity. Allowable land uses are specified in applicable County documents. The County has discretionary authority regarding any potential changes to land uses in the project vicinity. Cumulative effects to public services would be less than significant because development of the project area would be accommodated by existing and planned public services.

San Diego County projects that the County's solid waste generation will increase from 3,190,760 tons per year in 1998 to 4,565,570 tons per year in 2020, a total increase of 1,374,810 tons per year. This projection is based on population forecasts, as determined by SANDAG, "which provide a reliable projection of future waste generation within the County (San Diego County, 1999)." SANDAG population projections are based on a detailed model that accounts for a variety of factors including, economic variables and domestic migration using historical data, the main interdependencies of the San Diego economy, population response to economic conditions using net migration levels, labor force, local employment, housing demand, housing unit permit authorizations, and school enrollment (SANDAG, 1999b). SANDAG's population projections are assumed to account for the above list of related actions and projects discussed. As noted in **Section 3.9**, the Preferred Project will generate 6.03 tons per day, or 2,200 tons per year. This constitutes approximately 0.16% of the projected increase.

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TABLE 3.14-2
LONG - TERM 2020 PEAK HOUR INTERSECTION CONDITIONS
PREFERRED PROJECT

Intersection	Without Project		With Project			
	Average Intersection Delay (sec.)	LOS	Average Intersection Delay (sec.)	LOS	Increase in Delay	Significant ?
Weekday AM Peak Hour						
SR-94 at Via Mercado	37.8	D	42.1	D	4.3	Yes+
SR-94 at Jamacha Boulevard	73.4	E	75.5	E	**2.1**	**Yes**
SR-94 at Jamacha Road/SR-54	71.8	E	73.0	E	1.2	No
SR-94 at Cougar Canyon Rd	77.3	E	78.9	E	1.6	No
SR-94 at Steele Canyon Rd	49.0	D	51.2	D	2.2	Yes+
SR-94 at Lyons Valley Road*	>100	F	>100	F	**>100**	**Yes**
SR-94 at Proctor Valley Road/Jefferson Road	123.2	F	124.3	F	1.1	No
SR-94 at Melody Road	48.7	E	>50	F	**>50**	**Yes**
SR-94 at Project Access Rd	N/A	N/A	40.6	E	**N/A**	**Yes**
Proctor Valley Rd at Melody Rd.*	8.6	A	9.7	A	1.1	No
Weekday PM Peak Hour						
SR-94 at Via Mercado	26.5	C	31.7	C	5.2	Yes+
SR-94 at Jamacha Boulevard	>100	F	>100	F	**>100**	**Yes**
SR-94 at Jamacha Road/SR-54	78.3	E	80.2	F	1.9	No
SR-94 at Cougar Canyon Road	79.3	E	>100	F	**>20.7**	**Yes**
SR-94 at Steele Canyon Rd	86.6	F	>100	F	**13.4**	**Yes**
SR-94 at Lyons Valley Rd*	>100	F	>100	F	**>100**	**Yes**
SR-94 at Proctor Valley Road/Jefferson Road	16.0	B	22.5	C	6.5	Yes+
SR-94 at Melody Road	31.6	D	>50	F	**>50**	**Yes**
SR-94 at Project Access Rd	N/A	N/A	>50	F	**N/A**	**Yes**
Proctor Valley Rd at Melody Rd.*	9.4	A	10.5	B	1.1	No
Saturday PM Peak Hour						
SR-94 at Via Mercado	23.7	C	24.3	C	0.6	No
SR-94 at Jamacha Boulevard	>100	F	>100	F	**>100**	**Yes**
SR-94 at Jamacha Road/SR-54	87.6	F	88.0	F	0.4	No
SR-96 at Cougar Canyon Road	8.5	A	23.0	C	14.5	Yes+
SR-94 at Steele Canyon Rd	35.7	D	79.1	E	**43.4**	**Yes**
SR-94 at Lyons Valley Rd*	>100	F	>100	F	**>100**	**Yes**
SR-94 at Proctor Valley Road/Jefferson Road	29.4	C	29.6	C	0.2	No
SR-94 at Melody Road	30.2	D	>50	F	**>50**	**Yes**
SR-94 at Project Access Rd	N/A	N/A	>50	F	**N/A**	**Yes**
Proctor Valley Rd at Melody Rd.*	8.6	A	10.0	1.4	1.1	No

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SOURCE: Katz Okitsu, 2002; MRO Engineers, 2006; AES, 2006.
NOTES: * Unsignalized, minor street stop control intersection. Delay is reported for the overall intersection and level of service is reported for the overall intersection and the worst case movement.
+ Although the impact is significant, the intersection will operate at LOS D or better, which is considered acceptable. No mitigation is required.

The County of San Diego Integrated Waste Management Plan's (CIWMP's) Siting Element plans for the development of additional landfill capacity to accommodate future solid waste

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generation. Specifically, the Siting Element assumes three new landfill facilities would be developed to serve the City of San Diego (opening in 2005), North San Diego County (opening in 2008), and South San Diego County (opening in 2010) (San Diego County, 1996). Plans are currently in place to provide increased disposal capacity through the expansion of the Sycamore Sanitary Landfill to serve the City of San Diego and the construction of the Gregory County Landfill to serve North San Diego County (Mohr, 2002; San Diego County, 1999). These plans are currently in the environmental review stage of development (Williams, 2002). Cumulative effects to solid waste service would be less than significant.

Visual Resources

The transformation of the Jamul valley began some time ago when San Diego County approved residential subdivisions and commercial development. The evidence of this transformation is evidenced by **Figure 1-2,** which shows the wide-scale transformation of the northern portion of the Jamul valley on either side of SR 94. The development of Simpson Farms, Steele Canyone High School, and Hidden Valley Estates will continue this urbanization trend. Future development under the County's General Plan will also contribute to this continuing transformation of the valley and surrounding area. The construction of the Procter Valley Road extension to Melody will open up a large area of undeveloped land southwest of the project site.

The County is attempting to temper the visual impacts by allowing for the transfer of densities thereby preserving large areas of open space that are situated in sensitive areas. The State also assists in the preservation of the visual character of the Jamul valley by preserving land within the wildlife refuge. The largest tract of this refuge immediately borders the Indian Village and encompasses thousands of acres south of the project site. However, the continuing visual transformation of the valley is and will continue to be a significant effect into the future.

The development of the Preferred Project would not result in development beyond the boundaries of the existing Jamul Indian Village, with the possible exception of a fire station south of Melody Road. Development of the Indian Village site would introduce a new urban feature south of Jamul; thereby, continuing the visual transformation of the Jamul Valley, which contributes to a significant cumulative visual effect.

Deleted: The adjacent 101 acres owned by the Tribe (**Figure 1-3**) will remain undeveloped, which will assist in preserving the southern boundary of urbanization that has currently been established by the County. The surrounding areas would remain open as is the case with the DFG refuge land immediately adjacent to the project site.

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Other Values

Noise

Table 3.14-3 contains the projected traffic noise level changes for Alternative A analyzed in the Jamul Indian Village Final EIS. As traffic counts for the Preferred Project and Alterative A are very similar, the projected noise level increases are assumed to be identical, with the exception of the roadway segment on Melody Road west of SR 94. According to the table, the project related traffic noise level increases are predicted to exceed 7 dB on Melody Road, between the previously proposed project site entrance and Highway 94. This increase would not occur with the Preferred Project, as the currently proposed site entrance is located along SR 94. Therefore the projected 7 dB increase in noise levels would occur on the segment of SR 94 between Melody Road and the project site. Because there are no existing residences along either of the potentially affected roadway segments, the predicted 7 dB increase would not constitute a significant environmental consequence.

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TABLE 3.14-3
PROJECT RELATED INCREASES IN TRAFFIC NOISE LEVELS
PREFERRED PROJECT

Roadway	From	Year 2020		
		No Project	Project	Change
Hwy 94	West of Jamacha Rd.	73	73	0
	East of Cougar Canyon	71	72	1
	West of Vista Sage Ln.	70	71	1
	North of Maxfield Rd.	67	69	2
	South of Melody Rd.	66	66	2
Jamacha Blvd.	South of Hwy 94	65	65	0
	North of Hwy 94	67	67	0
Steele Cyn Rd.	North of Hwy 94	60	60	0
Vista Diego Rd.	North of Hwy 94	61	62	1
Proctor Valley Rd.	South of Maxfield Rd.	58	58	0
	West of Whispering Meadows	56	58	2
Melody Rd.	East of Whispering Meadows Ln.	54	56	2
	West of Hwy 94	54	61	7
Hwy 94	South of Maxfield Rd.	66	69	3

SOURCE: Bollard & Brennan, Inc. using FHWA RD-77-108 with inputs from the Traffic Section and Caltrans; AES, 2006.

Hazardous Materials

There are no existing hazardous materials on the project site. This alternative would not use significant quantities of hazardous materials and mitigation has been defined to decrease any incidental spills to a less than significant level. Therefore, there are no significant cumulative hazardous materials issues associated with this alternative.

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REDUCED INTENSITY ALTERNATIVE

The cumulative impact assessment below for the Reduced Intensity Alternative contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul Indian Village Final EIS impact assessment of the Alternative A Variant was found to be generally applicable to the Reduced Intensity Alternative due to similar scale, uses, location, and timing of the development. A modification of the Jamul Indian Village Final EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

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Land Resources

The key topographic features of the project site would be preserved under this alternative. Soil erosion would be minimized through the Erosion Control Plan. No significant mineral resources are known to exist on the site. Cumulative effects are therefore considered to be less than significant.

Water Resources

Due to the features incorporated into the project, including the Erosion Control Plan and the wastewater treatment facility, this alternative would not have significant cumulative effects on water quality when it is combined with cumulative conditions in the project area.

Air Quality

Ozone Precursor and PM_{10} Emissions Generated by Operation of the Reduced Intensity Alternative– Long-Term 2020 Conditions

Operation of this alternative during long-term 2020 conditions would result in the generation of ROG, NO_X, and PM_{10} emissions. As with the Preferred Project, because the incremental effect of this alternative is a small portion of the countywide total, this effect is considered less than significant. Overall, cumulative adverse effects to air quality would be reduced under this alternative as compared to the larger Preferred Project.

Carbon Monoxide Hot Spots Generated by Operation of the Reduced Intensity Alternative – Long-Term 2020 Conditions

As shown in the *Transportation* section of this Environmental Evaluation and in the Final Supplemental Traffic Impact Analysis (MRO Engineers, 2006), all of the study intersections would operate at, or will be mitigated to, LOS D or better under 2020 conditions with the Reduced Alternative. Based on the *Protocol*, the cumulative conditions of the Reduced Alternative is considered to not have the potential for resulting in a significant CO air quality

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impact. Therefore, this impact is considered less-than-significant. No mitigation measures are required.

Biological Resources

San Diego County MSCP Subarea Plan

As with the Preferred Project, the majority of the development under the Reduced Intensity Alternative would occur completely within the boundaries of the existing Jamul Indian Village. However, the location of the fire station under Fire Protection Option 2 would take place within a segment of the MSCP Subarea Plan designated as developable, where "take" is authorized. Therefore, the Preferred Project is not anticipated to result in significant cumulative effects to the San Diego County MSCP Subarea Plan.

Wildlife and Habitats

The Reduced Intensity Alternative is not anticipated to result in significant direct or indirect effects to wildlife and habitats. However, disturbance to habitats and increases in human activity within the proposed project area could incrementally contribute to past, present and future effects to wildlife and habitats within the project vicinity.

Given the existing degraded condition of habitats within proposed development areas, and the level of human activity currently existing within the project vicinity, the Preferred Project is not anticipated to result in significant cumulative effects to wildlife and habitats.

Federal and State Listed Species

This alternative would not involve direct effects to any federal or state listed species and potential indirect effects would be mitigated by implementation of the measures identified in **Section 3.5.3** of this document. Therefore, it is not anticipated to result in significant cumulative effects to federally listed species.

Migratory Birds

This alternative is not anticipated to result in significant direct or indirect effects to nesting migratory birds. However, disturbance to habitats and increases in human activity within the project area could incrementally contribute effects when viewed in conjunction with past, present and reasonably foreseeable future projects. Given the existing degraded condition of habitats within subject development areas, the habitat preservation and enhancement elements of the Conservation and Revegetation Program, and the level of human activity currently existing within the project vicinity, the Reduced Intensity Alternative is not anticipated to result in significant cumulative effects to nesting migratory birds.

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Waters of the U.S.

The Reduced Intensity Alternative would not directly affect any "waters of the U.S." Adverse indirect effects to "waters of the U.S." would be avoided by the implementation of project features designed to prevent increased erosion and sedimentation. Therefore, the Reduced Intensity Alternative is not anticipated to result in significant cumulative effects to "waters of the U.S."

Cultural Resources

No impacts to historic properties would occur as the result of this undertaking. Therefore, no cumulative effects to cultural resources would occur as a result of the development of this alternative.

Socioeconomic Conditions

This alternative would introduce a new source of economic activity in the County. The creation of jobs and increased sales tax revenue are considered to be beneficial effects. Public services that could potentially be affected include law enforcement, and transportation. Potential effects to these services would be offset from the Tribe's provision of the service, or financial reimbursement for the service. Effects to schools, libraries, and parks are expected to occur over a wide geographic area and would therefore be minor. As with the Preferred Project, potential increased social costs associated with gambling may occur, however, no significant cumulative socioeconomic effects are anticipated.

Transportation

Daily Roadway Segment Effects

The following roadway segments are forecast to operate at LOS E or worse in the near-term without the project alternatives and without improvements:

- SR-94, Jamacha Road to Steele Canyon Road;
- SR-94, Steele Canyon Road to Lyons Valley Road;
- SR-94, Lyons Valley Road to Maxfield Road;
- SR-94, Maxfield Road to Melody Road;
- SR-94, Melody Road to the Project Access Road;
- SR-94, Project Access Road to Honey Springs Road; and
- Lyons Valley Road, SR-94/Campo Road to Jefferson Road.

All remaining study roadway segments will operate at LOS D or better.

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With the addition of the Reduced Intensity Alternative, the above listed roadway segments would experience higher delays and would be significantly affected by the addition of the project traffic with the exception of SR-94 from the Project Access Road to Honey Springs Road, and Lyons Valley Road between SR-94 and Jefferson Road. These roadway segments would continue to operate at LOS E and will not be significantly affected due to the addition of project traffic. No mitigation measures are recommended for these segments.

The addition of this alternative would also significantly affect the roadway segment of SR-94 from Jamacha Boulevard to Jamacha Road. Mitgation measures included in **Section 3.8.3** would ensure a less than significant effect would occur.

Peak Hour Intersection Effects

Without the project and without any improvements (beyond those planned and scheduled to be in place by Year 2020), the following intersections would operate at LOS E or worse:

- SR-94 at Jamacha Boulevard;
- SR-94 at Jamacha Road;
- SR-94 at Cougar Canyon Road;
- SR-94 at Steele Canyon;
- SR-94 at Lyons Valley Road;
- SR-94 at Jefferson Road; and
- SR-94 at Melody Road.

The addition of this alternative would create higher delays and significantly effect the intersections listed above with the exception of the following intersection:

- SR-94 at Jamacha Road and
- SR-94 at Jefferson Road.

Although the intersections listed above would continue to operate at LOS E or worse, the addition of the project traffic would not increase intersection delay by more than two seconds; therefore no mitigation measures are recommended at these locations. Additionally, significant intersection delays are expected at the intersection of SR-94 with the Project Access Road. Mitigation measures included in **Section 3.8.3** would ensure a less than significant effect would occur at the project impacted intersections

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Public Services

San Diego County has land use jurisdiction in the project vicinity. Allowable land uses are specified in applicable County documents. The County has discretionary authority regarding any potential changes to land uses in the project vicinity. As with the Preferred Project, cumulative effects to public services would be less than significant because development of the project area would be accommodated by existing and planned public services.

Visual Resources

The transformation of the Jamul valley began some time ago when San Diego County approved residential subdivisions and commercial development. The development of currently approved projects will continue this urbanization trend. Future development under the County's General Plan will also contribute to this continuing transformation of the valley and surrounding area. The construction of the Procter Valley Road extension to Melody will open up a large area of undeveloped land southwest of the project site.

The County is attempting to temper the visual impacts and the State also assists in the preservation of the visual character of the Jamul valley by preserving land within the wildlife refuge. However, the continuing visual transformation of the valley is and will continue to be a significant effect into the future.

The development of the Reduced Intensity Alternative would occur completely within the existing Jamul Indian Village with the possible exception of a fire station south of Melody Road.

Deleted: The 101 acres of adjacent Tribal property shown in **Figure 1-3** would remain undeveloped. This would assist in preserving the southern boundary of urbanization that has currently been established by the County.

Other Values

Noise

This alternative would result in changes in traffic noise levels during cumulative year (2020) conditions. As described for the Preferred Project, the project related traffic noise level increases are predicted to exceed 7 dB on SR 94, between the project site entrance and Melody Road. Because there are no existing residences along this roadway segment, the predicted increase along this segment would not constitute a significant environmental consequence.

Hazardous Materials

There are no existing hazardous materials on the project site. This alternative would not use significant quantities of hazardous materials and mitigation has been defined to decrease any incidental spills to a less than significant level. No significant cumulative hazardous materials issues are associated with this alternative.

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NO ACTION ALTERNATIVE

Under the No Action Alternative, no project-related activities would occur on the Jamul Indian Village. Therefore, the No Action alternative would not result in adverse cumulative effects.

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3.15 INDIRECT EFFECTS

The CEQ Regulations for Implementing NEPA (Section 1508.8) define indirect effects as impacts that are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Within this section, two categories of indirect effects are identified, effects from project implementation, and effects from off-site traffic mitigation. The effects of traffic improvement mitigation are treated within this document as indirect effects because of the distance between the various improvement sites and the project site.

3.15.1 INDIRECT EFFECTS FROM PROJECT IMPLEMENTATION

PREFERRED PROJECT

The indirect effects impact assessment below contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul Indian Village Final EIS impact assessment of Alternative A was found to be generally applicable to the Preferred Project due to similar scale, uses, location, and timing of the development. A modification of the Jamul Indian Village Final EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

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Potential indirect effects from implementation of the Preferred Project include impacts to water resources, biological resources, and resources use patterns. These effects are discussed below. No other indirect effects have been identified.

Water Resources

As discussed within **Sections 2.2A.3**, approximately 73,423 gallons per day of wastewater will be used at the Mesa Grande and/or Manzanita Reservation for irrigation purposes. This water transported to Mesa Grande would be treated to CCR Title 22 requirements for recycled water prior to leaving the casino facility. The wastewater is also expected to comply with federal drinking water standards and RWQCB Basin Plan objectives for nitrate and turbidity. Treated wastewater is expected to have less than 500mg/L of total dissolved solids (TDS) and less than 10mg/L of nitrate. Given the high quality of water resulting from the treatment process, a less than significant cumulative water resource impact would occur.

Wildlife habitat is considered to be a beneficial use of Jamul Creek, the drainage that receives surface water runoff from the project site. Jamul Creek lies partly within the Rancho Jamul Ecological Preserve owned by the California Department of Fish and Game to the south of the project site. A description of the habitat and listed species which exist in this area as well as potential effects resulting from an adverse change in the quality or quantity of surface water runoff is described in the following section on biological resources section. The use of

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best management practices and the detention facility would ensure that the wildlife habitat downstream will be protected as a beneficial use of Jamul Creek.

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Biological Resources

Wildlife and Habitats

Potential adverse indirect effects to wildlife and habitats associated with implementation of the Preferred Project include impacts resulting from the future increase of noise, vehicular traffic, and other human activity within the proposed project area, adverse impacts to wildlife as a result of lighting associated with the proposed project facilities, and degradation of downstream habitats as a result of an increase in polluted stormwater runoff.

Given the extent of existing habitat degradation within proposed development areas and the existing extent of human activity in the immediate vicinity (e.g. residences, roads, cattle grazing), the Preferred Project would not result in significant adverse indirect impacts to wildlife and habitats.

Potential indirect impacts resulting from increased vehicular traffic, lighting associated with proposed project facilities, and degradation of downstream habitats will be avoided or minimized by implementation of the mitigation measures identified in **Section 3.5.3.**

Federally Listed Species

The following discussion evaluates the potential indirect effects the Preferred Project may have on each federally listed species with a potential to be affected by activities within the proposed project area.

Coastal California Gnatcatcher

USFWS protocol-level surveys for coastal California gnatcatcher conducted by Pacific Southwest Biological Services during the 2000 and 2001 nesting seasons did not detect the presence of this species within the proposed project area. However, on the August 28, 2001 survey event, two coastal California gnatcatchers were observed approximately 50 feet south of the proposed project area. One bird was determined to be a male and the second was not sexed; it was not determined that these birds were nesting in the project vicinity.

Potential adverse indirect impacts to coastal California gnatcatcher associated with the Preferred Project will be avoided or minimized by implementation of the mitigation measures identified in **Section 3.5.3**. These measures were developed during consultation with the USFWS regarding the impacts to federally listed species as a result of the previously proposed Alternative A analyzed in the Jamul Indian Village Final EIS. However, due to the project location, and overall reduced footprint of the Preferred Project, these measures were determined to be sufficient to fully mitigate potential impacts of the Preferred Project as well.

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Quino Checkerspot Butterfly

USFWS protocol-level surveys conducted by Mooney & Associates in 2000 and 2001 for Quino checkerspot butterfly determined that the proposed project area is not occupied by this species. Development of the Preferred Project would occur in an area characterized by severely degraded habitat conditions and an absence of nectar sources and host plants typically associated with Quino checkerspot butterfly. Therefore, the Preferred Project is not anticipated to result in significant adverse indirect effects to Quino checkerspot butterfly.

Least Bell's Vireo

No suitable habitat for least Bell's vireo occurs within the proposed project area. However, suitable habitat for this species is present approximately 1.8 miles downstream of the proposed project area within Jamul Creek; the on-site intermittent drainage is ultimately tributary to this feature. Potential adverse indirect impacts to least Bell's vireo associated with the Preferred Project could result from degradation of downstream habitats as a result of an increase in polluted stormwater runoff. This potential indirect impact will be avoided or minimized by implementation of best management practices for stormwater runoff including vegetated swales and runoff infiltration devices, as identified in **Section 3.3** of this document.

Southwestern Arroyo Toad

No suitable habitat for southwestern arroyo toad occurs within the proposed project area. However, suitable habitat for this species has been identified along Jamul Creek, approximately 1.8 miles downstream of the proposed project area. The intermittent drainage occurring within the proposed project area is ultimately tributary to this area. Potential adverse indirect impacts to southwestern arroyo toad associated with the Preferred Project could result from degradation of downstream habitats as a result of an increase in polluted stormwater runoff. This potential indirect impact will be avoided or minimized by implementation of best management practices for stormwater runoff including vegetated swales and runoff infiltration devices, as identified in **Section 3.3** of this document.

San Diego Thorn Mint

Potentially suitable habitat for San Diego thorn mint occurs within the proposed project area. However, the majority of these areas are either developed or severely degraded as a result of cattle grazing and a botanical inventory conducted by Pacific Southwest Biological Services in April 2000 did not detect the presence of this species within the proposed project area.

The Preferred Project would not impact any existing populations of San Diego thorn mint within the proposed project area and would not result in the degradation of off-site potential

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habitat for this species. Therefore, the Preferred Project is not anticipated to result in significant adverse indirect effects to San Diego thorn mint.

State Listed Species

Four species with State status were determined to have a potential to occur on or around the fire station site: Least Bell's Vireo, Otay tarplant, San Diego Thorn Mint, and Yellow billed cuckoo.

Least Bell's Vireo

Potential habitat for the least Bell's vireo occurs within the project area, but not within the project site. The coast live oak riparian habitat occurring at the SR 94 / Melody Road Intersection is currently degraded from cattle ranching and generally lacks the habitat structure required by least Bell's vireo for foraging and nesting. The Project would not indirectly impact either habitat or species through operation of the facility. Therefore, it is not anticipated that the Project would result in adverse direct effects to least Bell's vireo at this location.

Otay Tarplant

The Study Area is outside of the designated critical habitat for Otay tarplant. While suitable habitat occurs with the Study Area and vicinity, the known range is over 10 kilometers to the southwest from the Study Area, according to the CNDDB. Therefore, the project would not indirectly impact Otay tarplant.

San Diego Thornmint

The nearest historic occurrence is over 3 kilometers to the northeast and southwest from the Study Area, according to the CNDDB. Potentially suitable habitat for San Diego thorn mint occurs within the Study Area. However, the majority of these suitable areas are either developed or severely degraded as a result of cattle grazing, thereby significantly limiting the potential for this species to occur. Therefore, indirect effects to San Diego Thornmint would not occur.

Yellow-Billed Cuckoo

The nearest reported occurrence is approximately 20 kilometers to the southwest from the Study Area, according to the CNDDB. The riparian habitat occurring at the SR 94 / Melody Road Intersection is currently degraded from cattle ranching and generally lacks the habitat structure required by this species for foraging and nesting. Given the extent of existing habitat degradation within the fire station site, it is unlikely that a significant adverse indirect impact to this species would result.

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Migratory Birds

Potential adverse indirect effects to nesting migratory birds associated with implementation of the Preferred Project include impacts resulting from the future increase of noise, vehicular traffic, and other human activity within the proposed project area, adverse impacts to potentially suitable nesting habitat as a result of lighting associated with the proposed project facilities, and degradation of downstream habitats as a result of an increase in polluted stormwater runoff.

Given the extent of existing habitat degradation within proposed development areas and the existing extent of human activity in the immediate vicinity (e.g. residences, roads, cattle grazing), it is unlikely that the Preferred Project would result in significant adverse indirect impacts to nesting migratory birds.

Potential indirect impacts resulting from increased vehicular traffic, lighting associated with proposed project facilities, and degradation of downstream habitats will be avoided or minimized by implementation of the mitigation measures identified in **Section 3.5.3**.

Waters of the U.S.

Potential adverse indirect effects to "waters of the U.S." associated with implementation of the Preferred Project include erosion and sedimentation due to soil disturbance associated with construction activities, removal of vegetation occurring along on-site drainages, or the future increase in stormwater runoff resulting from an increase in impermeable surfaces within the proposed project area.

The development of the Preferred Project would include the implementation of Best Management Practices (BMPs) and a Storm Water Pollution Prevention Plan (SWPPP) during construction to avoid or minimize the potential for the migration of disturbed soils into "waters of the U.S.". These measures would include the use of silt fences, fiber rolls, vegetated swales, and the stabilization of construction access areas with crushed aggregate. In addition, the Preferred Project would incorporate vegetative swales, sediment/grease traps, detention basins, riprap, and retaining walls. These features are anticipated to limit future erosion and sedimentation potential by allowing for groundwater infiltration, decreasing stormwater runoff velocities, and filtering surface runoff prior to release into on-site intermittent drainages. Therefore, the Preferred Project is not anticipated to result in significant adverse indirect effects to "waters of the U.S.".

Resource Use Patterns

The project would indirectly cause growth in the Jamul area as the result of the increase of jobs and commerce associated with the casino, hotel, and event center. These impacts are treated as growth-inducing impacts and therefore are discussed in **Section 3.13**.

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REDUCED INTENSITY ALTERNATIVE

The indirect effect impact assessment below contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul Indian Village Final EIS impact assessment of the Alternative A Variant was found to be generally applicable to the Reduced Intensity Alternative due to similar scale, uses, location, and timing of the development. A modification of the Jamul Indian Village Final EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

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Potential indirect effects from implementation of this alternative include impacts to resource use and biological resources and water resources. These effects are discussed below. No other indirect effects have been identified.

Water Resources

The disposal of treated wastewater off-site could affect groundwater. As with the preferred Project, this water would be treated to CCR Title 22 requirements for recycled water. The wastewater is also expected to comply with federal drinking water standards and RWQCB Basin Plan objectives for nitrate and turbidity. The RWQCB groundwater quality objectives for the Dulzura Hydrologic Area, in which the project site is located is 1000 mg/L of TDS and 10 mg/L of nitrates (RWQCB, 1998). The treated wastewater, is expected to meet these objectives. Please see the following section on biological resources for a discussion of potential surface water quality effects to down stream habitat and listed species.

Biological Resources

The purpose of this section is to analyze the potential indirect effects of the Preferred Project on biological resources including wildlife and habitats, federally listed species, migratory birds, and jurisdictional "waters of the U.S.".

Wildlife and Habitats

Potential adverse indirect effects to wildlife and habitats associated with implementation of this alternative include impacts resulting from the future increase of noise, vehicular traffic, and other human activity within the project area, a decrease in the amount of available wildlife habitat, adverse impacts to wildlife as a result of lighting associated with the proposed project facilities, and degradation of downstream habitats as a result of an increase in polluted stormwater runoff.

Given the extent of existing habitat degradation within the development areas and the existing extent of human activity in the immediate vicinity, it is unlikely that this alternative would result in significant adverse indirect impacts to wildlife and habitats.

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Potential indirect impacts resulting from increased vehicular traffic, lighting associated with proposed project facilities, and degradation of downstream habitats would be avoided or minimized by implementation of the mitigation measures identified in **Section 3.5.3.**

Federally Listed Species

The following discussion evaluates the potential indirect effects this alternative may have on federally listed species with a potential to be affected by activities within the project area.

Potential adverse indirect effects to coastal California gnatcatcher associated with implementation of this alternative include impacts resulting from decreased suitability of habitat in the project vicinity resulting from increased noise, vehicular traffic, and other human activity within the project area, impacts resulting from lighting associated with project facilities, and impacts resulting from construction noise associated with development of the project.

As with the Preferred Project, potential adverse indirect impacts to coastal California gnatcatcher associated with this alternative would be avoided or minimized by implementation of the mitigation measures identified in **Section 3.5.3.** These measures were developed during consultation with the USFWS regarding the impacts to federally listed species of Alternative A analyzed in the Jamul Indian Village Final EIS.

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USFWS protocol-level surveys for Quino checkerspot butterfly determined that the project area is not occupied by this species. Development of this alternative would occur in an area characterized by severely degraded habitat conditions and an absence of nectar sources and host plants typically associated with Quino checkerspot butterfly. Therefore, this alternative is not anticipated to result in significant adverse indirect effects to Quino checkerspot butterfly.

No suitable habitat for least Bell's vireo occurs within the project area. Suitable habitat for this species is present approximately 1.8 miles downstream of the project area within Jamul Creek. The on-site intermittent drainage is ultimately tributary to this feature. Potential adverse indirect impacts to least Bell's vireo associated with this alternative could result from degradation of downstream habitats as a result of an increase in polluted stormwater runoff. As with the Preferred Project, this potential indirect impact would be avoided or minimized by implementation of best management practices for stormwater runoff including vegetated swales and runoff infiltration devices, as identified in **Section 3.3** of this document.

No suitable habitat for southwestern arroyo toad occurs within the project area. However, suitable habitat for this species has been identified along Jamul Creek, approximately 1.8 miles downstream of the project area. The intermittent drainage occurring within the project area is ultimately tributary to this area. Potential adverse indirect impacts to southwestern

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arroyo toad associated with this alternative could result from degradation of downstream habitats as a result of an increase in polluted stormwater runoff. This potential indirect impact would be avoided or minimized by implementation of best management practices for stormwater runoff including vegetated swales and runoff infiltration devices, as identified in **Section 3.3** of this document.

Potentially suitable habitat for San Diego thorn mint occurs within the proposed area. However, this area is developed or severely degraded as a result of cattle grazing and a botanical inventory did not detect the presence of this species within the project area. The Reduced Intensity Alternative would not impact any existing populations of San Diego thorn mint within the project area and would not result in the degradation of off-site potential habitat for this species. Therefore, this alternative is not anticipated to result in significant adverse indirect effects to San Diego thorn mint.

Migratory Birds

Potential adverse indirect effects to nesting migratory birds associated with implementation of this alternative include impacts resulting from the future increase of noise, vehicular traffic, and other human activity within the project area, adverse impacts to potentially suitable nesting habitat as a result of lighting associated with the project facilities, and degradation of downstream habitats as a result of an increase in polluted stormwater runoff.

Given the extent of existing habitat degradation within proposed development area and the existing extent of human activity in the immediate vicinity, it is unlikely that this alternative would result in significant adverse indirect impacts to nesting migratory birds. Potential indirect impacts resulting from increased vehicular traffic, lighting associated with project facilities, and degradation of downstream habitats would be avoided or minimized by implementation of the mitigation measures identified in **Section 3.5.3**.

Waters of the U.S.

Potential adverse indirect effects to "waters of the U.S." associated with implementation of this alternative include erosion and sedimentation due to soil disturbance associated with construction activities, removal of vegetation occurring along on-site drainages, or the future increase in stormwater runoff resulting from an increase in impermeable surfaces within the project area.

The development of this alternative would include the implementation of Best Management Practices (BMPs) and a Storm Water Pollution Prevention Plan (SWPPP) during construction to avoid or minimize the potential for the migration of disturbed soils into "waters of the U.S.". These measures are anticipated to limit future erosion and sedimentation potential by allowing for groundwater infiltration, decreasing stormwater runoff velocities, and filtering surface runoff prior to release into the on-site intermittent drainage. Therefore, this

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alternative is not anticipated to result in significant adverse indirect effects to "waters of the U.S.".

Resource Use Patterns

The project would indirectly cause growth in the Jamul area as the result of the increase of jobs and commerce associated with the casino, hotel, and event center. These impacts are treated as growth-inducing impacts and therefore are discussed in **Section 3.13**. Overall, the increase in jobs and commerce and associated growth in the Jamul area would be reduced in relation to the larger Preferred Project.

NO ACTION ALTERNATIVE

No change in existing land uses would occur under the No Action Alternative. No indirect effects have been identified.

3.15.2 INDIRECT EFFECTS FROM OFF-SITE TRAFFIC MITIGATION

This section analyzes the effects resulting from the construction of traffic mitigation measures. The effects of implementing traffic improvements are treated within this document as indirect off-reservation effects due to the distance of the improvement sites from the project site. These improvements have been identified for effects discussed in **Sections 3.8** and **3.14**. It should be noted that, in the cumulative scenario, all of the existing intersections where improvements are recommended are expected to have deficient operations without the project. Mitigation for traffic effects would occur as fair share contributions to the intersection improvements, based upon the contribution of traffic by the project as a percentage of the total traffic volume at a given intersection. Implementation of the Preferred Project and the Reduced Intensity Alternative would entail improvements at five intersections, and the construction of an intersection with the project access driveway. The recommended improvements are identical for each alternative, therefore the environmental consequences are discussed simultaneously. The setting of these intersections is provided below along with a description of the improvements that would occur under the project alternatives. The setting discussion is followed by an analysis of the environmental effects resulting from the improvements.

SETTING

State Route 94 and Jamacha Boulevard

This intersection is characterized by its rural setting and steep topography. A natural drainage channel runs parallel to State Route 94 on the south side. The nearest development is the recently constructed Skyline Wesleyan Church located north of the intersection. West of Jamacha Boulevard to Avocado Boulevard, SR 94 is a four-lane expressway. East of Jamacha Boulevard to Jamacha Road, SR 94 has six lanes. At this

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intersection SR 94 has two eastbound lanes and three westbound lanes, and additional dedicated turning lanes. Jamacha Boulevard, which terminates at this intersection, has four travel lanes and an additional left turn lane at the intersection, and is characterized by residential and commercial development. The driveway to the church, which is directly opposite Jamacha Boulevard, has four lanes.

At the SR 94 / Jamacha Boulevard Intersection, topography is rolling, and an unnamed intermittent drainage runs east toward Sweetwater River. The setting is rural except for the recently constructed Skyline Wesleyan Church located north of the intersection. Habitats in the vicinity consist of ruderal and urbanized areas, annual grassland, coastal sage scrub, and coast live oak riparian. Naturally occurring soils in the vicinity of this intersection include Placentia sandy loam (PfC), Friant rocky fine sandy loam (FxG), Diablo Clay (DaE and DaD), and Huerhuero loam (HrD2). Road improvements on SR 94 are already in progress, and a massive sound wall is being constructed in conjunction with the road widening (new eastbound lane) from Via Mercado, past Jamacha Boulevard, to Jamacha Road.

Record searches have revealed the presence of a previously identified cultural resource site within the vicinity of the intersection. The intersection improvement site, while disturbed, is therefore considered to be sensitive with regards to cultural resources.

Under the Preferred Project and Reduced Intensity Alternative, improvements to this intersection would include an additional eastbound through lane and a northbound right turn lane. These improvements would entail the relocation and expansion of current facilities. It is expected that additional ROW would be needed along the south side of State Route 94 and along the east side of Jamacha Boulevard. In addition to widening the roadways and re-striping the existing lanes, curb and gutters, guardrails, signal poles and signal control boxes will need to be relocated. Utility lines or services encountered during construction may also need to be relocated.

State Route 94 and Cougar Canyon Road

This intersection provides access to the recently constructed Steel Canyon High School. The surrounding area is characterized by steep topography and primarily open space and residential land uses. SR 94 is a two-lane conventional highway with two turning lanes at this intersection. Cougar Canyon Road, which terminates at this intersection, has four lanes.

Habitats in the vicinity of the intersection consist primarily of landscaped areas associated with the Steel Canyon High School facilities, open roadside areas sparsely vegetated with non-native weedy species and a few native species, and riparian woodland

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habitat to the south of SR 94. Naturally occurring soil in the vicinity of the intersection, Ramona sandy loam (RaD2), has a moderate erosion hazard (USDA, 1973).

Record searches have revealed the presence of a previously identified cultural resource site within the vicinity of the intersection. The intersection improvement site, while disturbed, is therefore considered to be sensitive with regards to cultural resources.

Under the Preferred Project and Reduced Intensity Alternative, improvements at this intersection would consist of an additional eastbound through lane. It is anticipated that additional ROW would be recommended to provide for the relocation and expansion of the existing facilities. Utility lines or services encountered during construction may also need to be relocated.

State Route 94 and Steele Canyon Road

This intersection and the segment of Steele Canyon Road from SR 94 and Jamul Drive is characterized by commercial and residential land uses and steep topography. SR 94 is a two-lane conventional highway with one eastbound left turn lane. Steele Canyon Road, which terminates at this intersection, has two lanes. Improvements are currently in progress at this intersection to construct a two-way left turn lane, widen shoulders and improve SR 94 in the vicinity of the intersection and install a traffic signal. It is expected that these improvements will be completed by the end of 2002.

Habitats in the vicinity of the intersection and segment of Steele Canyon Road include sparsely vegetated roadside areas, orchard, scrub, and riparian woodland. Naturally occurring soil in the vicinity of the intersection, Ramona sandy loam (RaC), has a slight to moderate erosion hazard. Naturally occurring soil along the segment of Steele Canyon Road also include Vista course sandy loams (VsE and VsG), Fallbrook sandy loam (FaD2), and Placentia sandy loam (PfC), which have a slight to very high erosion potential (USDA, 1973).

Record searches have not revealed the presence of previously identified cultural resource sites within the immediate vicinity of the intersection and segment. However, due to the abundance of known cultural resource sites along Steele Canyon, the intersection improvement site is considered to be sensitive with regards to cultural resources.

Under the Preferred Project and Reduced Intensity Alternative, improvements at this intersection would consist of an additional eastbound through lane. It is anticipated that additional ROW would be recommended to provide for the relocation and expansion of the existing facilities. Utility lines or services encountered during construction may also need to be relocated.

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State Route 94 and Lyons Valley Road

This intersection is characterized by a variety of land uses, steep topography, and an adjacent drainage channel. Surrounding land uses include the Taproot Montessori Preschool directly south of the interchange, commercial land uses on the northeast and southwest corners, and residential uses in all directions. SR 94 is two-lane conventional highway with a two-way left turn lane. Lyons Valley Road is a two-lane road with a right turn "sneaker" lane at this intersection.

Habitats in the vicinity of the intersection consist primarily of disturbed roadside areas, coast live oak woodland, coastal sage scrub, and a riparian corridor associated with an intermittent drainage that flows southwest under SR 94. Naturally occurring soil in the vicinity of the intersection, Cieneba very rocky coarse sandy loam (CmrG), has a high to very high erosion hazard (USDA, 1973).

Record searches have revealed the presence of previously identified cultural resource sites within the vicinity of the intersection. The intersection improvement site, while disturbed, is therefore considered to be sensitive with regards to cultural resources.

Under the Preferred Project and Reduced Intensity Alternative, improvements at this intersection would consist of a southbound right turn lane; an eastbound left turn lane and the installation of a signal. It is expected that additional ROW would be recommended along the north and south side of State Route 94 and along the east side of Lyons Valley Road. In addition to widening the roadways to provide additional lanes, curb and gutters, and flag and light poles will need to be relocated. Utility lines or services encountered during construction may also need to be relocated.

State Route 94 and Melody Road

This intersection is adjacent to tribal property and just north of the project site. The intersection is characterized by rolling topography, rural residential land uses, and a drainage channel. The project site is located southwest of the intersection. Rural residential land uses exist east of the intersection. Both SR 94 and Melody Road have two lanes at this intersection.

Habitats in the vicinity of the intersection consist primarily of disturbed roadside areas and a riparian corridor associated with an intermittent drainage that flows south along the west side of SR 94. Naturally occurring soils in the vicinity of the intersection, Ramona sandy loam (RaC2) and Wyman loam (WmC) have a slight to moderate erosion hazard (USDA, 1973). Record searches, as well as field investigation on the adjacent 101-acre project site have revealed the presence of cultural resource sites within the vicinity of the intersection.

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Under the Preferred Project and Reduced Intensity Alternative, improvements at this intersection would consist of a northbound left-turn lane and one shared through/right-turn lane, a southbound dedicated left-turn lane and a shared through/right-turn lane, an eastbound dedicated left-turn lane and one shared through/right-turn lane, and the installation of a traffic signal. It is anticipated that additional ROW would be needed to provide for the relocation and expansion of the existing facilities. Existing curb and gutters and power poles would need to be relocated. Utility lines or services encountered during construction may also need to be relocated.

Proposed Intersection: State Route 94 and the Project Access Road

Option 1 and 2 access points are located adjacent to tribal property south of the intersection of State Route 94 and Melody Road. State Route 94 has two lanes at this location. Habitats in the vicinity of the sites consist primarily of disturbed roadside areas. Naturally occurring soils in the vicinity of the intersection, Ramona sandy loam (RaC2) and Fallbrook sandy loam (FaD2)) have a slight to moderate erosion hazard (USDA, 1973). Record searches, as well as field investigation on the adjacent site have revealed the presence of cultural resource sites within the vicinity of the intersection.

Under the Preferred Project and Reduced Intensity Alternative, the recommended intersections would require the installation of a traffic signal (required mitigation), and construction of a dedicated northbound left-turn lane and one through lane, a southbound free-flow right-turn lane and one through lane, and an eastbound dedicated left-turn lane and a shared left/right turn lane. Existing curb and gutters and power poles would need to be relocated. Utility lines or services encountered during construction may also need to be relocated.

Improvements

Intersection improvements recommended under this alternative are listed in **Table 3.15-1**. A total of three intersections would need improvements as the result of Phase A, while a total of five intersections would need improvements as the result of Phase B.

ENVIRONMENTAL CONSEQUENCES OF TRAFFIC IMPROVEMENTS

The indirect effects impact assessment of traffic improvements below contains a modified version of information originally published in the Jamul Indian Village Final EIS. The Jamul Indian Village Final EIS impact assessment of Alternative A was found to be generally applicable to the Preferred Project and Reduced Intensity Alternative due to common traffic improvement measures, location, and timing of construction. A modification of the Jamul Indian Village Final

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EIS' analysis was undertaken to reflect the configuration and location of the project as currently proposed and is provided below:

TABLE 3.15-1
INTERSECTION IMPROVEMENTS – PREFERRED PROJECT

Intersections Improvements	Phase A	Phase B	Cumulative
SR-94 at Jamacha Boulevard			
1 Eastbound Through Lane	X		
1 Northbound Right Turn Lane	X		
SR-94 at Cougar Canyon			
1 Eastbound Through Lane		X	
SR-94 at Steele Canyon			
1 Eastbound Through Lane		X	
SR-94 at Lyons Valley Road			
Signalize	X		
1 Southbound Right Turn Lane	X		
1 Eastbound Left Turn Lane	X		
1 Westbound Through Lane			X
SR-94 at Melody Road			
Signalize		X	
1 Northbound Dedicated Left Turn Lane		X	
1 Southbound Dedicated Left Turn Lane		X	
1 Eastbound Dedicated Left Turn Lane		X	
1 Eastbound Shared Left/Right Turn Lane		X	
SR-94 at Project Access Road			
Signalize	X		
1 Northbound Dedicated Left Turn Lane	X		
1 Southbound Free-Flow Right Turn Lane	X		
1 Eastbound Left Turn Lane	X		
1 Eastbound Shared Left/Right Turn Lane	X		
2 Northbound Through Lanes			X
2 Southbound Through Lanes			X

SOURCE: Katz Okitsu, 2002; MRO Engineers, 2006; AES, 2002.

Land Resources

Effects to land resources would consist of grading and the introduction of fill material to extend the existing shoulders and roadbed to provide for the additional facilities. Intersection widenings would be most noticeable along SR-94 at Melody Road and the Project Access Road, which entails the most additional facilities. However, changes to the existing site topography and mineral resources are expected to be minimal due to the limited extent of the improvements in comparison to the existing facilities. The steepest topography would be encountered at the intersection with Lyons Valley Road where large embankments currently

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exist. Stable fill material, embankments, and erosion control features would be used to reduce the potential for sloped instability, subsidence, and erosion. However, naturally occurring soils located at the improvement locations have a slight to very high erosion hazard (USDA, 1973). Due to the presence of soils with moderate and high erosion potential, significant slopes, and the proximity of the natural drainage channels, effects from erosion are considered to be potentially significant. Mitigation measures have been identified in **Section 3.2.3** to reduce these potential effects to a less than significant level.

Water Resources

The development of roadway improvements at the identified intersections could affect water resources due to grading and construction activities and an increase in impervious surfaces in close proximity to existing natural drainage channels.

Adverse effects to water quality during the construction phase would be mitigated through compliance with Caltrans Storm Water Quality Handbook and implementation of the Erosion Control Plan specified in **Section 3.2.3**. The Erosion Control Plan would identify the location erosion control features needed to direct and filter stormwater runoff. Features used during construction may include but are not limited to silt fences, fiber rolls, and rock bag dams. The location of permanent erosion control features such as sediment/grease traps, vegetated drainage swales, and riprap will also be identified. The effects to runoff volumes resulting from the increase of impervious surfaces are expected to be minimal due to the limited extent of the improvements in comparison to the existing facilities. Some existing curb and gutters and drainage inlets would be demolished and relocated along portions of the roadways to provide space for the improvements. Curb and gutters, inlets, and other drainage facilities would be reconstructed to provide adequate facilities to direct stormwater runoff. Due to the implementation of the Erosion Control Plan and the limited extent of the improvements, effects to water resources are expected to be less than significant.

Air Quality

Emissions associated with construction of the identified intersection improvements were estimated by applying the Roadway Construction Emissions Model, version 3.1. This model, developed for the Sacramento Metropolitan Air Quality Management District (SMAQMD), specifically analyzes emissions associated with construction of roadway improvement projects.

Input values used in the Roadway Construction Emissions Model were developed using the description of intersection mitigation measures, schematic drawings of intersection improvements, and estimates of the length of construction periods provided by the traffic engineers. The air quality analysis was originally done for traffic improvements associated with Alternative A analyzed in the Jamul Indian Village Final EIS. This analysis assumes that

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emissions resulting from the improvements to the proposed intersection with the Project Access Road are identical to the emissions resulting from the intersection improvements at Melody Road.

For this analysis, the general conformity de minimis thresholds are used as significance thresholds for construction-related effects. The thresholds are based on the current serious ozone nonattainment designation of San Diego County, the attainment designation for CO, and the unclassified PM_{10} designation.

As shown in **Table 3.15-2**, construction of intersections improvements for Phase A under the Preferred Project would result in the generation of 1.32 tons per year (tpy) of reactive organic gas (ROG), 8.91 tpy or nitrogen oxide (NO_x), 10.73 tpy of carbon monoxide (CO) emissions, and 0.55 tpy of particulate matter. These emissions are less than the significance thresholds of 50 tpy of ROG emissions, 50 tpy of NO_x emissions, 100 tpy of CO emissions, and 100 tpy of PM_{10} emissions. Therefore, this is considered to be a less than significant effect.

TABLE 3.15-2
SUMMARY OF EMISSIONS DUE TO INTERSECTION IMPROVEMENTS

Intersection	Reactive Organic Gases	Nitrogen Oxides	Carbon Monoxide	Particulate Matter (PM_{10})
SR 94 and Jamacha Boulevard	0.45	3.04	3.64	0.18
SR 94 and Lyons Valley Road	0.43	2.89	3.51	0.15
SR 94 and Project Access Road	0.44	2.98	3.58	0.22
Total	1.32	8.91	10.73	0.55

SOURCE: CCS, 2002; AES, 2006
NOTES: All values are in tons per year

Substantially less intersection improvements are recommended for Phase B. Resulting emissions would therefore be less than what is anticipated under Phase A. This would be considered a less than significant effect.

Biological Resources

Disturbance areas associated with the proposed road improvements are located along existing roadsides that are subject to substantial human activity and do not contain sensitive habitat features. However, some components of the various improvements may involve limited removal of existing vegetation and modification of intermittent drainage channels (e.g. replacement of existing culverts). Removal of sensitive native vegetation (e.g. oak trees), vegetation with a potential to provide habitat for special-status species or support nesting migratory birds, and modification of intermittent drainages are considered potentially significant impacts.

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Four species with State status were determined to have a medium or high potential to occur in the Study Area or vicinity. No adverse impacts to special-status species from Project-related construction were identified at the SR 94/Jamacha Boulevard Intersection because California Department of Transportation (CalTrans) has already begun road improvements.

Potential Impacts to Least Bell's Vireo

Least Bell's vireo is a small, plain, insectivorous songbird that typically nests in willow thickets and other dense, shrubby vegetation communities found near water at elevations below 2,000 feet (California Department of Fish and Game, 2006c,d). These habitats are typically associated with willow, cottonwood, baccharis, wild blackberry, and/or mesquite. The subspecies *V. b. pusillus* is endemic to California and northern Baja California in willows and other low, dense valley foothill riparian habitat and lower portions of canyons below elevations of about 600 m. Declines throughout its range in California are attributed to cowbird parasitism and habitat destruction and degradation. Critical habitat for this species was designated for the Santa Margarita, San Luis Rey, San Diego, Sweetwater, and Tijuana rivers and Coyote and Jamul-Dulzura creeks, all in San Diego County. In 1997, CDFG established a preserve at Rancho Jamul south of Jamul Indian Village, primarily to benefit least Bell's vireo.

According to the CNDDB, Least Bell's vireo has been reported near or in the Study Area at the SR 94/Jamacha Boulevard Intersection. The coast live oak riparian habitat occurring at the SR 94/Melody Road Intersection is currently degraded from cattle ranching and generally lacks the habitat structure required by least Bell's vireo for foraging and nesting. Therefore, it is not anticipated that the Project would result in adverse direct effects to least Bell's vireo at this location. Coast live oak riparian habitat could be impacted at SR 94/Cougar Canyon Road Intersection, SR 94 / Steele Canyon Road Intersection, and SR 94/Lyons Valley Road Intersection by construction activities. Least Bell's vireo could be directly affected if nesting habitat is destroyed. Other potential adverse indirect effects upon Least Bell's vireo associated with implementation of traffic improvements consist of future increase of noise, vehicular traffic, and other human activity within the Study Area. However, given the extent of existing habitat degradation within proposed development areas and the existing extent of human activity in the immediate vicinity, it is unlikely that implementation of traffic improvements would result in significant adverse indirect impacts to this species. Therefore, Project operation is not considered a significant adverse impact.

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Potential Impacts to Otay tarplant

The Otay tarplant is a glandular, aromatic, annual herb; the blooming period for this species is May to June (CNPS, 2006). The majority of occurrences are associated with clay soils in grasslands, coastal sage scrub, or maritime succulent scrub at elevations between 25 and 300 m. The Otay tarplant is threatened by habitat destruction and degradation and competition from non-native plants. This species has a limited distribution consisting of at approximately 25 historical populations near Otay Mesa in southern San Diego County and one population in Mexico near the United States border; critical habitat has been designated within this range (USFWS website, 2006, available at http://ecos.fws.gov/species_profile/SpeciesProfile?spcode=Q0YQ). The Study Area is outside of the designated critical habitat. This species is also a covered species under the City and County of San Diego subarea plans of the MSCP. While suitable habitat occurs with the Study Area and vicinity, the known range is over 10 kilometers to the southwest from the Study Area, according to the CNDDB.

Potential Impacts to San Diego Thorn Mint

San Diego thorn mint is an annual herb that occurs in chaparral, coastal scrub, vernal pools with clay soils, and valley and foothill grassland habitats of southern California and northern Baja California, Mexico (CNPS, 2006). The nearest historic occurrence is over 3 kilometers to the northeast and southwest from the Study Area, according to the CNDDB. A botanical inventory of the Jamul Indian Village and the grassland south of the SR 94/Melody Road Intersection; the survey did not detect the presence of San Diego thorn mint. Potentially suitable habitat for San Diego thorn mint occurs within the Study Area. However, the majority of these suitable areas are either developed or severely degraded as a result of cattle grazing, thereby significantly limiting the potential for this species to occur. Destruction of coastal scrub habitat or grassland during intersection improvements could adversely affect this species.

Potential Impacts to Western Yellow-billed Cuckoo

The yellow-billed cuckoo is a relatively large, insectivorous bird found in riparian habitats. This bird uses densely foliaged, deciduous trees and shrubs, especially willows, for roosting and nesting (California Department of Fish and Game, 2006d). One yellow-billed cuckoo was spotted in the riparian corridor south of the SR 94 / Lyons Valley Road Intersection within the Study Area, but outside of the limits of construction. The nearest reported occurrence is approximately 20 kilometers to the southwest from the Study Area, according to the CNDDB. Suitable habitat occurs with the Study Area at SR 94 / Cougar Canyon Road Intersection, SR 94 / Steele Canyon Road Intersection, and SR 94 / Lyons Valley Road Intersection. The riparian habitat occurring at the SR 94 / Melody

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Road Intersection is currently degraded from cattle ranching and generally lacks the habitat structure required by this species for foraging and nesting. Coast live oak riparian habitat could be impacted at SR 94 / Cougar Canyon Road Intersection, SR 94 / Steele Canyon Road Intersection, and SR 94 / Lyons Valley Road Intersection by construction activities. Yellow-billed cuckoo could be directly affected if nesting habitat is destroyed. Other potential adverse indirect effects upon yellow-billed cuckoo associated with implementation of traffic improvements consist of future increase of noise, vehicular traffic, and other human activity within the Study Area. However, given the extent of existing habitat degradation within proposed development areas and the existing extent of human activity in the immediate vicinity, it is unlikely that implementation of traffic improvements would result in significant adverse indirect impacts to this species. Therefore, Project operation is not considered a significant impact.

Potential Impacts From Degradation or loss of Sensitive Habitat

No critical habitat or sensitive habitat designated by federal or State regulations or agencies was identified. Coastal sage scrub and mature riparian woodland occurs in the Study Area and is considered a sensitive habitat by the County of San Diego. Construction of intersection improvements would involve operation of heavy equipment, staging of soils, grading and excavation activities that could directly or indirectly impact sensitive habitats. This is considered a potentially significant impact. The County of San Diego Codes and Regulations protects the following natural resources (administered by the Dept. of Planning & Land Use):

- Clearing of Vegetation / Grading and Clearing Ordinance (No. 9547). No person may do any vegetation clearing or grading without a permit. No permit shall be issued, unless Habitat Loss Permit code has been complied with. Clearing up to 5 acres on a single-family residential lot, routine landscaping, maintenance, removal of dead trees, clearing for fire protection purposes within 100'of a dwelling, or incidental to repair or construction of a single-family dwelling outside the "MSCP Subarea" is exempt. Within the MSCP, the Biological Mitigation Ordinance must be complied with. When grading or clearing has been done without a permit, the County may order the site be restored to its previous condition, including revegetation of the site with identical species of plants. Sec. 87.501 Clearing Permits - County of San Diego 2003 Revised Grading Ordinance (http://www.sdcounty.ca.gov/dplu/Resource/docs/3~pdf/clearingregs.pdf). The Grading and Clearing Ordinance requires a permit for vegetation clearing (and a Habitat Loss Permit) for projects including 5 acres on a single-family residential lot. Violations require restoration to previous condition.

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- Public / Street Trees (Section 71.501). No person shall trim, prune, remove any tree growing on County-owned property unless authorized in writing. If pruning or removal is necessary, the county shall carry out the work at the cost of the permittee by deposit in a trust fund. Following completion the actual cost of the work will be transferred to the county and the remainder returned to the depositor. No one may plant a tree on public right of way without permission of the county, granted for approved species. Plant Removal, Section 63.301. It shall be unlawful for any person to cut or remove of any native tree on public land or on any land not his own, including County and State roadways and railroad rights-of-way without a permit issued by the Agricultural Commissioner or written consent of the private land owner.

- Hillside Development (I-73). Tentative map applications for hillside development must significant mature trees, groves and native vegetation.

- MSCP Biological Mitigation Ordinance (No. 8845). This ordinance protects biological resources in resource core areas of the Multiple Species Conservation Plan (MSCP) by adopting mitigation standards for all projects requiring a discretionary permit. The goal is to direct preservation toward land with contiguous areas of habitat or linkages. Projects requiring an environmental initial study must also submit a vegetation map. Projects which may impact county sensitive plants or narrow endemic plants must site and cluster development to minimize impact. Projects must avoid sensitive plants, or when encroachments of up to 20% occur, mitigations on a 3:1 ratio are required. Brushing and clearing on single-family parcels under 10 acres is exempt.

- Coastal Sage Scrub Habitat. Process For Issuance of Coastal Sage Scrub Habitat Loss Permits (Ord. No. 8365) http://www.sdcounty.ca.gov/dplu/Resource/docs/3~pdf/HLP-%20Ord8365.pdf

- Sensitive Habitats / Resource Protection Ordinance (Nos. 7968, 7739, 7685 and 7631) (http://www.sdcounty.ca.gov/dplu/Resource/docs/3~pdf/res_prot_ord.pdf). protection of steep-slope lands, wetlands, floodplains, sensitive habitats (inc. mature riparian woodland); requires permit.

- No adverse impacts to sensitive habitats from Project-related construction were identified at the SR 94 / Jamacha Boulevard Intersection because CalTrans has already begun road improvements. At the SR 94 / Cougar Canyon Road Intersection, direct or indirect impacts to mature coast live oaks may occur on the south side of SR 94.At the SR 94 / Steele Canyon Road Intersection,

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implementation of the Project may require the removal of coast live oaks. At the SR 94 / Lyons Valley Road Intersection, widening of eastbound SR 94 may impact coast live oaks and riparian habitat. At SR 94 / Melody Road Intersection, construction of the intersection improvements may require the removal of coast live oaks and riparian vegetation.

Potential Impacts to Nesting Birds

Special-status bird species exist in the Study Area and vicinity, including Coastal California gnatcatcher, Least Bell's vireo, and yellow-billed cuckoo. The Study Area contains nesting habitat for various bird species because of the presence of trees, poles, and riparian canopy. However, no nests were observed during field surveys. Migratory birds and raptors are protected by state and federal laws while nesting. If construction activities are conducted during the nesting season, nesting birds could be directly impacted by tree removal, and indirectly impacted by noise, vibration, and other construction-related disturbance. Therefore, Project construction is considered a potentially significant adverse impact. No adverse impacts to bird resources from Project-related construction have been identified at the SR 94 / Jamacha Boulevard Intersection because CalTrans has already begun road improvements.

Other potential adverse indirect effects to nesting birds associated with implementation of traffic improvements consist of future increase of noise, vehicular traffic, and other human activity within the Study Area. However, given the extent of existing habitat degradation within proposed development areas and the existing extent of human activity in the immediate vicinity, it is unlikely that implementation of traffic improvements would result in significant adverse indirect impacts to nesting birds. Therefore, Project operation is not considered a significant adverse impact.

Potential Impacts to Jurisdictional Waters

An informal assessment of the Study Area identified two potentially-jurisdictional water features - Steele Canyon Creek and Jamul Creek (and their tributaries) – in the Study Area. Potential direct adverse impacts to these water resources could occur during construction by modification or destruction of stream banks or riparian vegetation, particularly by the addition of a southbound lane at SR 94 / Cougar Canyon Road Intersection, SR 94 / Steele Canyon Road Intersection, and SR 94 / Lyons Valley Intersection, and the addition of a northbound right hand turn lane at SR 94 / Lyons Valley Road Intersection and road widening on Melody Road at SR 94. No adverse impacts to jurisdictional

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water resources from Project-related construction were identified at the SR 94 / Jamacha Boulevard Intersection because CalTrans has already begun road improvements. Potential adverse indirect impacts to water resources associated with construction of traffic improvements consist primarily of increased erosion and sedimentation in receiving water bodies due to soil disturbance.

Cultural Resources

Due to the abundance of cultural resource sites along SR 94, construction of the intersection improvements could potentially result in significant effects to cultural resources. Previously identified or unknown sites may be disturbed by construction activities. To mitigate this potential effect, the Tribe will implement all mitigation measures presented to and concurred upon by SHPO during the Section 106 consultation process.

Socioeconomic Conditions

Construction of the intersection improvements would result in short-term disturbances to traffic flows through the intersection. While some delays can be expected, the intersections would remain open during construction. Effects to surrounding land uses, including disruptions to access would be most noticeable at Lyons Valley Road where there is little buffer areas between the existing roadway and adjacent homes and businesses. However, access to surrounding businesses and residences would be maintained throughout the construction process. Therefore, socioeconomic effects are considered to be less than significant.

Resource Use Patterns

Intersection improvements would be undertaken to improve the level of service through the intersection. Therefore, no adverse traffic related effects are expected. Effects to surrounding land uses, including loss of private land from widening ROWs and disruptions to access would be most noticeable at Lyons Valley Road where there is little buffer areas between the existing roadway and adjacent homes and businesses. However, the construction of improvements would not conflict with or remove access to existing land uses. Additionally, landowners would be compensated for the loss of land where additional ROW is needed. Effects to resource use patterns are therefore expected to be less than significant.

Public Services

Construction of the intersection improvements may entail the relocation of utilities located within the existing ROWs. These utilities include overhead electricity and underground water lines. Relocation of lines could result in a temporary break in service to some homes and businesses in the area. However, because these effects are common when upgrading and

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maintaining utility services, and because potential service breaks would be temporary, these effects are considered to be less than significant. No effects to fire or emergency medical services are expected as access through the intersections and to adjacent homes and businesses would be maintained during construction of the improvements.

Other Values

Construction of the proposed improvements could potentially result in noise, hazardous materials, and visual effects. Construction activities would result in short-term increases in the local ambient noise environments. Increases in the existing noise environment would be most noticeable at the intersections of Lyons Valley Road due to the close proximity of residences and businesses. However, because construction activities would be temporary in nature and would occur during normal daytime hours, a less than significant effect is expected.

The accidental release of hazardous materials used during grading and construction activities could pose a hazard to construction employees and the environment. Additionally, equipment used during grading and construction activities could ignite dry grasses and weeds on the project sites. These effects are considered to be potentially significant. Mitigation has been included within **Section 3.11.3** to reduce the significance of the potential hazardous materials effects.

Visual effects would occur as the result of the expansion of the existing roadway facilities. The improvements would not result in the removal or alteration of significant areas of vegetation, topographic features, or other key visual characteristics. Therefore, a less than significant visual effect is expected.

Environmental Justice

Improvements to these intersections are not expected to result in significant effects to area residents. Effects that have been identified, such as construction noise and air quality effects, would not occur disproportionately to minority and low-income populations as these populations have not been identified in the project area. Therefore, no environmental justice effects are expected.

3.15.3 MITIGATION

The following mitigation will reduce the identified potentially significant indirect effects to biological resources:

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A. Pre-construction surveys for Least Bell's vireo, Otay tarplant, and San Diego thorn mint, yellow-billed cuckoo should be performed by a qualified biologist to ensure that these species are not present.

B. The appropriate permits should be obtained from the County of San Diego before coast live oaks or riparian vegetation is cleared. Mitigation measures identified by the County permit process should be fully implemented. Best Management Practices, including tree protection measures, should be implemented during construction to minimize indirect impacts to coast live oaks and other sensitive habitats.

C. If construction activities will occur during the nesting season (approximately February to September), pre-construction surveys for the presence of special-status bird species or any nesting bird species should be conducted by a qualified biologist within 500 feet of proposed construction areas. If active nests are identified in these areas, CDFG should be consulted to develop measures to avoid "take" of active nests prior to the initiation of any construction activities. Avoidance measures may include establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site. County of San Diego permits would be required for vegetation clearing and the loss of sensitive habitats.

D. Any alteration or degradation of a streambank below the highwater mark would require Clean Water Act Section 404 permit. Any alteration or degradation of a streambank within the limits of riparian vegetation would require a CDFG Streambed alteration agreement. Clean Water Act Section 401 Water Quality Certification would be required in conjunction with these permits; this may consist of obtaining coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ). In conjunction with this Certification, a Storm Water Pollution Prevention Plan with Best Management Practices (BMPs) must be identified and implemented during construction to avoid or minimize the potential for erosion or sedimentation. County of San Diego permits would be required for vegetation clearing and the loss of sensitive habitats.

   The State Water Resources Control Board maintains a database of Stormwater Best Management Practices (available on the Internet at http://www.swrcb.ca.gov/stormwtr/bmp_database.html) and the California Stormwater Quality Association provides specific guidance on stormwater BMPs (http://www.cabmphandbooks.com/). At a minimum, the following Best Management Practices should be implemented to protect waterbodies from impacts:

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- create and implement a Hazardous Materials Management Plan and Spill Response Plan, including the identification of specific refueling areas;

- create and implement an erosion control plan and a sediment monitoring plan, including the placement of jute mats, straw bales and wattles, sand bags, and vegetative covers (e.g. Hydroseed), weather monitoring, and specific inspection protocols;

- designated concrete washout areas and other filters for construction materials;

- a visual monitoring program and a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs.

- create and implement a Hazardous Materials Management Plan and Spill Response Plan, including the identification of specific refueling areas;

- create and implement an erosion control plan and a sediment monitoring plan, including the placement of jute mats, straw bales and wattles, sand bags, and vegetative covers (e.g. Hydroseed), weather monitoring, and specific inspection protocols;

- designated concrete washout areas and other filters for construction materials;

- a visual monitoring program and a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs.

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3.16 UNAVOIDABLE ADVERSE EFFECTS

This section of the Tribal EIS/R summarizes the significant unavoidable adverse environmental effects that would result from the development of the project site. These effects cannot be avoided and/or mitigated to below a level of significance. Potential effects were evaluated for both the construction and operation phases. Construction effects would only occur during the grading and building activities, which are considered short term effects. Operational effects are expected to occur over the life of the project. Environmental resources affected by significant unavoidable adverse effects include: transportation, and visual resources.

RESOURCE USE

TRANSPORTATION

The following roadway segments are forecast to operate at LOS E or worse without any of the alternatives: SR-94/Campo Road, Jamacha Road to Steele Canyon Road; SR-94/Campo Road, Steele Canyon Road to Lyons Valley Road; SR-94/Campo Road, Lyons Valley Road to Maxfield Road; SR-94/Campo Road, Maxfield Road to Melody Road; and SR-94, Melody Road to the project Access Road. With the addition of the Preferred Project or Reduced Intensity Alternative, the roadway segments listed above will experience higher delays and will be significantly affected by the addition of the project traffic. The mitigation measures listed in **Section 5.0** will assist in ultimately relieving the significant congestion along the highway segments. However, the effects to these segments are considered unavoidable since the ultimate capacity enhancing improvements have not been programmed by Caltrans. In addition, SANDAG has downgraded this segment of State Route 94 thereby limiting foreseeable capacity enhancing improvements to State Route 94. It should be noted; however, that mitigation is included (see Mitigation 3.8.3(a) and (b)) that obligates the Tribe to pay their fair share of capacity improvements if and when Caltrans moves forward with these projects. So, measures are in place to assure that the Tribe's contribution to the significant impacts are ultimately reduced to a level of insignificance.

The Preferred Project and Reduced Intensity Alternative will also significantly affect the roadway segments of SR-94 between Jamacha Boulevard and Jamacha Road. The effects to this segment will be unavoidable for the reasons mentioned above. However, the Tribe has committed to contribute a fair share contribution to capacity enhancements along SR 94 if and when Caltrans and the County program the improvements (See **Section 3.8.3**).

Two intersections, SR-94 at Jamacha Boulevard and SR-94 at Jamacha Road, will continue to operate at LOS E or worse with the improvements listed in **Section 5.0**. Therefore, the impacts to these two intersections are considered significant and unavoidable.

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VISUAL RESOURCES

The Preferred Project and Reduced Intensity Alternative would contribute to the visual transformation of land within the Jamul valley. This is a trend that began long ago with San Diego County's approval of residential subdivisions and commercial facilities in the Valley. This will continue into the future with the planned buildout of projects recently approved by the County, and land uses consistent with the County's General Plan. The 6-acres of development on the Tribe's land will contribute to the cumulative trend established by the County.

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3.17 SIGNIFICANT IRREVERSIBLE EFFECTS

This section of the Tribal EIS/R addresses the potential significant irreversible effects associated with construction and operation of the Tribal project. Use of non-renewable resources during construction and operation of the facility are typical irreversible effects of urban development projects. However, they are not considered significant irreversible effects for purposes of this casino project. Construction of the project would result in the irreversible use of construction materials (steel, copper, sand, gravel, etc.), as well as non-renewable energy resources. However, the casino project would not result in the use of an unusually large amount of these non-renewable resources. The casino project would not result in significant irreversible changes to energy use given that no new major utility lines or energy plant expansion would be required to service the site. The only land commitment expected to occur off-reservation is the Option 2 Fire Station parcel. This relatively small piece of land would not constitute a significant irreversible change of vacant land to urban development.

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SECTION 4.0

REFERENCES

SECTION 4.0
REFERENCES

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APPENDICES

APPENDIX A

WASTEWATER AGREEMENT

Manzanita Band of the Kumeyaay Nation

July 28, 2006

Leon Acebedo, Tribal Chairman
Jamul Indian Village
P.O. Box 612
Jamul, CA 91935

Dear Chairman Acebedo,

The Manzanita Band of the Kumeyaay Nation, also known as the Manzanita Band of Diegueno Mission Indians, supports the Jamul casino project and is prepared to collaborate with the Jamul Indian Village to develop a work plan for the delivery of treated waste water from the proposed casino project. The project is expected to begin on or about the 3rd quarter of 2008.

Manzanita is willing to receive the wastewater from the proposed casino project on mutually agreeable terms. For example, the Jamul Indian Village would pay the cost for construction of an agreed-upon appropriate storage facility on the trust lands of the Manzanita Band. Second, the Jamul Indian Village agrees to transport the treated water to the storage facility designated by the Manzanita Band. In addition, the Jamul Indian Village will assure the Manzanita Band that the treated water will meet the California Title 22 standards.

We look forward to working with you and the Jamul Indian Village on this project.

Sincerely,

Leroy J. Elliott, Tribal Chairman
Manzanita Band of the Kumeyaay Nation

PO Box 1302 Boulevard California 91905 Phone (619) 766-4930 Fax (619) 766-4957

LA POSTA
BAND OF MISSION INDIANS
Post Office Box 1120
Boulevard, California 91905
(619) 478-2113 • Fax (619) 478-2125

June 14, 2006

Mr. Leon Acebedo
Jamul Indian Village
P.O. Box 612
Jamul, CA 91935

Dear Honorable Acebedo:

The La Posta Band of Mission Indians agrees to collaborate with the Jamul Indian Village to develop a work plan for the delivery of treated waste water from the Jamul Indian Village Casino Project. The project is contemplated to begin on or about the third quarter of 2008. Subject to further approval of both the Jamul Indian Village and the La Posta band of Mission Indians, the work plan will contain without limitation the following:

The Jamul Indian Village will agree to pay the cost for construction of an agreed upon appropriate storage facility on the trust lands of the La Posta Indian Reservation.

Furthermore, the Jamul Indian Village will agree to transport the treated water to the storage facility designated by the La Posta Band of Mission Indians.

In addition, the Jamul Indian Village will assure the La Posta Band of Mission Indians that the treated water will meet California Title 22 standards.

Sincerely,

Gwendolyn Parada, Chairperson

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Gwendolyn Parada/Chairperson • **David La Chappa**/Vice Chairperson • **James Hill Sr.**/Secretary/Treasurer
Richard Estrada/Council Member • **Victor Estrada**/Council Member

CELEBRATING 10,000 YEARS IN SAN DIEGO

JAMUL INDIAN VILLAGE
A KUMEYAAY NATION

Leon Acebedo
Chairman

Carlene A. Chamberlain
Vice Chairwoman

Erica M. Pinto
Executive Councilmember

Robert Mesa
Executive Councilmember

Eleanor Miller
Executive Councilmember

Julie Lucio
Tribal Administrator

The MGBOMI agrees to collaborate with the Jamul Indian Village to develop a work plan for the delivery of Treated Waste Water from the Jamul Indian Village Casino Project. The Project will begin on or about the 3rd quarter of 2008.

The Jamul Indian Village agrees to pay the cost for construction of an agreed upon appropriate storage facility on the trust lands of the MGBOMI .

Furthermore, the Jamul Indian Village agrees to transport the treated water to the storage facility designated by the MGBOMI .

In addition, the Jamul Indian Village will assure the MGBOMI that the treated water will meet California Title 22 standards.

Leon Acebedo, Chairman
Jamul Indian Village
June 6, 2006

Mark Romero, Chairman
Mesa Grande Band of Mission Indians

APPENDIX B

FIRE DEPARTMENT DEVELOPMENT PLAN AND FIRE RESPONSE LEVELS

FIRE DEPARTMENT DEVELOPMENT PLAN

Jamul Indian Village
Fire Department Development Plan
December 6, 2006

The following describes the fire prevention, preparedness, response, and pre-hospital care emergency medical program designed for the Jamul Indian Village in the development of their own Fire and Emergency Services System.

Fire Department Plan: The Jamul Indian Village (the VILLAGE) will design and build its' own fire station on existing VILLAGE property of sufficient size to house the necessary personnel and equipment identified in this plan.

Emergency Medical Services:

The Village will contract directly with American Medical Services (AMR) for Advanced Life Support (ALS) ambulance services. The exact method of budget and revenue offset procedures related to the ALS ambulance services shall be subject to negotiation between the contract provider and the Tribal Government Manager. Revenue derived from the use of the VILLAGE ambulance will be used to offset contractual costs. The VILLAGE will budget all ambulance costs in the Contract, then offset quarterly invoice amounts with all revenue derived from the ambulance after the initial 180 days of operations. The ALS ambulance will be posted at the Village.

The ALS ambulance will be staffed with one Paramedic and one Emergency Medical Technician. Fire Engine and Truck staffing will include four person staffing with one Firefighter/Paramedic on each apparatus at all times. The minimum medical training level of all emergency personnel will be Emergency Medical Technician with Defibrillator and Combi-Tube Certifications (EMT-D/C).

A Mutual Aid Agreement with the Grossmont Rural ALS Program will be pursued. The Agreement would provide the VILLAGE with redundant ALS ambulance response from the Jamul area and double the ALS unit hours to the community.

The VILLAGE will enter into a contractual agreement with the San Miguel Consolidated Fire Protection District (the DISTRICT) for medical direction, EMT/Paramedic continuing education, and program quality assurance and improvement programs.

Dispatch and Communications Services:

The Village will establish a contract with the Heartland Communication Facility Authority (HCFA). The Authority provides comprehensive dispatching services with state-of-the-art equipment
and employs a Records Management System.

Vehicle and Equipment Maintenance Program:

The following describes the vehicle and equipment maintenance program that will be implemented, including but not limited to, how replacement or reserve vehicles will be provided when VILLAGE equipment is out of service, how emergency and routine maintenance will be performed, and related matters.

The VILLAGE will contract with the DISTRICT for Fire Apparatus and associated equipment, reserve apparatus, and apparatus repair and maintenance programs. The DISTRICT will participate in the same maintenance program for the VILLAGE apparatus that the DISTRICT uses for its own apparatus. The goal of the Fleet Maintenance Facility is to assure the dependability of the VILLAGE'S emergency and non emergency vehicle fleet. This will be accomplished through continuing education of mechanics on staff, as well as performing diagnosis, maintenance, and repairs. Repairs and related documentation of vehicle repairs are recorded accurately and in a timely manner. Vehicle accident/body or frame damage will be reimbursed directly to the agency performing those repairs by the VILLAGE. The maintenance program for fire apparatus consists of daily, weekly, semi-annual, and annual services.

The VILLAGE will contract for Fire Apparatus from the DISTRICTS' excellent Reserve Fleet. These apparatus are fully outfitted with State of the Art equipment to the same standard as all DISTRICT first line apparatus. Contract apparatus will be branded per VILLAGE specifications.

A contract between the VILLAGE and the DISTRICT will also be established to provide reserve apparatus during scheduled maintenance and emergency out-of-service periods.

Emergency Incident Response Plan:

The following describes an emergency service delivery plan that will generally overview how each type and size emergency incident on the VILLAGE will be addressed including but not limited to response staffing, vehicles and related equipment, incident command staffing, additional off-site or mutual aid resources that will be used, estimated mileage and response times for all responding personnel and equipment, and related matters.
The VILLAGE will participate in the Heartland Zone and the Rural Fire Protection District Automatic Aid Agreement's. The VILLAGE Fire Station and response resources will become another asset available to the Rural Fire Protection District and the Heartland Zone. This will provide for an adequate first response to all VILLAGE alarms with a system of redundancy for augmentation of initial responses when necessary.

The staffing standards of apparatus vary with each participating agency. The minimum required staffing for an engine or a truck participating in the Heartland Automatic Aid Agreement is three personnel: a Captain, an Engineer (or operator), and a Firefighter. The VILLAGE will adopt four-person staffing of their engine and truck apparatus and three-person staffing of Rescue 22 in the DISTRICT to improve mutual and automatic aid support to the VILLAGE and associated roadways. The apparatus and personnel response numbers listed in the scenarios below assume the availability of the VILLAGE apparatus augmented by other Rural and Heartland resources at the three-person staffing level.

Residential Structure Fire: Two engines, one truck or rescue, one ALS ambulance when available, and one chief officer, for a minimum of 14 personnel.

Commercial/Industrial Structure Fire: Three engines, one truck, one rescue, one ALS ambulance when available, and one chief officer, for a minimum of 20 personnel.

High-rise Structure Alarm (no fire showing): Four engines, two trucks, one rescue, one Light & Air, two chief officers, an one Helocoptor (if available), for a minimum of 26 personnel. Note that in most cases ringing alarms to high-rise structures are handled by one engine company.

Vehicle Fire (sedan, utility vehicle, pick-up truck, or other small vehicle, with no threat to a structure): One engine for a minimum of 4 personnel.

Large Vehicle Fire (bus, large truck, trash truck, etc.): Two engines and one chief officer for a minimum staffing level of 8 personnel.

Vehicle Fire (in a garage, carport, or near a structure): Two engines, one truck or rescue, one Mini-Pumper (designed for parking garage structures), one ALS ambulance, and one chief officer, for a minimum of 14 personnel. The Mini-Pumper would be cross-staffed by one of the units at the VILLAGE Fire Station.

Vegetation Fire: Responses to vegetation fires vary according to current fire weather conditions and time of year. The response would vary from one to seven engines, and a chief officer. The engines would be a combination of ICS Type I and Type III engines. The minimum staffing for each piece of apparatus would be one Captain, one Engineer, and one Firefighter. This response is in addition to any response by the USFS and/or CDFFP.

Hazardous Materials Incident (small): One engine, for a minimum of 4 personnel. Additional resources requested as needed.

Hazardous Materials Incident (large): Two engines, a truck or rescue, H.I.R.T. and one chief officer, for a minimum of 16 personnel on scene. Additional resources requested as needed.

Hazardous Materials Incident (large involving a structure): Two engines, one truck, one rescue, H.I.R.T., and one chief officer for a minimum of 19 personnel. Additional resources requested as needed.

The County of San Diego Health Department's Hazardous Response Unit and/or the City of San Diego's Hazardous Incident Response Team (HIRT) would be available upon request as needed for any hazardous materials incident, once the VILLAGE established an agreement with San Diego County and HIRT.

Medical Aid/First Aid: One engine, truck, or rescue and one ALS ambulance, for a minimum of 6 personnel which would include a minimum of 2 paramedic qualified personnel.

Rescue (due to building collapse): Two engines, one truck, one rescue, one ALS ambulance, and a chief officer, for a minimum of 17 personnel.

Vehicle Accident (unknown consequence): One engine, one truck or rescue, and one ALS ambulance for a minimum of 8 personnel with a minimum of 2 paramedic qualified personnel.

Vehicle Accident Rescue: One engine and one additional engine, truck or rescue, equipped with a hydraulic rescue tool, an ALS ambulance, and a chief officer, for a total of 10 personnel, with a minimum of 2 paramedic qualified personnel.

Odor of Smoke or Gas Investigation (inside a structure): Two engines, one truck or rescue, an ALS ambulance when available, and a chief officer, for a minimum of 14 personnel.

Smoke or Gas Investigation (outside): One engine, for a minimum of 4 personnel.

Vehicle Lockout: One engine, for a minimum of 4 personnel.

Flooding: One engine, for a minimum of 4 personnel.

Wires down: One engine, for a minimum of 4 personnel

Public Assist: One engine, for a minimum of 4 personnel.

Response Times: The following is a non-exclusive list of assets that will be available to the VILLAGE once Automatic and Mutual Aide agreements are established.

Rural Engine 66	2:00 minutes	.2 miles

SMG Engine 22S	11:00 minutes 6.38 miles
SMG Engine 15	13:00 minutes 8.01 miles
SMG Truck 15	14:00 minutes 8.01 miles
SMG Rescue 23	11:00 minutes 6.38 miles

NOTE: Response times calculated from the station indicated to the VILLAGE property.

This contract will include staffing the DISTRICT'S Rescue 22 with a Captain, Engineer, and Firefighter/Paramedic. These personnel will be DISTRICT employees. This will ensure a rapid mutual aid rescue response to traffic accidents associated with existing local traffic as well as increased VILLAGE casino traffic and provide essential support to high-rise and other structure related incidents via Automatic and Mutual Aid. Additionally, the VILLAGE Fire Department will design and purchase a Mini-Pumper for response to vehicle fires within the parking structure. This vehicle will be maintained under the previously described maintenance contract.

Mutual Aid:

The following describes the mutual aid programs in which VILLAGE resources will participate in. The objective of the VILLAGE Fire Department will be to maintain one fire response unit with a Firefighter/Paramedic at all times when mutual aid requires responses off VILLAGE properties.

VILLAGE participation in any mutual or automatic aid agreements is subject to negotiation between the VILLAGE and those agencies. The DISTRICT will serve as the negotiator for these agreements under contract. This would provide for an adequate first response to all Village alarms with a system of redundancy for augmentation of initial responses when necessary.

Under the auspices of the Heartland Agreement, the VILLAGE can expect to respond to multiple engine alarms in the San Diego Rural Fire District and the Southern parts of the San Miguel Fire Protection District. These agreements will also include Medical mutual aid.

The Heartland Automatic Aid Agreement includes provisions to maintain coverage through systematic move-up of engines to vacated areas. Move-up would be indicated whenever VILLAGE response units would be committed for more than one hour.

Fire Prevention:

The following describes Fire Prevention programs that will be implemented by the VILLAGE and how such programs will be accomplished. The VILLAGE will contract with the DISTRICT for Fire Prevention Services to include:

The DISTRICT will provide Code Enforcement and Inspection services for the VILLAGE structures. The DISTRICT will ensure that the VILLAGE engine company personnel are trained to provide basic inspection services. VILLAGE response personnel will have access to the Fire Marshal and the Fire Inspectors whenever a situation arises beyond their scope of expertise. The DISTRICT will provide Plan Checking services according to the desires of the VILLAGE.

Recruitment and Hiring:

The following describes the recruitment, hiring and training process for the VILLAGE Fire Department.

Approximately 9 months prior to establishing a VILLAGE Fire Department, recruitment will be initiated for experienced Fire Captains, Fire Engineers, and entry level Firefighter/Paramedics and Firefighers. Additionally, the VILLAGE will recruit and hire a Part-Time Fire Chief who will assist in the recruitment and hiring process with support from the DISTRICT as part of a contract for services. The DISTRICT will work with the VILLAGE Fire Chief to develop the recruitment materials, process, and implementation plan for review and approval of the VILLAGE.

Training:

The following describes the VILLAGE Training program that will be overseen and provided by the DISTRICT.
The DISTRICT is the only Heartland agency that employs a full-time Chief Officer and Fire Captain on staff devoted to training and education. The DISTRICT is a member of the Heartland Fire Training Authority (HFTA). The VILLAGE will participate as a member or contract agency to the HFTA. The Thomas H. Owens Heartland Fire Training Facility (OTF) is owned and operated by a Joint Powers Agreement between the Heartland Zone Departments of San Miguel, El Cajon, La Mesa, Santee, and Lakeside. This fire training facility, located on Marshall Avenue in the City of El Cajon. The facility houses a variety of fire and rescue-related structures designed to provide for the safe and unobtrusive training activities of several companies at once. Engine companies train either jointly or individually on subjects such as hose-lines, high-rise fires/rescue, high or low angle rescue, search and rescue, vehicle extrication, or confined space rescue.

A second state of the art Training Center is being designed by the DISTRICT with an estimate of going on line by January 2009. This Training Center will provide a focus on Incident Command, rescue, and high-rise operations as well as other emergency services training venues.

The DISTRICT will also provide VILLAGE Fire Department personnel a comprehensive training program that meets or exceeds both State and Federal mandates for training of emergency response personnel in the following areas:

- Hazardous Materials Awareness and Operations (Sara Title III, CFR: 1910.120)
- Permit Required Confined Space (CFR: 1910.146)
- Affirmative Action Training (Title VII; 1964 Civil Rights)
- Injury and Illness Prevention Training (CCR: 3203)
- Personal Protective Equipment [CCR: 3401(b)(6)]
- SCBA [CCR: 3409, ANSI: Z88.5:8.3, CCR: 5144(c)]
- SCBA Ability Training (ANSI: Z88.5:8.3)
- Wildland/Fire Shelters [CCR:3410(g) NFPA 295 3-2}
- Multi-Casualty Incident Training (H&S: 1797.151)
- Triage (H&S: 1798.170)
- Vehicle Extrication (CCR: 100075)
- Cardiopulmonary Resuscitation (CCR:100025, H&S: 1797.182, PC: 13518)
- Sudden Infant Death Syndrome (Senate Bill 1067)
- Bloodborne Pathogens [CCR: 5193(e)(5)]
- Incident Command System (Senate Bill 1841-1993, Firescope Act)
- NIMS 700
- Standardized Emergency System (SEMS) (GC:8707)
- Class B Driving Program (California DMV DL170)

Examples of non-mandated classes developed for DISTRICT and VILLAGE personnel to enhance emergency scene effectiveness and safety include:

- Electric Vehicle Response
- Swift Water Emergencies
- Incident Command System
- High-rise response and ICS
- Emergency Vehicle Operation Course

The DISTRICT will provide the VILLAGE with a comprehensive general training program for newly hired firefighters and veterans alike. The VILLAGE will hire from the DISTRICT Reserve Firefighter program and partner with the DISTRICT in an employee recruitment, hiring and development program.

Beginning from the time a new employee is hired, they will be placed into a structured regimen designed to develop the knowledge base and skills necessary for employees in today's fire service. Throughout their entire probationary period, VILLAGE employees will be required to demonstrate, through a battery of both practical and written examinations, a high level of proficiency. Each firefighter will be tested after six months from their employment date on important skills such as; breathing apparatus, basic hose evolutions, ladders, and emergency medical technician skills. For the next

two years the newly hired firefighter will add to his/her knowledge base and be tested accordingly on subjects such as:

- Salvage and Overhaul
- Ventilation
- Rescue Techniques
- Stream Practices
- Forcible Entry
- Low and High Angle Rescue
- Swift Water Rescue
- EMT and CPR
- Defibrillator/Combi-Tube Adjuncts to EMT Skills

With the exception of Combi-Tube and Defibrillator skills, all information presented to the VILLAGE employee will be via classroom drill by a Training Officer, qualified company captain or qualified crewmember, or by self-study from the station library. Contract agencies are used to provide training in the medical field due to strict regulations regarding continuity of subject matter.

All VILLAGE suppression personnel will be required to have a minimum of 20 hours of training per month. Training at the company level is varied and ongoing. This requirement can be met in the form of classroom drill or manipulative drill. Training hours are tracked electronically in the CAD Records Management System. The captains are responsible for ensuring that the appropriate hours on specific topics are met each month and that all necessary areas for training are covered. Each suppression employee member will be required to attend two training sessions each month at a designated training facility (with a minimum of three hours per session) in addition to the training at the company level. These training sessions are structured by either zone-wide programs or by the individual company captains. During the summer months, night drills are conducted at the facility to fulfill OSHA requirements.

Computer System:

The DISTRICT operates its own virtual private network through an agreement with the Lemon Grove School District. This network will provide the link to the Heartland CAD for the VILLAGE Fire Station. The VILLAGE Fire Station will be equipped with the appropriate computer hardware and connections to make this system operate.

Contract Termination:

The DISTRICT proposes at least a one year written notice of contract termination by either party.

FIRE RESPONSE LEVELS

ESTIMATED FIRE RESPONSE LEVELS

The following outlines response levels to various Indian Village incidents according to the following:

Residential Structure Fire: Two engines, one truck or rescue, one ALS ambulance when available, and one chief officer, for a minimum of 14 personnel.

Commercial/Industrial Structure Fire: Three engines, one truck, one rescue, one ALS ambulance when available, and one chief officer, for a minimum of 20 personnel.

High-rise Structure Alarm (no fire showing): Four engines, two trucks, one rescue, one Light & Air, two chief officers, an one Helocoptor (if available), for a minimum of 26 personnel. Note that in most cases ringing alarms to high-rise structures are handled by one engine company.

Vehicle Fire (sedan, utility vehicle, pick-up truck, or other small vehicle, with no threat to a structure): One engine for a minimum of 4 personnel.

Large Vehicle Fire (bus, large truck, trash truck, etc.): Two engines and one chief officer, for a minimum staffing level of 8 personnel.

Vehicle Fire (in a garage, carport, or near a structure): Two engines, one truck or rescue, one Mini-Pumper (designed for parking garage structures), one ALS ambulance, and one chief officer, for a minimum of 14 personnel. The Mini-Pumper would be cross-staffed by one of the units at the Village Fire Station

Vegetation Fire: Responses to vegetation fires vary according to current fire weather conditions and time of year. The response would vary from one to seven engines, and a chief officer. The engines would be a combination of ICS Type I and Type III engines. The minimum staffing for each piece of apparatus would be one Captain, one Engineer, and one Firefighter. This response is in addition to any response by the USFS and/or CDFFP.

Hazardous Materials Incident (small): One engine, for a minimum of 4 personnel. Additional resources requested as needed.

Hazardous Materials Incident (large): Two engines, a truck or rescue, H.I.R.T. and one chief officer, for a minimum of 16 personnel on scene. Additional resources requested as needed.

Hazardous Materials Incident (large involving a structure): Two engines, one truck, one rescue, H.I.R.T., and one chief officer for a minimum of 19 personnel. Additional resources requested as needed.

The County of San Diego Health Department's Hazardous Response Unit and/or the City of San Diego's Hazardous Incident Response Team (HIRT) would be available upon request as needed for any hazardous materials incident, once the VILLAGE established an agreement with San Diego County and HIRT.

Medical Aid/First Aid: One engine, truck, or rescue and one ALS ambulance, for a minimum of 6 personnel which would include a minimum of 2 paramedic qualified personnel.

Rescue (due to building collapse): Two engines, one truck, one rescue, one ALS ambulance, and a chief officer, for a minimum of 17 personnel.

Vehicle Accident (unknown consequence): One engine, one truck or rescue, and one ALS ambulance for a minimum of 8 personnel with a minimum of 2 paramedic qualified personnel.

Vehicle Accident Rescue: One engine and one additional engine, truck or rescue, equipped with a hydraulic rescue tool, an ALS ambulance, and a chief officer, for a total of 10 personnel, with a minimum of 2 paramedic qualified personnel.

Odor of Smoke or Gas Investigation (inside a structure): Two engines, one truck or rescue, an ALS ambulance when available, and a chief officer, for a minimum of 14 personnel.

Smoke or Gas Investigation (outside): One engine, for a minimum of 4 personnel.

Vehicle Lockout: One engine, for a minimum of 4 personnel.

Flooding: One engine, for a minimum of 4 personnel.

Wires down: One engine, for a minimum of 4 personnel

Public Assist: One engine, for a minimum of 4 personnel.

Response Times: The following is a non-exclusive list of assets that would be available to the VILLAGE once Automatic and Mutual Aide agreements are established.

Rural Engine 66	2:00 minutes	.2 miles

SMG Engine 22S	11:00 minutes	6.38 miles
SMG Engine 15	13:00 minutes	8.01 miles
SMG Truck 15	14:00 minutes	8.01 miles
SMG Rescue 23	11:00 minutes	6.38 miles

NOTE: Response times calculated from the station indicated to the VILLAGE property.

APPENDIX C

URBEMIS 2002 OUTPUT FILES

PREFERRED CONSTRUCTION

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase A Near Term Const.urb
Project Name: **Jamul Indian Village Preferred Phase A Near Term Const**
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

*** 2006 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	21.16	137.86	177.44	0.00	55.90	5.89	50.01
TOTALS (lbs/day, mitigated)	21.16	94.93	177.38	0.00	7.92	0.44	7.47

*** 2007 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	36.90	92.69	116.25	0.00	3.80	3.62	0.18
TOTALS (lbs/day, mitigated)	36.89	63.91	116.11	0.00	0.47	0.29	0.18

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase A Near Term Const.urb
Project Name: Jamul Indian Village Preferred Phase A Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

*** 2006 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (tpy, unmitigated)	1.02	7.01	8.18	0.00	1.03	0.30	0.73
TOTALS (tpy, mitigated)	1.02	4.83	8.17	0.00	0.15	0.03	0.12

*** 2007 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (tpy, unmitigated)	0.92	4.33	5.22	0.00	0.17	0.17	0.00
TOTALS (tpy, mitigated)	0.92	2.99	5.22	0.00	0.01	0.01	0.00

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase A Near Term Const.urb
Project Name: Jamul Indian Village Preferred Phase A Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2006
Construction Duration: 12
Total Land Use Area to be Developed: 9.4 acres
Maximum Acreage Disturbed Per Day: 5 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 205194

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	50.00	-	50.00
Off-Road Diesel	20.95	137.60	172.73	-	5.88	5.88	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.21	0.26	4.71	0.00	0.02	0.01	0.01
Maximum lbs/day	21.16	137.86	177.44	0.00	55.90	5.89	50.01
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.97	80.05	83.64	-	3.45	3.45	0.00
Bldg Const Worker Trips	0.56	0.34	7.17	0.00	0.10	0.01	0.09
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	11.53	80.39	90.81	0.00	3.55	3.46	0.09
Max lbs/day all phases	21.16	137.86	177.44	0.00	55.90	5.89	50.01
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.97	76.91	85.59	-	3.13	3.13	0.00
Bldg Const Worker Trips	0.52	0.32	6.74	0.00	0.10	0.01	0.09
Arch Coatings Off-Gas	22.05	-	-	-	-	-	-
Arch Coatings Worker Trips	0.47	0.22	5.53	0.00	0.10	0.01	0.09
Asphalt Off-Gas	0.57	-	-	-	-	-	-
Asphalt Off-Road Diesel	2.24	13.28	19.01	-	0.42	0.42	0.00
Asphalt On-Road Diesel	0.13	2.05	0.46	0.00	0.05	0.05	0.00
Asphalt Worker Trips	0.01	0.01	0.13	0.00	0.00	0.00	0.00
Maximum lbs/day	36.90	92.69	116.25	0.00	3.80	3.62	0.18
Max lbs/day all phases	36.90	92.69	116.25	0.00	3.80	3.62	0.18

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '06
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Graders	174	0.575	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Scrapers	313	0.660	8.0
3	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '06
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '06
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0
1	Signal Boards	119	0.820	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '07
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '07
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 2.4
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	7.46	-	7.46
Off-Road Diesel	20.95	94.67	172.73	-	0.44	0.44	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.21	0.26	4.65	0.00	0.02	0.01	0.01
Maximum lbs/day	21.16	94.93	177.38	0.00	7.92	0.44	7.47
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.97	55.07	83.64	-	0.26	0.26	0.00
Bldg Const Worker Trips	0.55	0.34	7.08	0.00	0.10	0.01	0.09
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	11.53	55.41	90.72	0.00	0.35	0.26	0.09
Max lbs/day all phases	21.16	94.93	177.38	0.00	7.92	0.44	7.47
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.97	52.91	85.59	-	0.23	0.23	0.00
Bldg Const Worker Trips	0.51	0.32	6.65	0.00	0.10	0.01	0.09
Arch Coatings Off-Gas	22.05	-	-	-	-	-	-
Arch Coatings Worker Trips	0.47	0.22	5.46	0.00	0.10	0.01	0.09
Asphalt Off-Gas	0.57	-	-	-	-	-	-
Asphalt Off-Road Diesel	2.24	9.14	19.01	-	0.03	0.03	0.00
Asphalt On-Road Diesel	0.13	1.41	0.46	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.01	0.01	0.13	0.00	0.00	0.00	0.00
Maximum lbs/day	36.89	63.91	116.11	0.00	0.47	0.29	0.18
Max lbs/day all phases	36.89	63.91	116.11	0.00	0.47	0.29	0.18

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Soil Disturbance: Replace ground cover in disturbed areas quickly
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 15.0%)
Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%)
Phase 2: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: Stockpiles: Cover all stock piles with tarps
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%)
Phase 2: Unpaved Roads: Water all haul roads 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%)
Phase 2: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '06

Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Graders	174	0.575	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Scrapers	313	0.660	8.0
3	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '06
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '06
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0
1	Signal Boards	119	0.820	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '07
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '07
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 2.4
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013
Phase 2 mitigation measure Soil Disturbance: Apply soil stabilizers to inactive areas
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Replace ground cover in disturbed areas quickly
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Water exposed surfaces - 2x daily
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 2 mitigation measure Stockpiles: Cover all stock piles with tarps
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Water all haul roads 2x daily
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
has been changed from off to on.
Phase 2 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 3 mitigation measure On-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 3 mitigation measure On-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 3 mitigation measure On-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase A Near Term Const.urb
Project Name: Jamul Indian Village Preferred Phase A Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Tons/Year)

Construction Start Month and Year: June, 2006
Construction Duration: 12
Total Land Use Area to be Developed: 9.4 acres
Maximum Acreage Disturbed Per Day: 5 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 205194

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.72	-	0.72
Off-Road Diesel	0.30	1.97	2.47	-	0.08	0.08	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00
Total tons/year	0.30	1.97	2.53	0.00	0.80	0.08	0.72
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.69	5.02	5.24	-	0.22	0.22	0.00
Bldg Const Worker Trips	0.03	0.02	0.41	0.00	0.01	0.00	0.01
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.72	5.04	5.65	0.00	0.23	0.22	0.01
Total all phases tons/yr	1.02	7.01	8.18	0.00	1.03	0.30	0.73
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.60	4.23	4.71	-	0.17	0.17	0.00
Bldg Const Worker Trips	0.03	0.02	0.34	0.00	0.01	0.00	0.00
Arch Coatings Off-Gas	0.27	-	-	-	-	-	-
Arch Coatings Worker Trips	0.01	0.00	0.07	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.01	0.07	0.10	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.92	4.33	5.22	0.00	0.17	0.17	0.00
Total all phases tons/yr	0.92	4.33	5.22	0.00	0.17	0.17	0.00

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '06
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Graders	174	0.575	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Scrapers	313	0.660	8.0
3	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '06
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '06
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0
1	Signal Boards	119	0.820	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '07
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '07
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 2.4
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.11	-	0.11
Off-Road Diesel	0.30	1.36	2.47	-	0.01	0.01	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00
Total tons/year	0.30	1.36	2.53	0.00	0.12	0.01	0.11
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.69	3.45	5.24	-	0.02	0.02	0.00
Bldg Const Worker Trips	0.03	0.02	0.40	0.00	0.01	0.00	0.01
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.72	3.47	5.64	0.00	0.03	0.02	0.01
Total all phases tons/yr	1.02	4.83	8.17	0.00	0.15	0.03	0.12
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.60	2.91	4.71	-	0.01	0.01	0.00
Bldg Const Worker Trips	0.03	0.02	0.34	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.27	-	-	-	-	-	-
Arch Coatings Worker Trips	0.01	0.00	0.07	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.01	0.05	0.10	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.92	2.99	5.22	0.00	0.01	0.01	0.00
Total all phases tons/yr	0.92	2.99	5.22	0.00	0.01	0.01	0.00

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Soil Disturbance: Replace ground cover in disturbed areas quickly
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 15.0%)
Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%)
Phase 2: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: Stockpiles: Cover all stock piles with tarps
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%)
Phase 2: Unpaved Roads: Water all haul roads 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%)
Phase 2: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '06

Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Graders	174	0.575	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Scrapers	313	0.660	8.0
3	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '06
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '06
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0
1	Signal Boards	119	0.820	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '07
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '07
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 2.4
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013
Phase 2 mitigation measure Soil Disturbance: Apply soil stabilizers to inactive areas
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Replace ground cover in disturbed areas quickly
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Water exposed surfaces - 2x daily
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 2 mitigation measure Stockpiles: Cover all stock piles with tarps
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Water all haul roads 2x daily
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
has been changed from off to on.
Phase 2 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 3 mitigation measure On-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 3 mitigation measure On-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 3 mitigation measure On-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase B Near Term Const.urb
Project Name: Jamul Indian Village Preferred Phase B Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

*** 2008 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	21.13	129.64	180.56	0.00	54.78	4.77	50.01
TOTALS (lbs/day, mitigated)	21.13	89.26	180.51	0.00	7.84	0.36	7.47

*** 2009 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	33.00	85.77	115.28	0.00	3.18	3.06	0.12
TOTALS (lbs/day, mitigated)	33.00	59.08	115.18	0.00	0.35	0.23	0.12

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase B Near Term Const.urb
Project Name: Jamul Indian Village Preferred Phase B Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

*** 2008 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (tpy, unmitigated)	1.01	6.50	8.29	0.00	0.97	0.25	0.72
TOTALS (tpy, mitigated)	1.01	4.47	8.29	0.00	0.13	0.02	0.11

*** 2009 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (tpy, unmitigated)	0.86	4.00	5.26	0.00	0.15	0.15	0.00
TOTALS (tpy, mitigated)	0.86	2.76	5.26	0.00	0.01	0.01	0.00

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase B Near Term Const.urb
Project Name: Jamul Indian Village Preferred Phase B Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2008
Construction Duration: 12
Total Land Use Area to be Developed: 8 acres
Maximum Acreage Disturbed Per Day: 5 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 174000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	50.00	-	50.00
Off-Road Diesel	20.95	129.42	176.49	-	4.76	4.76	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.18	0.22	4.07	0.00	0.02	0.01	0.01
Maximum lbs/day	21.13	129.64	180.56	0.00	54.78	4.77	50.01
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.97	73.94	87.47	-	2.84	2.84	0.00
Bldg Const Worker Trips	0.32	0.20	4.23	0.00	0.06	0.00	0.06
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	11.29	74.14	91.70	0.00	2.90	2.84	0.06
Max lbs/day all phases	21.13	129.64	180.56	0.00	54.78	4.77	50.01
*** 2009***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.97	71.13	89.41	-	2.66	2.66	0.00
Bldg Const Worker Trips	0.30	0.18	3.90	0.00	0.06	0.00	0.06
Arch Coatings Off-Gas	18.69	-	-	-	-	-	-
Arch Coatings Worker Trips	0.27	0.13	3.21	0.00	0.06	0.00	0.06
Asphalt Off-Gas	0.48	-	-	-	-	-	-
Asphalt Off-Road Diesel	2.24	12.97	19.01	-	0.36	0.36	0.00
Asphalt On-Road Diesel	0.09	1.41	0.33	0.00	0.04	0.04	0.00
Asphalt Worker Trips	0.01	0.00	0.11	0.00	0.00	0.00	0.00
Maximum lbs/day	33.00	85.77	115.28	0.00	3.18	3.06	0.12
Max lbs/day all phases	33.00	85.77	115.28	0.00	3.18	3.06	0.12

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '08
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Graders	174	0.575	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Scrapers	313	0.660	8.0
3	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '08
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '08
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0
1	Signal Boards	119	0.820	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '09
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '09
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 2
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	7.46	-	7.46
Off-Road Diesel	20.95	89.04	176.49	-	0.35	0.35	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.18	0.22	4.02	0.00	0.02	0.01	0.01
Maximum lbs/day	21.13	89.26	180.51	0.00	7.84	0.36	7.47
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.97	50.87	87.47	-	0.21	0.21	0.00
Bldg Const Worker Trips	0.32	0.20	4.18	0.00	0.06	0.00	0.06
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	11.29	51.07	91.64	0.00	0.27	0.21	0.06
Max lbs/day all phases	21.13	89.26	180.51	0.00	7.84	0.36	7.47
*** 2009***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.97	48.94	89.41	-	0.20	0.20	0.00
Bldg Const Worker Trips	0.30	0.18	3.85	0.00	0.06	0.00	0.06
Arch Coatings Off-Gas	18.69	-	-	-	-	-	-
Arch Coatings Worker Trips	0.27	0.13	3.17	0.00	0.06	0.00	0.06
Asphalt Off-Gas	0.48	-	-	-	-	-	-
Asphalt Off-Road Diesel	2.24	8.92	19.01	-	0.03	0.03	0.00
Asphalt On-Road Diesel	0.09	0.97	0.33	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.01	0.00	0.11	0.00	0.00	0.00	0.00
Maximum lbs/day	33.00	59.08	115.18	0.00	0.35	0.23	0.12
Max lbs/day all phases	33.00	59.08	115.18	0.00	0.35	0.23	0.12

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Soil Disturbance: Replace ground cover in disturbed areas quickly
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 15.0%)
Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%)
Phase 2: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: Stockpiles: Cover all stock piles with tarps
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%)
Phase 2: Unpaved Roads: Water all haul roads 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%)
Phase 2: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '08

Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Graders	174	0.575	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Scrapers	313	0.660	8.0
3	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '08
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '08
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0
1	Signal Boards	119	0.820	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '09
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '09
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 2
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013
Phase 2 mitigation measure Soil Disturbance: Apply soil stabilizers to inactive areas
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Replace ground cover in disturbed areas quickly
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Water exposed surfaces ~ 2x daily
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 2 mitigation measure Stockpiles: Cover all stock piles with tarps
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Water all haul roads 2x daily
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
has been changed from off to on.
Phase 2 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 3 mitigation measure On-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 3 mitigation measure On-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 3 mitigation measure On-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase B Near Term Const.urb
Project Name: Jamul Indian Village Preferred Phase B Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Tons/Year)

Construction Start Month and Year: June, 2008
Construction Duration: 12
Total Land Use Area to be Developed: 8 acres
Maximum Acreage Disturbed Per Day: 5 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 174000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.72	-	0.72
Off-Road Diesel	0.30	1.85	2.52	-	0.07	0.07	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00
Total tons/year	0.30	1.85	2.57	0.00	0.79	0.07	0.72
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.69	4.64	5.48	-	0.18	0.18	0.00
Bldg Const Worker Trips	0.02	0.01	0.24	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.71	4.65	5.72	0.00	0.18	0.18	0.00
Total all phases tons/yr	1.01	6.50	8.29	0.00	0.97	0.25	0.72
*** 2009***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.60	3.91	4.92	-	0.15	0.15	0.00
Bldg Const Worker Trips	0.02	0.01	0.20	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.23	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.01	0.07	0.10	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.86	4.00	5.26	0.00	0.15	0.15	0.00
Total all phases tons/yr	0.86	4.00	5.26	0.00	0.15	0.15	0.00

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '08
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Graders	174	0.575	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Scrapers	313	0.660	8.0
3	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '08
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '08
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0
1	Signal Boards	119	0.820	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '09
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '09
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 2
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.11	-	0.11
Off-Road Diesel	0.30	1.27	2.52	-	0.01	0.01	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00
Total tons/year	0.30	1.27	2.57	0.00	0.12	0.01	0.11
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.69	3.19	5.48	-	0.01	0.01	0.00
Bldg Const Worker Trips	0.02	0.01	0.24	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.71	3.20	5.72	0.00	0.01	0.01	0.00
Total all phases tons/yr	1.01	4.47	8.29	0.00	0.13	0.02	0.11
*** 2009***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.60	2.69	4.92	-	0.01	0.01	0.00
Bldg Const Worker Trips	0.02	0.01	0.20	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.23	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.01	0.05	0.10	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.86	2.76	5.26	0.00	0.01	0.01	0.00
Total all phases tons/yr	0.86	2.76	5.26	0.00	0.01	0.01	0.00

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Soil Disturbance: Replace ground cover in disturbed areas quickly
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 15.0%)
Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%)
Phase 2: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: Stockpiles: Cover all stock piles with tarps
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%)
Phase 2: Unpaved Roads: Water all haul roads 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%)
Phase 2: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '08

Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Graders	174	0.575	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Scrapers	313	0.660	8.0
3	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '08
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '08
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0
1	Signal Boards	119	0.820	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '09
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '09
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 2
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013
Phase 2 mitigation measure Soil Disturbance: Apply soil stabilizers to inactive areas
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Replace ground cover in disturbed areas quickly
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Water exposed surfaces - 2x daily
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 2 mitigation measure Stockpiles: Cover all stock piles with tarps
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Water all haul roads 2x daily
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
has been changed from off to on.
Phase 2 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 3 mitigation measure On-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 3 mitigation measure On-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 3 mitigation measure On-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.

PREFERRED OPERATIONAL

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase A Near Term.urb
Project Name: Jamul Indian Village Preferred Phase A Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	1.19	0.49	1.19	0.00	0.00
TOTALS (lbs/day, mitigated)	1.16	0.40	0.95	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	47.86	66.09	504.93	0.30	52.82
TOTALS (lbs/day, mitigated)	45.97	63.49	484.58	0.29	50.71

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	49.05	66.59	506.12	0.30	52.82
TOTALS (lbs/day, mitigated)	47.13	63.88	485.53	0.29	50.71

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase A Near Term.urb
Project Name: Jamul Indian Village Preferred Phase A Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.15	0.09	0.15	0.00	0.00
TOTALS (tpy, mitigated)	0.15	0.07	0.12	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	9.87	13.37	102.43	0.06	9.64
TOTALS (tpy, mitigated)	9.48	12.84	98.35	0.05	9.25

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	10.02	13.46	102.58	0.06	9.64
TOTALS (tpy, mitigated)	9.63	12.91	98.47	0.05	9.25

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase A Near Term.urb
Project Name: Jamul Indian Village Preferred Phase A Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.04	0.49	0.41	0	0.00
Hearth - No summer emissions					
Landscaping	0.12	0.00	0.78	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	1.03	-	-	-	-
TOTALS(lbs/day,unmitigated)	1.19	0.49	1.19	0.00	0.00

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.03	0.39	0.33	0	0.00
Hearth - No summer emissions					
Landscaping	0.10	0.00	0.62	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	1.03	-	-	-	-
TOTALS (lbs/day, mitigated)	1.16	0.40	0.95	0.00	0.00

Area Source Mitigation Measures

Residential Increase Efficiency Beyond Title 24
Percent Reduction: 20
Commercial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Industrial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Residential Electric Landscape Maintenance Equipment
Percent Reduction: 20
Commercial/Industrial Electric Landscape Maintenance Equipment
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	47.86	66.09	504.93	0.30	52.82
TOTAL EMISSIONS (lbs/day)	47.86	66.09	504.93	0.30	52.82

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		105.00 trips/1000 sq. ft.	73.47	7,714.25
		Sum of Total Trips		7,714.25
		Total Vehicle Miles Traveled		34,759.23

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				10.0	5.0	85.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	45.97	63.49	484.58	0.29	50.71
TOTAL EMISSIONS (lbs/day)	45.97	63.49	484.58	0.29	50.71
PERCENTAGE REDUCTION %	4	4	4	4	4

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		102.69 trips/1000 sq. ft.	73.47	7,544.53
(Worker Trip Rate: 89.33)				
		Sum of Total Trips		7,544.53
		Total Vehicle Miles Traveled		33,370.15

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				10.0	5.0	85.0

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 2%
Inputs Selected:
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

Percent Reduction in Trips is 0.2%
Inputs Selected:
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 12
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Telecommuting Mitigation

Percent Reduction in Trips is 12%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The Compressed Work Schedule 3/36 was selected with 30% of the employees participating

Non-Residential Other Transportation Demand Measures Mitigation

Percent Reduction in Trips is 1.01%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The 'Secure Bike Parking' measure was selected
The 'Information provided on Transportation Alternatives' measure was selected
The 'Carpool Matching Programs' measure was selected
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
The area souce mitigation measure option switch changed from off to on.
Mitigation measure Residential Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Commercial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Industrial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Residential Electric Landscape Maintenance Equipment
has been changed from off to on.
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment
has been changed from off to on.

Changes made to the default values for Operations

The pass by trips option switch changed from off to on.
The mitigation option switch changed from off to on.
The operational emission year changed from 2005 to 2007.
The operational winter selection item changed from 2 to 1.
The operational summer temperature changed from 85 to 70.
The operational summer selection item changed from 7 to 4.
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.
The Res and Non-Res Transit Service Mitigation changed from off to on.
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase A Near Term.urb
Project Name: Jamul Indian Village Preferred Phase A Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES (Tons per Year, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.01	0.09	0.08	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping	0.01	0.00	0.07	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.14	-	-	-	-
TOTALS (tpy, unmitigated)	0.15	0.09	0.15	0.00	0.00

AREA SOURCE EMISSION ESTIMATES (Tons per Year, Mitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.01	0.07	0.06	0	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping	0.01	0.00	0.06	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.14	-	-	-	-
TOTALS (tpy, mitigated)	0.15	0.07	0.12	0.00	0.00

Area Source Mitigation Measures

Residential Increase Efficiency Beyond Title 24
Percent Reduction: 20
Commercial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Industrial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Residential Electric Landscape Maintenance Equipment
Percent Reduction: 20
Commercial/Industrial Electric Landscape Maintenance Equipment
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	9.87	13.37	102.43	0.06	9.64
TOTAL EMISSIONS (tons/yr)	9.87	13.37	102.43	0.06	9.64

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		105.00 trips/1000 sq. ft.	73.47	7,714.25
		Sum of Total Trips		7,714.25
		Total Vehicle Miles Traveled		34,759.23

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				10.0	5.0	85.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	9.48	12.84	98.35	0.05	9.25
TOTAL EMISSIONS (tons/yr)	9.48	12.84	98.35	0.05	9.25
PERCENTAGE REDUCTION %	4	4	4	4	4

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		105.00 trips/1000 sq. ft.	73.47	7,714.25
		Sum of Total Trips		7,714.25
		Total Vehicle Miles Traveled		34,759.23

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				10.0	5.0	85.0

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 2%
Inputs Selected:
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

Percent Reduction in Trips is 0.2%
Inputs Selected:
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 12
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Telecommuting Mitigation

Percent Reduction in Trips is 12%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The Compressed Work Schedule 3/36 was selected with 30% of the employees participating

Non-Residential Other Transportation Demand Measures Mitigation

Percent Reduction in Trips is 1.01%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The 'Secure Bike Parking' measure was selected
The 'Information provided on Transportation Alternatives' measure was selected
The 'Carpool Matching Programs' measure was selected
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
The area souce mitigation measure option switch changed from off to on.
Mitigation measure Residential Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Commercial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Industrial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Residential Electric Landscape Maintenance Equipment
has been changed from off to on.
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment
has been changed from off to on.

Changes made to the default values for Operations

The pass by trips option switch changed from off to on.
The mitigation option switch changed from off to on.
The operational emission year changed from 2005 to 2007.
The operational winter selection item changed from 2 to 1.
The operational summer temperature changed from 85 to 70.
The operational summer selection item changed from 7 to 4.
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.
The Res and Non-Res Transit Service Mitigation changed from off to on.
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase B Near Term.urb
Project Name: Jamul Indian Village Preferred Phase A + B Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	4.17	4.51	6.12	0.00	0.02
TOTALS (lbs/day, mitigated)	4.03	3.61	4.90	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	52.55	74.10	566.01	0.40	70.10
TOTALS (lbs/day, mitigated)	50.20	70.68	539.32	0.38	66.79

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	56.72	78.61	572.13	0.40	70.12
TOTALS (lbs/day, mitigated)	54.23	74.29	544.22	0.38	66.81

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase B Near Term.urb
Project Name: Jamul Indian Village Preferred Phase A + B Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.55	0.82	0.90	0.00	0.00
TOTALS (tpy, mitigated)	0.53	0.66	0.72	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	10.75	14.98	114.37	0.07	12.79
TOTALS (tpy, mitigated)	10.27	14.29	109.06	0.07	12.19

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	11.30	15.81	115.27	0.07	12.80
TOTALS (tpy, mitigated)	10.80	14.95	109.78	0.07	12.19

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase B Near Term.urb
Project Name: Jamul Indian Village Preferred Phase A + B Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.33	4.50	3.78	0	0.01
Hearth - No summer emissions					
Landscaping	0.37	0.01	2.34	0.00	0.01
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	3.47	-	-	-	-
TOTALS(lbs/day,unmitigated)	4.17	4.51	6.12	0.00	0.02

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.26	3.60	3.02	0	0.01
Hearth - No summer emissions					
Landscaping	0.30	0.01	1.87	0.00	0.01
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	3.47	-	-	-	-
TOTALS (lbs/day, mitigated)	4.03	3.61	4.90	0.00	0.01

Area Source Mitigation Measures

Residential Increase Efficiency Beyond Title 24
Percent Reduction: 20
Commercial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Industrial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Residential Electric Landscape Maintenance Equipment
Percent Reduction: 20
Commercial/Industrial Electric Landscape Maintenance Equipment
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	5.63	7.34	55.07	0.04	7.02
Event Center	6.39	10.31	78.88	0.06	10.30
Casino	40.53	56.45	432.06	0.30	52.78
TOTAL EMISSIONS (lbs/day)	52.55	74.10	566.01	0.40	70.10

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2009 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		3.00 trips/rooms	300.00	900.00
Event Center		37.59 trips/1000 sq. ft.	24.00	902.16
Casino		105.00 trips/1000 sq. ft.	73.47	7,714.25
		Sum of Total Trips		9,516.41
		Total Vehicle Miles Traveled		46,176.72

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.90	1.30	98.40	0.30
Light Truck < 3,750 lbs	15.10	2.60	95.40	2.00
Light Truck 3,751- 5,750	16.10	1.20	98.10	0.70
Med Truck 5,751- 8,500	7.30	1.40	95.90	2.70
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	75.00	25.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.40	7.10	85.70	7.20

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino				10.0	5.0	85.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	5.48	7.11	53.34	0.04	6.81
Event Center	5.80	9.34	71.36	0.05	9.32
Casino	38.93	54.23	414.63	0.29	50.67
TOTAL EMISSIONS (lbs/day)	50.20	70.68	539.32	0.38	66.79
PERCENTAGE REDUCTION %	4	5	5	5	5

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2009 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		2.93 trips/rooms	300.00	880.20
(Worker Trip Rate: 2.55)				
Event Center		36.76 trips/1000 sq. ft.	24.00	882.31
(Worker Trip Rate: 31.98)				
Casino		102.69 trips/1000 sq. ft.	73.47	7,544.53
(Worker Trip Rate: 89.33)				
		Sum of Total Trips		9,307.04
		Total Vehicle Miles Traveled		43,995.24

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.90	1.30	98.40	0.30
Light Truck < 3,750 lbs	15.10	2.60	95.40	2.00
Light Truck 3,751- 5,750	16.10	1.20	98.10	0.70
Med Truck 5,751- 8,500	7.30	1.40	95.90	2.70
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	75.00	25.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.40	7.10	85.70	7.20

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino				10.0	5.0	85.0

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures
==========

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 2%
Inputs Selected:
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

Percent Reduction in Trips is 0.2%
Inputs Selected:
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 12
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Telecommuting Mitigation

Percent Reduction in Trips is 12%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The Compressed Work Schedule 3/36 was selected with 30% of the employees participating

Non-Residential Other Transportation Demand Measures Mitigation
---
Percent Reduction in Trips is 1.01%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The 'Secure Bike Parking' measure was selected
The 'Information provided on Transportation Alternatives' measure was selected
The 'Carpool Matching Programs' measure was selected
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
The area souce mitigation measure option switch changed from off to on.
Mitigation measure Residential Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Commercial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Industrial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Residential Electric Landscape Maintenance Equipment
has been changed from off to on.
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment
has been changed from off to on.

Changes made to the default values for Operations

The pass by trips option switch changed from off to on.
The mitigation option switch changed from off to on.
The operational emission year changed from 2005 to 2009.
The operational winter selection item changed from 2 to 1.
The operational summer temperature changed from 85 to 70.
The operational summer selection item changed from 7 to 4.
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.
The Res and Non-Res Transit Service Mitigation changed from off to on.
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred Phase B Near Term.urb
Project Name: Jamul Indian Village Preferred Phase A + B Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES (Tons per Year, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.06	0.82	0.69	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping	0.03	0.00	0.21	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.46	-	-	-	-
TOTALS (tpy, unmitigated)	0.55	0.82	0.90	0.00	0.00

AREA SOURCE EMISSION ESTIMATES (Tons per Year, Mitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.05	0.66	0.55	0	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping	0.03	0.00	0.17	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.46	-	-	-	-
TOTALS (tpy, mitigated)	0.53	0.66	0.72	0.00	0.00

Area Source Mitigation Measures

Residential Increase Efficiency Beyond Title 24
Percent Reduction: 20
Commercial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Industrial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Residential Electric Landscape Maintenance Equipment
Percent Reduction: 20
Commercial/Industrial Electric Landscape Maintenance Equipment
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	1.10	1.48	11.14	0.01	1.28
Event Center	1.29	2.09	15.61	0.01	1.88
Casino	8.36	11.41	87.63	0.06	9.63
TOTAL EMISSIONS (tons/yr)	10.75	14.98	114.37	0.07	12.79

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2009 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		3.00 trips/rooms	300.00	900.00
Event Center		37.59 trips/1000 sq. ft.	24.00	902.16
Casino		105.00 trips/1000 sq. ft.	73.47	7,714.25
		Sum of Total Trips		9,516.41
		Total Vehicle Miles Traveled		46,176.72

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.90	1.30	98.40	0.30
Light Truck < 3,750 lbs	15.10	2.60	95.40	2.00
Light Truck 3,751- 5,750	16.10	1.20	98.10	0.70
Med Truck 5,751- 8,500	7.30	1.40	95.90	2.70
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	75.00	25.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.40	7.10	85.70	7.20

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino				10.0	5.0	85.0

MITIGATED OPERATIONAL EMISSIONS

		ROG	NOx	CO	SO2	PM10
Hotel		1.07	1.44	10.79	0.01	1.24
Event Center		1.17	1.89	14.13	0.01	1.70
Casino		8.03	10.96	84.14	0.05	9.25
TOTAL EMISSIONS (tons/yr)		10.27	14.29	109.06	0.07	12.19
PERCENTAGE REDUCTION	%	4	5	5	5	5

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2009 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		3.00 trips/rooms	300.00	900.00
Event Center		37.59 trips/1000 sq. ft.	24.00	902.16
Casino		105.00 trips/1000 sq. ft.	73.47	7,714.25
		Sum of Total Trips		9,516.41
		Total Vehicle Miles Traveled		46,176.72

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.90	1.30	98.40	0.30
Light Truck < 3,750 lbs	15.10	2.60	95.40	2.00
Light Truck 3,751- 5,750	16.10	1.20	98.10	0.70
Med Truck 5,751- 8,500	7.30	1.40	95.90	2.70
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	75.00	25.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.40	7.10	85.70	7.20

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino				10.0	5.0	85.0

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 2%
Inputs Selected:
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

Percent Reduction in Trips is 0.2%
Inputs Selected:
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 12
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Telecommuting Mitigation

Percent Reduction in Trips is 12%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The Compressed Work Schedule 3/36 was selected with 30% of the employees participating

Non-Residential Other Transportation Demand Measures Mitigation

Percent Reduction in Trips is 1.01%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The 'Secure Bike Parking' measure was selected
The 'Information provided on Transportation Alternatives' measure was selected
The 'Carpool Matching Programs' measure was selected
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
The area souce mitigation measure option switch changed from off to on.
Mitigation measure Residential Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Commercial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Industrial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Residential Electric Landscape Maintenance Equipment
has been changed from off to on.
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment
has been changed from off to on.

Changes made to the default values for Operations

The pass by trips option switch changed from off to on.
The mitigation option switch changed from off to on.
The operational emission year changed from 2005 to 2009.
The operational winter selection item changed from 2 to 1.
The operational summer temperature changed from 85 to 70.
The operational summer selection item changed from 7 to 4.
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.
The Res and Non-Res Transit Service Mitigation changed from off to on.
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

REDUCED OPERATIONAL

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase A Near Term.urb
Project Name: Jamul Indian Village Reduced Phase A Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.93	0.37	1.09	0.00	0.00
TOTALS (lbs/day, mitigated)	0.90	0.30	0.87	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	36.14	49.90	381.25	0.23	39.88
TOTALS (lbs/day, mitigated)	34.71	47.94	365.88	0.22	38.29

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	37.07	50.28	382.34	0.23	39.89
TOTALS (lbs/day, mitigated)	35.61	48.24	366.75	0.22	38.29

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase A Near Term.urb
Project Name: Jamul Indian Village Reduced Phase A Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.12	0.07	0.13	0.00	0.00
TOTALS (tpy, mitigated)	0.12	0.05	0.10	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	7.45	10.09	77.34	0.04	7.28
TOTALS (tpy, mitigated)	7.16	9.70	74.26	0.04	6.99

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	7.57	10.16	77.47	0.04	7.28
TOTALS (tpy, mitigated)	7.27	9.75	74.36	0.04	6.99

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase A Near Term.urb
Project Name: Jamul Indian Village Reduced Phase A Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.03	0.37	0.31	0	0.00
Hearth - No summer emissions					
Landscaping	0.12	0.00	0.78	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.78	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.93	0.37	1.09	0.00	0.00

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.02	0.30	0.25	0	0.00
Hearth - No summer emissions					
Landscaping	0.10	0.00	0.62	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.78	-	-	-	-
TOTALS (lbs/day, mitigated)	0.90	0.30	0.87	0.00	0.00

Area Source Mitigation Measures

Residential Increase Efficiency Beyond Title 24
Percent Reduction: 20
Commercial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Industrial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Residential Electric Landscape Maintenance Equipment
Percent Reduction: 20
Commercial/Industrial Electric Landscape Maintenance Equipment
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	36.14	49.90	381.25	0.23	39.88
TOTAL EMISSIONS (lbs/day)	36.14	49.90	381.25	0.23	39.88

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		105.00 trips/1000 sq. ft.	55.47	5,824.67
		Sum of Total Trips		5,824.67
		Total Vehicle Miles Traveled		26,245.07

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				10.0	5.0	85.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	34.71	47.94	365.88	0.22	38.29
TOTAL EMISSIONS (lbs/day)	34.71	47.94	365.88	0.22	38.29
PERCENTAGE REDUCTION %	4	4	4	4	4

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino (Worker Trip Rate: 89.33)		102.69 trips/1000 sq. ft.	55.47	5,696.52
		Sum of Total Trips		5,696.52
		Total Vehicle Miles Traveled		25,196.24

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				10.0	5.0	85.0

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 2%
Inputs Selected:
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

Percent Reduction in Trips is 0.2%
Inputs Selected:
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 12
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Telecommuting Mitigation

Percent Reduction in Trips is 12%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The Compressed Work Schedule 3/36 was selected with 30% of the employees participating

Non-Residential Other Transportation Demand Measures Mitigation

Percent Reduction in Trips is 1.01%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The 'Secure Bike Parking' measure was selected
The 'Information provided on Transportation Alternatives' measure was selected
The 'Carpool Matching Programs' measure was selected
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
The area souce mitigation measure option switch changed from off to on.
Mitigation measure Residential Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Commercial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Industrial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Residential Electric Landscape Maintenance Equipment
has been changed from off to on.
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment
has been changed from off to on.

Changes made to the default values for Operations

The pass by trips option switch changed from off to on.
The mitigation option switch changed from off to on.
The operational emission year changed from 2005 to 2007.
The operational winter selection item changed from 2 to 1.
The operational summer temperature changed from 85 to 70.
The operational summer selection item changed from 7 to 4.
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.
The Res and Non-Res Transit Service Mitigation changed from off to on.
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase A Near Term.urb
Project Name: Jamul Indian Village Reduced Phase A Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES (Tons per Year, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.00	0.07	0.06	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping	0.01	0.00	0.07	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.10	-	-	-	-
TOTALS (tpy, unmitigated)	0.12	0.07	0.13	0.00	0.00

AREA SOURCE EMISSION ESTIMATES (Tons per Year, Mitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.00	0.05	0.05	0	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping	0.01	0.00	0.06	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.10	-	-	-	-
TOTALS (tpy, mitigated)	0.12	0.05	0.10	0.00	0.00

Area Source Mitigation Measures

Residential Increase Efficiency Beyond Title 24
Percent Reduction: 20
Commercial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Industrial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Residential Electric Landscape Maintenance Equipment
Percent Reduction: 20
Commercial/Industrial Electric Landscape Maintenance Equipment
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	7.45	10.09	77.34	0.04	7.28
TOTAL EMISSIONS (tons/yr)	7.45	10.09	77.34	0.04	7.28

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		105.00 trips/1000 sq. ft.	55.47	5,824.67
		Sum of Total Trips		5,824.67
		Total Vehicle Miles Traveled		26,245.07

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				10.0	5.0	85.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	7.16	9.70	74.26	0.04	6.99
TOTAL EMISSIONS (tons/yr)	7.16	9.70	74.26	0.04	6.99
PERCENTAGE REDUCTION %	4	4	4	4	4

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		105.00 trips/1000 sq. ft.	55.47	5,824.67
		Sum of Total Trips		5,824.67
		Total Vehicle Miles Traveled		26,245.07

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				10.0	5.0	85.0

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 2%
Inputs Selected:
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

Percent Reduction in Trips is 0.2%
Inputs Selected:
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 12
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Telecommuting Mitigation

Percent Reduction in Trips is 12%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The Compressed Work Schedule 3/36 was selected with 30% of the employees participating

Non-Residential Other Transportation Demand Measures Mitigation

Percent Reduction in Trips is 1.01%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The 'Secure Bike Parking' measure was selected
The 'Information provided on Transportation Alternatives' measure was selected
The 'Carpool Matching Programs' measure was selected
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
The area souce mitigation measure option switch changed from off to on.
Mitigation measure Residential Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Commercial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Industrial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Residential Electric Landscape Maintenance Equipment
has been changed from off to on.
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment
has been changed from off to on.

Changes made to the default values for Operations

The pass by trips option switch changed from off to on.
The mitigation option switch changed from off to on.
The operational emission year changed from 2005 to 2007.
The operational winter selection item changed from 2 to 1.
The operational summer temperature changed from 85 to 70.
The operational summer selection item changed from 7 to 4.
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.
The Res and Non-Res Transit Service Mitigation changed from off to on.
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase B Near Term.urb
Project Name: Jamul Indian Village Reduced Phase B Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	2.54	2.39	4.34	0.00	0.01
TOTALS (lbs/day, mitigated)	2.43	1.91	3.47	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	36.35	51.02	389.96	0.27	48.09
TOTALS (lbs/day, mitigated)	34.79	48.79	372.48	0.26	45.94

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	38.89	53.41	394.30	0.27	48.10
TOTALS (lbs/day, mitigated)	37.23	50.70	375.95	0.26	45.95

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase B Near Term.urb
Project Name: Jamul Indian Village Reduced Phase B Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.33	0.43	0.57	0.00	0.00
TOTALS (tpy, mitigated)	0.32	0.35	0.46	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	7.45	10.32	78.89	0.05	8.78
TOTALS (tpy, mitigated)	7.13	9.86	75.41	0.05	8.38

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	7.78	10.75	79.47	0.05	8.78
TOTALS (tpy, mitigated)	7.45	10.21	75.87	0.05	8.38

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase B Near Term.urb
Project Name: Jamul Indian Village Reduced Phase B Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.17	2.37	1.99	0	0.00
Hearth - No summer emissions					
Landscaping	0.37	0.01	2.34	0.00	0.01
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	2.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	2.54	2.39	4.34	0.00	0.01

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.14	1.90	1.60	0	0.00
Hearth - No summer emissions					
Landscaping	0.30	0.01	1.87	0.00	0.01
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	2.00	-	-	-	-
TOTALS (lbs/day, mitigated)	2.43	1.91	3.47	0.00	0.01

Area Source Mitigation Measures

Residential Increase Efficiency Beyond Title 24
Percent Reduction: 20
Commercial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Industrial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Residential Electric Landscape Maintenance Equipment
Percent Reduction: 20
Commercial/Industrial Electric Landscape Maintenance Equipment
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	2.82	3.67	27.53	0.02	3.51
Event Center	2.94	4.73	36.20	0.03	4.73
Casino	30.60	42.62	326.23	0.23	39.85
TOTAL EMISSIONS (lbs/day)	36.35	51.02	389.96	0.27	48.09

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2009 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		3.00 trips/rooms	150.00	450.00
Event Center		34.50 trips/1000 sq. ft.	12.00	414.00
Casino		105.00 trips/1000 sq. ft.	55.47	5,824.67
		Sum of Total Trips		6,688.67
		Total Vehicle Miles Traveled		31,674.78

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.90	1.30	98.40	0.30
Light Truck < 3,750 lbs	15.10	2.60	95.40	2.00
Light Truck 3,751- 5,750	16.10	1.20	98.10	0.70
Med Truck 5,751- 8,500	7.30	1.40	95.90	2.70
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	75.00	25.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.40	7.10	85.70	7.20

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino				10.0	5.0	85.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	2.74	3.55	26.67	0.02	3.40
Event Center	2.66	4.29	32.75	0.02	4.28
Casino	29.39	40.95	313.07	0.22	38.26
TOTAL EMISSIONS (lbs/day)	34.79	48.79	372.48	0.26	45.94
PERCENTAGE REDUCTION %	4	4	4	5	4

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2009 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		2.93 trips/rooms	150.00	440.10
(Worker Trip Rate: 2.55)				
Event Center		33.74 trips/1000 sq. ft.	12.00	404.89
(Worker Trip Rate: 29.35)				
Casino		102.69 trips/1000 sq. ft.	55.47	5,696.52
(Worker Trip Rate: 89.33)				
		Sum of Total Trips		6,541.51
		Total Vehicle Miles Traveled		30,256.38

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.90	1.30	98.40	0.30
Light Truck < 3,750 lbs	15.10	2.60	95.40	2.00
Light Truck 3,751- 5,750	16.10	1.20	98.10	0.70
Med Truck 5,751- 8,500	7.30	1.40	95.90	2.70
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	75.00	25.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.40	7.10	85.70	7.20

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino				10.0	5.0	85.0

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 2%
Inputs Selected:
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

Percent Reduction in Trips is 0.2%
Inputs Selected:
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 12
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Telecommuting Mitigation

Percent Reduction in Trips is 12%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The Compressed Work Schedule 3/36 was selected with 30% of the employees participating

Non-Residential Other Transportation Demand Measures Mitigation

Percent Reduction in Trips is 1.01%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The 'Secure Bike Parking' measure was selected
The 'Information provided on Transportation Alternatives' measure was selected
The 'Carpool Matching Programs' measure was selected
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
The area souce mitigation measure option switch changed from off to on.
Mitigation measure Residential Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Commercial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Industrial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Residential Electric Landscape Maintenance Equipment
has been changed from off to on.
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment
has been changed from off to on.

Changes made to the default values for Operations

The pass by trips option switch changed from off to on.
The mitigation option switch changed from off to on.
The operational emission year changed from 2005 to 2009.
The operational winter selection item changed from 2 to 1.
The operational summer temperature changed from 85 to 70.
The operational summer selection item changed from 7 to 4.
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.
The Res and Non-Res Transit Service Mitigation changed from off to on.
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase B Near Term.urb
Project Name: Jamul Indian Village Reduced Phase B Near Term
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES (Tons per Year, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.03	0.43	0.36	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping	0.03	0.00	0.21	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.26	-	-	-	-
TOTALS (tpy, unmitigated)	0.33	0.43	0.57	0.00	0.00

AREA SOURCE EMISSION ESTIMATES (Tons per Year, Mitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.03	0.35	0.29	0	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping	0.03	0.00	0.17	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.26	-	-	-	-
TOTALS (tpy, mitigated)	0.32	0.35	0.46	0.00	0.00

Area Source Mitigation Measures

Residential Increase Efficiency Beyond Title 24
Percent Reduction: 20
Commercial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Industrial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Residential Electric Landscape Maintenance Equipment
Percent Reduction: 20
Commercial/Industrial Electric Landscape Maintenance Equipment
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	0.55	0.74	5.57	0.00	0.64
Event Center	0.59	0.96	7.16	0.00	0.86
Casino	6.31	8.62	66.16	0.04	7.27
TOTAL EMISSIONS (tons/yr)	7.45	10.32	78.89	0.05	8.78

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2009 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		3.00 trips/rooms	150.00	450.00
Event Center		34.50 trips/1000 sq. ft.	12.00	414.00
Casino		105.00 trips/1000 sq. ft.	55.47	5,824.67
		Sum of Total Trips		6,688.67
		Total Vehicle Miles Traveled		31,674.78

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.90	1.30	98.40	0.30
Light Truck < 3,750 lbs	15.10	2.60	95.40	2.00
Light Truck 3,751- 5,750	16.10	1.20	98.10	0.70
Med Truck 5,751- 8,500	7.30	1.40	95.90	2.70
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	75.00	25.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.40	7.10	85.70	7.20

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino				10.0	5.0	85.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	0.53	0.72	5.39	0.00	0.62
Event Center	0.54	0.87	6.48	0.00	0.78
Casino	6.06	8.28	63.53	0.04	6.98
TOTAL EMISSIONS (tons/yr)	7.13	9.86	75.41	0.05	8.38
PERCENTAGE REDUCTION %	4	4	4	5	4

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2009 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		3.00 trips/rooms	150.00	450.00
Event Center		34.50 trips/1000 sq. ft.	12.00	414.00
Casino		105.00 trips/1000 sq. ft.	55.47	5,824.67
		Sum of Total Trips		6,688.67
		Total Vehicle Miles Traveled		31,674.78

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.90	1.30	98.40	0.30
Light Truck < 3,750 lbs	15.10	2.60	95.40	2.00
Light Truck 3,751- 5,750	16.10	1.20	98.10	0.70
Med Truck 5,751- 8,500	7.30	1.40	95.90	2.70
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	75.00	25.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.40	7.10	85.70	7.20

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino				10.0	5.0	85.0

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 2%
Inputs Selected:
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

Percent Reduction in Trips is 0.2%
Inputs Selected:
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 12
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Telecommuting Mitigation

Percent Reduction in Trips is 12%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The Compressed Work Schedule 3/36 was selected with 30% of the employees participating

Non-Residential Other Transportation Demand Measures Mitigation

Percent Reduction in Trips is 1.01%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The 'Secure Bike Parking' measure was selected
The 'Information provided on Transportation Alternatives' measure was selected
The 'Carpool Matching Programs' measure was selected
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
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Mitigation measure Residential Increase Efficiency Beyond Title 24
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The operational summer temperature changed from 85 to 70.
The operational summer selection item changed from 7 to 4.
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.
The Res and Non-Res Transit Service Mitigation changed from off to on.
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

REDUCED CONSTRUCTION

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase A Near Term Const.urb
Project Name: Jamul Indian Village Reduced Phase A Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

*** 2006 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	11.44	74.56	96.08	0.00	19.17	3.16	16.01
TOTALS (lbs/day, mitigated)	11.44	51.35	96.04	0.00	2.63	0.23	2.40

*** 2007 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	25.23	65.38	80.84	0.00	2.67	2.55	0.12
TOTALS (lbs/day, mitigated)	25.22	45.06	80.74	0.00	0.31	0.19	0.12

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase A Near Term Const.urb
Project Name: Jamul Indian Village Reduced Phase A Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

*** 2006 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (tpy, unmitigated)	0.62	4.37	4.94	0.00	0.42	0.19	0.23
TOTALS (tpy, mitigated)	0.62	3.01	4.94	0.00	0.04	0.01	0.03

*** 2007 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (tpy, unmitigated)	0.60	2.86	3.35	0.00	0.11	0.11	0.00
TOTALS (tpy, mitigated)	0.60	1.98	3.35	0.00	0.01	0.01	0.00

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase A Near Term Const.urb
Project Name: Jamul Indian Village Reduced Phase A Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2006
Construction Duration: 12
Total Land Use Area to be Developed: 6.4 acres
Maximum Acreage Disturbed Per Day: 1.6 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 138308

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	16.00	-	16.00
Off-Road Diesel	11.30	74.38	92.94	-	3.16	3.16	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.14	0.18	3.14	0.00	0.01	0.00	0.01
Maximum lbs/day	11.44	74.56	96.08	0.00	19.17	3.16	16.01
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	7.02	52.63	52.48	-	2.30	2.30	0.00
Bldg Const Worker Trips	0.38	0.23	4.83	0.00	0.06	0.00	0.06
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	7.40	52.85	57.31	0.00	2.36	2.30	0.06
Max lbs/day all phases	11.44	74.56	96.08	0.00	19.17	3.16	16.01
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	7.02	50.42	53.94	-	2.09	2.09	0.00
Bldg Const Worker Trips	0.35	0.21	4.54	0.00	0.06	0.00	0.06
Arch Coatings Off-Gas	14.86	-	-	-	-	-	-
Arch Coatings Worker Trips	0.32	0.15	3.73	0.00	0.06	0.00	0.06
Asphalt Off-Gas	0.38	-	-	-	-	-	-
Asphalt Off-Road Diesel	2.24	13.28	19.01	-	0.42	0.42	0.00
Asphalt On-Road Diesel	0.08	1.37	0.31	0.00	0.04	0.04	0.00
Asphalt Worker Trips	0.01	0.01	0.13	0.00	0.00	0.00	0.00
Maximum lbs/day	25.23	65.38	80.84	0.00	2.67	2.55	0.12
Max lbs/day all phases	25.23	65.38	80.84	0.00	2.67	2.55	0.12

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '06
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Scrapers	313	0.660	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '06
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '06
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
2	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '07
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '07
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 1.6
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	2.39	-	2.39
Off-Road Diesel	11.30	51.17	92.94	-	0.23	0.23	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.14	0.18	3.10	0.00	0.01	0.00	0.01
Maximum lbs/day	11.44	51.35	96.04	0.00	2.63	0.23	2.40
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	7.02	36.21	52.48	-	0.17	0.17	0.00
Bldg Const Worker Trips	0.38	0.23	4.77	0.00	0.06	0.00	0.06
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	7.40	36.43	57.24	0.00	0.23	0.17	0.06
Max lbs/day all phases	11.44	51.35	96.04	0.00	2.63	0.23	2.40
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00

Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	7.02	34.69	53.94	-	0.15	0.15	0.00
Bldg Const Worker Trips	0.35	0.21	4.48	0.00	0.06	0.00	0.06
Arch Coatings Off-Gas	14.86	-	-	-	-	-	-
Arch Coatings Worker Trips	0.32	0.15	3.68	0.00	0.06	0.00	0.06
Asphalt Off-Gas	0.38	-	-	-	-	-	-
Asphalt Off-Road Diesel	2.24	9.14	19.01	-	0.03	0.03	0.00
Asphalt On-Road Diesel	0.08	0.94	0.31	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.01	0.01	0.13	0.00	0.00	0.00	0.00
Maximum lbs/day	25.22	45.06	80.74	0.00	0.31	0.19	0.12
Max lbs/day all phases	25.22	45.06	80.74	0.00	0.31	0.19	0.12

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Soil Disturbance: Replace ground cover in disturbed areas quickly
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 15.0%)
Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%)
Phase 2: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: Stockpiles: Cover all stock piles with tarps
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%)
Phase 2: Unpaved Roads: Water all haul roads 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%)
Phase 2: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '06
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Scrapers	313	0.660	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '06
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '06
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
2	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '07
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '07
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 1.6
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013
Phase 2 mitigation measure Soil Disturbance: Apply soil stabilizers to inactive areas
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Replace ground cover in disturbed areas quickly
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Water exposed surfaces - 2x daily
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 2 mitigation measure Stockpiles: Cover all stock piles with tarps
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Water all haul roads 2x daily
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
has been changed from off to on.
Phase 2 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
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Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase A Near Term Const.urb
Project Name: Jamul Indian Village Reduced Phase A Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Tons/Year)

Construction Start Month and Year: June, 2006
Construction Duration: 12
Total Land Use Area to be Developed: 6.4 acres
Maximum Acreage Disturbed Per Day: 1.6 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 138308

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.23	-	0.23
Off-Road Diesel	0.16	1.06	1.33	-	0.05	0.05	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00
Total tons/year	0.16	1.06	1.37	0.00	0.28	0.05	0.23
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.44	3.30	3.29	-	0.14	0.14	0.00
Bldg Const Worker Trips	0.02	0.01	0.28	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.46	3.31	3.57	0.00	0.14	0.14	0.00
Total all phases tons/yr	0.62	4.37	4.94	0.00	0.42	0.19	0.23
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.39	2.77	2.97	-	0.11	0.11	0.00
Bldg Const Worker Trips	0.02	0.01	0.23	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.18	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.01	0.07	0.10	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.60	2.86	3.35	0.00	0.11	0.11	0.00
Total all phases tons/yr	0.60	2.86	3.35	0.00	0.11	0.11	0.00

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '06
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Scrapers	313	0.660	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '06
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '06
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
2	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '07
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '07
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 1.6
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.03	-	0.03
Off-Road Diesel	0.16	0.73	1.33	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00
Total tons/year	0.16	0.73	1.37	0.00	0.03	0.00	0.03
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.44	2.27	3.29	-	0.01	0.01	0.00
Bldg Const Worker Trips	0.02	0.01	0.28	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.46	2.28	3.57	0.00	0.01	0.01	0.00
Total all phases tons/yr	0.62	3.01	4.94	0.00	0.04	0.01	0.03
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00

Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.39	1.91	2.97	-	0.01	0.01	0.00
Bldg Const Worker Trips	0.02	0.01	0.23	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.18	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.01	0.05	0.10	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.60	1.98	3.35	0.00	0.01	0.01	0.00
Total all phases tons/yr	0.60	1.98	3.35	0.00	0.01	0.01	0.00

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Soil Disturbance: Replace ground cover in disturbed areas quickly
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 15.0%)
Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%)
Phase 2: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: Stockpiles: Cover all stock piles with tarps
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%)
Phase 2: Unpaved Roads: Water all haul roads 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%)
Phase 2: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '06
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Scrapers	313	0.660	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '06
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '06
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
2	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '07
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '07
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 1.6
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013
Phase 2 mitigation measure Soil Disturbance: Apply soil stabilizers to inactive areas
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Replace ground cover in disturbed areas quickly
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Water exposed surfaces - 2x daily
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 2 mitigation measure Stockpiles: Cover all stock piles with tarps
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Water all haul roads 2x daily
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
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Phase 2 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
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Phase 3 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase B Near Term Const.urb
Project Name: Jamul Indian Village Reduced Phase B Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

*** 2008 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	11.42	70.12	97.71	0.00	12.57	2.56	10.01
TOTALS (lbs/day, mitigated)	11.42	48.29	97.67	0.00	1.69	0.19	1.50

*** 2009 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	20.61	68.54	91.54	0.00	2.48	2.42	0.06
TOTALS (lbs/day, mitigated)	20.60	47.19	91.50	0.00	0.24	0.18	0.06

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase B Near Term Const.urb
Project Name: Jamul Indian Village Reduced Phase B Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

*** 2008 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (tpy, unmitigated)	0.70	4.58	5.75	0.00	0.32	0.18	0.14
TOTALS (tpy, mitigated)	0.70	3.16	5.75	0.00	0.03	0.01	0.02

*** 2009 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (tpy, unmitigated)	0.60	3.08	4.02	0.00	0.11	0.11	0.00
TOTALS (tpy, mitigated)	0.60	2.12	4.02	0.00	0.01	0.01	0.00

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase B Near Term Const.urb
Project Name: Jamul Indian Village Reduced Phase B Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2008
Construction Duration: 12
Total Land Use Area to be Developed: 4 acres
Maximum Acreage Disturbed Per Day: 1 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 87000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	10.00	-	10.00
Off-Road Diesel	11.30	69.97	95.00	-	2.56	2.56	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.12	0.15	2.71	0.00	0.01	0.00	0.01
Maximum lbs/day	11.42	70.12	97.71	0.00	12.57	2.56	10.01
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	8.46	56.90	67.59	-	2.18	2.18	0.00
Bldg Const Worker Trips	0.16	0.10	2.12	0.00	0.03	0.00	0.03
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	8.63	57.00	69.71	0.00	2.21	2.18	0.03
Max lbs/day all phases	11.42	70.12	97.71	0.00	12.57	2.56	10.01
*** 2009***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	8.46	54.73	69.06	-	2.03	2.03	0.00
Bldg Const Worker Trips	0.15	0.09	1.95	0.00	0.03	0.00	0.03
Arch Coatings Off-Gas	9.35	-	-	-	-	-	-
Arch Coatings Worker Trips	0.13	0.06	1.60	0.00	0.03	0.00	0.03
Asphalt Off-Gas	0.24	-	-	-	-	-	-
Asphalt Off-Road Diesel	2.24	12.97	19.01	-	0.36	0.36	0.00
Asphalt On-Road Diesel	0.04	0.71	0.16	0.00	0.02	0.02	0.00
Asphalt Worker Trips	0.01	0.00	0.11	0.00	0.00	0.00	0.00
Maximum lbs/day	20.61	68.54	91.54	0.00	2.48	2.42	0.06
Max lbs/day all phases	20.61	68.54	91.54	0.00	2.48	2.42	0.06

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '08
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Scrapers	313	0.660	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '08
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '08
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '09
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '09
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 1
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	1.49	-	1.49
Off-Road Diesel	11.30	48.14	95.00	-	0.19	0.19	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.12	0.15	2.67	0.00	0.01	0.00	0.01
Maximum lbs/day	11.42	48.29	97.67	0.00	1.69	0.19	1.50
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	8.46	39.15	67.59	-	0.16	0.16	0.00
Bldg Const Worker Trips	0.16	0.10	2.09	0.00	0.03	0.00	0.03
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	8.62	39.24	69.68	0.00	0.19	0.16	0.03
Max lbs/day all phases	11.42	48.29	97.67	0.00	1.69	0.19	1.50
*** 2009***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	8.46	37.65	69.06	-	0.15	0.15	0.00
Bldg Const Worker Trips	0.15	0.09	1.92	0.00	0.03	0.00	0.03
Arch Coatings Off-Gas	9.35	-	-	-	-	-	-
Arch Coatings Worker Trips	0.13	0.06	1.58	0.00	0.03	0.00	0.03
Asphalt Off-Gas	0.24	-	-	-	-	-	-
Asphalt Off-Road Diesel	2.24	8.92	19.01	-	0.03	0.03	0.00
Asphalt On-Road Diesel	0.04	0.49	0.16	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.01	0.00	0.11	0.00	0.00	0.00	0.00
Maximum lbs/day	20.60	47.19	91.50	0.00	0.24	0.18	0.06
Max lbs/day all phases	20.60	47.19	91.50	0.00	0.24	0.18	0.06

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Soil Disturbance: Replace ground cover in disturbed areas quickly
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 15.0%)
Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%)
Phase 2: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: Stockpiles: Cover all stock piles with tarps
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%)
Phase 2: Unpaved Roads: Water all haul roads 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%)
Phase 2: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
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Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
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Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '08
Phase 2 Duration: 1.3 months

On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Scrapers	313	0.660	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '08
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '08
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '09
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '09
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 1
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013
Phase 2 mitigation measure Soil Disturbance: Apply soil stabilizers to inactive areas
has been changed from off to on.
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Phase 2 mitigation measure Soil Disturbance: Water exposed surfaces - 2x daily
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Phase 2 mitigation measure On-Road Diesel Exhaust: Use lean-NOx catalyst
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Phase 2 mitigation measure Stockpiles: Cover all stock piles with tarps
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Water all haul roads 2x daily
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
has been changed from off to on.
Phase 2 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
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Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced Phase B Near Term Const.urb
Project Name: Jamul Indian Village Reduced Phase B Near Term Const
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Tons/Year)

Construction Start Month and Year: June, 2008
Construction Duration: 12
Total Land Use Area to be Developed: 4 acres
Maximum Acreage Disturbed Per Day: 1 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 87000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.14	-	0.14
Off-Road Diesel	0.16	1.00	1.36	-	0.04	0.04	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00
Total tons/year	0.16	1.00	1.39	0.00	0.18	0.04	0.14
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.53	3.57	4.24	-	0.14	0.14	0.00
Bldg Const Worker Trips	0.01	0.01	0.12	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.54	3.58	4.36	0.00	0.14	0.14	0.00
Total all phases tons/yr	0.70	4.58	5.75	0.00	0.32	0.18	0.14
*** 2009***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.47	3.01	3.80	-	0.11	0.11	0.00
Bldg Const Worker Trips	0.01	0.00	0.10	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.11	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.01	0.07	0.10	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.60	3.08	4.02	0.00	0.11	0.11	0.00
Total all phases tons/yr	0.60	3.08	4.02	0.00	0.11	0.11	0.00

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '08
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Scrapers	313	0.660	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '08
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '08
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '09
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '09
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 1
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.02	-	0.02
Off-Road Diesel	0.16	0.69	1.36	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00
Total tons/year	0.16	0.69	1.39	0.00	0.02	0.00	0.02
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.53	2.46	4.24	-	0.01	0.01	0.00
Bldg Const Worker Trips	0.01	0.01	0.12	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.54	2.47	4.36	0.00	0.01	0.01	0.00
Total all phases tons/yr	0.70	3.16	5.75	0.00	0.03	0.01	0.02
*** 2009***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.47	2.07	3.80	-	0.01	0.01	0.00
Bldg Const Worker Trips	0.01	0.00	0.10	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.11	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.01	0.05	0.10	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.60	2.12	4.02	0.00	0.01	0.01	0.00
Total all phases tons/yr	0.60	2.12	4.02	0.00	0.01	0.01	0.00

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Soil Disturbance: Replace ground cover in disturbed areas quickly
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 15.0%)
Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%)
Phase 2: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: On-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 2: On-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 2: Stockpiles: Cover all stock piles with tarps
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%)
Phase 2: Unpaved Roads: Water all haul roads 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%)
Phase 2: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use lean-NOx catalyst
Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
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Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
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Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
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Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
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Percent Reduction(ROG 0.0% NOx 20.0% CO 0.0% SO2 0.0% PM10 0.0%)
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Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
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Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '08
Phase 2 Duration: 1.3 months

On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Scrapers	313	0.660	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '08
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '08
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0
1	Trenchers	82	0.695	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '09
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: May '09
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 1
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013
Phase 2 mitigation measure Soil Disturbance: Apply soil stabilizers to inactive areas
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Replace ground cover in disturbed areas quickly
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Water exposed surfaces - 2x daily
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
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Phase 2 mitigation measure On-Road Diesel Exhaust: Use aqueous diesel fuel
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use diesel particulate filter
has been changed from off to on.
Phase 2 mitigation measure On-Road Diesel Exhaust: Use lean-NOx catalyst
has been changed from off to on.
Phase 2 mitigation measure Stockpiles: Cover all stock piles with tarps
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Water all haul roads 2x daily
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
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Phase 2 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Use aqueous diesel fuel
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Phase 3 mitigation measure Worker Trips: Use shuttle to retail establishments @lunch
has been changed from off to on.

CUMULATIVE

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred 2020.urb
Project Name: Jamul Indian Village Preferred 2020
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	4.06	4.53	5.67	0.00	0.01
TOTALS (lbs/day, mitigated)	4.00	3.63	4.90	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	25.71	24.71	261.72	0.40	69.05
TOTALS (lbs/day, mitigated)	25.16	24.12	255.45	0.39	67.39

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	29.77	29.23	267.39	0.40	69.06
TOTALS (lbs/day, mitigated)	29.16	27.74	260.35	0.39	67.40

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred 2020.urb
Project Name: Jamul Indian Village Preferred 2020
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.54	0.82	0.86	0.00	0.00
TOTALS (tpy, mitigated)	0.53	0.66	0.72	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	4.92	5.25	50.01	0.07	12.60
TOTALS (tpy, mitigated)	4.81	5.12	48.82	0.07	12.30

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	5.46	6.07	50.87	0.07	12.60
TOTALS (tpy, mitigated)	5.34	5.78	49.54	0.07	12.30

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred 2020.urb
Project Name: Jamul Indian Village Preferred 2020
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.33	4.50	3.78	0	0.01
Hearth - No summer emissions					
Landscaping	0.27	0.03	1.89	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	3.47	-	-	-	-
TOTALS(lbs/day,unmitigated)	4.06	4.53	5.67	0.00	0.01

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.26	3.60	3.02	0	0.01
Hearth - No summer emissions					
Landscaping	0.27	0.03	1.87	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	3.47	-	-	-	-
TOTALS (lbs/day, mitigated)	4.00	3.63	4.90	0.00	0.01

Area Source Mitigation Measures

Residential Increase Efficiency Beyond Title 24
Percent Reduction: 20
Commercial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Industrial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Residential Electric Landscape Maintenance Equipment
Percent Reduction: 20
Commercial/Industrial Electric Landscape Maintenance Equipment
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	4.27	2.47	25.82	0.04	7.00
Event Center	2.73	3.16	34.66	0.05	9.43
Casino Gaming Area	18.71	19.08	201.24	0.30	52.61
TOTAL EMISSIONS (lbs/day)	25.71	24.71	261.72	0.40	69.05

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		3.00 trips/rooms	300.00	900.00
Event Center		34.50 trips/1000 sq. ft.	24.00	828.00
Casino Gaming Area		105.00 trips/1000 sq. ft.	73.47	7,714.25
		Sum of Total Trips		9,442.25
		Total Vehicle Miles Traveled		45,618.65

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino Gaming Area				10.0	5.0	85.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	4.22	2.41	25.23	0.04	6.84
Event Center	2.66	3.07	33.70	0.05	9.17
Casino Gaming Area	18.28	18.63	196.52	0.30	51.38
TOTAL EMISSIONS (lbs/day)	25.16	24.12	255.45	0.39	67.39
PERCENTAGE REDUCTION %	2	2	2	2	2

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		2.93 trips/rooms	300.00	880.20
(Worker Trip Rate: 2.9)				
Event Center		33.74 trips/1000 sq. ft.	24.00	809.78
(Worker Trip Rate: 33.4)				
Casino Gaming Area		102.69 trips/1000 sq. ft.	73.47	7,544.53
(Worker Trip Rate: 101.65)				
		Sum of Total Trips		9,234.52
		Total Vehicle Miles Traveled		44,527.73

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino Gaming Area				10.0	5.0	85.0

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 2%
Inputs Selected:
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

Percent Reduction in Trips is 0.2%
Inputs Selected:
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 12
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Other Transportation Demand Measures Mitigation

Percent Reduction in Trips is 1.01%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The 'Secure Bike Parking' measure was selected
The 'Information provided on Transportation Alternatives' measure was selected
The 'Carpool Matching Programs' measure was selected
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
The area souce mitigation measure option switch changed from off to on.
The landscape year changed from 2005 to 2020.
Mitigation measure Residential Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Commercial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Industrial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Residential Electric Landscape Maintenance Equipment
has been changed from off to on.
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment
has been changed from off to on.

Changes made to the default values for Operations

The pass by trips option switch changed from off to on.
The mitigation option switch changed from off to on.
The operational emission year changed from 2005 to 2020.
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.
The Res and Non-Res Transit Service Mitigation changed from off to on.
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Preferred 2020.urb
Project Name: Jamul Indian Village Preferred 2020
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES (Tons per Year, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.06	0.82	0.69	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping	0.02	0.00	0.17	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.46	-	-	-	-
TOTALS (tpy, unmitigated)	0.54	0.82	0.86	0.00	0.00

AREA SOURCE EMISSION ESTIMATES (Tons per Year, Mitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.05	0.66	0.55	0	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping	0.02	0.00	0.17	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.46	-	-	-	-
TOTALS (tpy, mitigated)	0.53	0.66	0.72	0.00	0.00

Area Source Mitigation Measures

Residential Increase Efficiency Beyond Title 24
Percent Reduction: 20
Commercial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Industrial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Residential Electric Landscape Maintenance Equipment
Percent Reduction: 20
Commercial/Industrial Electric Landscape Maintenance Equipment
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	0.69	0.52	4.93	0.01	1.28
Event Center	0.53	0.67	6.45	0.01	1.72
Casino Gaming Area	3.70	4.05	38.63	0.05	9.60
TOTAL EMISSIONS (tons/yr)	4.92	5.25	50.01	0.07	12.60

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		3.00 trips/rooms	300.00	900.00
Event Center		34.50 trips/1000 sq. ft.	24.00	828.00
Casino Gaming Area		105.00 trips/1000 sq. ft.	73.47	7,714.25
		Sum of Total Trips		9,442.25
		Total Vehicle Miles Traveled		45,618.65

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino Gaming Area				10.0	5.0	85.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	0.68	0.51	4.82	0.01	1.25
Event Center	0.51	0.65	6.27	0.01	1.67
Casino Gaming Area	3.62	3.95	37.73	0.05	9.38
TOTAL EMISSIONS (tons/yr)	4.81	5.12	48.82	0.07	12.30
PERCENTAGE REDUCTION %	2	2	2	2	2

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		3.00 trips/rooms	300.00	900.00
Event Center		34.50 trips/1000 sq. ft.	24.00	828.00
Casino Gaming Area		105.00 trips/1000 sq. ft.	73.47	7,714.25
		Sum of Total Trips		9,442.25
		Total Vehicle Miles Traveled		45,618.65

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino Gaming Area				10.0	5.0	85.0

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 2%
Inputs Selected:
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

Percent Reduction in Trips is 0.2%
Inputs Selected:
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 12
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Other Transportation Demand Measures Mitigation

Percent Reduction in Trips is 1.01%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The 'Secure Bike Parking' measure was selected
The 'Information provided on Transportation Alternatives' measure was selected
The 'Carpool Matching Programs' measure was selected
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
The area souce mitigation measure option switch changed from off to on.
The landscape year changed from 2005 to 2020.
Mitigation measure Residential Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Commercial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Industrial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Residential Electric Landscape Maintenance Equipment
has been changed from off to on.
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment
has been changed from off to on.

Changes made to the default values for Operations

The pass by trips option switch changed from off to on.
The mitigation option switch changed from off to on.
The operational emission year changed from 2005 to 2020.
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.
The Res and Non-Res Transit Service Mitigation changed from off to on.
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced 2020.urb
Project Name: Jamul Indian Village Reduced 2020
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	2.44	2.40	3.89	0.00	0.01
TOTALS (lbs/day, mitigated)	2.40	1.93	3.47	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	15.54	19.44	161.10	0.27	47.94
TOTALS (lbs/day, mitigated)	14.88	18.59	153.85	0.26	45.80

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	17.97	21.84	164.98	0.27	47.95
TOTALS (lbs/day, mitigated)	17.28	20.51	157.33	0.26	45.80

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced 2020.urb
Project Name: Jamul Indian Village Reduced 2020
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.32	0.44	0.53	0.00	0.00
TOTALS (tpy, mitigated)	0.31	0.35	0.46	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	3.15	3.93	32.29	0.05	8.75
TOTALS (tpy, mitigated)	3.02	3.75	30.86	0.05	8.36

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	3.47	4.36	32.83	0.05	8.75
TOTALS (tpy, mitigated)	3.33	4.10	31.32	0.05	8.36

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced 2020.urb
Project Name: Jamul Indian Village Reduced 2020
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.17	2.37	1.99	0	0.00
Hearth - No summer emissions					
Landscaping	0.27	0.03	1.89	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	2.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	2.44	2.40	3.89	0.00	0.01

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.14	1.90	1.60	0	0.00
Hearth - No summer emissions					
Landscaping	0.27	0.03	1.87	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	2.00	-	-	-	-
TOTALS (lbs/day, mitigated)	2.40	1.93	3.47	0.00	0.01

Area Source Mitigation Measures

Residential Increase Efficiency Beyond Title 24
Percent Reduction: 20
Commercial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Industrial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Residential Electric Landscape Maintenance Equipment
Percent Reduction: 20
Commercial/Industrial Electric Landscape Maintenance Equipment
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	1.31	1.40	11.36	0.02	3.50
Event Center	1.23	1.79	14.99	0.03	4.71
Casino	12.99	16.25	134.74	0.22	39.73
TOTAL EMISSIONS (lbs/day)	15.54	19.44	161.10	0.27	47.94

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		3.00 trips/rooms	150.00	450.00
Event Center		34.50 trips/1000 sq. ft.	12.00	414.00
Casino		105.00 trips/1000 sq. ft.	55.47	5,824.67
		Sum of Total Trips		6,688.67
		Total Vehicle Miles Traveled		31,674.78

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino				10.0	5.0	85.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	1.27	1.35	11.01	0.02	3.39
Event Center	1.12	1.62	13.56	0.02	4.26
Casino	12.49	15.61	129.29	0.22	38.14
TOTAL EMISSIONS (lbs/day)	14.88	18.59	153.85	0.26	45.80
PERCENTAGE REDUCTION %	4	4	4	5	4

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		2.93 trips/rooms	150.00	440.10
(Worker Trip Rate: 2.55)				
Event Center		33.74 trips/1000 sq. ft.	12.00	404.89
(Worker Trip Rate: 29.35)				
Casino		102.69 trips/1000 sq. ft.	55.47	5,696.52
(Worker Trip Rate: 89.33)				
		Sum of Total Trips		6,541.51
		Total Vehicle Miles Traveled		30,256.38

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino				10.0	5.0	85.0

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 2%
Inputs Selected:
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

Percent Reduction in Trips is 0.2%
Inputs Selected:
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 12
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Telecommuting Mitigation

Percent Reduction in Trips is 12%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The Compressed Work Schedule 3/36 was selected with 30% of the employees participating

Non-Residential Other Transportation Demand Measures Mitigation

Percent Reduction in Trips is 1.01%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The 'Secure Bike Parking' measure was selected
The 'Information provided on Transportation Alternatives' measure was selected
The 'Carpool Matching Programs' measure was selected
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
The area souce mitigation measure option switch changed from off to on.
The landscape year changed from 2005 to 2020.
Mitigation measure Residential Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Commercial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Industrial Increase Efficiency Beyond Title 24
has been changed from off to on.
Mitigation measure Residential Electric Landscape Maintenance Equipment
has been changed from off to on.
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment
has been changed from off to on.

Changes made to the default values for Operations

The pass by trips option switch changed from off to on.
The mitigation option switch changed from off to on.
The operational emission year changed from 2005 to 2020.
The operational winter selection item changed from 2 to 1.
The operational summer temperature changed from 85 to 70.
The operational summer selection item changed from 7 to 4.
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.
The Res and Non-Res Transit Service Mitigation changed from off to on.
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Joes\URBEMIS\Jamul\Reduced 2020.urb
Project Name: Jamul Indian Village Reduced 2020
Project Location: San Diego County
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES (Tons per Year, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.03	0.43	0.36	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping	0.02	0.00	0.17	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.26	-	-	-	-
TOTALS (tpy, unmitigated)	0.32	0.44	0.53	0.00	0.00

AREA SOURCE EMISSION ESTIMATES (Tons per Year, Mitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.03	0.35	0.29	0	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping	0.02	0.00	0.17	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.26	-	-	-	-
TOTALS (tpy, mitigated)	0.31	0.35	0.46	0.00	0.00

Area Source Mitigation Measures

Residential Increase Efficiency Beyond Title 24
Percent Reduction: 20
Commercial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Industrial Increase Efficiency Beyond Title 24
Percent Reduction: 20
Residential Electric Landscape Maintenance Equipment
Percent Reduction: 20
Commercial/Industrial Electric Landscape Maintenance Equipment
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	0.24	0.28	2.28	0.00	0.64
Event Center	0.25	0.36	2.94	0.00	0.86
Casino	2.66	3.28	27.08	0.04	7.25
TOTAL EMISSIONS (tons/yr)	3.15	3.93	32.29	0.05	8.75

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		3.00 trips/rooms	150.00	450.00
Event Center		34.50 trips/1000 sq. ft.	12.00	414.00
Casino		105.00 trips/1000 sq. ft.	55.47	5,824.67
		Sum of Total Trips		6,688.67
		Total Vehicle Miles Traveled		31,674.78

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino				10.0	5.0	85.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Hotel	0.24	0.27	2.21	0.00	0.62
Event Center	0.23	0.33	2.66	0.00	0.78
Casino	2.55	3.15	25.99	0.04	6.96
TOTAL EMISSIONS (tons/yr)	3.02	3.75	30.86	0.05	8.36
PERCENTAGE REDUCTION %	4	4	4	5	4

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Hotel		3.00 trips/rooms	150.00	450.00
Event Center		34.50 trips/1000 sq. ft.	12.00	414.00
Casino		105.00 trips/1000 sq. ft.	55.47	5,824.67
		Sum of Total Trips		6,688.67
		Total Vehicle Miles Traveled		31,674.78

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Event Center				48.0	24.0	28.0
Casino				10.0	5.0	85.0

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 2%
Inputs Selected:
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

Percent Reduction in Trips is 0.2%
Inputs Selected:
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 12
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Telecommuting Mitigation

Percent Reduction in Trips is 12%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The Compressed Work Schedule 3/36 was selected with 30% of the employees participating

Non-Residential Other Transportation Demand Measures Mitigation

Percent Reduction in Trips is 1.01%
Note that the above percent is applied ONLY to worker trips.
Inputs Selected:
The 'Secure Bike Parking' measure was selected
The 'Information provided on Transportation Alternatives' measure was selected
The 'Carpool Matching Programs' measure was selected
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

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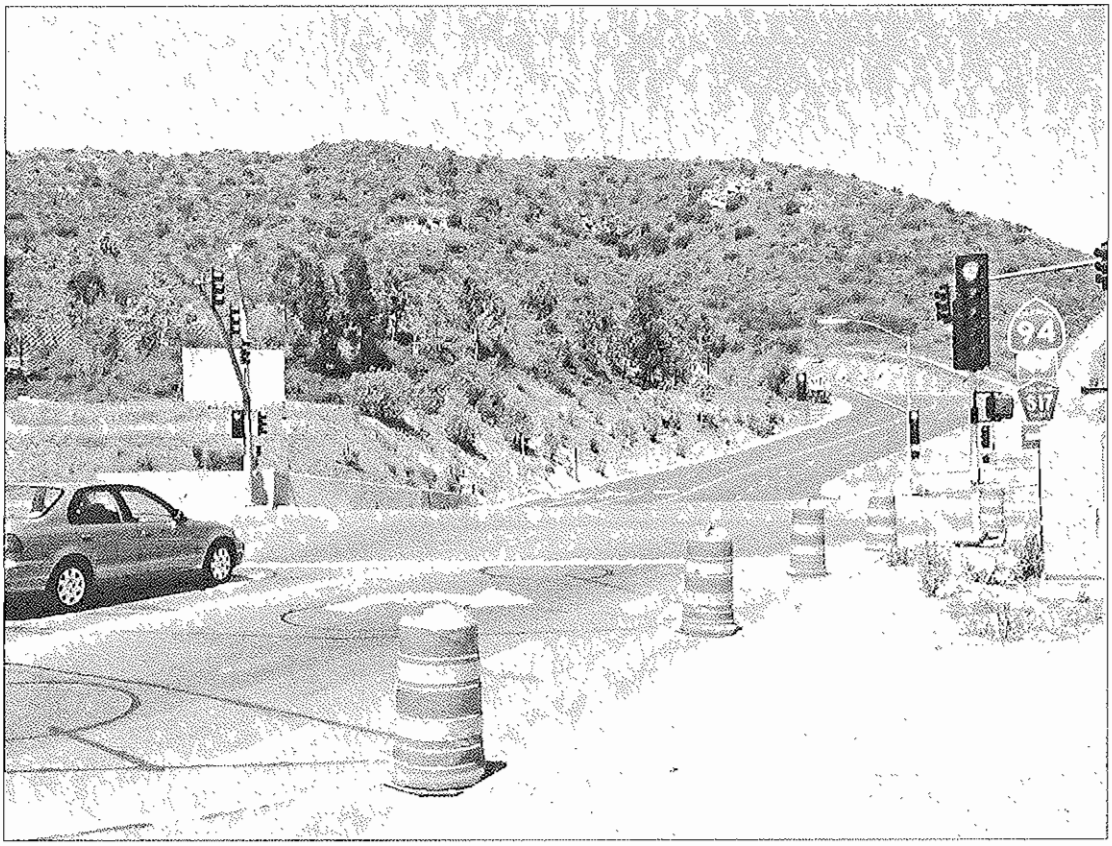
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

APPENDIX D

BIOLOGICAL RESOURCES ASSESSMENT

JAMUL INDIAN VILLAGE OFF-RESERVATION

BIOLOGICAL RESOURCES ASSESSMENT



19 June 2006

Prepared for:

ENVIRONMENTAL DATA SYSTEMS, INCORPORATED
1136 35th Avenue, Sacramento, CA 95822

Prepared by:

NATURAL INVESTIGATIONS COMPANY
6124 Shadow Lane, Citrus Heights, CA 95621

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1.0 INTRODUCTION

1.1 PROJECT LOCATION AND DESCRIPTION

On behalf of Environmental Data Systems, Inc., Natural Investigations Company conducted a Biological Resources Assessment for the proposed traffic improvements on State Route 94 (SR 94), locally named Campo Road (hereafter, "Project"). The Project is located west of San Diego in San Diego County, California (Figure 1-1). The Project is defined as off-site traffic mitigation for the preferred alternative (Alternative A) detailed in Section 5.2.7 – Mitigation Measures - Resource Use Patterns – Transportation of the Jamul Indian Village Final Environmental Impact Statement (FEIS) (pages 5-10; Analytical Environmental Services, Inc., 2003).

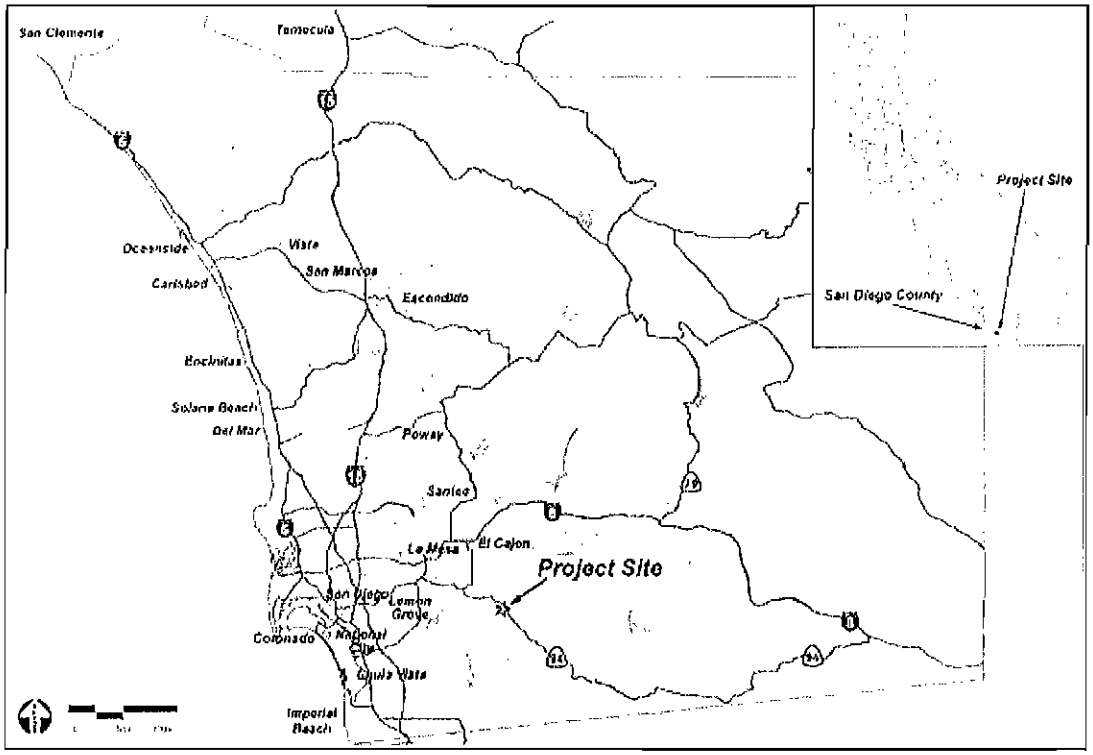

Figure 1-1 Project Location (from AES, 2003)

A total of five intersections are identified for improvements under Alternative A:

- **SR 94 / Jamacha Boulevard Intersection.** West of Jamacha Boulevard to Avocado Boulevard, SR 94 is a four-lane expressway. East of Jamacha Boulevard to Jamacha Road, SR 94 has six lanes. At this intersection SR 94 has two eastbound lanes and three westbound lanes, and additional dedicated turning lanes. Jamacha Boulevard, which terminates at this intersection, has four travel lanes and an additional left turn lane at the intersection, and is characterized by residential and commercial development. The driveway to Skyline Church, which is directly opposite Jamacha Boulevard, has four lanes. Improvements to this intersection would include an additional eastbound through lane and a northbound right turn lane. These improvements would entail the relocation and expansion of current facilities. It is expected that additional ROW would be needed along the south side of SR 94 and along the east side of Jamacha Boulevard. In addition to widening the roadways and re-striping the existing lanes, curb and gutters, guardrails, signal poles and signal control boxes will need to be

relocated. Utility lines or services encountered during construction may also need to be relocated. *Note that these improvements are already under construction at this intersection* (see cover photo).

- **SR 94 / Cougar Canyon Road Intersection.** This intersection provides access to the recently constructed Steele Canyon High School. SR 94 is a two-lane conventional highway with two turning lanes at this intersection. Cougar Canyon Road, which terminates at this intersection, has four lanes. Improvements at this intersection would consist of an additional eastbound through lane. It is anticipated that additional ROW would be recommended to provide for the relocation and expansion of the existing facilities. Utility lines or services encountered during construction may also need to be relocated.
- **SR 94 / Steele Canyon Road Intersection.** SR 94 is a two-lane conventional highway with dedicated left turn lanes. Steele Canyon Road, which terminates at this signalized intersection, has two lanes and one southbound left turn lane. Improvements at this intersection would consist of an additional eastbound through lane. It is anticipated that additional ROW would be recommended to provide for the relocation and expansion of the existing facilities. Utility lines or services encountered during construction may also need to be relocated.
- **SR 94 / Lyons Valley Road Intersection.** SR 94 is two-lane conventional highway with a two-way left turn lane. Lyons Valley Road is a two-lane road with a right turn "sneaker" lane at this intersection. Improvements at this intersection would consist of a southbound right turn lane; an eastbound left turn lane and the installation of a signal. It is expected that additional ROW would be recommended along the north and south side of SR 94 and along the east side of Lyons Valley Road. In addition to widening the roadways to provide additional lanes, curb and gutters, and flag and light poles will need to be relocated. Utility lines or services encountered during construction may also need to be relocated.
- **SR 94 / Melody Road Intersection.** Both SR 94 and Melody Road have two lanes at this intersection. Improvements at this intersection would consist of a northbound left turn lane, a southbound left turn lane, a southbound right turn lane, an eastbound left turn lane, an eastbound through/right turn lane, and the installation of a traffic signal. It is anticipated that additional ROW would be needed to provide for the relocation and expansion of the existing facilities. Existing curb and gutters and power poles would need to be relocated. Utility lines or services encountered during construction may also need to be relocated.

The locations of these intersections are shown in Figure 1-2. For the purposes of this biological resources assessment, the Study Area was defined as a 30-meter radial buffer around the limits of construction of proposed traffic improvements at the five intersections, as described previously.

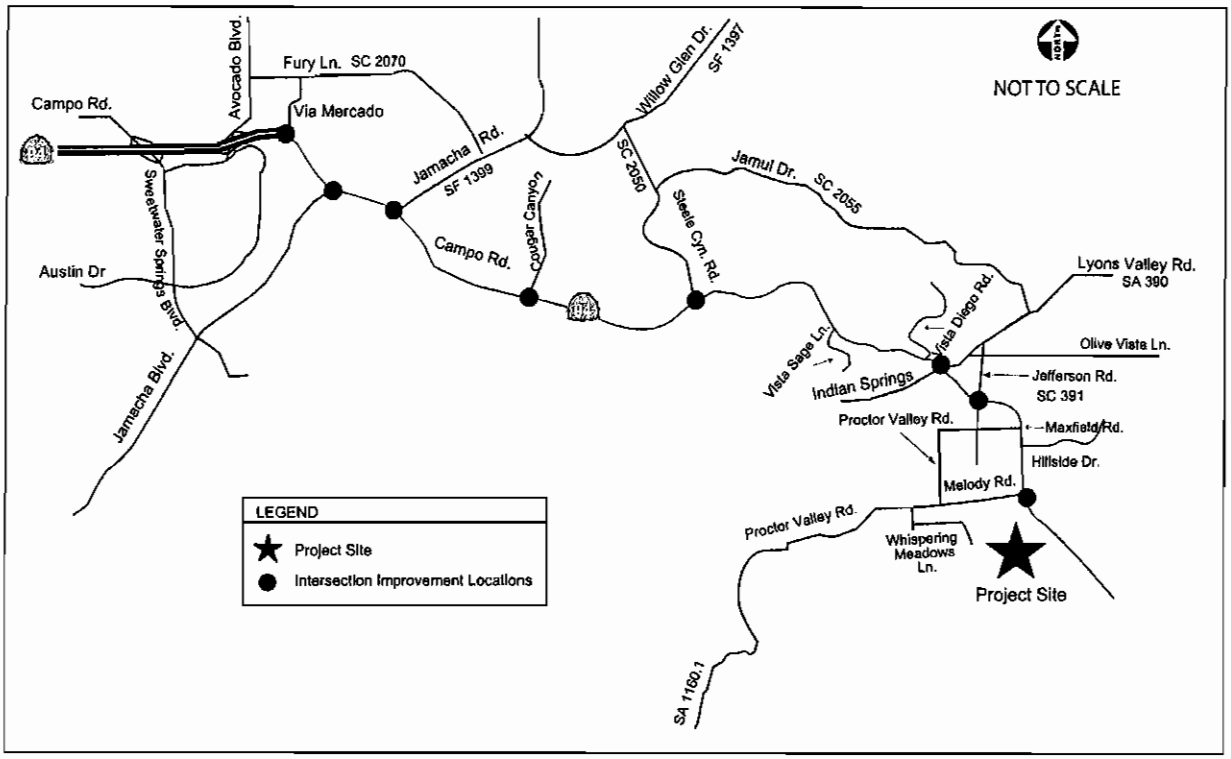

Figure 1-2 Location of Intersection Improvements (from AES, 2003)

1.2 PURPOSE AND SCOPE OF ASSESSMENT

The purpose of this biological resources assessment is to provide supplementary biological resources analyses to those analyses already performed and summarized in the Jamul Indian Village FEIS. The focus of the original biological resources assessment was upon compliance with federal regulations, and thus biological resources with federal status (especially federally-listed species). This biological resources assessment focused upon biological resources subject to State of California regulations (especially State-listed species). The specific scope of services performed for this Biological Resources Assessment consisted of the following tasks:

- Compile all readily-available historical biological resource information for the Study Area;
- Query the CDFG CNNDB for special-status species' occurrences;
- Performa reconnaissance-level site survey of the Study Area, including photographic documentation;
- Characterize and map the habitat types present within the Study Area;
- Evaluate the potential for the occurrence of special-status plant and animal species;
- Informally assess the property for the presence of jurisdictional water resources;
- Assess the potential for the proposed project to adversely impact sensitive biological resources;
- Recommend mitigation measures designed to avoid or minimize project-related impacts
- Prepare and submit a biological resources assessment report summarizing the results of the research, site reconnaissance, and analyses, and the inclusion of all reference material.

The scope of services does not include other services that are not described in this report.

1.3 REGULATORY SETTING

The following section summarizes applicable state regulations of biological resources for this Project.

1.3.1 Special-status Species Regulations

The California Department of Fish and Game (CDFG) implements state regulations pertaining to fish and wildlife and their habitat. California Native Plant Protection Act of 1977 (CFG Code § 1900 et seq.), requires CDFG to establish criteria for determining if a species or variety of native plant is endangered or rare. Section 19131 of the code requires that landowners notify CDFG at least 10 days prior to initiating activities that will destroy a listed plant to allow the salvage of plant material. The California Endangered Species Act of 1970 (CESA) (CFG Code §2050 et seq., and CCR Title 14, §670.2, 670.51) prohibits the take (interpreted to mean the direct killing of a species) of species listed under CESA (14 CCR §670.2, 670.5). A CESA permit must be obtained if a project will result in take of listed species, either during construction or over the life of the project. Under CESA, CDFG has the responsibility for maintaining a list of threatened and endangered species designated under state law (CFG Code 2070). CDFG also maintains lists of species of special concern, which serve as "watch lists." Pursuant to requirements of CESA, an agency reviewing the proposed project within its jurisdiction must determine whether any state-listed species may be present in the project area and determine whether the proposed project will have a potentially significant impact upon such species. Project-related impacts to species on CESA list would be considered significant and would require mitigation. Impacts to species of concern would be considered significant under certain circumstances, discussed following.

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. California Fish and Game Code §3503, 3503.5, and 3800, prohibits the possession, incidental take, or needless destruction of birds or their nests or eggs. California Fish and Game Code §3511 lists birds that are "fully protected" that may not be taken or possessed except under specific permit.

The San Diego County Multiple Species Conservation Program Subarea Plan was adopted in 1997 by the County of San Diego as part of a larger Natural Communities Conservation Program to provide long-term habitat conservation for a variety of sensitive species (http://sdpublic.sdcounty.ca.gov/portal/page?_pageid=341,1&_dad=portal&_schema=PORTAL). This Plan and its provisions may have bearing upon this Project if implemented if covered species or their habitats are impacted.

1.3.2 Jurisdictional Water Resources

Any project that involves working in navigable waters of the United States, including the discharge of dredged or fill material, must first obtain authorization from the United States Army Corps of Engineers (USACE), under Section 404 of the Clean Water Act. The CDFG requires notification prior to commencement, and issuance of a Lake or Streambed Alteration Agreement pursuant to CDFG Code § 1601-1603, 5650F, if a proposed project will result in the alteration or degradation of waters of the US, and thus aquatic habitat. State Water Quality Certification (Clean Water Act Section 401 permit) may be required by the Regional Water Quality Control Board before other permits are issued, and may involve implementation of a storm water pollution prevention plan.

1.4 ENVIRONMENTAL SETTING

The Study Area is located within the Peninsular Ranges geographic subregion, which is contained within the Southwestern geographic subdivision of the larger California Floristic Province (Hickman 1993). The region is in climate Zone 21 – "Ocean-influenced southern California", characterized by infrequent frost, with mild to hot, dry summers and mild, wet winters moderated by marine air influx (Hickman, 1993). The topography of the Study Area is variable, and often steeped sloped, as it occurs primarily in Steele Canyon, in the larger San Miguel/Jamul Mountains. The elevation ranges from approximately 400 feet to 1100 feet above mean sea level. The Study Area is located within both the Otay Basin and the Sweetwater Basin. Local drainages consist of Sweetwater River, Steele Canyon Creek, and Jamul Creek. More detailed information on climate, soils, geology, and hydrology can be found in the FEIS (Analytical Environmental Systems, 2003).

At the SR 94 / Jamacha Boulevard Intersection, topography is rolling, and an unnamed intermittent drainage runs east toward Sweetwater River. The setting is rural except for the recently constructed Skyline Wesleyan Church located north of the intersection. Habitats in the vicinity consist of ruderal and urbanized areas, annual grassland, coastal sage scrub, and coast live oak riparian. Naturally occurring soils in the vicinity of this intersection include Placentia sandy loam (PfC), Friant rocky fine sandy loam (FxG), Diablo Clay (DaE and DaD), and Huerhuero loam (HrD2) (Analytical Environmental Systems, 2003). Road improvements on SR 94 are already in progress, and a massive sound wall is being constructed in conjunction with the road widening (new eastbound lane) from Via Mercado, past Jamacha Boulevard, to Jamacha Road.

At the SR 94 / Cougar Canyon Road Intersection, topography is steep on the south side and sloping on the north, and Steele Canyon Creek runs westward. Riparian habitat is still largely intact, but the open coastal scrub habitat has been largely replaced with residential and commercial uses. Steele Canyon High School encompasses the entire north side. The dominant vegetation is ruderal or landscaped. Naturally occurring soils in the vicinity of this intersection include Ramona sandy loam (RaD2) (Analytical Environmental Systems, 2003).

At SR 94 / Steele Canyon Road Intersection, topography is hilly, and Steele Canyon Creek runs westward. The dominant vegetation is ruderal or landscaped. Riparian habitat is still largely intact, but the open coastal scrub habitat has been replaced with residential and commercial uses on both sides of SR 94. Businesses consist of the following: on the northeast corner: Citgo; on the northwest corner - Ranch Field Supply and Jamul Flowers; on the south side, Bravo Cafe, wholesale nursery, Green Sombrero Restaurant, house; Steele Canyon Produce, and Country Properties Real Estate. Naturally occurring soils in the vicinity of this intersection include Ramona sandy loam (RaC), Vista course sandy loams (VsE and VsG), Fallbrook sandy loam (FaD2), and Placentia sandy loam (PfC) (Analytical Environmental Systems, 2003).

At the SR 94 / Lyons Valley Road Intersection, topography is hilly, and Steele Canyon Creek runs westward. Riparian habitat is still largely intact, but the open coastal scrub habitat has been replaced with residential and commercial uses. A remnant olive orchard is located east of the intersection adjacent to Vita Springs Retirement Community. Naturally occurring soils in the vicinity of this intersection include Cieneba very rocky coarse sandy loam (CmrG) (Analytical Environmental Systems, 2003). Where slopes are not too steep, the coastal scrub has been replaced with residential and commercial uses. The dominant vegetation is ruderal or landscaped. Businesses consist of the following: on the south side, Evening Star Realty, Andre's Barber Sop, and Taproot Tots Infant Care; on the northeast corner – Real Estate Results; and on the southeast corner – Indian Springs Community Main Office.

At the SR 94 / Melody Road Intersection, the topography is gently sloped, with an incision for the headwaters of Jamul Creek flowing south. Annual grassland is the dominant habitat, and cattle ranching is the dominant land use. Residences and a fire station (San Diego Rural Fire District, Station 66, Jamul) are also present. A remnant of a citrus orchard is located northwest of this intersection. Naturally occurring soils in the vicinity

of this intersection include Ramona sandy loam (RaC2) and Wyman loam (WmC) (Analytical Environmental Systems, 2003).

2.0 METHODOLOGY

2.1 PRELIMINARY DATA GATHERING AND RESEARCH

Prior to conducting the field assessment the following information sources were reviewed:

- USGS "Jamul Mountains, California" and "Dulzura, California" 7.5 minute topographic quadrangles;
- Color aerial photography by USGS of the Study Area and vicinity dated 2002;
- Jamul Indian Village DEIS and FEIS (Analytical Environmental Services, 2003);
- California Natural Diversity Data Base (2006 Version).

For the purposes of this assessment, "special-status" is defined to be species that are of management concern to state and federal resource agencies, and include those species that are:

- Listed as endangered, threatened, proposed, or candidate for listing under the Federal Endangered Species Act;
- Listed as endangered, threatened, rare, or proposed for listing, under the California Endangered Species Act of 1970;
- Designated as endangered or rare, pursuant to California Fish and Game Code (§1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§3511, §4700, or §5050);
- Designated as a species of special concern by CDFG;
- Plants listed as rare under the California Native Plant Protection Act.

2.2 FIELD SURVEYS

Consulting biologist Dr. G. O. Graening conducted reconnaissance-level field surveys on 30 and 31 May 2006. On 30 May 2006, from 22:30 to 23:30, a nocturnal windshield survey was performed. On 31 May 2006, from 06:05 – 13:00 and 14:30 to 18:30, a complete coverage, variable-intensity pedestrian survey was performed, with transect spacing from 5 to 10 meter intervals, and modified to account for differences in terrain, vegetation density, and visibility. All visible fauna and flora were noted, and identified to the lowest possible taxon. The following texts were consulted during field identifications of flora and fauna: bird identification - Ehrlich (1988) and Sibley (2003); plant identification - Pavlik (1991), Hickman (1993), Stuart and Sawyer (2001), and Lanner (2002). When a specimen could not be identified in the field, a photograph or voucher specimen (depending upon permit requirements) was taken and identified in the laboratory using a dissecting scope where necessary. Dr. Graening holds the following scientific collection permits: CDFG Scientific Collecting Permit No. 6802; and Plant Voucher Specimen Permit 5096. Taxonomic determinations were aided by referencing museum specimens or texts, including the following: Hickman (1993); Calflora (2006); University of California at Berkeley (2006a,b); CDFG (2006b); and NatureServe 2006.

The locations of any special-status species sighted were marked on aerial photographs and/or georeferenced with a GPS receiver. Habitat types occurring in the Study Area were characterized and evaluated for their potential to support regionally occurring special-status species. The Study Area was informally assessed for the presence of jurisdictional water features (Waters of the US), isolated wetlands, and other biologically sensitive habitats.

2.3 MAPPING AND OTHER ANALYSES

Locations of species' occurrences and habitat boundaries within the Study Area were recorded on color aerial photographs, and then digitized to produce the final habitat maps. The boundaries of potentially jurisdictional water resources within the Study Area were identified and measured in the field, and similarly digitized to calculate acreage and to produce informal delineation maps. Geographic analyses were performed using geographical information system software (ArcGIS 8.0, ESRI, Inc.). Vegetation communities (assemblages of plant species growing in an area of similar biological and environmental factors), were classified Vegetation Series (distinctive associations of plants, described by dominant species and particular environmental setting) using the CNPS Vegetation Classification system (Sawyer and Keeler-Wolf, 1995). Wetlands and other aquatic habitats were classified using USFWS National Wetlands Inventory Classification System for Wetland and Deepwater Habitats, or "Cowardin class" (Cowardin et al., 1979; National Wetlands Inventory Internet site, http://www.fws.gov/nwi/). Wetland delineation methods conformed to the US Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987). Wildlife habitats were classified according to the CDFG's California Wildlife Habitat Relationships System (CDFG, 2006d). Species' habitat requirements and life histories were identified using the following sources: Hickman (1993); California Native Plant Society (2006), Calflora (2006); CDFG (2006a,b,c); and University of California at Berkeley. 2006a.

3.0 RESULTS

3.1 INVENTORY OF FLORA AND FAUNA FROM SITE RECONNAISSANCE

All plants and animals sighted during the site reconnaissance in the Study Area or vicinity are listed next in Table 3-1 and Table 3-2.

Table 3-1 List of Plants Seen During Site Reconnaissance in the Study Area or Vicinity

Scientific Name	Common Name
Acacia podalyriifolia	Pearl acacia tree
Acacia stenophylla	Shoestring acacia tree
Agave americana	Century plant
Ailanthus altissima	Tree of Heaven
Aloe sp.	Aloe
Artemisia californica	California sagebrush
Avena sp.	Wild oats
Baccharis sarothroides	Broom baccharis
Bambusa sp.	Bamboo
Bougainvillea sp.	Bougainvillea
Brassica nigra	Black mustard
Callistemon sp.	Bottebrush tree
Carduus pycnocephalus	Italian thistle
Cedrus deodara	Deodar cedar
Centaurea calcitrapa	Star thistle
Convolvulus althaeoides	Mallow bindweed
Cotoneaster sp.	Cotoneaster
Crassula sp.	Jade Plant
Cynodon dactylon	Bermuda grass
Cyperus sp.	Nutsedge
Datura stramonium	Jimsonweed
Digitaria sp.	Crabgrass

Scientific Name	Common Name
Eriodictyon sp.	Yerba santa
Eschscholzia californica	California poppy
Eucalyptus sp.	Eucalyptus
Heteromeles arbutifolia	Toyon
Ipomoea sp.	Morning glory
Juglans californica	California black walnut
Juniperus sp.	Juniper, ornamental
Ligustrum ovalifolium	California privet
Lolium multiflorum	Italian ryegrass
Lonicera sp.	Honeysuckle
Mentha sp.	Mint
Mesembryanthemum sp.	Iceplant
Miscanthus sp.	Bunchgrass
Nasturtium officinale	watercress
Nerium oleander	Oleander
Nicotiana sp.	Coyote tobacco
Olea europaea	European olive tree
Opuntia sp.	Prickly pear
Phoneix sp.	Date palm
Phoradendron sp.	Mistletoe
Pinus sp.	Pine, ornamental
Pittosporum sp.	Pittosporum
Platanus racemosa	California sycamore
Polypogon	Rabbitfoot grass
Populus fremontii	Cottonwood
Prosopis sp.	Mesquite
Prunus sp.	Wild plum / cherry
Quercus agrifolia	Coast live oak
Ricinus communis	Castor bean
Rumex crispus	Curly dock
Salix sp.	Willow
Sambucus mexicanus	Blue elderberry
Schinus molle	California pepper tree
Schinus terebinthifolius	Brazilian peppertree
Tamarix parviflora	Tamarisk
Taraxacum officinale	Dandelion
Toxicondendron diversilobum	Poison oak
Trifolium sp.	Clover
Vinca sp.	Periwinkle
Vitis sp.	Wild grape
Yucca baccata	Spanish bayonet

Table 3-2 List of Animals Seen During Site Reconnaissance in the Study Area or Vicinity

Scientific Name	Common Name
Bos taurus	Cattle
Buteo jamaicensis	Red-tailed hawk
Procambarus clarkii	Louisiana red swamp crayfish

Scientific Name	Common Name
Carpodacus mexicanus	House finch
Chamaea fasciata	Wrentit
Coccinellidae	Ladybeetle
Coccyzus americanus	Yellow-billed cuckoo
Corvus brachyrhynchos	American crow
Culicidae	Mosquito
Cyprinidae	Minnow
Danaus plexippus	Monarch butterfly
Elgaria sp.	Alligator lizard
Gerris sp.	Water strider
Hymenoptera	Bees, wasps, ants
Libellula sp.	Red skimmer (dragonfly)
Mimus polyglottos	Mocking bird
Odocoileus hemionus	Deer (tracks only)
Sceloporus occidentalis	Western fence lizard
Spermophilus beecheyi	Ground squirrel
Sylvilagus audubonii	Audobon's cottontail
Tipulidae	Cranefly
Trochilidae	Hummingbird (flyover)
Zenaida macroura	Mourning dove
Zygoptera	Damselfly

3.2 VEGETATION COMMUNITIES AND WILDLIFE HABITAT TYPES

The Study Area contains four habitat types: ruderal/urbanized (Figure 3-1); coastal scrub (Figure 3-2); coast oak riparian (Figure 3-3); and grassland (Figure 3-4). These habitat types are discussed in detail in the following text and are delineated in Figure 3-5, Figure 3-6, Figure 3-7, Figure 3-8, and Figure 3-9.

3.2.1 Ruderal and Urbanized Areas

The majority of the Study Area can be classified as disturbed or converted natural habitat that is now either in a weedy and barren (ruderal) state, plowed, graded, or urbanized with pavement, landscaping, and structure and utility placement. Vegetation within this habitat type consists primarily of nonnative weedy or invasive ruderal species or ornamental plants lacking a consistent community structure. Ruderal species sighted in the Study Area include: Ornamental species sighted in the Study Area include: Aloe, Bamboo, Bermuda grass, Bottebrush tree, Bougainvillea, Brazilian peppertree, California privet, Century plant, Cotoneaster, Date palm, Deodar cedar, Eucalyptus, European olive tree, Honeysuckle, Iceplant, Jade Plant, Juniper, Mint, Morning glory, Oleander, Pearl acacia tree, Pine, Pittosporum, Plum / cherry, Shoestring acacia tree, and Spanish bayonet. Ruderal species sighted in the Study Area include: Black mustard, Bermuda grass, California pepper tree, Castor bean, Clover, Crabgrass, Curly dock, Dandelion, Italian thistle, Jimsonweed, Mallow bindweed, Poison oak, Rabbitfoot grass, Star thistle, Tree of Heaven, and Wild oats. This habitat is classified as Holland vegetation type – "Urban – 11100," and "Urban" WHR wildlife habitat type. This habitat type provides limited resources for wildlife and is utilized primarily by species tolerant of human activities. Wildlife species sighted in the Study Area include: mourning dove, house finch, mocking bird, and American crow.

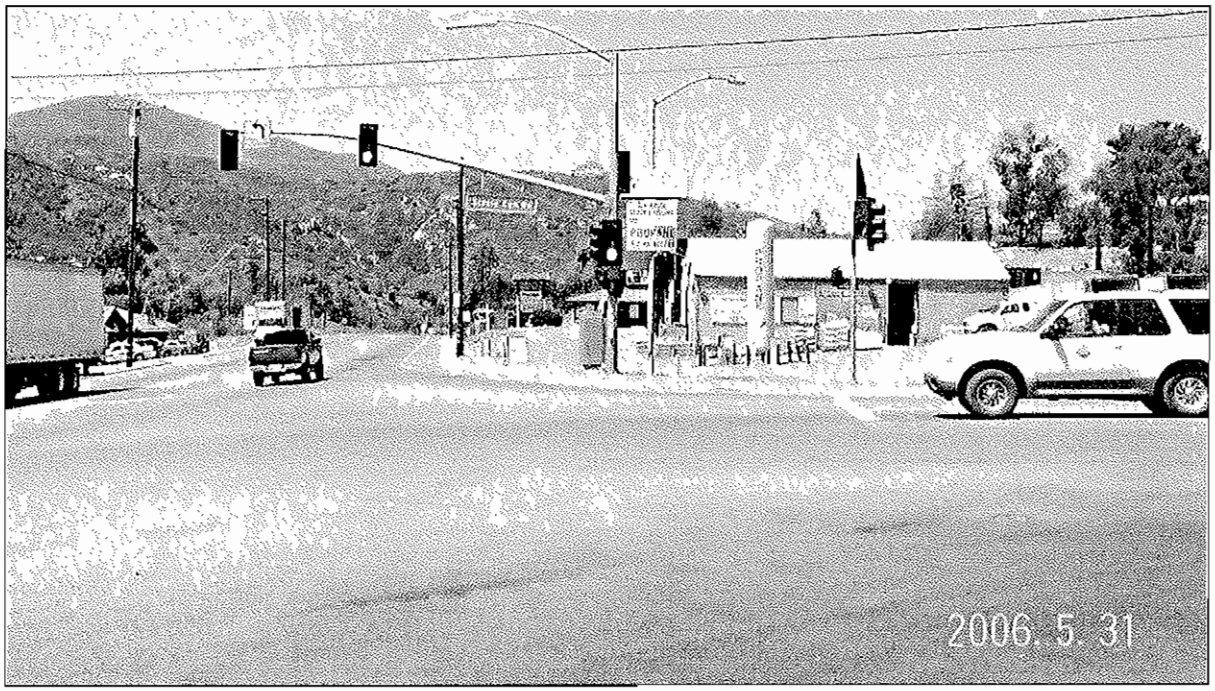

Figure 3-1 Example of Ruderal Habitat Type at SR 94 / Steele Canyon Rd. Intersection



Figure 3-2 Example of Coastal Scrub Habitat Type at SR 94 / Jamacha Blvd.



Figure 3-3 Example of Riparian Habitat Type at SR 94 / Cougar Cyn Rd.

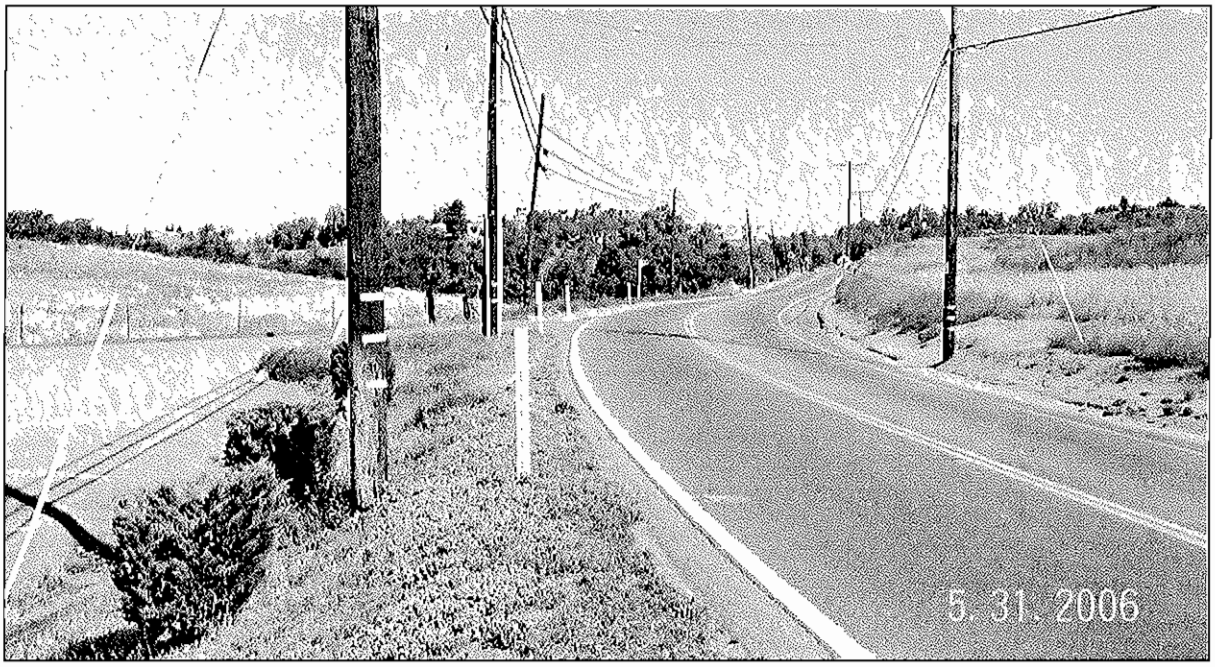

Figure 3-4 Example of Grassland Habitat Type at SR 94 & Fire Station

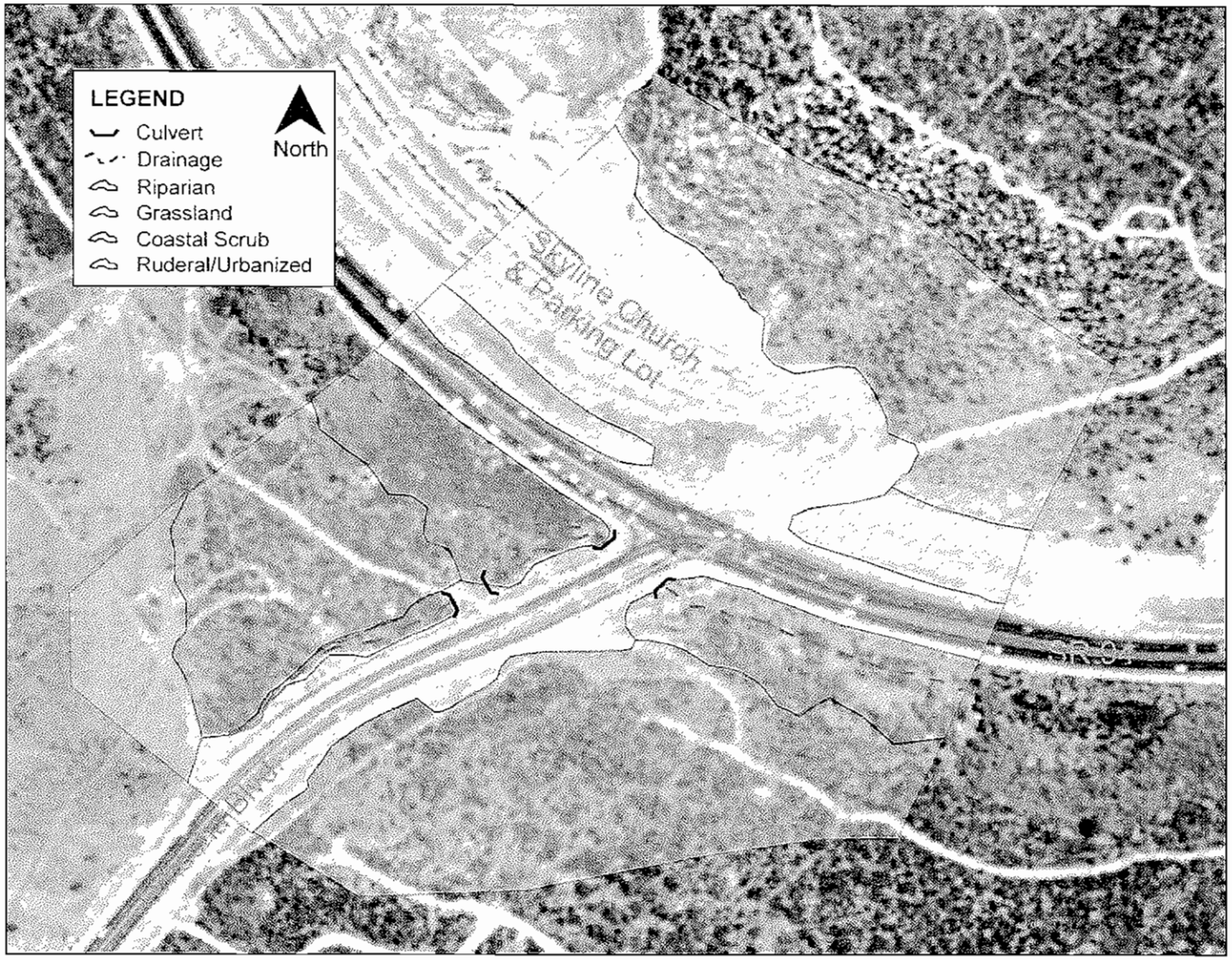

Figure 3-5 SR 94 / Jamacha Boulevard Intersection Habitat Map

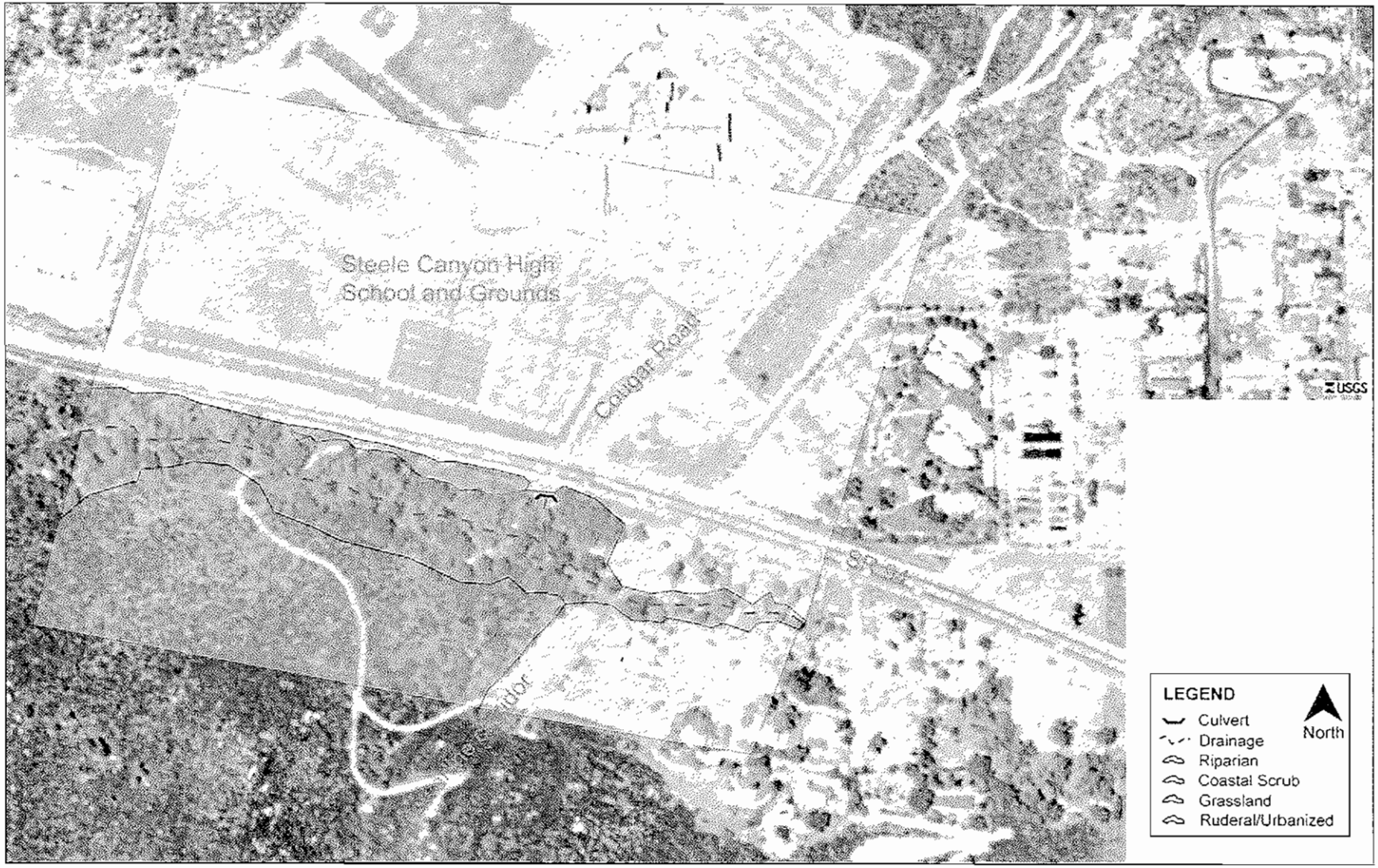

Figure 3-6 SR 94 / Cougar Canyon Road Intersection Habitat Map

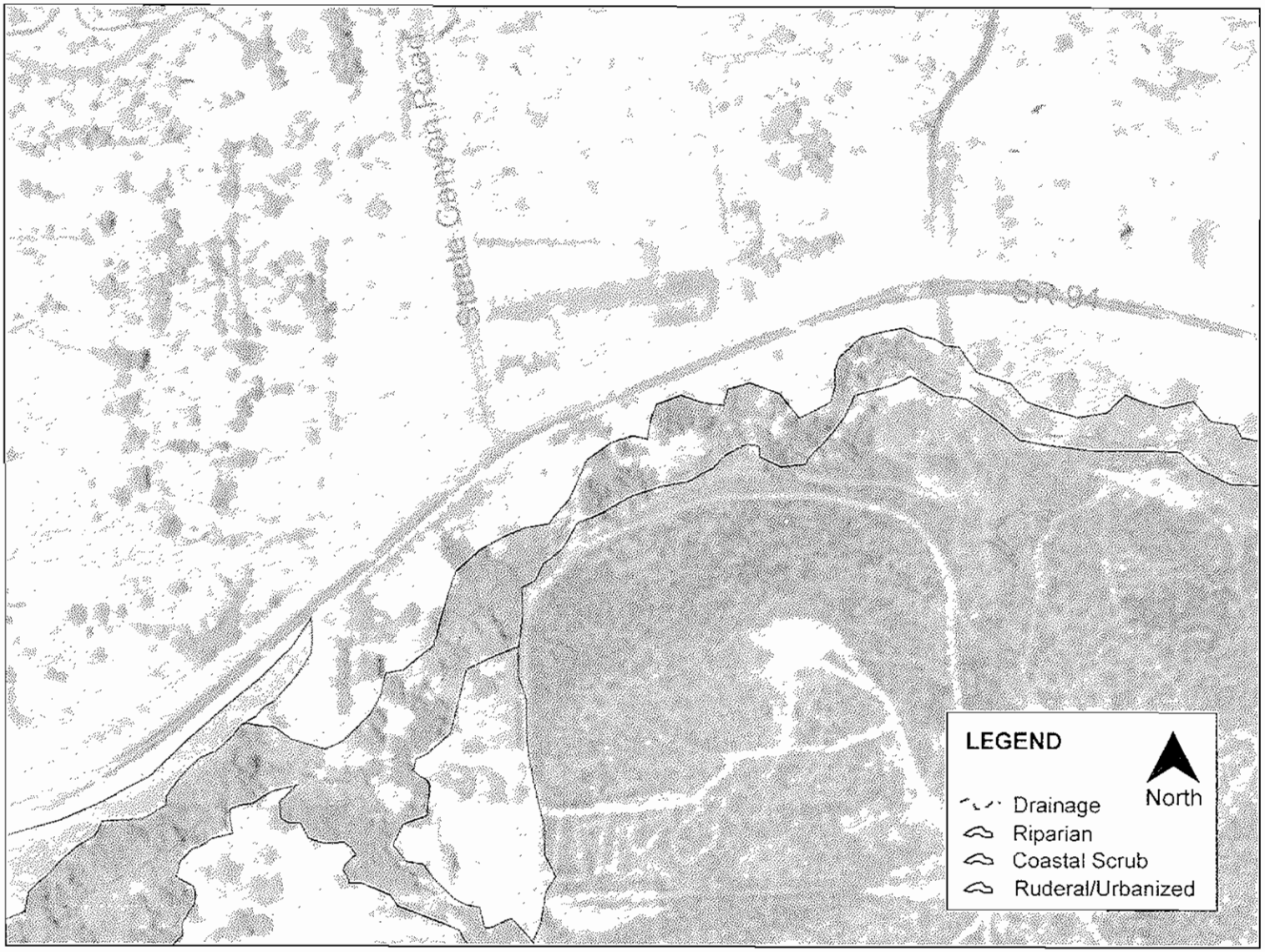

Figure 3-7 SR 94 / Steele Canyon Road Intersection Habitat Map

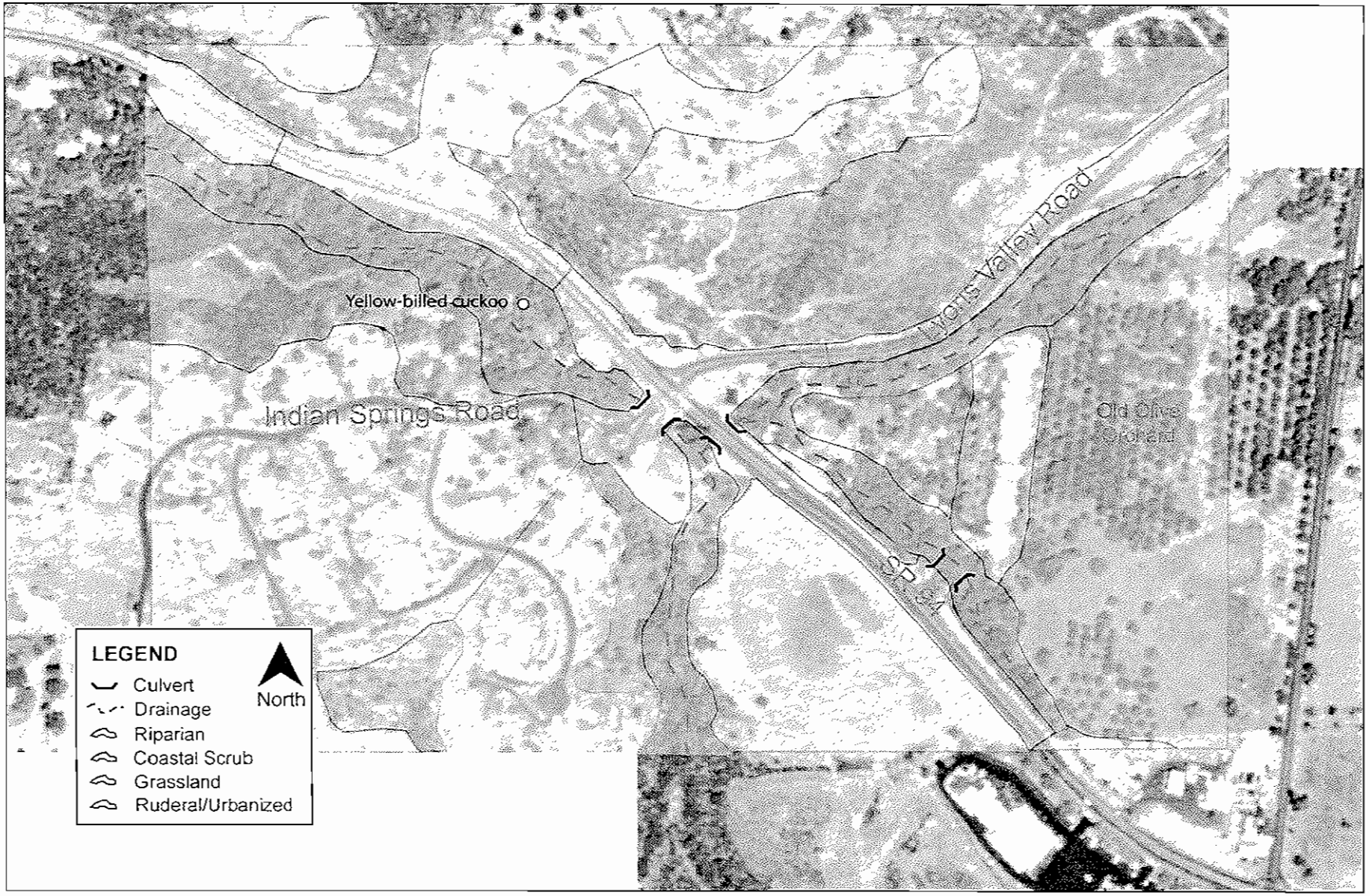

Figure 3-8 SR 94 / Lyons Valley Road Intersection Habitat Map

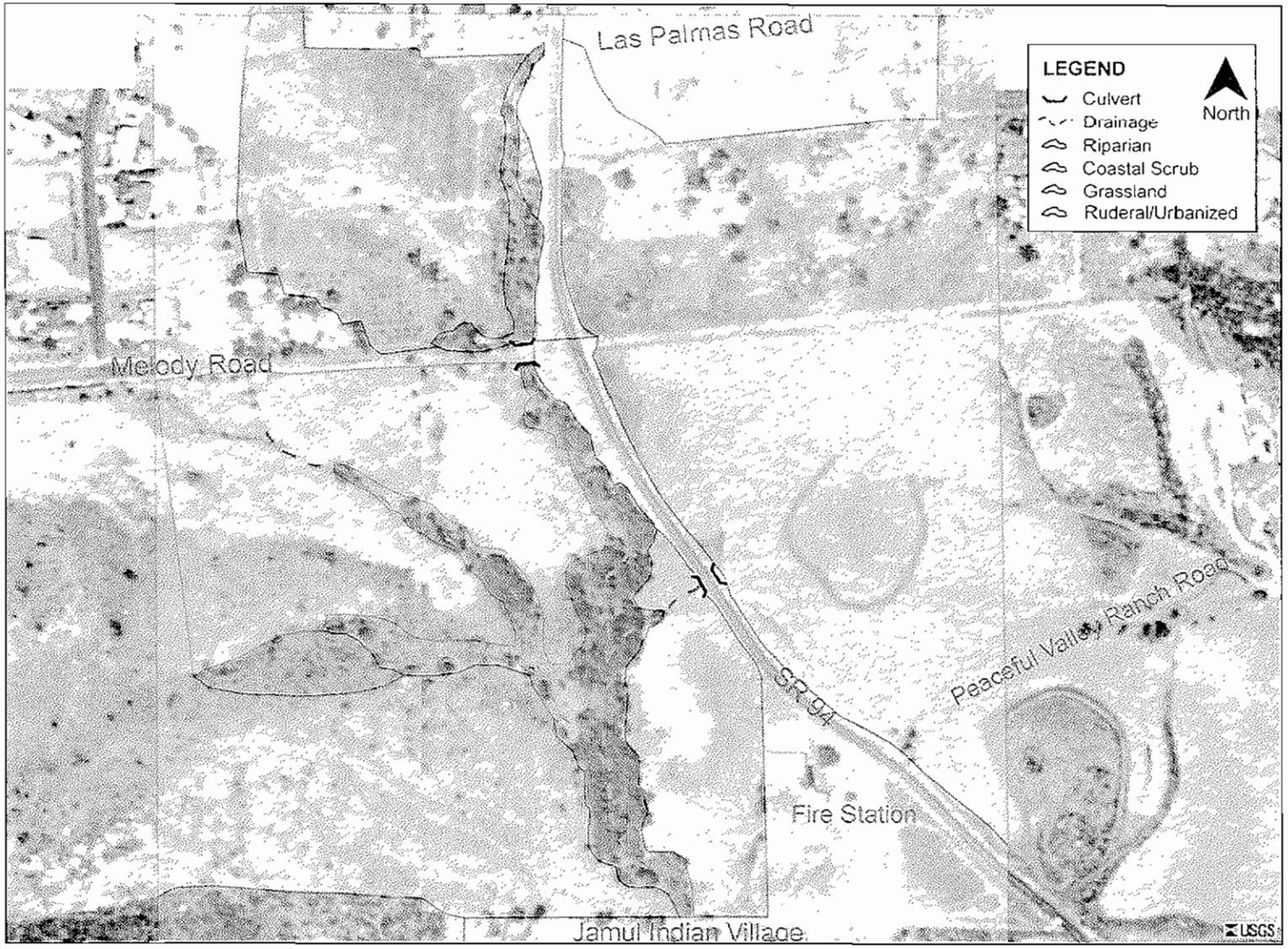

Figure 3-9 SR 94 / Melody Road Intersection Habitat Map

3.2.2 Coastal Scrub Habitat

The dominant plant in coastal sage scrub is California sagebrush (*Artemisia californica*). Other common species in this habitat type are broom baccharis (*Baccharis sarothroides*), broom snakeweed (*Gutierrezia sarothrae*), bush monkeyflower (*Mimulus aurantiacus*), flat-top buckwheat (*Eriogonum fasciculatum*), goldenrush (*Isocoma menziesii*), laurel sumac (*Malosma laurina*), mule-fat (*Baccharis salicifolia*) San Diego County sunflower (*Viguiera laciniata*), white sage (*Salvia apiana*), and yellow bush penstemon (*Keckiella antirrhinoides*). Plant species actually sighted in this habitat in the Study Area include: Broom baccharis, California sagebrush, Coyote tobacco, Mesquite, Prickly pear, Toyon, and Yerba santa. Coastal scrub plant communities are adapted to wildfires and drought conditions. Cattle grazing in some areas, such as near the SR 94 / Melody Road Intersection, has severely degraded the coastal sage scrub vegetation community and reduced the native shrub cover and allowed non-native weedy species such as filaree (*Erodium moschatum*) to establish. Degraded scrub provides little habitat for wildlife. Granitic outcrops in the Study Area vicinity provide breaks in the scrub cover for reptiles to bask and birds to perch.

Coastal sage scrub provides habitat for many different types of wildlife, including the following: American crow (*Corvus brachyrhynchos*), American kestrel (*Falco sparverius*), Anna's hummingbird (*Calypte anna*), black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Spermophilus beecheyi*), California quail (*Callipepla californica*), California thrasher (*Toxostoma redivivum*), California towhee (*Pipilo crissalis*), common raven (*Corvus corax*), coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), greater roadrunner (*Geococcyx californianus*), house finch (*Carpodacus mexicanus*), orange-throated whiptail (*Cnemidophorus hyperthrus*), Pacific kangaroo rat (*Dipodomys agilis*), rattlesnakes (*Crotalus* spp.), desert spiny lizard (*Sceloporus magister*), western fence lizard (*Sceloporus occidentalis*), and western scrub-jay (*Aphelocoma californica*). Wildlife actually sighted during the site reconnaissance included western fence lizard, California ground squirrel, and desert cottontail.

3.2.3 Coast Live Oak Riparian Habitat

In this habitat, the dominant canopy tree is coast live oak. Other characteristic riparian trees include cottonwood, walnut, and willows (e.g. *Salix gooddingii* and *S. lucida*), and non-native trees such as Eucalyptus. Understory vegetation includes elderberry, blackberry, poison oak, Plant species sighted in this habitat in the Study Area include: Blue elderberry, California black walnut, California pepper tree, California sycamore, Coast live oak, Cottonwood, Coyote tobacco, Curly dock, Eucalyptus, Mistletoe, Nutsedge, Periwinkle, Tamarisk, Toyon, Poison oak, watercress, Wild grape, and Willow. The Cowardin class is palustrine forested wetland (Sawyer and Keeler-Wolf, 1995).

Bird species that may utilize this habitat include hawks (*Buteo lineatus* and *B. jamaicensis*), oak titmouse (*Baeolophus inornatus*), northern flicker (*Colaptes auratus*), Nuttall's woodpecker (*Picoides nuttallii*), phoebes (*Sayornis saya* and *S. nigricans*), orange-crowned warbler (*Vermivora celata*), and spotted towhee (*Pipilo maculatus*). Oak forests provide food and habitat for numerous wildlife species (Pavlik et al., 1991). Acorns form an important part of the diet for numerous animals, the seeds of understory herbs and shrubs feed a wide variety of birds and mammals, and oak foliage supports large insect populations that in turn attract many different species of birds, reptiles, and amphibians. Dense foliage of oak forests protects wildlife from the summer sun and provides cover from predators. Hundreds of vertebrate species and thousands of invertebrate species are associated with California's oak landscapes (Pavlik et al., 1991). Oaks provide physical structure for nesting, burrows, and other microhabitats; the canopies moderate light, moisture, and wind. In Steele Canyon Creek south of SR 94 / Jamacha Boulevard Intersection, the channel is lined with riprap. The invasive Louisiana red swamp crayfish (*Procambarus clarkii*) was present, as well as unidentified minnows. At SR 94 / Melody Road, Jamul Creek and its riparian corridor have been degraded from cattle ranching.

3.2.4 Annual Grassland Habitat

This habitat type consists of open fields of non-native pasture grasses such as wheat, barley, brome, oats, and fescue and forbs such as filaree, mullein, and clover. Plant species identified in this habitat in the Study Area include: Black mustard, California poppy, Italian ryegrass, Italian thistle, Rabbitfoot grass, and wild oats. These annual grasslands have replaced native habitats of perennial bunchgrasses. Grazing disturbances, rather than periodic wildfires, keep this plant community from undergoing successional changes to woodland. Numerous wildlife species use grasslands for foraging and breeding. Animals species identified in this habitat in the Study Area include Audobon's cottontail, cattle, and ground squirrel.

3.3 SPECIAL-STATUS SPECIES

3.3.1 Historical Special-status Species' Occurrences

A list of special-status plant and animal species that historically occurred in the vicinity of the Study Area was compiled based upon the following:

- a review of pertinent literature;
- Informal consultation with the U.S. Fish and Wildlife Service via the USFWS Internet site (http://www.fws.gov/carlsbad/CFWO_Species_List.htm);
- A query of the CNDDB.

The CNDDB (CDFG, 2006) was queried and reported occurrences of special-status species were plotted in relation to the Study Area boundary using GIS software (Figure 3-10, Figure 3-11, Figure 3-12, Figure 3-13, Figure 3-14, and Figure 3-15). The CNDDB reported 3 special-status species occurrences within the Study Area:

- Coastal California gnatcatcher was reported within the Study Area near the SR 94 / Jamacha Boulevard Intersection, the SR 94 / Cougar Canyon Road Intersection, and the SR 94 / Lyons Valley Road Intersection;
- Decumbent goldenbush was reported within the Study Area near the SR 94 / Lyons Valley Road Intersection, and the SR 94 / Melody Road Intersection; and
- Least Bell's vireo was reported within the Study Area near the SR 94 / Jamacha Boulevard Intersection.

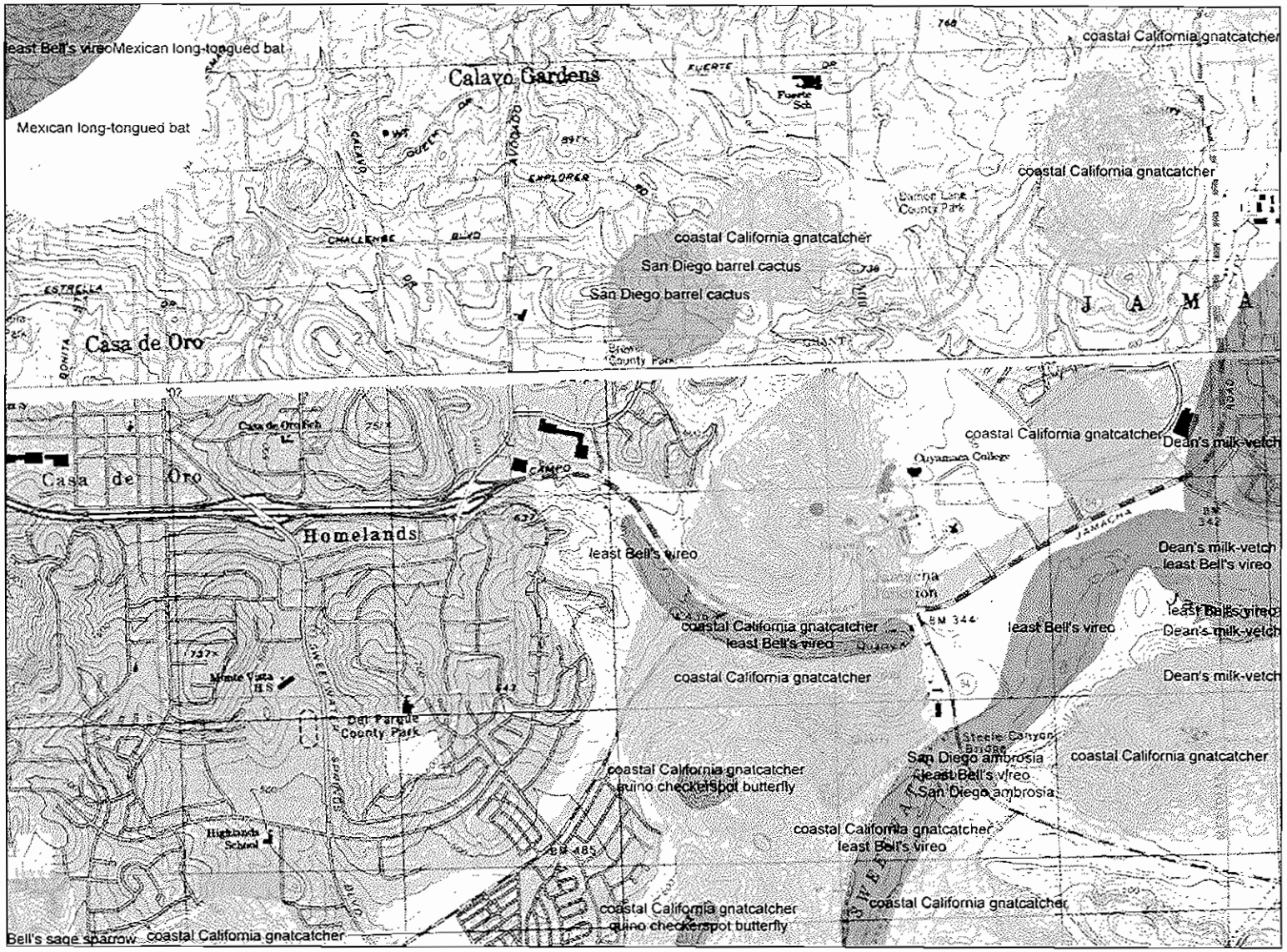

Figure 3-10 Spatial Query of CNDDB - Regional Overview, western half

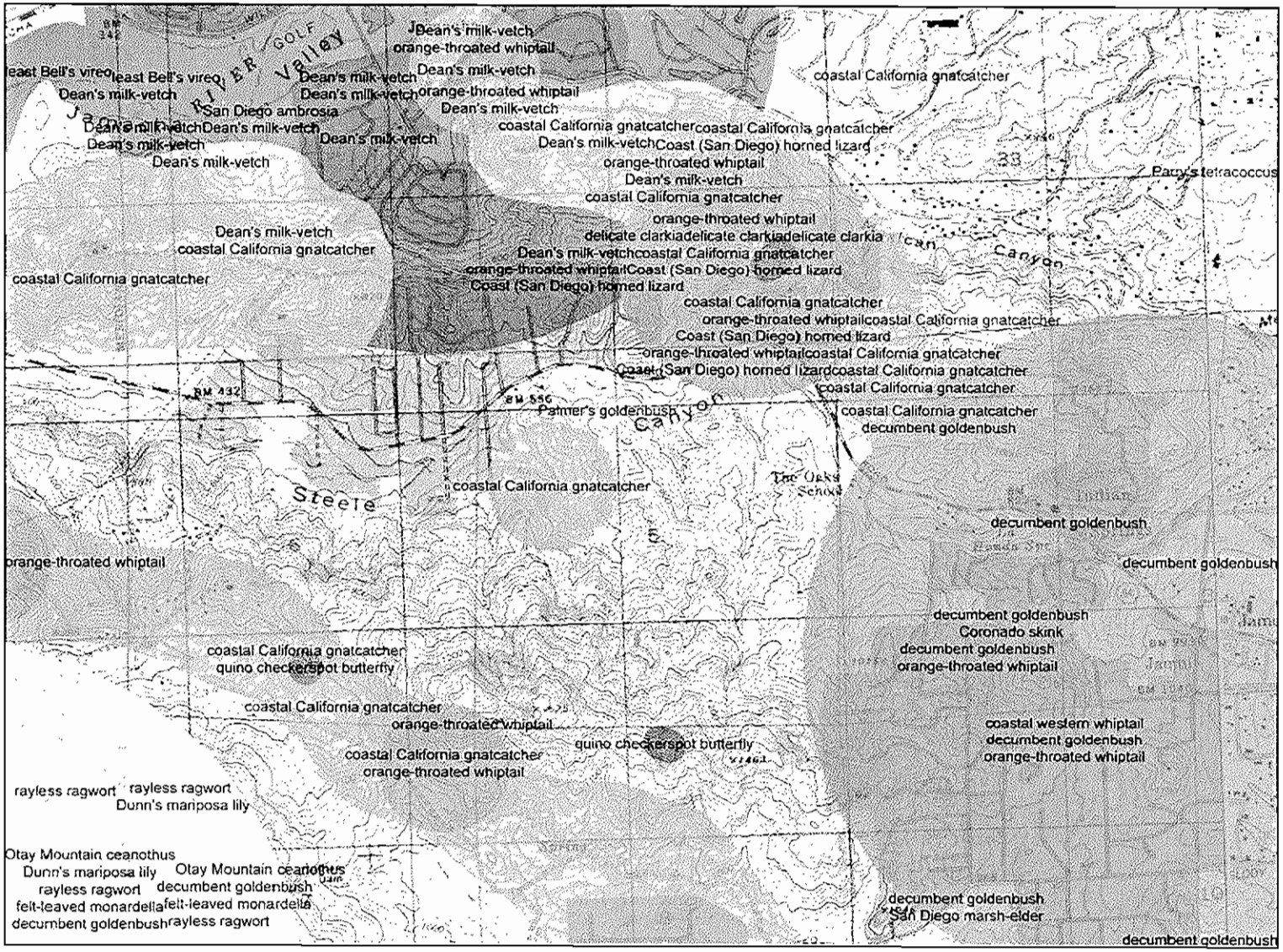

Figure 3-11 Spatial Query of CNDDB - Regional Overview, eastern half

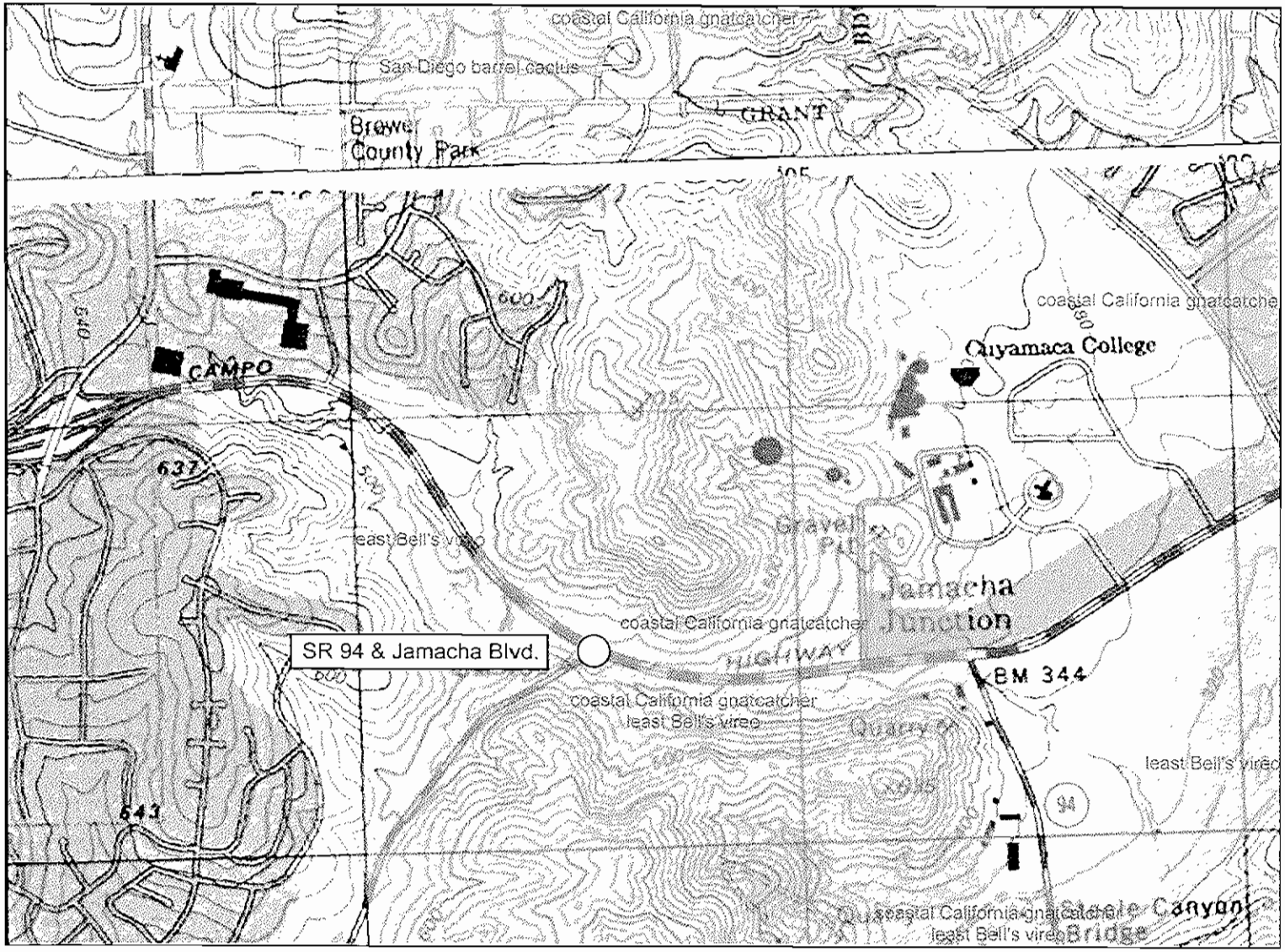

Figure 3-12 Spatial Query of CNDDB at SR 94 / Jamacha Boulevard Intersection

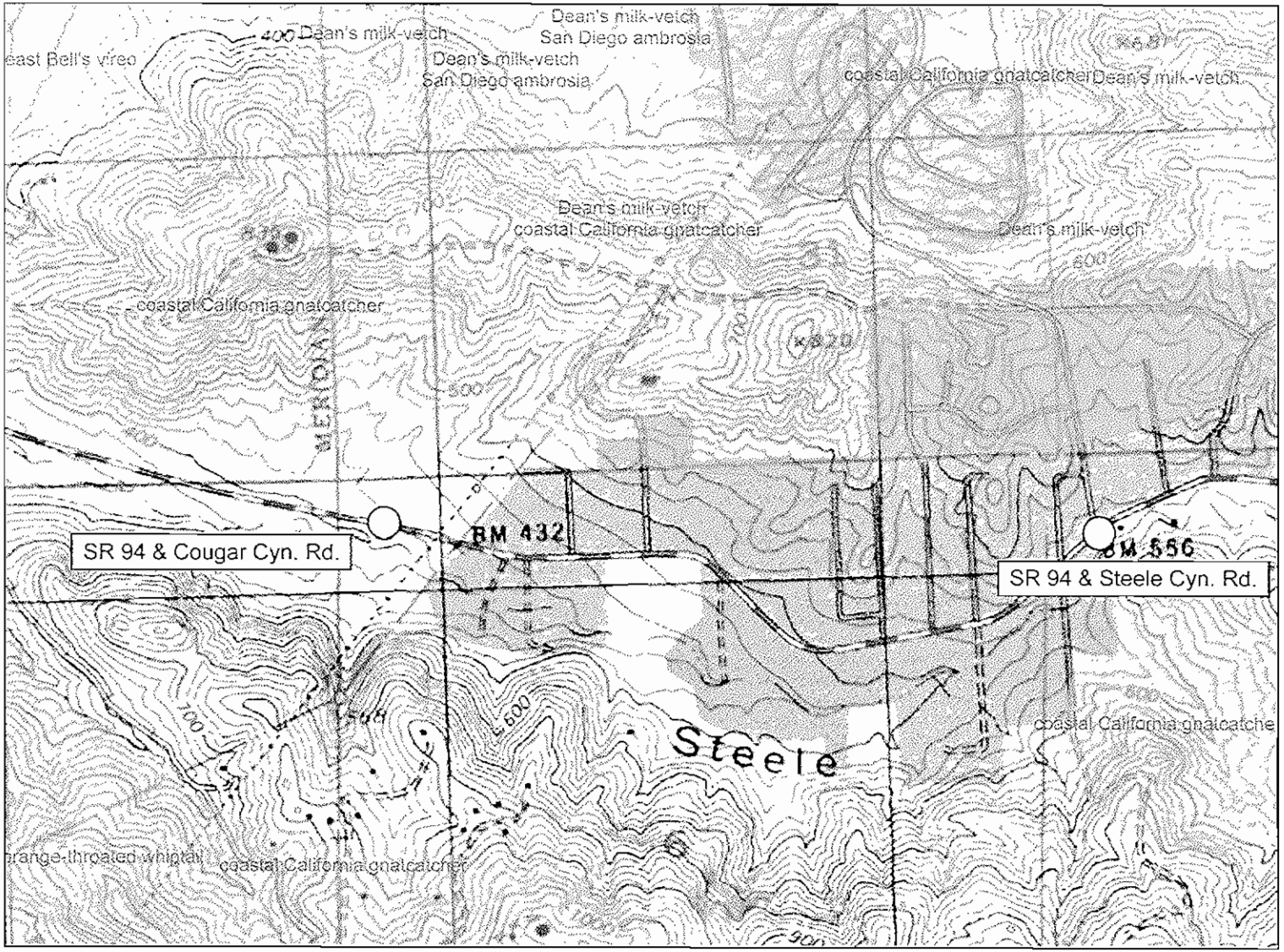

Figure 3-13 Spatial Query of CNDDB at SR 94 / Cougar Rd. Intersection and SR 94 / Steele Cyn. Rd. Intersection

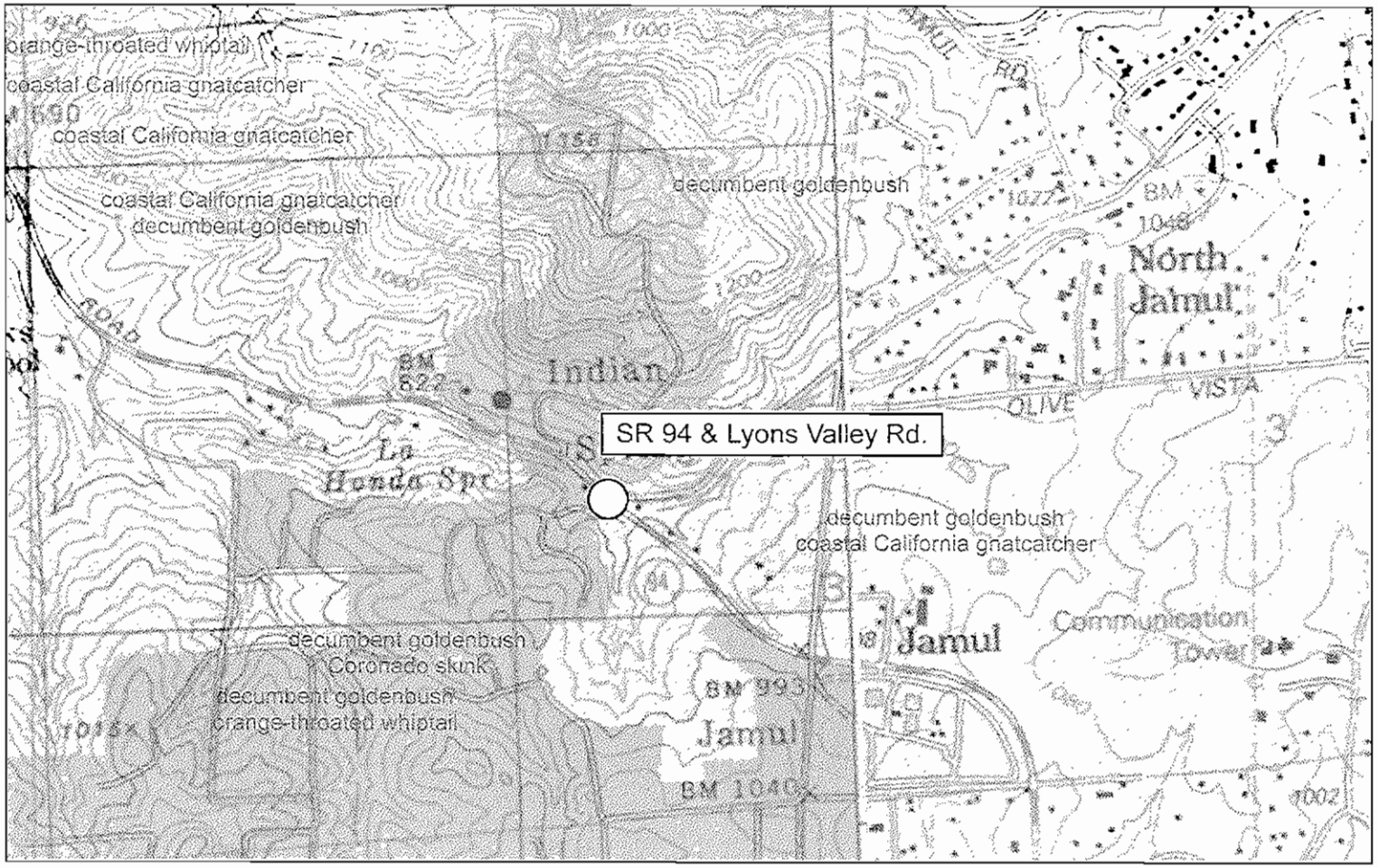

Figure 3-14 Spatial Query of CNDDB at SR 94 / Lyons Valley Rd. Intersection

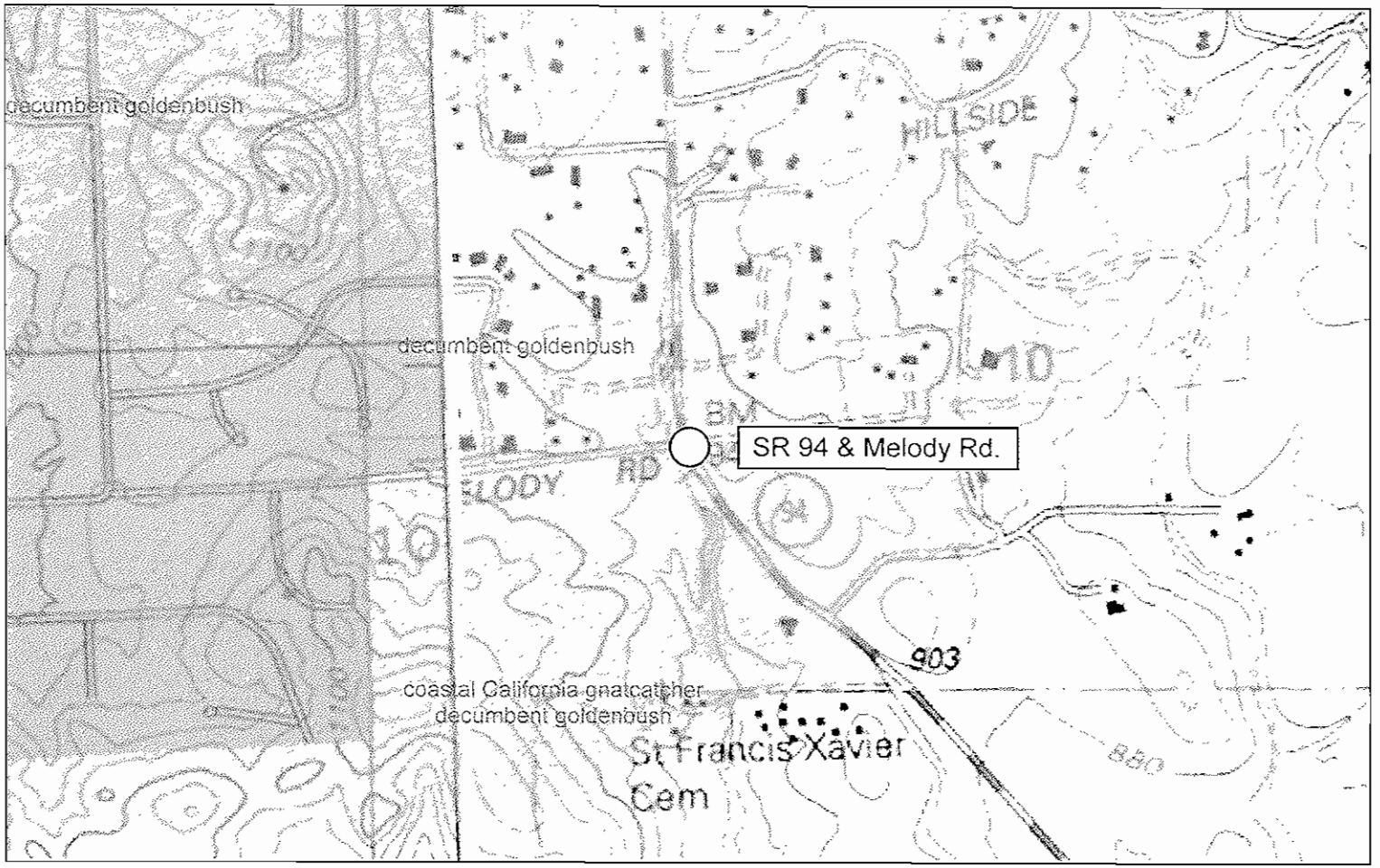

Figure 3-15 Spatial Query of CNDDB at SR 94 / Melody Road Intersection

To determine which special-status species occurred in the vicinity of the Study Area, the CNDDB was queried spatially within the boundary of the "Jamul Mountains" USGS 7.5 minute topographic quadrangle map and the surrounding 8 quadrangle maps; the resulting species list is presented in the Appendix. Twenty-one of these regionally-occurring special-status species have State status; these species are summarized in Table 3-3.

Table 3-3 Species with State Status Reported in the CNDDB from the Surrounding 9 USGS Quads

Scientific Name	Common Name	CA Status	Federal Status
Acanthomintha ilicifolia	San Diego thorn-mint	CE	FT
Baccharis vanessae	Encinitas baccharis	CE	FT
Calochortus dunnii	Dunn's mariposa lily	CR	none
Coccyzus americanus occidentalis	western yellow-billed cuckoo	CE	FC
Cordylanthus maritimus ssp. maritimus	salt marsh bird's-beak	CE	FE
Deinandra conjugens	Otay tarplant	CE	FT
Eryngium aristulatum var. parishii	San Diego button-celery	CE	FE
Fremontodendron mexicanum	Mexican flannelbush	CR	FE
Laterallus jamaicensis coturniculus	California black rail	CT	FSC
Monardella linoides ssp. viminea	willowy monardella	CE	FE
Nolina interrata	Dehesa nolina	CE	none
Orcuttia californica	California Orcutt grass	CE	FE
Ornithostaphylos oppositifolia	Baja California birdbush	CE	none
Passerculus sandwichensis beldingi	Belding's savannah sparrow	CE	none
Pogogyne abramsii	San Diego mesa mint	CE	FE
Pogogyne nudiuscula	Otay Mesa mint	CE	FE
Rallus longirostris levipes	light-footed clapper rail	CE	FE
Rosa minutifolia	small-leaved rose	CE	none
Senecio ganderi	Gander's ragwort	CR	none
Sterna antillarum browni	California least tern	CE	FE
Vireo bellii pusillus	least Bell's vireo	CE	FE

Definitions of Status Codes: FE = Federally listed as endangered; FT = Federally listed as threatened; FPE = Federally proposed for listing as endangered; FPT = Federally proposed for listing as threatened; FC = Candidate for Federal listing; FSC = Federal species of concern; CE = California State listed as endangered; CT = California State listed as threatened; CSC = California species of special concern; CR = California rare species; CFP = California fully protected species; CNPS (California Native Plant Society) List 1A = Plants presumed extinct in California by CNPS; CNPS List 1B = CNPS designated rare or endangered plants in California and elsewhere; and CNPS List 2 = CNPS designated rare or endangered plants in California, but more common elsewhere.

3.3.2 Special-status Species Observed During Site Reconnaissance

During the site reconnaissance in June 2006, no special-status species were observed within the Study Area. In the vicinity of the Study Area, 1 special-status species - yellow-billed cuckoo - was observed in the Steele Canyon Creek riparian corridor south of the SR 94 / Lyons Valley Road Intersection (Figure 3-8).

3.3.3 Analyses of Likelihood of Occurrence of Special-status Species

The 21 species with State status identified in Sections 3.3.1 and 3.3.2 were further assessed for their potential to occur within the Study Area based upon previously documented occurrences, their habitat requirements, and the quality and extent of any available habitat within the Study Area. Each species was given a ranking for its potential to occur within the Study Area: a "high" rank was given for species where essential habitat elements exist within the Study Area, where there have been previously documented occurrences within the Study Area, or where field assessments have positively identified the species within the Study Area; a "medium" rank was given for species where preferred habitat elements exist within the Study Area and where there have been previously documented occurrences in within the Study Area or vicinity; and a "low" rank was given for species where habitat elements exist within the Study Area or vicinity, but the quality of that habitat is degraded or of poor quality, and/or where Study Area conditions and land uses deter its use of the Study Area. The results of this analysis are summarized in Table 3-4.

Table 3-4 Summary of Potential for Species with State Status to Occur in Study Area

Common Name	General Habitat Description	Potential to Occur in Study Area
Baja California birdbush	Chaparral; Known in CA from only one occurrence west of San Ysidro near the Mexican border (CNPS, 2006)	None. No suitable habitat occurs in Study Area. Field surveys did not detect presence.
Belding's savannah sparrow	Grassland, saline emergent (*Salicornia*) wetland, and wet meadow habitats; coastal breeders restricted to saline emergent wetlands; in the interior, breeding occurs mostly in valleys, in moist grasslands and meadows	Low. Little if any suitable habitat occurs in Study Area. Field surveys did not detect presence.
California black rail	Primarily tidal emergent wetlands and brackish marshes, occasionally in freshwater marshes near tidal sloughs	None. No suitable habitat occurs in Study Area. Field surveys did not detect presence.
California least tern	marine and estuarine shores, lagoons, abandoned salt ponds, lacustrine waters near coast	None. No suitable habitat occurs in Study Area.
California Orcutt grass	Vernal pools, southwestern California	None. No suitable habitat occurs in Study Area. Field surveys did not detect presence of species or any vernal pools.
Dehesa nolina	Foothills on gabbroic soils	None. No suitable habitat occurs in Study Area. Field surveys did not detect presence.
Dunn's mariposa lily	Dry, stony ridges in chaparral and yellow-pine forest	None. No suitable habitat occurs in Study Area. Field surveys did not detect presence.
Encinitas baccharis	Southern maritime chaparral and dense southern mixed chaparral habitats.	None. No suitable habitat occurs in Study Area. Field surveys did not detect presence.

Common Name	General Habitat Description	Potential to Occur in Study Area
Gander's ragwort	Chaparral, burns, "gabbroic" outcrops	Low. Little if any suitable habitat occurs in Study Area. Field surveys did not detect presence.
Least Bell's vireo	willows and other low, dense valley foothill riparian habitat and lower portions of canyons; also desert riparian habitat	High. Suitable habitat is present in the Study Area or vicinity. CNDDB reports the species within Study Area. Field surveys did not detect presence.
Light-footed clapper rail	Coastal saline emergent wetlands, tidal sloughs, brackish areas	None. No suitable habitat occurs in Study Area. Field surveys did not detect presence.
Mexican flannelbush	Clay soils derived from gabbro or metavolcanic bedrock within chaparral or closed-cone coniferous forests, canyons.	None. No suitable habitat occurs in Study Area. Field surveys did not detect presence.
Otay Mesa mint	Vernal pools on coastal mesas	None. No suitable habitat occurs in Study Area. Field surveys did not detect presence of species or any vernal pools.
Otay tarplant	Clay soil, coastal scrub	Medium. Suitable habitat occurs in Study area and vicinity, but is outside of the known range reported in the CNDDB.
San Diego thorn-mint	Clay soils (primarily gabbroic) within coastal sage scrub, chaparral, and native grasslands.	Medium. Coastal sage scrub & grassland habitats occur but not suitable gabbroic soils in Study Area. CNNDB reports closest known population approximately 3 kilometers from Study Area.
San Diego button-celery	Vernal pools, marshes	None. No suitable habitat occurs in Study Area. Field surveys did not detect presence of species or any vernal pools.
San Diego mesa mint	Vernal pools of coastal terraces	None. No suitable habitat occurs in Study Area. Field surveys did not detect presence of species or any vernal pools.
Salt marsh bird's-beak	Coastal salt marshes	None. No suitable habitat occurs in Study Area. Field surveys did not detect presence.
Small-leaved rose	Chaparral, coastal scrub; known in CA from only one occurrence on Otay Mesa; only CA occurrence transplanted for mitigation in 1997 (CNPS, 2006)	Low. Suitable habitat occurs in Study Area, but species has been extirpated from California. Field surveys did not detect presence.
western yellow-billed cuckoo	Deciduous riparian thickets or forests	High. Suitable habitat occurs in Study area and vicinity. Observed in this study in Steele Canyon south of the SR 94 / Lyons Valley Road Intersection.
Willowy monardella	Sandy washes and floodplains within coastal sage scrub or riparian scrub habitats.	None. No suitable habitat occurs in Study Area. Field surveys did not detect presence.

3.4 JURISDICTIONAL WATER RESOURCES

An informal assessment of the presence of potentially jurisdictional water resources within the Study Area was conducted concurrently with the special-status species assessment. Water courses in the Study Area and vicinity – Steele Canyon Creek, Jamul Creek, and Sweetwater River – are hydrologically connected to navigable waters and would therefore be considered Waters of the US (up to the high-water mark) and Waters of the State (up to the limit of riparian vegetation). Ephemeral tributaries, culverts, seeps, and riverine wetlands associated with these water courses would also likely be jurisdictional Waters. No vernal pools or other isolated wetlands were identified within the Study Area.

4.0 IMPACT ANALYSES AND MITIGATION MEASURES

4.1 SIGNIFICANCE CRITERIA

The project would be considered to have a significant adverse impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFG;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 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 any county or municipal policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved governmental habitat conservation plan.

This biological resources assessment focused upon biological resources protected or regulated by the State of California (especially state-listed species).

4.2 POTENTIAL IMPACT # 1 –SPECIAL STATUS SPECIES IMPACTS

Four species with State status were determined to have a medium or high potential to occur in the Study Area or vicinity (see Section 3.3). The following discussion evaluates the potential for Project-related activities to adversely affect these species. No adverse impacts to special-status species from Project-related construction were identified at the SR 94 / Jamacha Boulevard Intersection because California Department of Transportation (CalTrans) has already begun road improvements.

4.2.1.1 Potential Impacts to Least Bell's Vireo

Least Bell's vireo is a small, plain, insectivorous songbird that typically nests in willow thickets and other dense, shrubby vegetation communities found near water at elevations below 2,000 feet (California Department of Fish and Game, 2006c,d). These habitats are typically associated with willow, cottonwood, baccharis, wild blackberry, and/or mesquite. The subspecies *V. b. pusillus* is endemic to California and northern Baja California in willows and other low, dense valley foothill riparian habitat and lower portions of

canyons below elevations of about 600 m. Declines throughout its range in California are attributed to cowbird parasitism and habitat destruction and degradation. Critical habitat for this species was designated for the Santa Margarita, San Luis Rey, San Diego, Sweetwater, and Tijuana rivers and Coyote and Jamul-Dulzura creeks, all in San Diego County. In 1997, CDFG established a preserve at Rancho Jamul south of Jamul Indian Village, primarily to benefit least Bell's vireo.

According to the CNDDB, Least Bell's vireo has been reported near or in the Study Area at the SR 94 / Jamacha Boulevard Intersection. The coast live oak riparian habitat occurring at the SR 94 / Melody Road Intersection is currently degraded from cattle ranching and generally lacks the habitat structure required by least Bell's vireo for foraging and nesting. Therefore, it is not anticipated that the Project would result in adverse direct effects to least Bell's vireo at this location. Coast live oak riparian habitat could be impacted at SR 94 / Cougar Canyon Road Intersection, SR 94 / Steele Canyon Road Intersection, and SR 94 / Lyons Valley Road Intersection by construction activities. Least Bell's vireo could be directly affected if nesting habitat is destroyed. Impacts and mitigations measures for nesting birds is discussed in Sections 4.4 and 4.4.1. Other potential adverse indirect effects upon Least Bell's vireo associated with implementation of traffic improvements consist of future increase of noise, vehicular traffic, and other human activity within the Study Area. However, given the extent of existing habitat degradation within proposed development areas and the existing extent of human activity in the immediate vicinity, it is unlikely that implementation of traffic improvements would result in significant adverse indirect impacts to this species. Therefore, Project operation is not considered a significant adverse impact.

4.2.1.2 Potential Impacts to Otay tarplant

The Otay tarplant is a glandular, aromatic, annual herb; the blooming period for this species is May to June (CNPS, 2006). The majority of occurrences are associated with clay soils in grasslands, coastal sage scrub, or maritime succulent scrub at elevations between 25 and 300 m. The Otay tarplant is threatened by habitat destruction and degradation and competition from non-native plants. This species has a limited distribution consisting of at approximately 25 historical populations near Otay Mesa in southern San Diego County and one population in Mexico near the United States border; critical habitat has been designated within this range (USFWS website, 2006, available at http://ecos.fws.gov/species_profile/SpeciesProfile?spcode=Q0YQ). The Study Area is outside of the designated critical habitat. This species is also a covered species under the City and County of San Diego subarea plans of the MSCP. While suitable habitat occurs with the Study Area and vicinity, the known range is over 10 kilometers to the southwest from the Study Area, according to the CNDDB.

4.2.1.3 Potential Impacts to San Diego Thorn Mint

San Diego thorn mint is an annual herb that occurs in chaparral, coastal scrub, vernal pools with clay soils, and valley and foothill grassland habitats of southern California and northern Baja California, Mexico (CNPS, 2006). The nearest historic occurrence is over 3 kilometers to the northeast and southwest from the Study Area, according to the CNDDB. A botanical inventory of the Jamul Indian Village and the grassland south of the SR 94 / Melody Road Intersection (Analytical Environmental Services, 2003); this survey did not detect the presence of San Diego thorn mint. Potentially suitable habitat for San Diego thorn mint occurs within the Study Area. However, the majority of these suitable areas are either developed or severely degraded as a result of cattle grazing, thereby significantly limiting the potential for this species to occur. Destruction of coastal scrub habitat or grassland during Project construction could adversely affect this species.

4.2.1.4 Potential Impacts to Western Yellow-billed Cuckoo

The yellow-billed cuckoo is a relatively large, insectivorous bird found in riparian habitats. This bird uses densely foliaged, deciduous trees and shrubs, especially willows, for roosting and nesting (California Department of Fish and Game, 2006d). One yellow-billed cuckoo was spotted in the riparian corridor south

of the SR 94 / Lyons Valley Road Intersection within the Study Area, but outside of the limits of construction. The nearest reported occurrence is approximately 20 kilometers to the southwest from the Study Area, according to the CNDDB. Suitable habitat occurs with the Study Area at SR 94 / Cougar Canyon Road Intersection, SR 94 / Steele Canyon Road Intersection, and SR 94 / Lyons Valley Road Intersection. The riparian habitat occurring at the SR 94 / Melody Road Intersection is currently degraded from cattle ranching and generally lacks the habitat structure required by this species for foraging and nesting. Coast live oak riparian habitat could be impacted at SR 94 / Cougar Canyon Road Intersection, SR 94 / Steele Canyon Road Intersection, and SR 94 / Lyons Valley Road Intersection by construction activities. Yellow-billed cuckoo could be directly affected if nesting habitat is destroyed. Impacts and mitigations measures for nesting birds is discussed in Sections 4.4 and 4.4.1. Other potential adverse indirect effects upon yellow-billed cuckoo associated with implementation of traffic improvements consist of future increase of noise, vehicular traffic, and other human activity within the Study Area. However, given the extent of existing habitat degradation within proposed development areas and the existing extent of human activity in the immediate vicinity, it is unlikely that implementation of traffic improvements would result in significant adverse indirect impacts to this species. Therefore, Project operation is not considered a significant adverse impact.

4.2.2 Recommended Mitigation Measures for Impact # 1

Pre-construction surveys for Least Bell's vireo, Otay tarplant, and San Diego thorn mint, yellow-billed cuckoo should be performed by a qualified biologist to ensure that these species are not present. Mitigations measures for nesting birds are discussed in Section 4.4.1.

4.3 POTENTIAL IMPACT # 2 – DEGRADATION OR LOSS OF SENSITIVE HABITAT

No critical habitat or sensitive habitat designated by federal or State regulations or agencies was identified. Coastal sage scrub and mature riparian woodland occurs in the Study Area and is considered a sensitive habitat by the County of San Diego. Implementation of the Project would involve operation of heavy equipment, staging of soils, grading and excavation activities that could directly or indirectly impact sensitive habitats. This is considered a potentially significant impact. The County of San Diego Codes and Regulations protects the following natural resources (administered by the Dept. of Planning & Landuse):

- Clearing of Vegetation / Grading and Clearing Ordinance (No. 9547). No person may do any vegetation clearing or grading without a permit. No permit shall be issued, unless Habitat Loss Permit code has been complied with. Clearing up to 5 acres on a single-family residential lot, routine landscaping, maintenance, removal of dead trees, clearing for fire protection purposes within 100'of a dwelling, or incidental to repair or construction of a single-family dwelling outside the "MSCP Subarea" is exempt. Within the MSCP, the Biological Mitigation Ordinance must be complied with. When grading or clearing has been done without a permit, the County may order the site be restored to its previous condition, including revegetation of the site with identical species of plants. Sec. 87.501 Clearing Permits - County of San Diego 2003 Revised Grading Ordinance (http://www.sdcounty.ca.gov/dplu/Resource/docs/3~pdf/clearingregs.pdf). The Grading and Clearing Ordinance requires a permit for vegetation clearing (and a Habitat Loss Permit) for projects including 5 acres on a single-family residential lot. Violations require restoration to previous condition.

- Public / Street Trees (Section 71.501). No person shall trim, prune, remove any tree growing on County-owned property unless authorized in writing. If pruning or removal is necessary, the county shall carry out the work at the cost of the permittee by deposit in a trust fund. Following completion the actual cost of the work will be transferred to the county and the remainder returned to the depositor. No one may plant a tree on public right of way without permission of the county, granted for approved species. Plant Removal, Section 63.301. It shall be unlawful for any person to cut or remove of any native tree on public land or on any land not his own, including County and State

roadways and railroad rights-of-way without a permit issued by the Agricultural Commissioner or written consent of the private land owner.

- Hillside Development (I-73). Tentative map applications for hillside development must significant mature trees, groves and native vegetation.

- MSCP Biological Mitigation Ordinance (No. 8845). This ordinance protects biological resources in resource core areas of the Multiple Species Conservation Plan (MSCP) by adopting mitigation standards for all projects requiring a discretionary permit. The goal is to direct preservation toward land with contiguous areas of habitat or linkages. Projects requiring an environmental initial study must also submit a vegetation map. Projects which may impact county sensitive plants or narrow endemic plants must site and cluster development to minimize impact. Projects must avoid sensitive plants, or when encroachments of up to 20% occur, mitigations on a 3:1 ratio are required. Brushing and clearing on single-family parcels under 10 acres is exempt.

- Coastal Sage Scrub Habitat. Process For Issuance of Coastal Sage Scrub Habitat Loss Permits (Ord. No. 8365) http://www.sdcounty.ca.gov/dplu/Resource/docs/3~pdf/HLP-%20Ord8365.pdf

- Sensitive Habitats / Resource Protection Ordinance (Nos. 7968, 7739, 7685 and 7631) (http://www.sdcounty.ca.gov/dplu/Resource/docs/3~pdf/res_prot_ord.pdf). protection of steep-slope lands, wetlands, floodplains, sensitive habitats (inc. mature riparian woodland); requires permit.

No adverse impacts to sensitive habitats from Project-related construction were identified at the SR 94 / Jamacha Boulevard Intersection because CalTrans has already begun road improvements. At the SR 94 / Cougar Canyon Road Intersection, direct or indirect impacts to mature coast live oaks may occur on the south side of SR 94.At the SR 94 / Steele Canyon Road Intersection, implementation of the Project may require the removal of coast live oaks. At the SR 94 / Lyons Valley Road Intersection, widening of eastbound SR 94 may impact coast live oaks and riparian habitat. At SR 94 / Melody Road Intersection, implementation of the Project may require the removal of coast live oaks and riparian vegetation.

4.3.1 Recommended Mitigation Measures for Impact # 2

The appropriate permits should be obtained from the County of San Diego before coast live oaks or riparian vegetation is cleared. Mitigation measures identified by the County permit process should be fully implemented. Best Management Practices, including tree protection measures, should be implemented during construction to minimize indirect impacts to coast live oaks and other sensitive habitats.

4.4 POTENTIAL IMPACT # 3 –IMPACTS TO NESTING BIRDS

Special-status bird species exist in the Study Area and vicinity, including Coastal California gnatcatcher, Least Bell's vireo, and yellow-billed cuckoo. The Study Area contains nesting habitat for various bird species because of the presence of trees, poles, and riparian canopy. However, no nests were observed during field surveys. Migratory birds and raptors are protected by state and federal laws while nesting. If construction activities are conducted during the nesting season, nesting birds could be directly impacted by tree removal, and indirectly impacted by noise, vibration, and other construction-related disturbance. Therefore, Project construction is considered a potentially significant adverse impact. No adverse impacts to bird resources from Project-related construction have been identified at the SR 94 / Jamacha Boulevard Intersection because CalTrans has already begun road improvements.

Other potential adverse indirect effects to nesting birds associated with implementation of traffic improvements consist of future increase of noise, vehicular traffic, and other human activity within the Study

Area. However, given the extent of existing habitat degradation within proposed development areas and the existing extent of human activity in the immediate vicinity, it is unlikely that implementation of traffic improvements would result in significant adverse indirect impacts to nesting birds. Therefore, Project operation is not considered a significant adverse impact.

4.4.1 Recommended Mitigation Measures for Impact # 3

If construction activities will occur during the nesting season (approximately February to September), pre-construction surveys for the presence of special-status bird species or any nesting bird species should be conducted by a qualified biologist within 500 feet of proposed construction areas. If active nests are identified in these areas, CDFG should be consulted to develop measures to avoid "take" of active nests prior to the initiation of any construction activities. Avoidance measures may include establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site. County of San Diego permits would be required for vegetation clearing and the loss of sensitive habitats.

4.5 POTENTIAL IMPACT # 4 – JURSIDICTIONAL WATER RESOURCES

An informal assessment of the Study Area identified two potentially-jurisdictional water features - Steele Canyon Creek and Jamul Creek (and their tributaries) – in the Study Area. Potential direct adverse impacts to these water resources could occur during construction by modification or destruction of stream banks or riparian vegetation, particularly by the addition of a southbound lane at SR 94 / Cougar Canyon Road Intersection, SR 94 / Steele Canyon Road Intersection, and SR 94 / Lyons Valley Intersection, and the addition of a northbound right hand turn lane at SR 94 / Lyons Valley Road Intersection and road widening on Melody Road at SR 94. No adverse impacts to jurisdictional water resources from Project-related construction were identified at the SR 94 / Jamacha Boulevard Intersection because CalTrans has already begun road improvements. Potential adverse indirect impacts to water resources associated with construction of traffic improvements consist primarily of increased erosion and sedimentation in receiving water bodies due to soil disturbance.

4.5.1 Recommended Mitigation Measures for Impact # 4

Any alteration or degradation of a streambank below the highwater mark would require Clean Water Act Section 404 permit. Any alteration or degradation of a streambank within the limits of riparian vegetation would require a CDFG Streambed alteration agreement. Clean Water Act Section 401 Water Quality Certification would be required in conjunction with these permits; this may consist of obtaining coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ). In conjunction with this Certification, a Storm Water Pollution Prevention Plan with Best Management Practices (BMPs) must be identified and implemented during construction to avoid or minimize the potential for erosion or sedimentation. County of San Diego permits would be required for vegetation clearing and the loss of sensitive habitats.

The State Water Resources Control Board maintains a database of Stormwater Best Management Practices (available on the Internet at http://www.swrcb.ca.gov/stormwtr/bmp_database.html) and the California Stormwater Quality Association provides specific guidance on stormwater BMPs (http://www.cabmphandbooks.com/). At a minimum, the following Best Management Practices should be implemented to protect waterbodies from impacts:

- create and implement a Hazardous Materials Management Plan and Spill Response Plan, including the identification of specific refueling areas;

- create and implement an erosion control plan and a sediment monitoring plan, including the placement of jute mats, straw bales and wattles, sand bags, and vegetative covers (e.g. Hydroseed), weather monitoring, and specific inspection protocols;
- designated concrete washout areas and other filters for construction materials;
- a visual monitoring program and a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs.

5.0 SUMMARY

Natural Investigations Company has prepared a biological resources assessment for proposed traffic improvements identified in the Jamul Indian Village FEIS. The Study Area is located in eastern San Diego County, California. Habitat types occurring on the property were characterized and evaluated for their potential to support regionally occurring special-status species. In addition, the property was assessed for the presence of jurisdictional waters of the US, isolated wetlands, and other biologically sensitive features. A list of regionally occurring special-status plant and animal species was compiled based on a review of pertinent literature, field assessments conducted by Natural Investigations Company biologists, informal consultation with the US Fish and Wildlife Service, and database queries. Habitat requirements were assessed for each species and compared to the habitats occurring within the property and surrounding vicinity. An analysis of these data sources and habitat requirements determined that the Study Area and/or surrounding vicinity may contain potential habitat for 21 species with State status. During field assessments, one special-status species was identified inside the Study Area – yellow-billed cuckoo. Based upon significance criteria, four species with State status species may potentially be adversely impacted by the proposed project: Least Bell's vireo; Otay tarplant; San Diego thorn mint; and yellow-billed cuckoo. Sensitive habitats protected by San Diego County Ordinance – coastal sage scrub, riparian woodland, and coast live oak – may be directly or indirectly impacted by Project construction. Mitigation measures are recommended to avoid or minimize the potential for adverse impacts to special-status species and habitats. An assessment for the presence of jurisdictional waters of the US and isolated wetland features within the Study Area was conducted concurrently with the special-status species assessment. This assessment identified two potentially jurisdictional waters – Steele Canyon Creek and Jamul Creek and their associated tributaries, seeps, and riverine wetlands. Mitigation measures are recommended to avoid or minimize the potential for adverse impacts to these water resources.

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7.0 QUALIFICATIONS OF BIOLOGIST

G. O. Graening holds a PhD in Biological Sciences and a Master of Science in Biological and Agricultural Engineering. Dr. Graening is an adjunct Professor at California State University at Sacramento, and is an active researcher in the area of conservation biology and groundwater ecology, and has published 16 journal articles, 5 conference proceedings, and 11 technical reports. Dr. Graening is also a Certified Arborist (ISA #

WE-6725A) and a Registered Environmental Assessor I (DTSC # 08060) Dr. Graening has 11 years of experience in environmental assessment.

8.0 APPENDIX - CNDDB LIST

Table 8-1 All Species Reported in the CNDDB in the 9 USGS Quads Surrounding the Study Area

Scientific Name	Common Name	Federal Status	CA Status
Acanthomintha ilicifolia	San Diego thorn-mint	FT	CE
Accipiter cooperii	Cooper's hawk	none	none
Adolphia californica	California adolphia	none	none
Agave shawii	Shaw's agave	none	none
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	none	none
Ambrosia chenopodiifolia	San Diego bur-sage	none	none
Ambrosia pumila	San Diego ambrosia	FE	none
Amphispiza belli belli	Bell's sage sparrow	FSC	none
Anniella pulchra pulchra	silvery legless lizard	FSC	none
Arctostaphylos otayensis	Otay manzanita	none	none
Aspidoscelis hyperythrus	orange-throated whiptail	none	none
Aspidoscelis tigris stejnegeri	coastal western whiptail	none	none
Astragalus deanei	Dean's milk-vetch	none	none
Astragalus oocarpus	San Diego milk-vetch	none	none
Athene cunicularia	burrowing owl	FSC	none
Atriplex pacifica	South Coast saltscale	none	none
Baccharis vanessae	Encinitas baccharis	FT	CE
Bergerocactus emoryi	golden-spined cereus	none	none
Branchinecta sandiegonensis	San Diego fairy shrimp	FE	none
Brodiaea orcuttii	Orcutt's brodiaea	none	none
Bufo californicus	arroyo toad	FE	none
Calochortus dunnii	Dunn's mariposa lily	none	CR
Campylorhynchus brunneicapillus couesi	coastal cactus wren	none	none
Ceanothus cyaneus	Lakeside ceanothus	none	none
Ceanothus otayensis	Otay Mountain ceanothus	none	none
Ceanothus verrucosus	wart-stemmed ceanothus	none	none
Centromadia pungens ssp. laevis	smooth tarplant	none	none
Chaenactis glabriuscula var. orcuttiana	Orcutt's pincushion	none	none
Chaetodipus californicus femoralis	Dulzura pocket mouse	none	none
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	none	none
Charadrius alexandrinus nivosus	western snowy plover	FT	none
Charina trivirgata	rosy boa	FSC	none
Choeronycteris mexicana	Mexican long-tongued bat	none	none
Chorizanthe polygonoides var. longispina	long-spined spineflower	none	none
Cicindela hirticollis gravida	sandy beach tiger beetle	FSC	none

Scientific Name	Common Name	Federal Status	CA Status
Clarkia delicata	delicate clarkia	none	none
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FC	CE
Coelus globosus	globose dune beetle	FSC	none
Comarostaphylis diversifolia ssp. diversifolia	summer holly	none	none
Cordylanthus maritimus ssp. maritimus	salt marsh bird's-beak	FE	CE
Cordylanthus orcuttianus	Orcutt's bird's-beak	none	none
Coreopsis maritima	sea dahlia	none	none
Corethrogyne filaginifolia var. incana	San Diego sand aster	none	none
Corynorhinus townsendii pallescens	pale big-eared bat	FSC	none
Crotalus ruber ruber	northern red-diamond rattlesnake	none	none
Cupressus forbesii	Tecate cypress	none	none
Danaus plexippus	monarch butterfly	none	none
Deinandra conjugens	Otay tarplant	FT	CE
Deinandra floribunda	Tecate tarplant	none	none
Dendroica petechia brewsteri	yellow warbler	none	none
Dudleya attenuata ssp. orcuttii	Orcutt's dudleya	none	none
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	none	none
Dudleya variegata	variegated dudleya	none	none
Empidonax traillii extimus	southwestern willow flycatcher	FE	none
Eremophila alpestris actia	California horned lark	none	none
Ericameria palmeri ssp. palmeri	Palmer's goldenbush	none	none
Erodium macrophyllum	round-leaved filaree	none	none
Eryngium aristulatum var. parishii	San Diego button-celery	FE	CE
Eumeces skiltonianus interparietalis	Coronado skink	none	none
Euphorbia misera	cliff spurge	none	none
Euphydryas editha quino	quino checkerspot butterfly	FE	none
Ferocactus viridescens	San Diego barrel cactus	none	none
Frankenia palmeri	Palmer's frankenia	none	none
Fremontodendron mexicanum	Mexican flannelbush	FE	CR
Horkelia truncata	Ramona horkelia	none	none
Icteria virens	yellow-breasted chat	none	none
Isocoma menziesii var. decumbens	decumbent goldenbush	none	none
Iva hayesiana	San Diego marsh-elder	none	none
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	none	none
Laterallus jamaicensis coturniculus	California black rail	FSC	CT
Lepechinia ganderi	Gander's pitcher sage	none	none
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	none	none
Lepus californicus bennettii	San Diego black-tailed jackrabbit	none	none

Scientific Name	Common Name	Federal Status	CA Status
Lotus crassifolius var. otayensis	Otay Mountain lotus	none	none
Lotus nuttallianus	Nuttall's lotus	none	none
Lycaena hermes	Hermes copper butterfly	none	none
Maritime Succulent Scrub	Maritime Succulent Scrub	none	none
Monardella hypoleuca ssp. lanata	felt-leaved monardella	none	none
Monardella linoides ssp. viminea	willowy monardella	FE	CE
Muilla clevelandii	San Diego goldenstar	none	none
Myosurus minimus ssp. apus	little mousetail	FSC	none
Nama stenocarpum	mud nama	none	none
Navarretia fossalis	spreading navarretia	FT	none
Navarretia prostrata	prostrate navarretia	FSC	none
Nemacaulis denudata var. denudata	coast woolly-heads	none	none
Nemacaulis denudata var. gracilis	slender woolly-heads	none	none
Neotoma lepida intermedia	San Diego desert woodrat	none	none
Nolina interrata	Dehesa nolina	none	CE
Nyctinomops femorasaccus	pocketed free-tailed bat	none	none
Opuntia californica var. californica	snake cholla	none	none
Orcuttia californica	California Orcutt grass	FE	CE
Ornithostaphylos oppositifolia	Baja California birdbush	none	CE
Panoquina errans	wandering (=saltmarsh) skipper	none	none
Passerculus sandwichensis beldingi	Belding's savannah sparrow	none	CE
Perognathus longimembris pacificus	Pacific pocket mouse	FE	none
Phacelia stellaris	Brand's phacelia	none	none
Phalacrocorax auritus	double-crested cormorant	none	none
Phrynosoma coronatum (blainvillei)	Coast (San Diego) horned lizard	none	none
Pogogyne abramsii	San Diego mesa mint	FE	CE
Pogogyne nudiuscula	Otay Mesa mint	FE	CE
Polioptila californica californica	coastal California gnatcatcher	FT	none
Quercus cedrosensis	Cedros Island oak	none	none
Quercus dumosa	Nuttall's scrub oak	none	none
Rallus longirostris levipes	light-footed clapper rail	FE	CE
Ribes canthariforme	Moreno currant	none	none
Rosa minutifolia	small-leaved rose	none	CE
Salvadora hexalepis virgultea	coast patch-nosed snake	none	none
Salvia munzii	Munz's sage	none	none
San Diego Mesa Claypan Vernal Pool	San Diego Mesa Claypan Vernal Pool	none	none
San Diego Mesa Hardpan Vernal Pool	San Diego Mesa Hardpan Vernal Pool	none	none
Satureja chandleri	San Miguel savory	none	none
Senecio aphanactis	rayless ragwort	none	none

Scientific Name	Common Name	Federal Status	CA Status
Senecio ganderi	Gander's ragwort	none	CR
Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	none	none
Southern Coastal Salt Marsh	Southern Coastal Salt Marsh	none	none
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	none	none
Southern Interior Cypress Forest	Southern Interior Cypress Forest	none	none
Southern Riparian Scrub	Southern Riparian Scrub	none	none
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	none	none
Southern Willow Scrub	Southern Willow Scrub	none	none
Spea (=Scaphiopus) hammondii	western spadefoot	FSC	none
Stemodia durantifolia	purple stemodia	none	none
Sterna antillarum browni	California least tern	FE	CE
Streptocephalus woottoni	Riverside fairy shrimp	FE	none
Stylocline citroleum	oil neststraw	FSC	none
Suaeda esteroa	estuary seablite	none	none
Taxidea taxus	American badger	none	none
Tetracoccus dioicus	Parry's tetracoccus	none	none
Thamnophis hammondii	two-striped garter snake	none	none
Tryonia imitator	California brackishwater snail	none	none
Valley Needlegrass Grassland	Valley Needlegrass Grassland	none	none
Vireo bellii pusillus	least Bell's vireo	FE	CE

APPENDIX E

SUPPLEMENTAL TRAFFIC STUDY

MRO ENGINEERS

Final Supplemental Traffic Impact Analysis

Jamul Indian Village
San Diego County, California

Prepared For
Jamul Indian Village
and
Lakes Entertainment, Inc.

August 21, 2006
Revised December 4, 2006

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INTRODUCTION

This report presents a supplemental traffic impact analysis for the proposed "Jamul Indian Village" project in San Diego County, California. The technical analysis procedures employed here are identical to the study approach documented in the *Jamul Indian Village Traffic Impact Analysis* (Katz, Okitsu & Associates, November 2002). The November 2002 analysis was subsequently incorporated into the *Final Environmental Impact Statement – Jamul Indian Village* (U.S. Department of the Interior, Bureau of Indian Affairs and Analytical Environmental Services, August 2003).

This supplemental traffic impact analysis addresses the effects of changes in traffic flow patterns associated with a modified vehicular access plan for the proposed project. Specifically, the study describes analyses of operating conditions at selected key intersections and roadway segments in the immediate vicinity of the proposed project site. The modified access system will be described in detail later in this report.

As in the November 2002 report, this supplemental traffic impact analysis focused on intersection operations in the weekday AM and PM peak hours and the Saturday PM peak hour for near-term and long-term conditions. Key roadway segments near the site were analyzed with respect to daily traffic operations, again for near-term and long-term conditions. For all of the study time periods, analyses were performed both with and without construction of the proposed Jamul Indian Village project. The Preferred Alternative was analyzed in detail, while the other development alternatives were addressed in a qualitative fashion.

Project Description

According to information presented in the August 2003 FEIS, the Preferred Alternative for the proposed Jamul Indian Village project would be completed in two phases, designated Phases A and B. For this analysis, Phase A is assumed to be completed in the year 2006 or shortly thereafter, while completion of Phase B is assumed to be accomplished in the year 2009. The two project phases would include the following land uses:

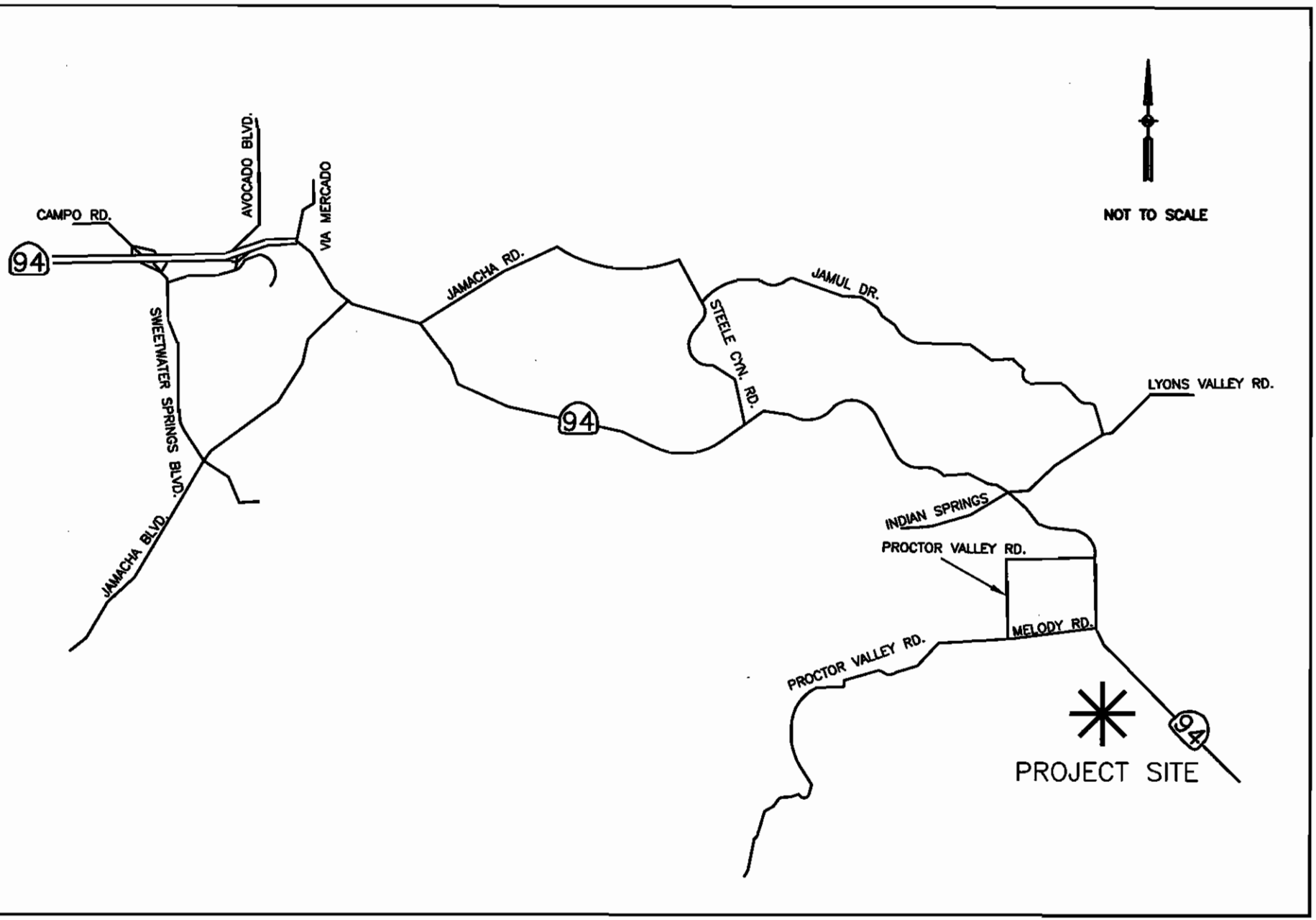
Phase A

- Casino – 205,194 square feet (SF), including 73,469 SF of gaming floor area with 2,000 slot machines, as well as various spaces for public use and administration and management of the facility;
- Parking garage – Approximately 2,550 parking spaces;
- Human Resources building – 30,000 SF;
- Fire station; and
- Sewage treatment facility.

Phase B

- Hotel – A 300-room resort hotel, including a 24,000 SF event center. (Note that a modified version of the hotel plan is addressed later in this report.)

As shown on Figure 1, the project site is located on the west side of SR 94 south of Melody Road.



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PROJECT LOCATION

FIGURE 1

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Project Access

From a traffic impact analysis perspective, the principal difference between the current project description and the previously-analyzed project concerns the proposed project access system. The previous traffic analysis addressed a project that would primarily gain access via a connection to Melody Road, west of SR 94.

As currently proposed, vehicular access serving the site would be provided by way of a single connection to SR 94, south of Melody Road. Initially, this access intersection is assumed to be controlled by a STOP sign on the project access road; drivers exiting the site would be required to stop before turning onto SR 94, while traffic on SR 94 would remain unrestricted. The potential for installation of a traffic signal at this location is also addressed in this study. Two potential access options are proposed: (1) a recently-paved road immediately south of the existing fire station on SR 94, and (2) the existing access roadway directly onto reservation property.

Analysis Scenarios

To be consistent with the November 2002 traffic analysis, this study addresses the following analysis scenarios:

- Existing Conditions;
- Existing Plus Expected Development No Project Conditions;
- Existing Plus Expected Development With Project Conditions (Phase A Only);
- Near-Term (2009) No Project Conditions;
- Near-Term (2009) With Project Conditions (Phases A and B);
- Long-Term (2020) No Project Conditions;
- Long-Term (2020) With Project Conditions (Phases A and B);
- Buildout (2020) No Project Conditions; and
- Buildout (2020) With Project Conditions (Phases A and B).

The first phase of the proposed project (i.e., Phase A, as described above) is assumed to be completed in the year 2006 or shortly thereafter. The entire project (i.e., Phases A and B combined) is assumed to be completed in the year 2009. Both of these time frames also include appropriate levels of background development in the form of other development projects that are expected to be completed within the pertinent time period.

Both "long-term" (year 2020) analysis scenarios address completion of the entire proposed project in combination with future year traffic forecasts and anticipated roadway system improvements. While the future year traffic forecasts for the two sets of year 2020 scenarios are identical, the buildout scenarios assume full implementation of the County of San Diego General Plan Circulation Network (as approved on October 15, 1993) as well as the most recent Caltrans Concept Report for SR 94.

Study Locations

The November 2002 traffic analysis documented analyses of up to ten study intersections and fourteen roadway segments. As described above, the primary difference between the current version of the proposed project and that analyzed in the November 2002 traffic analysis is the location of the access roadway serving the site. Review of the modified Project Description indicates that implementation of the current version of the project will affect traffic flow patterns at only one of the study intersections (plus the project access intersection) and three of the study roadway segments, as follows:

Study Intersections

- SR 94/Melody Road, and
- SR 94/Project Access.

Roadway Segments

- Melody Road, west of SR 94,
- SR 94, between Melody Road and the Project Access Road, and
- SR 94, south of the Project Access Road.

The analyses at the other study intersections and roadway segments documented in the November 2002 report remain valid, and the significant impacts and mitigation measures identified for those locations would continue to apply.

Intersection Analysis Methodology

Intersection operations are typically described in terms of level of service (LOS), which is reported on a scale from LOS A (representing free-flow conditions) to LOS F (which represents substantial congestion and delay). The level of service designation is based on a quantitative calculation of average vehicular delay at the intersection. The specific approach to estimating delay is based on procedures documented in the *Highway Capacity Manual* (Transportation Research Board, 2000). Descriptions of operating conditions and delay values for signalized and unsignalized intersections are presented below.

Signalized Intersection

Signalized study intersections were analyzed using the "operational analysis" methodology presented in the year 2000 edition of the *Highway Capacity Manual* (*HCM 2000*). This methodology determines signalized intersection level of service by comparing the "average control delay per vehicle" to the thresholds shown in Table 1. Control delay represents the delay directly associated with the traffic signal. For this analysis, the level of service calculations were performed using the *Synchro 6* software package, which implements the intersection analysis procedures documented in the *HCM 2000*.

Table 1 **Level of Service Definitions** **Signalized Intersections**		
Level of Service	Description	Average Control Delay (Seconds/Vehicle)
A	Very low delay. Most vehicles do not stop	≤ 10.0
B	Slight delay. Generally good signal progression.	10.1 – 20.0
C	Increased number of stopped vehicles. Fair signal progression.	20.1 - 35.0
D	Noticeable congestion. Large proportion of vehicles stopped.	35.1 – 55.0
E	Operating conditions at or near capacity. Frequent cycle failure.	55.1 - 80.0
F	Oversaturation. Forced or breakdown flow. Extensive queuing.	> 80.0
Reference: *Highway Capacity Manual* (Transportation Research Board, 2000).		

Unsignalized Intersections

The analysis of the unsignalized study intersections was conducted using the "two-way-STOP-control" method documented in Chapter 17 of the *HCM 2000*. This method calculates average control delay for each minor movement (i.e., traffic movements that are required to yield right-of-way to other movements), but not for the intersection as a whole. For unsignalized intersections, control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Level of service results reported for STOP-controlled intersections are based upon the average control delay per vehicle for the worst-case minor movement, based on the criteria set forth in Table 2. The unsignalized study intersections were also analyzed using the *Synchro 6* software package, which performs level of service calculations in accordance with the *HCM 2000* procedures.

Table 2 **Level of Service Definitions** **Unsignalized Intersections**		
Level of Service	Description	Average Control Delay (Seconds/Vehicle)
A	Little or no conflicting traffic for minor movements.	≤ 10.0
B	Drivers on minor movements begin to notice absence of available gaps.	10.1 – 15.0
C	Drivers on minor movements begin to experience delays waiting for adequate gaps.	15.1 – 25.0
D	Queuing occurs on minor movements due to a reduction in available gaps.	25.1 – 35.0
E	Extensive minor movement queuing due to insufficient gaps.	35.1 – 50.0
F	Insufficient gaps of adequate size to allow minor movement traffic demand to be accommodated.	> 50.0
Reference: *Highway Capacity Manual* (Transportation Research Board, 2000).		

Roadway Segment Analysis Methodology

The analysis of the impacts of the proposed Jamul Indian Village project on the roadway segments listed above was based on comparison of the existing and projected daily traffic volumes to pertinent thresholds established for each segment. The specific traffic volume thresholds used in this analysis are consistent with those employed in the November 2002 Katz, Okitsu & Associates traffic study. The daily traffic volume standards applicable to roadways under the jurisdiction of the County of San Diego are documented in "Table 1 – Average Daily Vehicle Trips," as presented in *Public Road Standards* (County of San Diego, Department of Public Works, Adopted July 14, 1999). As in the November 2002 report, roadways under the jurisdiction of Caltrans were generally evaluated relative to level of service guidelines presented in "Table 2 – Roadway Classifications, Levels of Service (LOS) and Average Daily Traffic (ADT)" from the *SANTEC/ITE Guidelines for Traffic Impact Studies [TIS] in the San Diego* Region (March 2000). Copies of these tables are presented in Appendix A.

Table 3 presents the daily traffic volume ranges that apply to the roadway segments addressed in this analysis.

Table 3
Roadway Segment Level of Service Thresholds

Roadway Classification	Average Daily Traffic Volume and V/C[1] Ratio				
	LOS A	LOS B	LOS C	LOS D	LOS E
San Diego County Roadway Standards[2]					
Prime Arterial	< 22,200 (0.39)	< 37,000 (0.65)	< 44,600 (0.78)	< 50,000 (0.88)	< 57,000 (1.00)
Major Road	< 14,800 (0.40)	< 24,700 (0.67)	< 29,600 (0.80)	< 33,400 (0.90)	< 37,000 (1.00)
Collector	< 13,700 (0.40)	< 22,800 (0.67)	< 27,400 (0.80)	< 30,800 (0.90)	< 34,200 (1.00)
Rural Collector	<1,900 (0.12)	< 4,100 (0.25)	< 7,100 (0.44)	< 10,900 (0.67)	< 16,200 (1.00)
SANTEC/ITE Guidelines for Caltrans Roadways[3]					
Major Arterial (4 Lanes)	< 15,000 (0.38)	< 21,000 (0.53)	< 30,000 (0.75)	< 35,000 (0.88)	< 40,000 (1.00)
Collector (4 Lanes)	< 10,000 (0.33)	< 14,000 (0.47)	< 20,000 (0.67)	< 25,000 (0.83)	< 30,000 (1.00)
Collector (2 Lanes)	< 4,000 (0.40)	< 5,500 (0.55)	< 7,500 (0.75)	< 9,000 (0.90)	< 10,000 (1.00)

Notes:
1 Volume/capacity ratio
2 Reference: *Public Road Standards* (County of San Diego, Department of Public Works, Adopted July 14, 1999).
3 Reference: *SANTEC/ITE Guidelines for Traffic Impact Studies [TIS] in the San Diego Region*, March 2000.

Evaluation Criteria

As in the November 2002 traffic impact analysis, evaluation criteria used in this analysis are based on guidelines developed by the San Diego Traffic Engineers' Council (SANTEC) in conjunction with the local Border Section of the Institute of Transportation Engineers (ITE). Those guidelines are documented in the March 2, 2000 document, *SANTEC/ITE Guidelines for Traffic Impact Studies [TIS] in the San Diego Region.* The evaluation criteria are summarized below:

- In general, LOS D has been established as the minimum acceptable level of service at the study intersections and roadway segments addressed in this analysis.
- At intersections where the study location is projected to operate at LOS E or F, a project-related increase in average delay per vehicle of over 2.0 seconds is considered a significant impact. If the project-related incremental delay value is 2.0 seconds per vehicle or less, the impact is considered less-than-significant.
- For roadway segments found to operate at LOS E or F, a project-related increase in V/C ratio of greater than 0.02 constitutes a significant impact. An increase in V/C of 0.02 or less is considered less-than-significant.

EXISTING CONDITIONS

This section describes existing traffic operations in the study area.

Key Roadways

Brief descriptions of the key roadways in the study area are provided below.

State Route 94 begins near downtown San Diego as an eight-lane, access-controlled freeway. In the vicinity of the project site, however, it is a two-lane, undivided, conventional highway. It carries approximately 7,600 vehicles per day, and no speed limit is posted near the project site. (According to the California Vehicle Code, a speed limit of 55 miles per hour (MPH) would apply to this roadway.)

Melody Road is an east-west roadway located a short distance north of the project site. It is a two-lane collector road with no posted speed limit. About 400 vehicles per day use this road.

Existing Intersection Traffic Volumes

Turning movement counts were conducted at the study intersections during the weekday AM and PM peak-periods and the Saturday PM peak period as part of the November 2002 traffic analysis. The resulting peak-hour volumes and existing intersection lane configurations are shown on Figure 2.

Existing Intersection Level of Service

Table 4 summarizes the existing peak-hour levels of service at the SR 94/Melody Road study intersection. Appendix B contains the technical calculation sheets.

Weekday AM Peak Hour

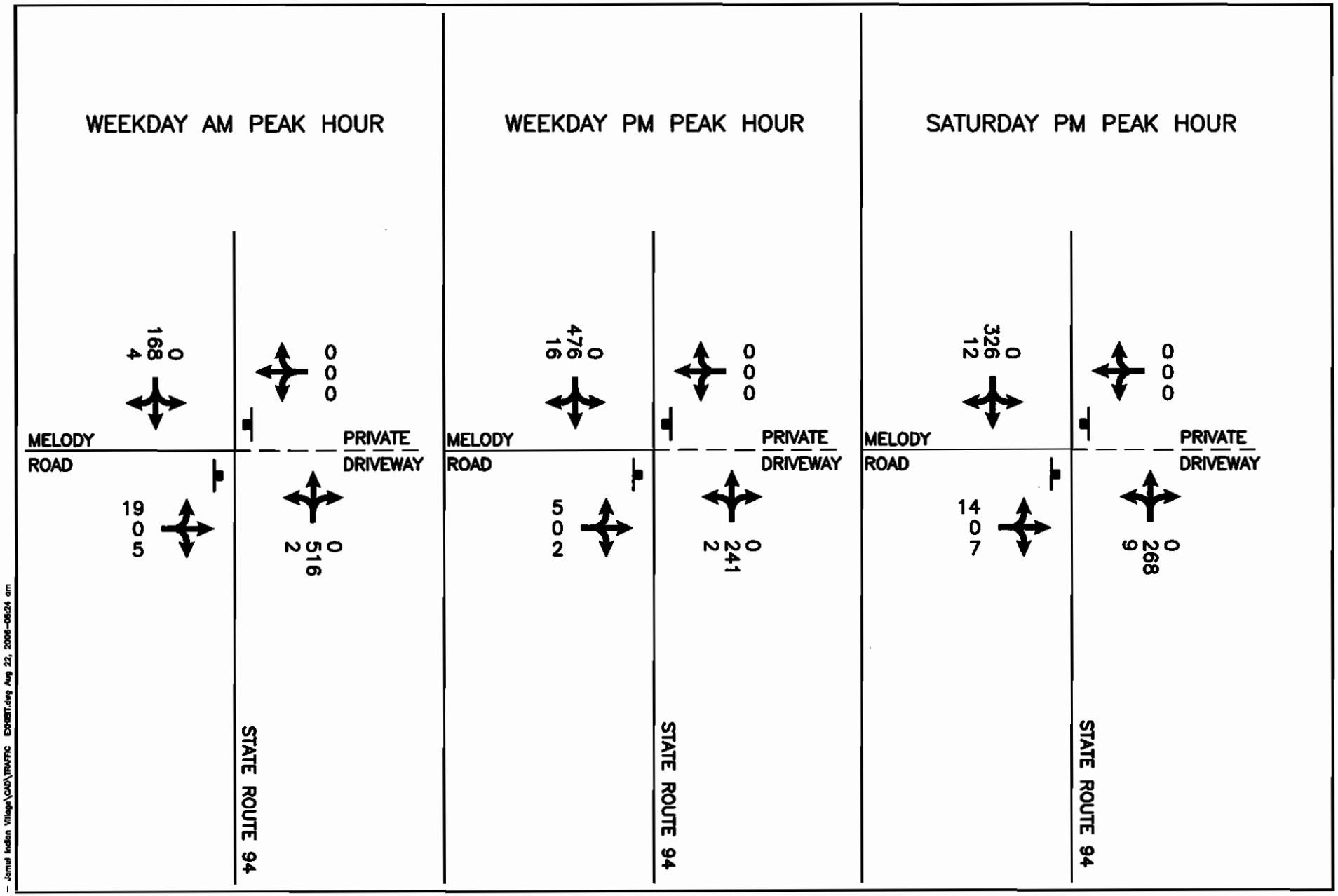
The study intersection operates at an acceptable level of service (i.e., LOS B) in the weekday AM peak hour.

Weekday PM Peak Hour

In the weekday PM peak hour, the study intersection again meets the level of service standards applicable to this analysis. As in the weekday AM peak hour, it operates at LOS B.

Saturday PM Peak Hour

The intersection is again at LOS B in the Saturday PM peak hour. As such, it operates at an acceptable level of service in this time period, as well



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EXISTING CONDITIONS TRAFFIC VOLUMES

FIGURE 2

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Table 4
Intersection Level of Service Summary[1]
Existing Conditions

Intersection	Traffic Control	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday PM Peak Hour	
		Delay[2]	LOS[3]	Delay	LOS	Delay	LOS
SR 94/Melody Road	STOP Sign	14.4	B	14.6	B	13.2	B

Notes:
1 Reference: Transportation Research Board, *Highway Capacity Manual*, 2000.
2 Average control delay (seconds per vehicle).
3 Level of service.

Existing Roadway Segment Level of Service

Table 5 summarizes the roadway segment level of service analysis for existing conditions, using the same analysis parameters documented in the November 2002 Katz, Okitsu & Associates report.

Table 5
Roadway Segment Level of Service Summary[1]
Existing Conditions

Roadway Segment	Lanes/Classification	Roadway Capacity[2]	Daily Traffic Volume	V/C[3] Ratio	LOS[4]
Melody Road - West of SR 94	2 Lanes/Collector	16,200 VPD[5]	400 VPD	0.02	A
SR 94 - Melody Rd. to the Project Access Rd.	2 Lanes/Collector	16,200 VPD	7,600 VPD	0.47	D
SR 94 - South of the Project Access Rd.	2 Lanes/Collector	16,200 VPD	7,600 VPD	0.47	D

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Reference: *Public Road Standards* (County of San Diego, Department of Public Works, Adopted July 14, 1999).
3 Volume/capacity.
4 Level of service.
5 Vehicles per day.

Melody Road west of SR 94 operates at LOS A on a daily basis, while the two study segments of SR 94 are both at LOS D, with V/C ratios of 0.47. All three study roadway segments conform to the applicable level of service standard.

EXISTING PLUS EXPECTED DEVELOPMENT CONDITIONS

This section documents the effects of adding the traffic associated with completion of Phase A of the proposed Jamul Indian Village project to the background traffic volumes associated with several expected development projects. It assumes that no improvements will have been made to any of the study intersections or to the study roadway segments. To evaluate these impacts, the volume of traffic generated by the proposed project's Phase A was estimated and that traffic was assigned to the adjacent street system, in addition to estimated background traffic growth. The levels of service at the study intersections and roadway segments were then analyzed for the pertinent time periods.

Existing Plus Expected Development No Project Conditions

The following paragraphs describe near-term conditions in the study area prior to completion of Phase A of the proposed project.

Existing Plus Expected Development No Project Traffic Volumes

According to the November 2002 traffic report, the estimate of background traffic for this scenario was based on the SANDAG Cities/County Traffic Forecasting Model for the year 2005. In addition, two substantial development projects are expected to be completed within this time frame, and the traffic associated with those projects has been included in the estimates presented here. Those projects are:

- Steele Canyon High School – Located at the intersection of SR 94/Cougar Canyon Road, this school will have an ultimate student enrollment of up to 2,000 students.
- Simpson Farm Residential Development – A 100-dwelling-unit residential development.

Table 6 summarizes the trip generation estimates for these projects. On a daily basis, they are expected to generate 4,600 weekday trips, with 940 trips in the AM peak hour and 532 in the PM peak hour. In the Saturday PM peak hour, only 56 trips are estimated, due to minimal activity at the high school.

Figure 3 illustrates the Existing Plus Expected Development No Project traffic volumes resulting from the process summarized here.

Intersection Level of Service

The *Synchro 6* software was used to determine the intersection level of service under this analysis scenario. Table 7 summarizes the results of those calculations. The level of service calculation worksheets are presented in Appendix C.

Weekday AM Peak Hour

The SR 94/Melody Road intersection is expected to operate at an acceptable LOS C.

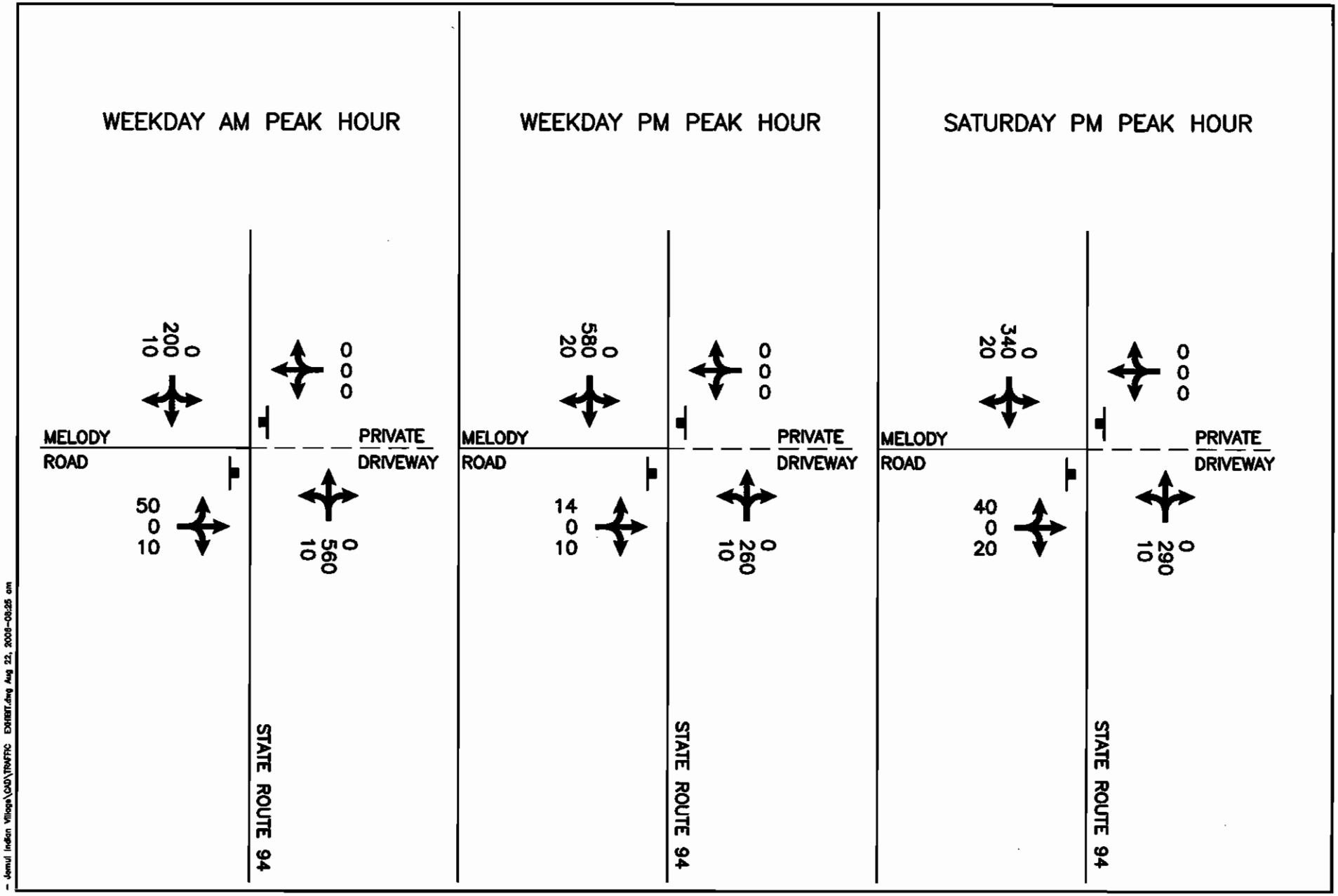
Weekday PM Peak Hour

In the weekday PM peak hour, LOS C is again projected at the study intersection. This conforms to the LOS D criterion that applies to this analysis.

Table 6
Trip Generation Estimate Summary[1]
Expected Development Projects

Land Use	Size	Weekday Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Steele Canyon High School	2,000 Students	3,600	602	258	860	130	302	432	--	--	--
Simpson Farm Residential[2]	100 DU[3]	1,000	24	56	80	70	30	100	27	29	56
	TOTAL	4,600	626	314	940	200	332	532	27	29	56

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Reference: Linscott, Law and Greenspan, *Traffic Impact Analysis – Simpson Farms*, February 2001.
3 Dwelling units.



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EXISTING PLUS EXPECTED DEVELOPMENT NO PROJECT CONDITIONS
TRAFFIC VOLUMES

FIGURE 3

Saturday PM Peak Hour

LOS B is anticipated in the Saturday PM peak hour, which represents acceptable operation.

Table 7
Intersection Level of Service Summary[1]
Existing Plus Expected Development No Project Conditions

Intersection	Traffic Control	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday PM Peak Hour	
		Delay[2]	LOS[3]	Delay	LOS	Delay	LOS
SR 94/Melody Road	STOP Sign	17.7	C	16.8	C	14.7	B

Notes:
1 Reference: Transportation Research Board, *Highway Capacity Manual*, 2000.
2 Average control delay (seconds per vehicle).
3 Level of service.

Roadway Segment Level of Service

Table 8 summarizes expected daily traffic operations on the key roadway segments under this analysis scenario. No change in level of service is anticipated relative to existing conditions. All three roadway segments will operate at LOS D or better, thereby conforming to the minimum acceptable level of service guideline.

Table 8
Roadway Segment Level of Service Summary[1]
Existing Plus Expected Development No Project Conditions

Roadway Segment	Lanes/Classification	Roadway Capacity (VPD[2])	Daily Traffic Volume	V/C[3] Ratio	LOS[4]
Melody Road - West of SR 94	2 Lanes/Rural Collector	16,200 VPD[5]	1,000 VPD	0.06	A
SR 94 - Melody Rd. to the Project Access Rd.	2 Lanes/Collector	10,000 VPD[6]	8,240 VPD	0.82	D
SR 94 - South of the Project Access Rd.	2 Lanes/Collector	10,000 VPD[6]	8,240 VPD	0.82	D

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Vehicles per day.
3 Volume/capacity.
4 Level of service.
5 Reference: *Public Road Standards* (County of San Diego, Department of Public Works, Adopted July 14, 1999).
6 Reference: *SANTEC/ITE Guidelines for Traffic Impact Studies [TIS] in the San Diego Region*, March 2000.

Existing Plus Expected Development With Project Conditions

The incremental impacts associated with completion of Phase A of the proposed Jamul Indian Village project are described in the following sections.

Project Description

As described earlier, Phase A of the proposed Jamul Indian Village project would result in the following levels of development:

- A 205,194-square-foot (SF) casino, including 73,469 SF of gaming floor area and various spaces for public use and administration and management of the facility;
- A parking garage providing approximately 2,550 parking spaces;
- A 30,000 SF Human Resources building;
- A new fire station; and
- A sewage treatment facility.

Trip Generation

The trip generation estimates associated with Phase A of the proposed Jamul Indian Village were taken directly from the November 2002 traffic report completed by Katz, Okitsu & Associates. According to that report, the Human Resources building, the fire station, and the sewage treatment facility are assumed to generate no external trips.

The casino trip generation estimates were based on the results of trip generation surveys conducted at five northern California casinos. The trip generation rates derived from those surveys were adjusted to account for seasonal variations in patronage, based on information presented in "Gaming Casino Traffic" (*ITE Journal*, Institute of Transportation Engineers, March 1998). The rates used here represent the peak month of gaming activity, as identified in that article.

Table 9 summarizes the resulting trip generation estimates for Phase A of the proposed project. The proposed Jamul Indian Village project is expected to generate a total of 7,714 trips on a daily basis, evenly split between the inbound and outbound directions. In the weekday AM peak hour, the proposed project will generate 217 trips (152 inbound and 65 outbound), while in the PM peak hour, 363 trips are estimated (192 inbound and 171 outbound). A total of 505 Saturday PM peak hour trips are estimated, with 232 inbound and 273 outbound.

Wastewater Removal Truck Traffic

The trip generation estimates presented here reflect all forms of travel to and from the project site, including patrons, employees, and delivery/service trips. In particular, the estimates include truck traffic associated with removal of wastewater from the site. Under worst case conditions, up to 22 truck trips per day are anticipated, oriented to and from the north on SR 94. These truck trips represent a negligible portion (i.e., under one percent) of the total daily trips at the site and, therefore, will have no measurable impact on traffic operations in the study area.

Table 9
Trip Generation Estimate Summary[1]
Jamul Indian Village - Phase A

Land Use	Size	Weekday Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Casino	73,469 SF[2,3]	7,714	152	65	217	192	171	363	232	273	505

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Square feet.
3 Gaming floor area only.

Project Trip Distribution

The directional distribution of the project-generated traffic at the study locations was taken directly from the November 2002 traffic report. According to that document, the project-related trip distribution was developed through a "Select Zone" analysis using the SANDAG Series 9 Cities/County travel demand forecasting model for the year 2020. The year 2020 trip distribution was modified to reflect the fact that substantial development in the Otay Ranch General Plan area, which is included in the year 2020 forecasts, will not be complete in the near-term time frames.

Figure 4 illustrates the anticipated geographic distribution of project-generated trips for the near-term analysis scenarios.

Project Traffic Assignment

Figure 5 illustrates the assignment of the project-generated trips at the study intersections for each of the three peak-hour periods.

Existing Plus Expected Development With Project Traffic Volumes

The estimated traffic volumes generated by the proposed Jamul Indian Village project were added to the Existing Plus Expected Development No Project traffic volumes, with the result being the "Existing Plus Expected Development With Project" scenario, as shown on Figure 6, which also illustrates the study intersection lane configurations.

Intersection Level of Service

Table 10 presents the peak hour levels of service at each study intersection under Existing Plus Expected Development With Project conditions. Appendix C contains the technical calculation worksheets.

Weekday AM Peak Hour

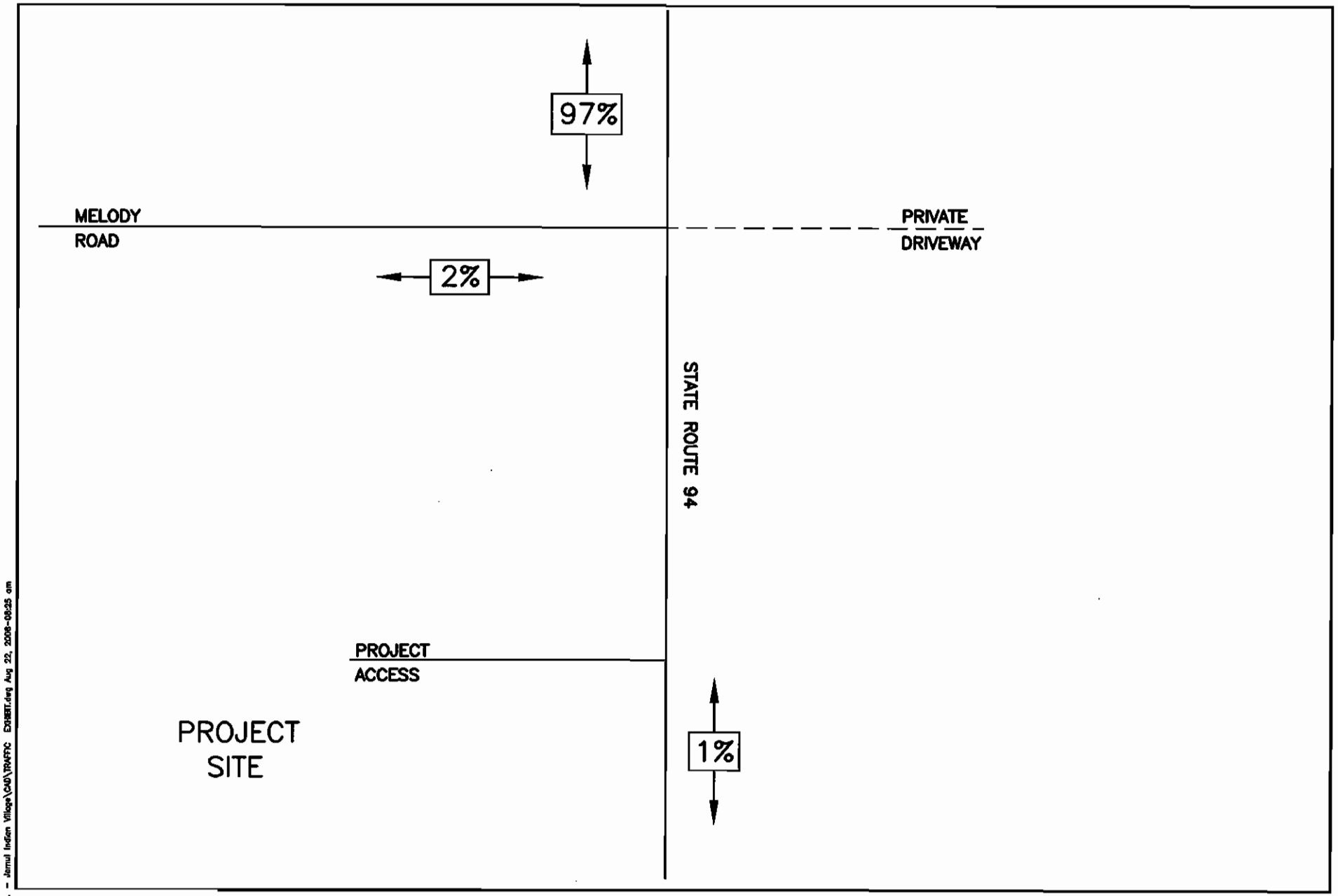
In the weekday AM peak hour, addition of the project-generated traffic results in increased delay, but no change in level of service at the study intersection of SR 94/Melody Road; it will remain at an acceptable LOS C. At the project access location (either Option 1 or 2), LOS C is projected in this time period.

Therefore, no significant impacts are projected in the weekday AM peak hour under this analysis scenario.

Weekday PM Peak Hour

Increases in intersection delay are also projected in the weekday PM peak hour. At SR 94/Melody Road, the level of service will again remain at LOS C. This conforms to the applicable LOS D standard.

The STOP-sign-controlled intersection of SR 94/Project Access (under either Option 1 or 2) is projected to operate at LOS E when project traffic is added. This falls short of the LOS D standard and, therefore, represents a ***significant impact.***



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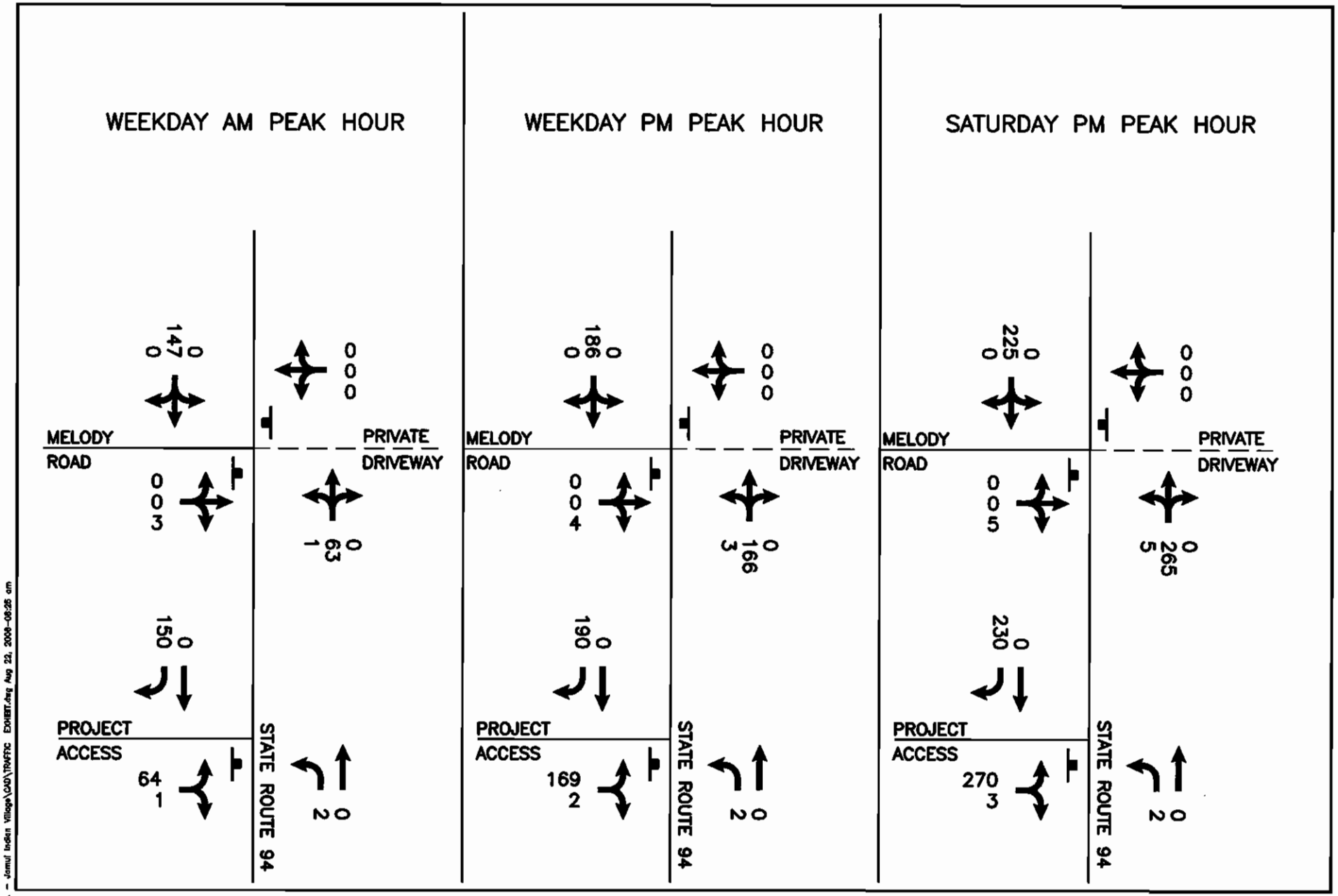
NEAR-TERM PROJECT
TRIP DISTRIBUTION

FIGURE 4



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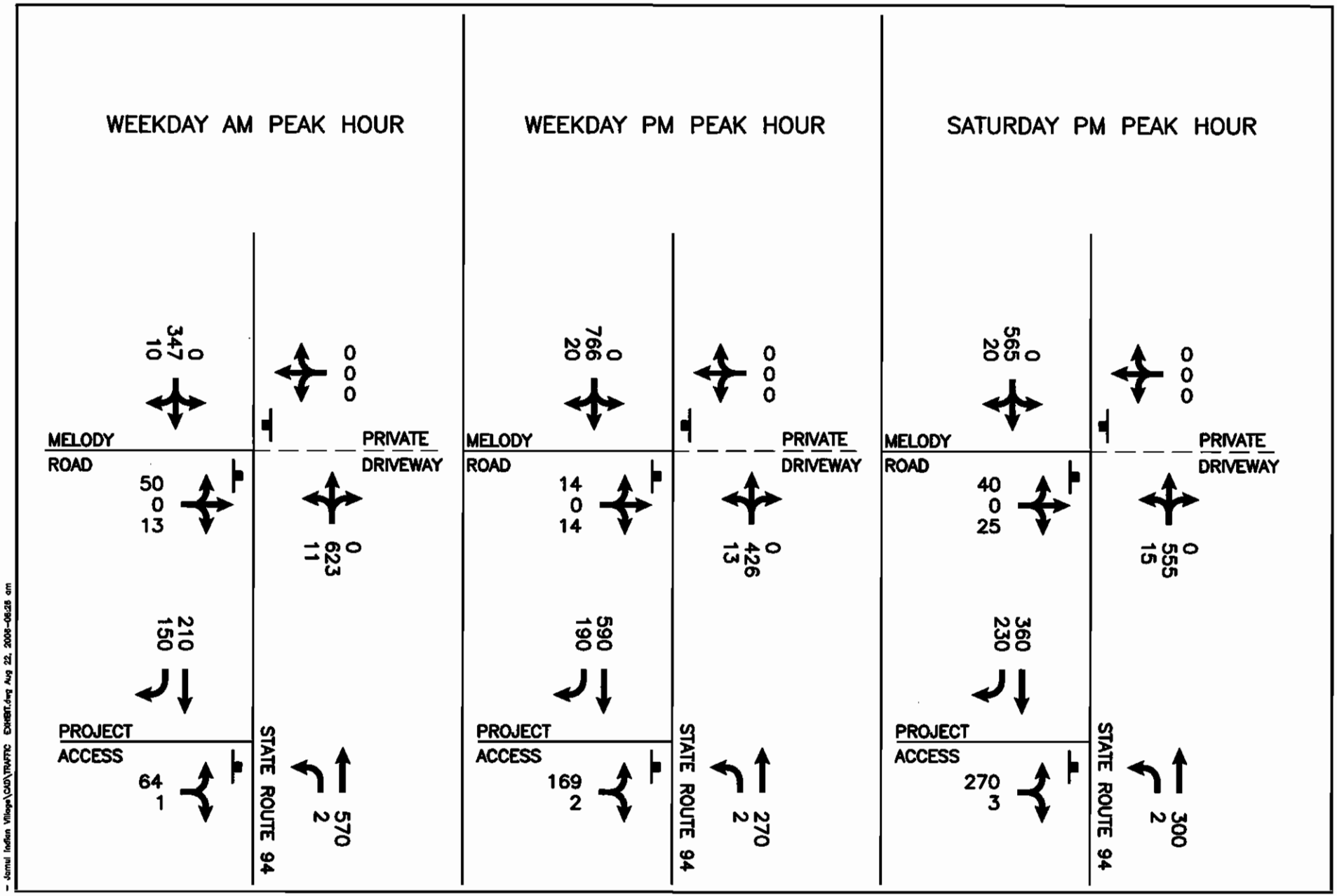
EXISTING PLUS EXPECTED DEVELOPMENT PROJECT TRIP ASSIGNMENT
(PHASE A ONLY)

FIGURE 5



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EXISTING PLUS EXPECTED DEVELOPMENT WITH PROJECT CONDITIONS
TRAFFIC VOLUMES (PHASE A ONLY)

FIGURE 6

Table 10
Intersection Level of Service Summary[1]
Existing Plus Expected Development With Project Conditions

Intersection	Traffic Control	Weekday AM Peak Hour				Weekday PM Peak Hour				Saturday PM Peak Hour			
		No Project Conditions		With Project Conditions		No Project Conditions		With Project Conditions		No Project Conditions		With Project Conditions	
		Delay[2]	LOS[3]	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 94/Melody Road	STOP Sign	17.7	C	23.5	C	16.8	C	24.0	C	14.7	B	27.1	D
SR 94/Project Access[4]	STOP Sign	N.A.[5]	N.A.	19.5	C	N.A.	N.A.	**39.7**	**E**[6]	N.A.	N.A.	**41.8**	**E**

Notes:
1 Reference: Transportation Research Board, *Highway Capacity Manual*, 2000.
2 Average control delay (seconds per vehicle).
3 Level of service.
4 "Project Access" refers to either Option 1 or Option 2 access points.
5 Not applicable; Project access road only exists under "with project" conditions.
6 Significant impacts are designated with **bold** font.

Saturday PM Peak Hour

An acceptable LOS D is projected at SR 94/Melody Road in the Saturday PM peak hour. At either of the potential project access locations on SR 94, LOS E is anticipated. Because this fails to meet the LOS D standard, this constitutes a ***significant impact.***

Roadway Segment Level of Service

The roadway segment level of service results for Existing Plus Expected Development With Project conditions are summarized in Table 11. Melody Road west of SR 94 will continue to operate at LOS A, and SR 94 will operate at an acceptable LOS D south of the project access point (either Option 1 or 2). However, the segment of SR 94 between Melody Road and either potential project access intersection is projected to be at LOS F. Thus, a ***significant impact*** is projected for that roadway segment.

~~*Fire Station Safety Analysis*~~

~~Phase A of the Jamul Indian Village project is expected to be operational prior to the relocation of the existing fire station, which operates on land leased from the Jamul tribe, north of the project site and fronting on the west side of SR 94. Although the additional traffic generated by the proposed project is not expected to have significant impacts with regard to the safe operation of the fire station in the interim time period, certain measures are recommended to ensure continued safety. Those measures, which are primarily aimed at increasing awareness of the fire station access location, will benefit not only emergency vehicles entering and exiting the site, but also employees and visitors at the station. The recommended measures are as follows:~~

- ~~Install EMERGENCY VEHICLE signs (*Manual on Uniform Traffic Control Devices* Sign Code W11-8; California Sign Code SW21B) on both northbound and southbound SR 94, in advance of the fire station. This warning sign is a graphic representation of a fire truck, and informs drivers that they are approaching a fire station. The signs should be placed approximately 500 feet in advance of the fire station, with the exact placement to be determined at time of installation, so as to maximize visibility.~~
- ~~The EMERGENCY VEHICLE sign should be supplemented with flashing yellow warning beacons, to increase the likelihood that passing motorists will notice the sign.~~

Mitigation Measures

As noted above, the study intersection of SR 94/Project Access (either Option 1 or 2) is projected to have a significant impact in the weekday PM peak hour and the Saturday PM peak hour. Also, a significant impact is projected for the segment of SR 94 between Melody Road and either potential Project Access. Mitigation measures for the affected facilities are described below.

- SR 94/Project Access (Option 1 or 2) – The project-related impact would be fully mitigated through the installation of a traffic signal at this intersection. In conjunction with the signal installation, the intersection lane configurations should be modified as follows:
  - Northbound: Provide a dedicated left-turn lane and one through lane,
  - Southbound: Provide a free-flow right-turn lane and one through lane, and
  - Eastbound: Provide a dedicated left-turn lane and a ~~shared left/~~right-turn lane.

Table 11
Roadway Segment Level of Service Summary[1]
Existing Plus Expected Development With Project Conditions

Roadway Segment	Lanes/Classification	Roadway Capacity (VPD[2])	No Project Conditions			With Project Conditions		
			Daily Traffic Volume	V/C[3] Ratio	LOS[4]	Daily Traffic Volume	V/C Ratio	LOS
Melody Road - West of SR 94	2 Lanes/Rural Collector	16,200 VPD[5]	1,000 VPD	0.06	A	1,154 VPD	0.07	A
SR 94 – Melody Rd. to the Project Access Rd.[6]	2 Lanes/Collector	10,000 VPD[7]	8,240 VPD	0.82	D	15,877 VPD	**1.59**	**F**[8]
SR 94 - South of the Project Access Rd.[6]	2 Lanes/Collector	10,000 VPD[7]	8,240 VPD	0.82	D	8,317 VPD	0.83	D

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Vehicles per day.
3 Volume/capacity.
4 Level of service.
5 Reference: *Public Road Standards* (County of San Diego, Department of Public Works, Adopted July 14, 1999).
6 "Project Access" refers to either Option 1 or Option 2 access points.
7 Reference: *SANTEC/ITE Guidelines for Traffic Impact Studies [TIS] in the San Diego Region*, March 2000.
8 Significant impacts are designated with **bold** font.

Implementation of this mitigation measure will result in the following delay and level of service values:

	Intersection Delay	LOS
o Weekday AM peak hour	~~4.1~~ 4.4 seconds/vehicle	A
o Weekday PM peak hour	~~7.0~~ 7.9 seconds/vehicle	A
o Saturday PM peak hour	~~6.7~~ 7.9 seconds/vehicle	A

- SR 94 between Melody Road and the Project Access (Option 1 or 2) – ~~Widen to a four-lane collector road, which will provide two travel lanes in each direction. This will substantially increase the capacity of this roadway segment, thereby improving it to LOS C (V/C = 0.53).~~ Contribute to the cost of preparing necessary studies and engineering and design work, as well as construction of operational improvements to SR 94 westerly of the project site. These improvements may consist of passing lane areas, shoulder widening, protected left turn areas and other operational measures deemed feasible and consistent with plans for the corridor.

- Project Access Sight Distance – To ensure safety in the vicinity of the project access point on SR 94, install appropriate signage to provide advance warning of the presence of the project access intersection. Such signage may include some or all of the following standard warning signs: SIGNAL AHEAD (CA MUTCD W3-3), BE PREPARED TO STOP (CA MUTCD W3-4, used as a supplement to W3-3), HILL BLOCKS VIEW (CA MUTCD W7-6), and various signs designating changes in horizontal alignment (CA MUTCD W1-1 through W1-5), as well as appropriate advisory speed plaques. The SIGNAL AHEAD sign should be supplemented with a flashing beacon, as allowed in Section 2C.29 of the *California Manual on Uniform Traffic Control Devices* (CA MUTCD), State of California, Department of Transportation, September 26, 2006.

Note that the November 2002 traffic analysis identified significant impacts and corresponding mitigation measures for segments of SR 94 from Jamacha Boulevard to Melody Road. In addition, significant impacts and mitigation measures were identified for the following intersections:

- SR 94/Lyons Valley Road (weekday AM peak hour, weekday PM peak hour, and Saturday PM peak hour); and
- SR 94/Jamacha Boulevard (weekday PM peak hour and Saturday PM peak hour).

The previously-identified mitigation measures for these locations remain valid, and should be implemented in addition to the measures presented here.

NEAR-TERM (2009) CONDITIONS

This section describes the traffic impacts resulting from completion of both phases of the proposed Jamul Indian Village project. Traffic volume projections for the year 2009 are presented, both with and without the proposed project. No intersection or roadway improvements are assumed in conjunction with these analysis scenarios.

Near-Term (2009) No Project Conditions

The derivation of the Near-Term (2009) traffic volumes is summarized below, based on information presented in the November 2002 Katz, Okitsu & Associates traffic study.

Near-Term (2009) No Project Traffic Volumes

The traffic volumes for this scenario were based on the SANDAG Series 9 Cities/County traffic forecasting model for the year 2005, with additional traffic added to account for other known development projects. The base volumes for the year 2009 were derived by interpolating between traffic forecasts for the years 2005 and 2020, assuming a linear traffic growth pattern in that time period. In addition, two additional development projects were specifically included in the year 2009 traffic forecasts, as follows:

- Hidden Valley Estates – A 532-unit single family residential project located off of Millar Road, west of Jamul.
- Simpson Farm Community Shopping Center – A 10-acre retail center located on the Simpson Farm property.

The trip generation estimates associated with these two related projects are summarized in Table 12. In total, they are estimated to generate 12,320 daily trips. In the weekday AM peak hour, 636 trips are anticipated, while in the weekday PM peak hour these projects will generate 1,232 trips. Almost, 1,230 trips are estimated in the Saturday PM peak hour.

The Near-Term (2009) No Project traffic volume estimates are illustrated on Figure 7.

Intersection Level of Service

The intersection level of service findings for this analysis scenario are summarized below. Table 13 presents the results of the LOS calculations, and the level of service calculation worksheets are presented in Appendix D.

Weekday AM Peak Hour

LOS C is projected for the study intersection of SR 94/Melody Road in this time period. This conforms to the LOS D standard.

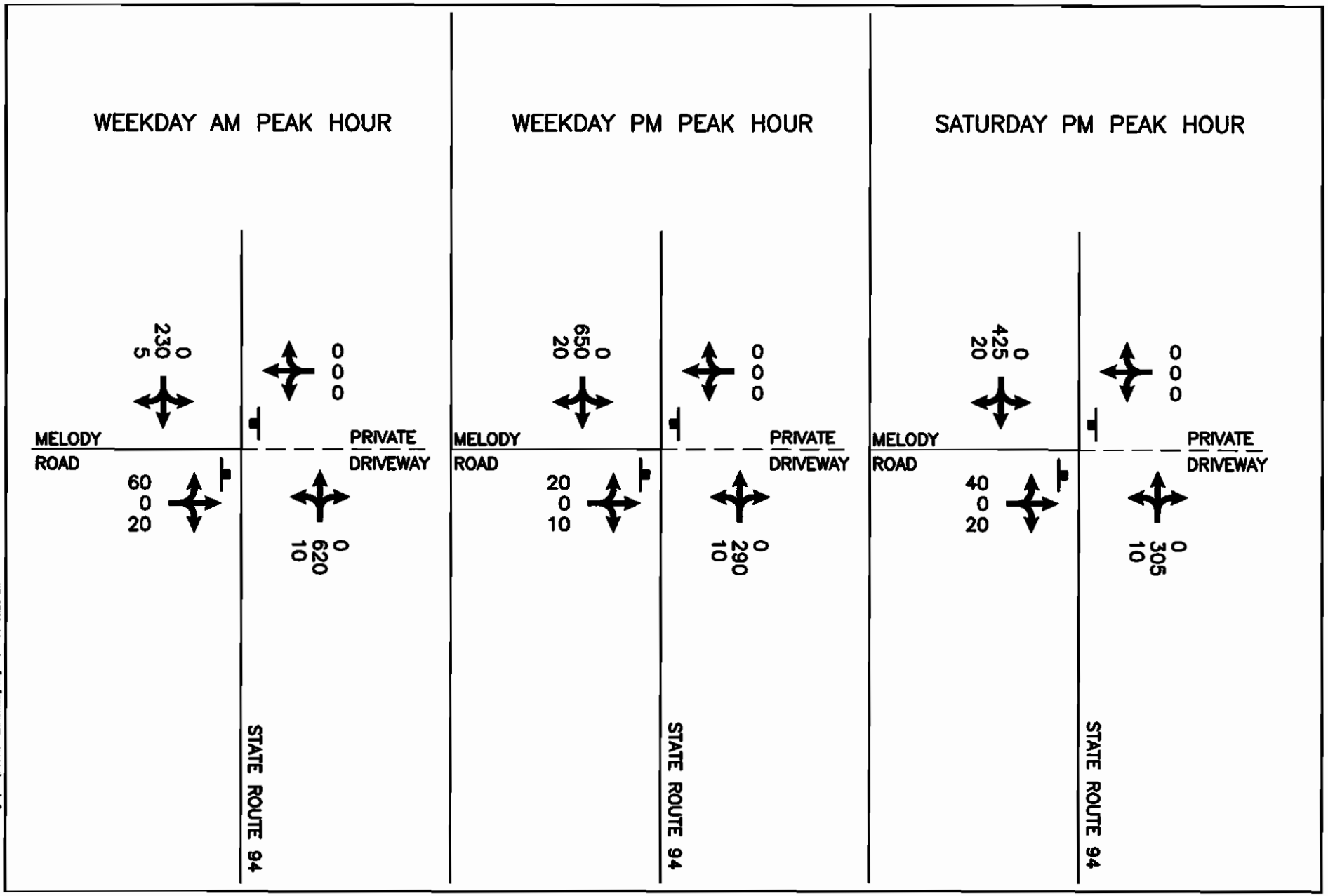
Weekday PM Peak Hour

LOS C is again expected at the study intersection in the weekday PM peak hour. This is considered acceptable operation.

Table 12
Trip Generation Estimate Summary[1]
Near-Term (2009) Related Projects

Land Use	Size	Weekday Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Hidden Valley Estates[2]	532 DU[3]	5,320	127	299	426	372	160	532	143	155	298
Simpson Farm Commercial[4]	10 Acres	7,000	126	84	210	350	350	700	484	446	930
	TOTAL	12,320	253	383	636	722	510	1,232	627	601	1,228

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Reference: Graves Engineering, *Hidden Valley Estates EIR*, August 1990.
3 Dwelling units.
4 Linscott, Law and Greenspan, *Traffic Impact Analysis – Simpson Farms*, February 2001.



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NEAR-TERM (2009) NO PROJECT CONDITIONS
TRAFFIC VOLUMES

FIGURE 7

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Saturday PM Peak Hour

LOS C is also projected in the Saturday PM peak hour, which again represents acceptable operation.

Table 13
Intersection Level of Service Summary[1]
Near-Term (2009) No Project Conditions

Intersection	Traffic Control	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday PM Peak Hour	
		Delay[2]	LOS[3]	Delay	LOS	Delay	LOS
SR 94/Melody Road	STOP Sign	19.9	C	19.7	C	16.4	C

Notes:
1 Reference: Transportation Research Board, *Highway Capacity Manual*, 2000.
2 Average control delay (seconds per vehicle).
3 Level of service.

Roadway Segment Level of Service

Table 14 describes expected conditions on the key study roadway segments. The study segment of Melody Road will be at LOS A and will, therefore, conform to the minimum acceptable level of service guideline. The two segments of SR 94 will operate at LOS E, which is considered unacceptable.

Table 14
Roadway Segment Level of Service Summary[1]
Near-Term (2009) No Project Conditions

Roadway Segment	Lanes/Classification	Roadway Capacity (VPD[2])	Daily Traffic Volume	V/C[3] Ratio	LOS[4]
Melody Road - West of SR 94	2 Lanes/Rural Collector	16,200 VPD[5]	1,350 VPD	0.08	A
SR 94 - Melody Rd. to the Project Access Rd.	2 Lanes/Collector	10,000 VPD[6]	9,150 VPD	0.92	E
SR 94 - South of the Project Access Rd.	2 Lanes/Collector	10,000 VPD[6]	9,150 VPD	0.92	E

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Vehicles per day.
3 Volume/capacity.
4 Level of service.
5 Reference: *Public Road Standards* (County of San Diego, Department of Public Works, Adopted July 14, 1999).
6 Reference: *SANTEC/ITE Guidelines for Traffic Impact Studies [TIS] in the San Diego Region*, March 2000.

Near-Term (2009) With Project Conditions

The effects of full completion of the proposed Jamul Indian Village project are addressed below.

Project Description

In addition to the facilities constructed within Phase A, as documented above for Existing Plus Expected Development conditions, Phase B of the Jamul Indian Village is assumed to include the following:

- A 300-room resort hotel, and
- A 24,000 SF event center (within the hotel).

This phase of development is expected to be completed in the year 2009. (Note that a modified version of the hotel plan is addressed later in this report.)

Trip Generation

Table 15 summarizes the trip estimate for the entire Jamul Indian Village project, including both Phases A and B. Phase B of the proposed project will add over 1,700 daily trips, as well as 45 weekday AM peak hour trips, 250 weekday PM peak hour trips, and 250 Saturday PM peak hour trips. The entire project, therefore, would generate 9,442 daily trips, 262 weekday AM peak hour trips, 613 weekday PM peak hour trips, and 755 Saturday PM peak hour trips.

Wastewater Removal Truck Traffic

As noted earlier, these trip generation estimates include all types of trips associated with the proposed project, including patron trips, employee trips, and delivery/service trips. As such, the estimates also include truck traffic associated with removal of wastewater from the site. Under worst case conditions, up to 22 truck trips per day are anticipated, oriented to and from the north on SR 94. Because these truck trips represent a negligible portion (i.e., under one percent) of the total daily trips at the site, they will have no measurable impact on traffic operations in the study area.

Project Trip Distribution

The geographic distribution of the project-generated trips is identical to that developed for the Existing Plus Expected Development scenario, which was presented on Figure 4 (page 18). Generally, 99 percent of the project-generated traffic will be oriented to and from north of the site, with 2 percent using Melody Road and the remainder using SR 94. One percent of the project traffic is expected to be oriented to and from south of the project site on SR 94.

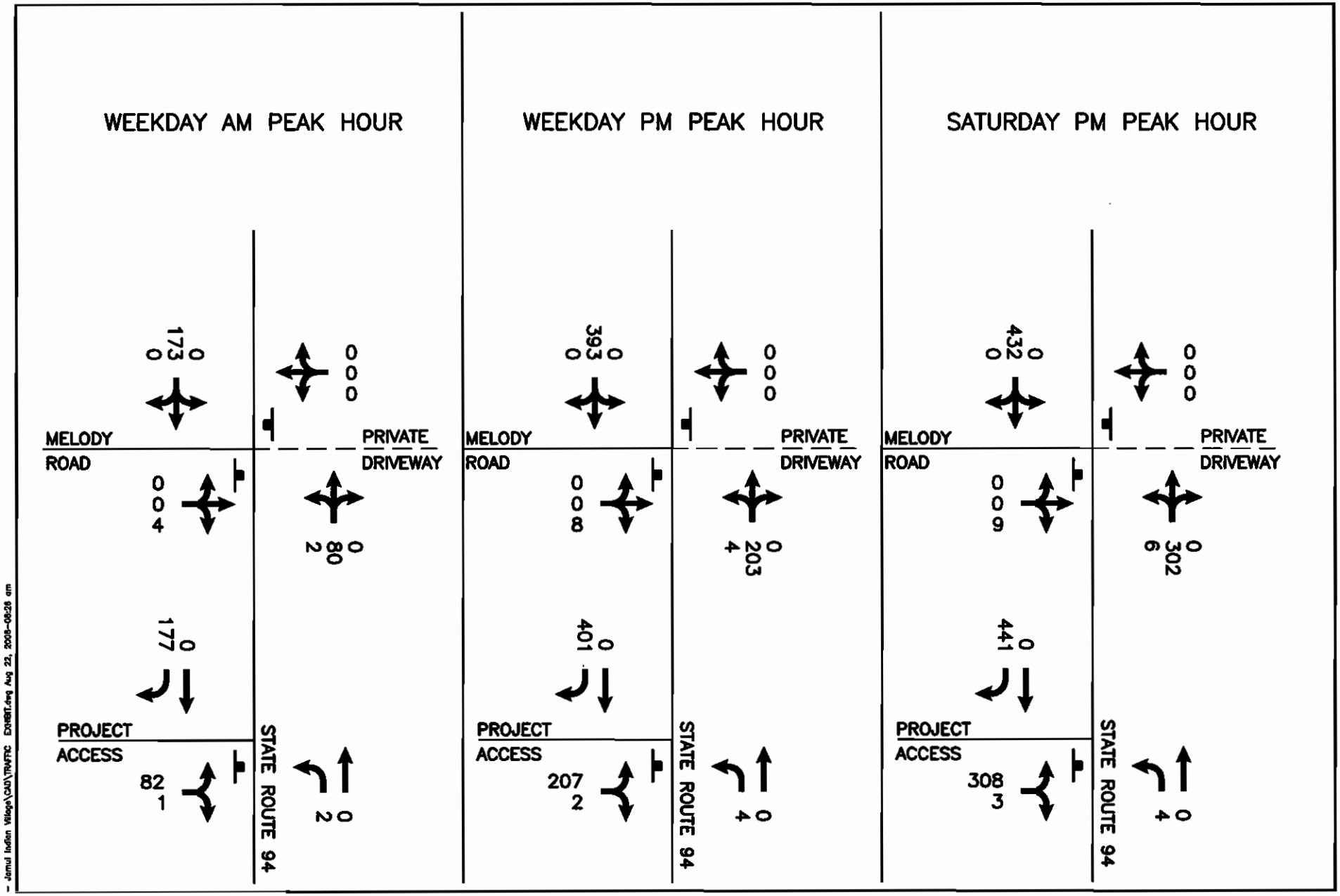
Project Traffic Assignment

Figure 8 illustrates the assignment of the project-generated trips at the study intersections for each of the three peak-hour periods.

Table 15
Trip Generation Estimate Summary[1]
Jamul Indian Village - Phases A and B

Land Use	Size	Weekday Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Phase A											
Casino	73,469 SF[2,3]	7,714	152	65	217	192	171	363	232	273	505
Phase B											
Resort Hotel	300 Rooms	900	27	18	45	25	38	63	25	38	63
Event Center	24,000 SF[2]	828	0	0	0	187	0	187	187	0	187
PHASE B SUBTOTAL		1,728	27	18	45	212	38	250	212	38	250
TOTAL		9,442	179	83	262	404	209	613	444	311	755

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Square feet.
3 Gaming floor area only.



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NEAR-TERM (2009) PROJECT TRIP ASSIGNMENT
(PHASES A & B)

FIGURE 8

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Near-Term (2009) With Project Traffic Volumes

The estimated traffic volumes generated by the proposed Jamul Indian Village project were added to the "no project" traffic volumes to develop the "Near-Term (2009) With Project" scenario. These estimated traffic volumes are illustrated on Figure 9, which also illustrates the study intersection lane configurations.

Intersection Level of Service

Table 16 presents the results of the intersection level of service calculations for this scenario, both with and without the proposed Jamul Indian Village project.

Weekday AM Peak Hour

Addition of the project-generated traffic will result in LOS D at the study intersection of SR 94/Melody Road. The project access intersection on SR 94 (either potential location) will operate at LOS C. Thus, both intersections will meet the minimum standard applicable to this study.

Weekday PM Peak Hour

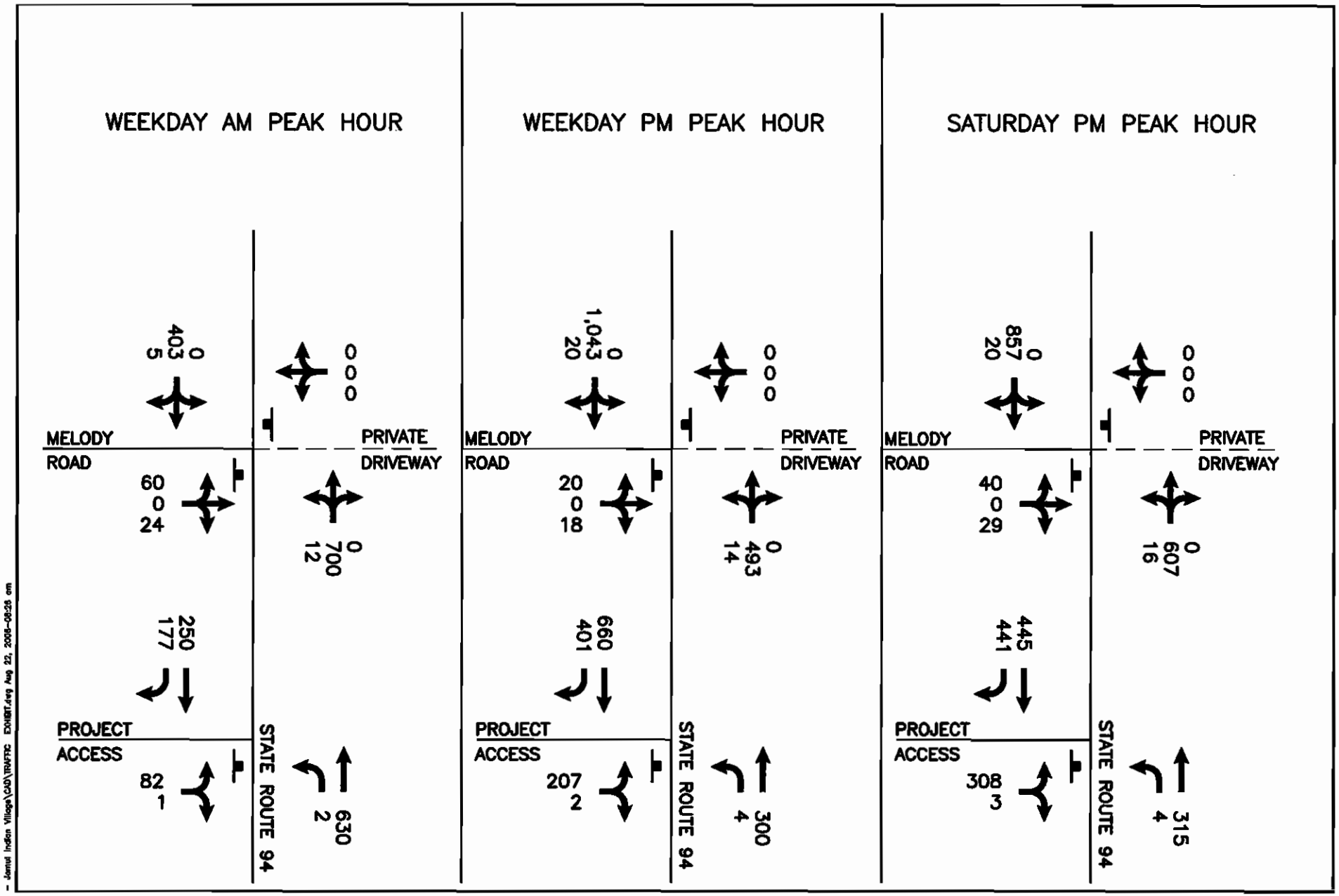
The STOP-sign-controlled study intersection of SR 94/Melody Road will decline from LOS C to LOS E with the addition of the project-generated traffic. The SR 94/Project Access intersection (either Option 1 or 2) is projected to operate at LOS F under this analysis scenario. Consequently, ***significant impacts*** are anticipated at both study intersections. In both cases, the deficient operation is due to excessive delays for drivers attempting to turn from the STOP-sign controlled approach onto SR 94.

Saturday PM Peak Hour

Both study intersections are projected to operate at LOS F under Near-Term (2009) With Project conditions, again because of excessive side street delays. For example, drivers exiting the project site at either potential access location will have difficulty doing so because of the lack of adequate gaps in traffic on SR 94. This constitutes a ***significant impact.***

Roadway Segment Level of Service

The effects on nearby roadway segments of implementing both phases of the proposed project are summarized on Table 17. The study segment of Melody Road west of SR 94 will continue to operate at an acceptable level of service (LOS A). The segment of SR 94 between Melody Road and the project access point (either potential location), however, will decline from LOS E to LOS F, which constitutes a ***significant impact.*** The study segment of SR 94 south of either potential project access location will continue to operate at an unacceptable LOS E, with no change in V/C ratio; thus, because the project-related change in V/C ratio will be less than 0.02, the impact of the proposed project is considered less-than-significant at this location.



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NEAR-TERM (2009) WITH PROJECT CONDITIONS
TRAFFIC VOLUMES (PHASES A & B)

FIGURE 9

N:\2005\20544 Lakes Ent. - Jamul Indian Village\CAD\TRAFFIC EXHIBIT.dwg Aug 22, 2006-08:26 am

Table 16
Intersection Level of Service Summary[1]
Near-Term (2009) With Project Conditions

Intersection	Traffic Control	Weekday AM Peak Hour				Weekday PM Peak Hour				Saturday PM Peak Hour			
		No Project Conditions		With Project Conditions		No Project Conditions		With Project Conditions		No Project Conditions		With Project Conditions	
		Delay[2]	LOS[3]	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 94/Melody Road	STOP Sign	19.9	C	30.3	D	19.7	C	**44.9**[4]	**E**	16.4	C	**> 50.0**	**F**
SR 94/Project Access[5]	STOP Sign	N.A.[6]	N.A.	24.5	C	N.A.	N.A.	**> 50.0**	**F**	N.A.	N.A.	**> 50.0**	**F**

Notes:
1 Reference: Transportation Research Board, *Highway Capacity Manual*, 2000.
2 Average control delay (seconds per vehicle).
3 Level of service.
4 Significant impacts are designated with **bold** font.
5 "Project Access" refers to either Option 1 or Option 2 access points.
6 Not applicable; Project access road only exists under "with project" conditions.

Table 17
Roadway Segment Level of Service Summary[1]
Near-Term (2009) With Project Conditions

Roadway Segment	Lanes/Classification	Roadway Capacity (VPD[2])	No Project Conditions			With Project Conditions		
			Daily Traffic Volume	V/C[3] Ratio	LOS[4]	Daily Traffic Volume	V/C Ratio	LOS
Melody Road - West of SR 94	2 Lanes/Rural Collector	16,200 VPD[5]	1,350 VPD	0.08	A	1,539 VPD	0.10	A
SR 94 - Melody Rd. to the Project Access Rd.[6]	2 Lanes/Collector	10,000 VPD[7]	9,150 VPD	0.92	E	18,498 VPD	**1.85**	**F**[8]
SR 94 - South of the Project Access Rd.[6]	2 Lanes/Collector	10,000 VPD[7]	9,150 VPD	0.92	E	9,244 VPD	0.92	E[9]

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Vehicles per day.
3 Volume/capacity.
4 Level of service.
5 Reference: *Public Road Standards* (County of San Diego, Department of Public Works, Adopted July 14, 1999).
6 "Project Access" refers to either Option 1 or Option 2 access points.
7 Reference: *SANTEC/ITE Guidelines for Traffic Impact Studies [TIS] in the San Diego Region*, March 2000.
8 Significant impacts are designated with **bold** font.
9 Project-related incremental impact is less than a 0.02 increase in V/C ratio; therefore, impact is less-than-significant.

~~*Fire Station Safety Analysis*~~

~~As described earlier, the existing fire station operates on land leased from the Jamul tribe. The station is located north of the proposed project site, fronting on the west side of SR 94. The fire station lease expires on December 31, 2008, prior to the 2009 analysis year. To account for the possibility that the proposed project will be operational prior to relocation of the fire station, the potential for safety-related impacts has been evaluated.~~

~~As noted earlier, the additional traffic generated by the proposed project is not expected to have significant impacts with regard to the safe operation of the fire station. Nonetheless, certain measures are recommended to ensure continued safety at that facility. These measures are primarily aimed at increasing awareness of the fire station access location, and they will benefit not only emergency vehicles entering and exiting the site, but also employees and visitors. The recommended measures are as follows:~~

- ~~Install EMERGENCY VEHICLE signs (*Manual on Uniform Traffic Control Devices* Sign Code W11-8; California Sign Code SW21B) on both northbound and southbound SR 94, in advance of the fire station. This warning sign is a graphic representation of a fire truck, and informs drivers that they are approaching a fire station. The signs should be placed approximately 500 feet in advance of the fire station, with the exact placement to be determined at time of installation, so as to maximize visibility.~~
- ~~The EMERGENCY VEHICLE sign should be supplemented with flashing yellow warning beacons, to increase the likelihood that passing motorists will notice the sign.~~

Mitigation Measures

The mitigation measures for the Near-Term (2009) With Project analysis scenario are described below. Note that the recommended measures for the intersection of SR 94/Project Access (either Option 1 or 2) are identical to those specified for Existing Plus Expected Development With Project conditions. The recommended measure for the segment of SR 94 between Melody Road and either potential project access location is also identical to the previous measure.

Implementation of the following roadway system improvements will fully offset the traffic impacts associated with the proposed project.

- SR 94/Melody Road – Installation of a traffic signal at this intersection would fully mitigate the project-related impacts. The lane configurations at the intersection should be modified to provide separate left-turn lanes, as follows:
  - Northbound: Provide a dedicated left-turn lane and one shared through/right-turn lane,
  - Southbound: Provide a dedicated left-turn lane and one shared through/right-turn lane,
  - Eastbound: Provide a dedicated left-turn lane and one shared through/right-turn lane, and
  - Westbound: The existing private driveway would be unchanged.

Implementation of this mitigation measure will result in the following delay and level of service values:

	Intersection Delay	LOS
o Weekday AM peak hour	5.2 seconds/vehicle	A
o Weekday PM peak hour	5.9 seconds/vehicle	A
o Saturday PM peak hour	5.9 seconds/vehicle	A

- SR 94/Project Access (Option 1 or 2) – As noted above, this mitigation measure is identical to that recommended for Existing Plus Expected Development With Project conditions. Specifically, the project-related impact would be fully mitigated through the installation of a traffic signal at this intersection. In conjunction with the signal installation, the intersection lane configurations should be modified as follows:
  - Northbound: Provide a dedicated left-turn lane and one through lane,
  - Southbound: Provide a free-flow right-turn lane and one through lane, and
  - Eastbound: Provide a dedicated left-turn lane and a ~~shared left/~~right-turn lane.

  Implementation of this mitigation measure will result in the following delay and level of service values:

	Intersection Delay	LOS
o Weekday AM peak hour	~~4.6~~ 5.0 seconds/vehicle	A
o Weekday PM peak hour	~~6.9~~ 8.3 seconds/vehicle	A
o Saturday PM peak hour	~~6.6~~ 8.3 seconds/vehicle	A

- SR 94 between Melody Road and the Project Access (Option 1 or 2) – ~~Widen to a four-lane collector road, which will provide two travel lanes in each direction. This will substantially increase the capacity of this roadway segment, thereby improving it to LOS C (V/C = 0.53).~~ Contribute to the cost of preparing necessary studies and engineering and design work, as well as construction of operational improvements to SR 94 westerly of the project site. These improvements may consist of passing lane areas, shoulder widening, protected left turn areas and other operational measures deemed feasible and consistent with plans for the corridor.

- Project Access Sight Distance – To ensure safety in the vicinity of the project access point on SR 94, install appropriate signage to provide advance warning of the presence of the project access intersection. Such signage may include some or all of the following standard warning signs: SIGNAL AHEAD (CA MUTCD W3-3), BE PREPARED TO STOP (CA MUTCD W3-4, used as a supplement to W3-3), HILL BLOCKS VIEW (CA MUTCD W7-6), and various signs designating changes in horizontal alignment (CA MUTCD W1-1 through W1-5), as well as appropriate advisory speed plaques. The SIGNAL AHEAD sign should be supplemented with a flashing beacon, as allowed in Section 2C.29 of the *California Manual on Uniform Traffic Control Devices* (CA MUTCD), State of California, Department of Transportation, September 26, 2006.

As was the case for the Existing Plus Expected Development analysis scenario, the November 2002 traffic analysis identified significant impacts and corresponding mitigation measures for segments of SR 94 from Jamacha Boulevard to Melody Road. Significant impacts and mitigation measures were also identified for the following intersections:

- SR 94/Lyons Valley Road (weekday AM peak hour, weekday PM peak hour, and Saturday PM peak hour);
- SR 94/Jamacha Boulevard (weekday PM peak hour and Saturday PM peak hour);
- SR 94/Jamacha Boulevard/SR 54 (weekday PM peak hour);
- SR 94/Cougar Canyon Road (weekday PM peak hour); and
- SR 94/Steele Canyon Road (weekday PM peak hour).

The previously-identified mitigation measures remain valid, and should be implemented in addition to the measures presented here.

LONG-TERM (2020) CONDITIONS

This section describes the long-term traffic impacts resulting from full completion (i.e., both Phases A and B) of the proposed Jamul Indian Village project. Traffic volume projections for the year 2020 are presented, both with and without the proposed project. The incremental impacts associated with the addition of project-generated traffic are then derived.

Long-Term (2020) No Project Conditions

The development of the Long-Term (2020) traffic volumes is summarized below, as described in the November 2002 Katz, Okitsu & Associates traffic study.

Long-Term (2020) No Project Traffic Volumes

Traffic volume estimates for this analysis scenario were derived from the SANDAG *Rural Highway 94 Corridor Study* (January 2001) and the SANDAG Series 9 Year 2020 Cities/County traffic forecasts. According to the November 2002 study, the future year forecasts incorporate all planned and approved projects in San Diego County, including the Otay Ranch project is eastern Chula Vista and ". . . other major development projects in the planning and review stage." Figure 10 illustrates the peak-hour traffic volumes for Long-Term (2020) No Project conditions.

Roadway Network

The analysis of Long-Term (2020) conditions assumes the completion of a variety of roadway system improvements. Among the assumed improvements are completion of State Route 125 and State Route 905. SR 94 was assumed to remain a two-lane roadway east of Millar Ranch Road. Although it was at one time designated as being a higher-capacity facility, the most-recent *2020 Regional Transportation Plan* downgraded this roadway to two-lane status. Appendix E presents Figure 4d from the November 2002 Katz, Okitsu & Associates report, which shows the assumed roadway network.

Intersection Level of Service

Table 18 presents the intersection level of service results for this analysis scenario.

Weekday AM Peak Hour

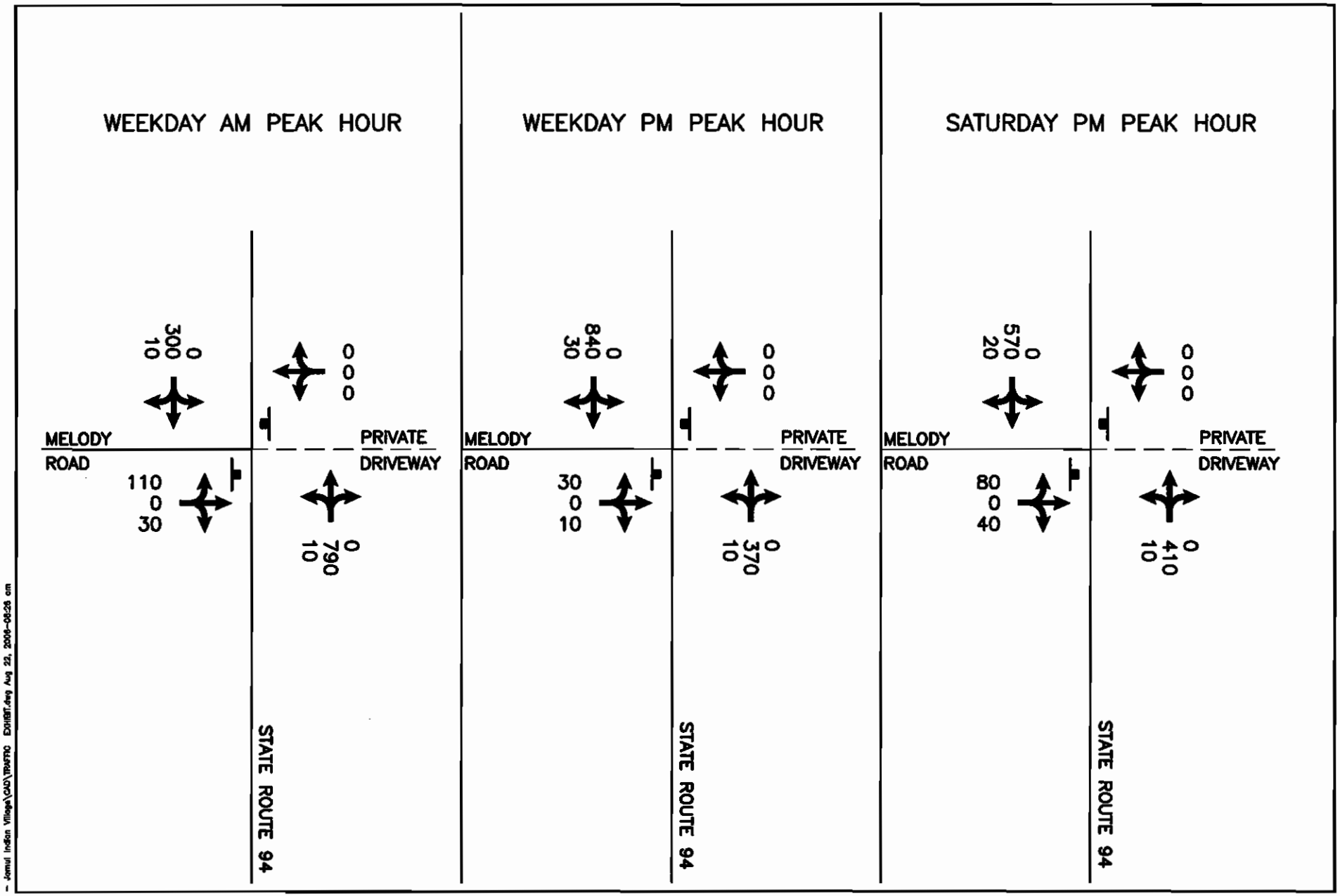
The study intersection of SR 94/Melody Road is projected to operate at LOS E in this time period, even without the project-generated traffic. This falls short of the LOS D standard that applies to this intersection.

Weekday PM Peak Hour

In the weekday PM peak hour, an acceptable LOS D is projected at SR 94/Melody Road.

Saturday PM Peak Hour

LOS D is also expected in the Saturday PM peak hour at this intersection, which conforms to the minimum acceptable operation.



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LONG-TERM (2020) NO PROJECT CONDITIONS
TRAFFIC VOLUMES

FIGURE 10

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Table 18
Intersection Level of Service Summary[1]
Long-Term (2020) No Project Conditions

Intersection	Traffic Control	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday PM Peak Hour	
		Delay[2]	LOS[3]	Delay	LOS	Delay	LOS
SR 94/Melody Road	STOP Sign	48.7	E	31.6	D	30.2	D

Notes:
1 Reference: Transportation Research Board, *Highway Capacity Manual*, 2000.
2 Average control delay (seconds per vehicle).
3 Level of service.

Roadway Segment Level of Service

Table 19 describes expected conditions on the key study roadway segments. The study segment of Melody Road will be at LOS B, while the two segments of SR 94 are projected to operate at LOS F. Therefore, while the study segment of Melody Road will conform to the minimum acceptable level of service guideline, the two segments of SR 94 addressed here will fail to do so.

Table 19
Roadway Segment Level of Service Summary[1]
Long-Term (2020) No Project Conditions

Roadway Segment	Lanes/Classification	Roadway Capacity (VPD[2])	Daily Traffic Volume	V/C[3] Ratio	LOS[4]
Melody Road - West of SR 94	2 Lanes/Rural Collector	16,200 VPD[5]	2,320 VPD	0.14	B
SR 94 - Melody Rd. to the Project Access Rd.	2 Lanes/Collector	10,000 VPD[6]	11,660 VPD	1.17	F
SR 94 - South of the Project Access Rd.	2 Lanes/Collector	10,000 VPD[6]	11,660 VPD	1.17	F

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Vehicles per day.
3 Volume/capacity.
4 Level of service.
5 Reference: *Public Road Standards* (County of San Diego, Department of Public Works, Adopted July 14, 1999).
6 Reference: *SANTEC/ITE Guidelines for Traffic Impact Studies [TIS] in the San Diego Region*, March 2000.

Long-Term (2020) With Project Conditions

The traffic impacts of the proposed project under Long-Term (2020) With Project conditions are summarized in the following paragraphs. The project-related trip generation is identical to that described for year 2009 conditions.

Long-Term (2020) With Project Traffic Volumes

Because of anticipated changes in the area roadway network, the geographic distribution of the project-generated trips under year 2020 conditions differs from that used for Near-Term conditions. As shown on Figure 11, a higher percentage of the project trips is expected to use Melody Road to approach and depart the site. Specifically, 18 percent of the project-generated traffic is projected to be oriented to/from the west on Melody Road. As under Near-Term conditions, the vast majority of the project traffic (i.e., 81 percent) will use SR 94 north of the project site to approach and depart the study area. The remaining one percent of the project-generated trips are expected to use SR 94 south of the project site.

The assignment of project traffic to the study area road system is illustrated on Figure 12, and Figure 13 shows projected peak-hour intersection traffic volumes under Long-Term (2020) No Project conditions.

Intersection Level of Service

Table 20 summarizes the effects of adding the project-generated traffic to the study intersections.

Weekday AM Peak Hour

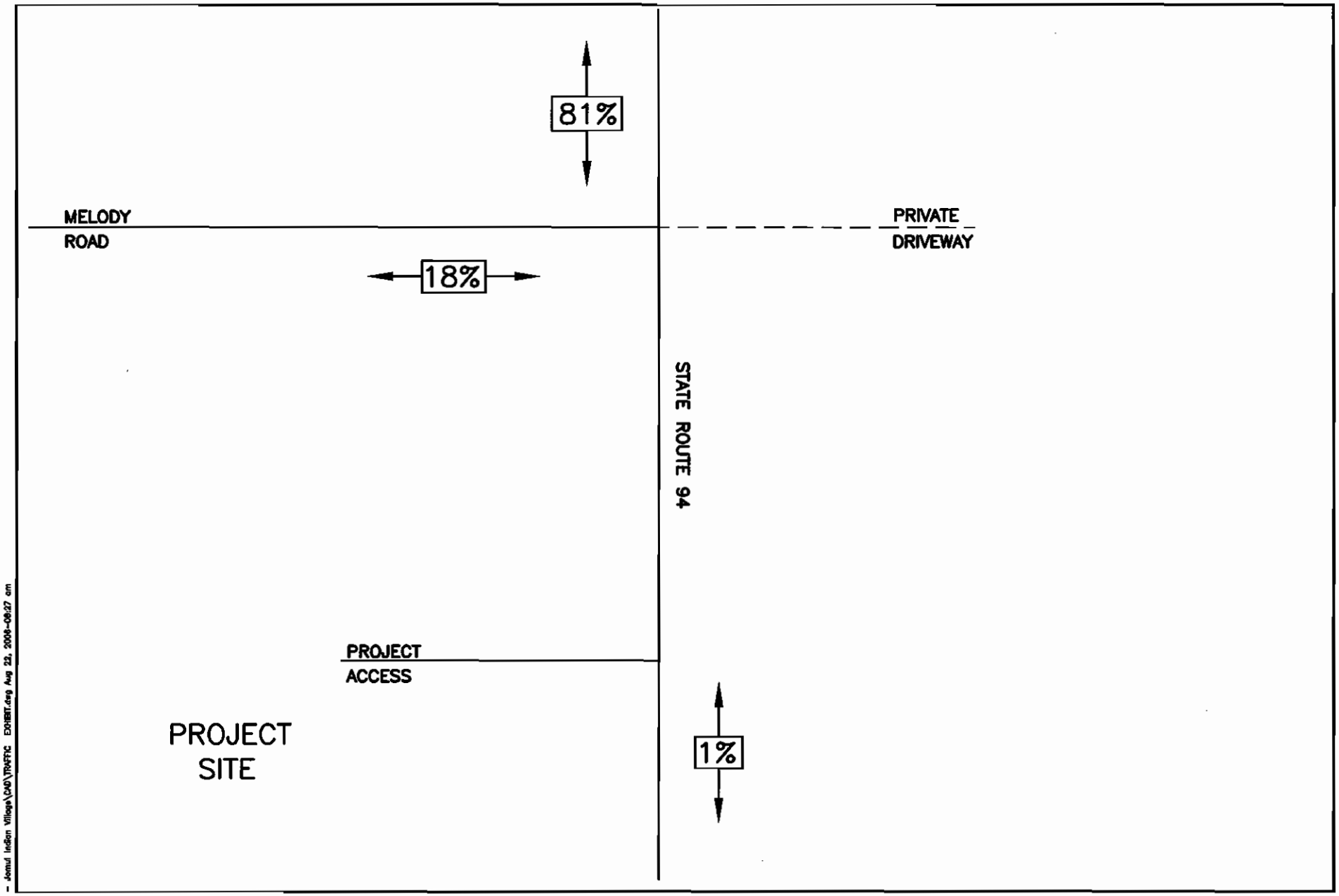
The project-related traffic will cause the intersection of SR 94/Melody Road to decline from LOS E to LOS F. The unsignalized SR 94/Project Access Road intersection (either Option 1 or 2) is projected to operate at LOS E. Thus, both study intersections will fall short of the LOS D standard. Further, the incremental impact of the project traffic at SR 94/Melody Road, which is expected to operate at an unacceptable level of service under "no project" conditions, will exceed the significance threshold employed here (i.e., greater than a two-second increase in delay). Therefore, ***significant impacts*** are projected at both study intersections.

Weekday PM Peak Hour

At SR 94/Melody Road, a decline from LOS D to LOS F is projected. This constitutes a ***significant impact***. The STOP-sign-controlled project access intersection on SR 94 is also expected to operate at LOS F under this analysis scenario. This is also a ***significant impact.***

Saturday PM Peak Hour

The Saturday PM peak hour results are similar to those for weekday PM peak hour conditions. Operations at the SR 94/Melody Road intersection will be degraded from LOS D to LOS F, and either potential SR 94/Project Access Road intersection (with STOP-sign-control) will be at LOS F. Thus, ***significant impacts*** are projected at both study intersections.



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LONG-TERM & BUILDOUT (2020) PROJECT
TRIP DISTRIBUTION

FIGURE 11

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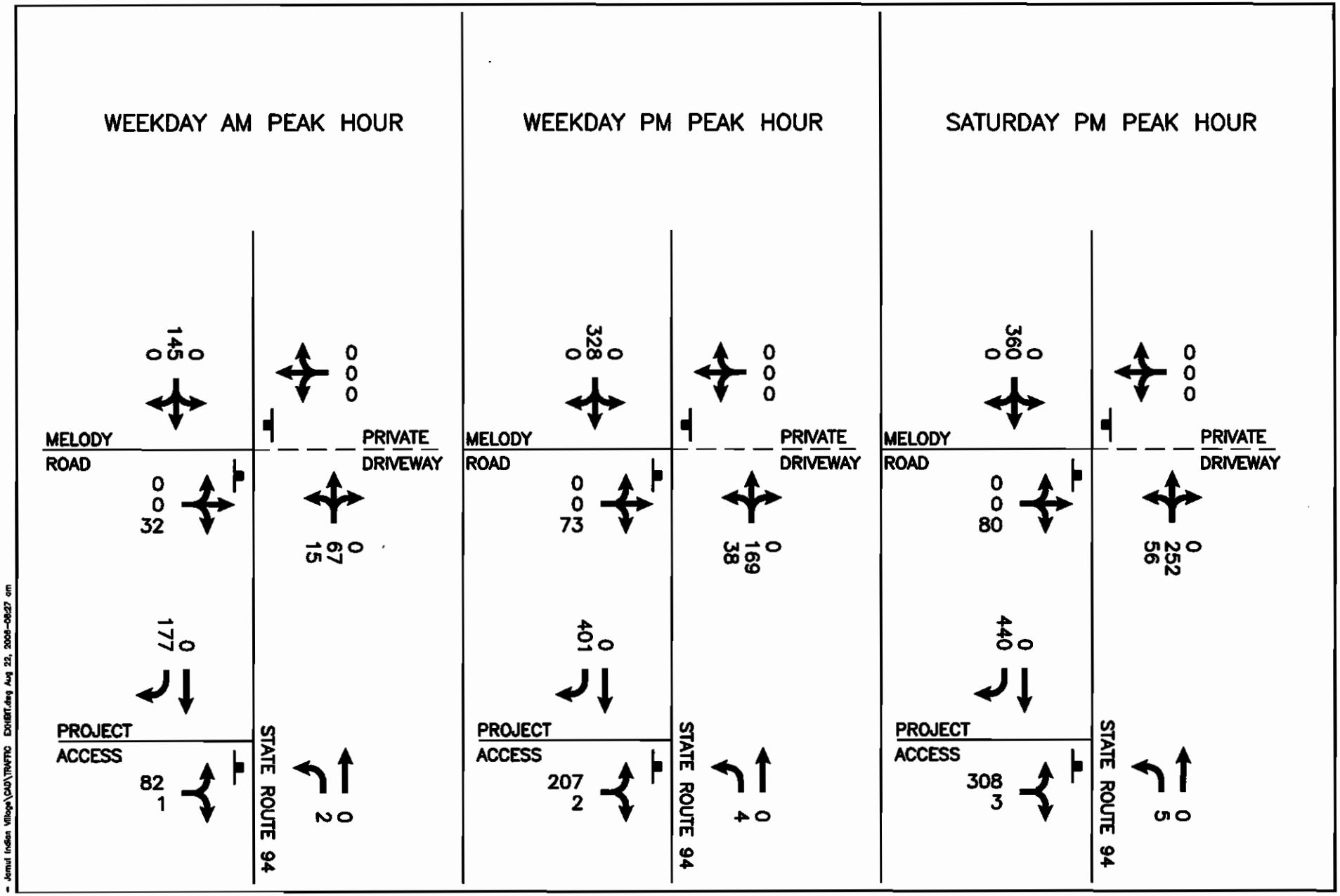

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LONG-TERM & BUILDOUT (2020) PROJECT
TRIP ASSIGNMENT

FIGURE 12

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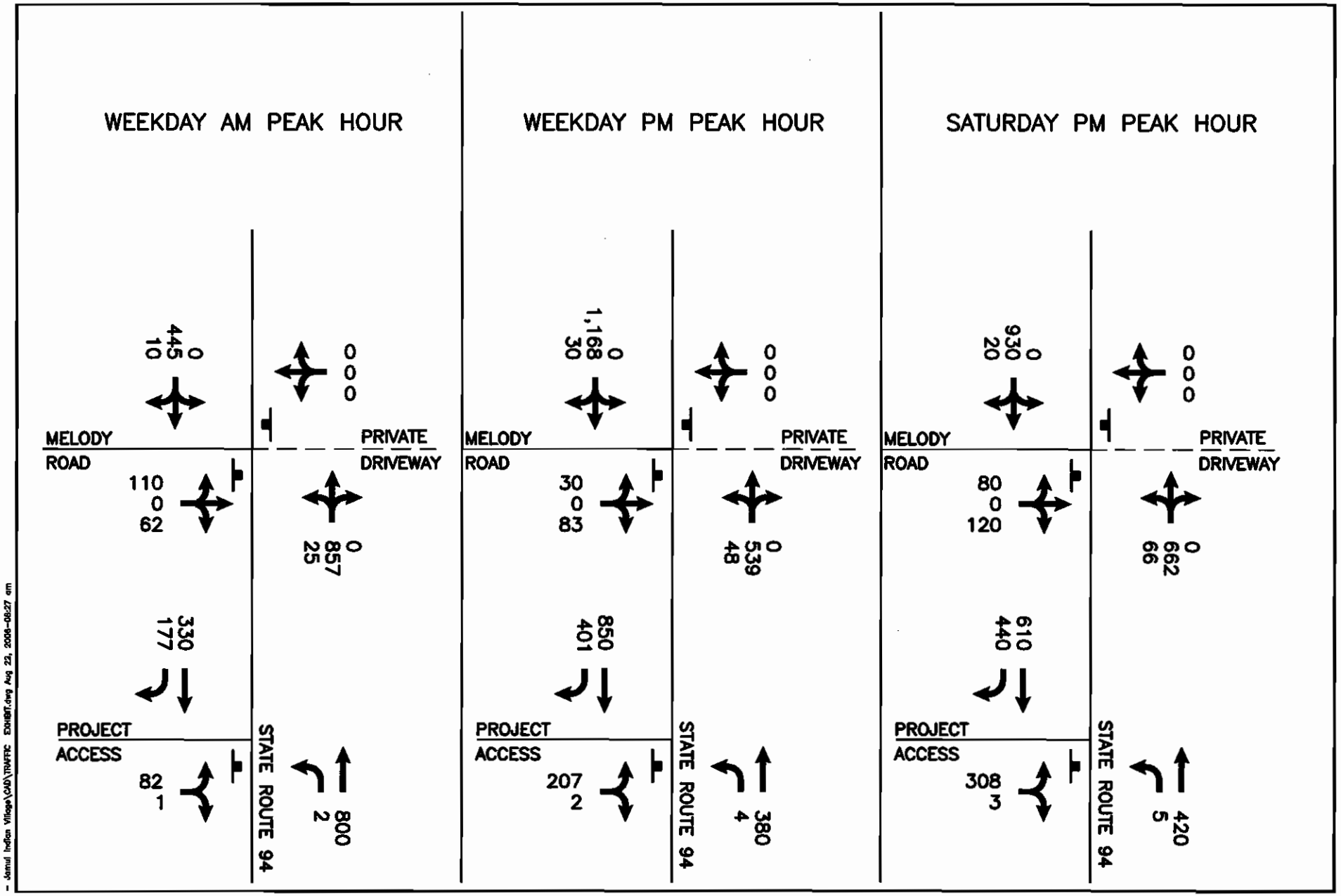

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LONG-TERM (2020) WITH PROJECT CONDITIONS
TRAFFIC VOLUMES

FIGURE 13

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Table 20
Intersection Level of Service Summary[1]
Long-Term (2020) With Project Conditions

Intersection	Traffic Control	Weekday AM Peak Hour				Weekday PM Peak Hour				Saturday PM Peak Hour			
		No Project Conditions		With Project Conditions		No Project Conditions		With Project Conditions		No Project Conditions		With Project Conditions	
		Delay[2]	LOS[3]	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 94/Melody Road	STOP Sign	48.7	E	**>50.0**	**F**[4]	31.6	D	**> 50.0**	**F**	30.2	D	**> 50.0**	**F**
SR 94/Project Access[5]	STOP Sign	N.A.[6]	N.A.	**40.6**	**E**	N.A.	N.A.	**> 50.0**	**F**	N.A.	N.A.	**> 50.0**	**F**

Notes:
1 Reference: Transportation Research Board, *Highway Capacity Manual*, 2000.
2 Average control delay (seconds per vehicle).
3 Level of service.
4 Significant impacts are designated with **bold** font.
5 "Project Access" refers to either Option 1 or Option 2 access points.
6 Not applicable; Project access road only exists under "with project" conditions.

Roadway Segment Level of Service

The project-related impacts on the study roadway segments are summarized in Table 21. The segment of Melody Road west of SR 94 will continue to operate at an acceptable level of service (LOS B). The section of SR 94 between Melody Road and either potential project access point will operate at an unacceptable LOS F (as under "no project" conditions), and will have a substantial increase in V/C ratio (i.e., greater than 0.02); this represents exacerbation of substandard conditions and, further, constitutes a ***significant impact.*** SR 94 south of the project access location (either Option 1 or 2) will continue to operate at LOS F. Although that particular roadway segment will operate at unacceptable levels of service under both "no project" and "with project" conditions, the incremental increase in V/C at that location is less than the adopted threshold (i.e., greater than a 0.02 increase). As such, the project-related impact on that roadway segment is less-than-significant.

Mitigation Measures

Both study intersections (i.e., SR 94/Melody Road and SR 94/Project Access (Option 1 or 2)) are projected to have significant impacts in all three peak-hour periods under Long-Term (2020) With Project conditions. In addition, the segment of SR 94 between Melody Road and the project access point (Option 1 or 2) was found to have a significant impact.

The following mitigation measures are recommended to resolve these project-related impacts:

- SR 94/Melody Road – As under Near-Term conditions, installation of a traffic signal at this intersection would fully mitigate the project-related impacts. Further, the intersection should be modified to provide the following lane configurations, as follows:
  - Northbound: Provide a dedicated left-turn lane and one shared through/right-turn lane,
  - Southbound: Provide a dedicated left-turn lane and one shared through/right-turn lane,
  - Eastbound: Provide a dedicated left-turn lane and one shared through/right-turn lane, and
  - Westbound: The existing private driveway would be unchanged.

Implementation of this mitigation measure will result in the following delay and level of service values:

	Intersection Delay	LOS
o Weekday AM peak hour	10.1 seconds/vehicle	B
o Weekday PM peak hour	13.6 seconds/vehicle	B
o Saturday PM peak hour	11.9 seconds/vehicle	B

- SR 94/Project Access (Option 1 or 2) – This mitigation measure is also identical to that recommended for Near-Term conditions. As described earlier, the proposed project's impact would be fully mitigated through the installation of a traffic signal at this intersection, in combination with the following modifications to the intersection lane configurations:
  - Northbound: Provide a dedicated left-turn lane and one through lane,
  - Southbound: Provide a free-flow right-turn lane and one through lane, and
  - Eastbound: Provide a dedicated left-turn lane and a ~~shared left/~~right-turn lane.

Table 21
Roadway Segment Level of Service Summary[1]
Long-Term (2020) With Project Conditions

Roadway Segment	Lanes/Classification	Roadway Capacity (VPD[2])	No Project Conditions			With Project Conditions		
			Daily Traffic Volume	V/C[3] Ratio	LOS[4]	Daily Traffic Volume	V/C Ratio	LOS
Melody Road - West of SR 94	2 Lanes/Rural Collector	16,200 VPD[5]	2,320 VPD	0.14	B	4,020 VPD	0.25	B
SR 94 - Melody Rd. to the Project Access Rd.[6]	2 Lanes/Collector	10,000 VPD[7]	11,660 VPD	1.17	F	21,008 VPD	**2.10**	**F**[8]
SR 94 - South of the Project Access Rd.[6]	2 Lanes/Collector	10,000 VPD[7]	11,660 VPD	1.17	F	11,754 VPD	1.18	F[9]

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Vehicles per day.
3 Volume/capacity.
4 Level of service.
5 Reference: *Public Road Standards* (County of San Diego, Department of Public Works, Adopted July 14, 1999).
6 "Project Access" refers to either Option 1 or Option 2 access points.
7 Reference: *SANTEC/ITE Guidelines for Traffic Impact Studies [TIS] in the San Diego Region*, March 2000.
8 Significant impacts are designated with **bold** font.
9 Project-related incremental impact is less than a 0.02 increase in V/C ratio; therefore, impact is less-than-significant.

Implementation of this mitigation measure will result in the following delay and level of service values at SR 94/Project Access (Option 1 or 2):

	Intersection Delay	LOS
o Weekday AM peak hour	~~4.0~~ 6.4 seconds/vehicle	A
o Weekday PM peak hour	~~8.0~~ 10.6 seconds/vehicle	~~A~~ B
o Saturday PM peak hour	~~7.6~~ 10.5 seconds/vehicle	~~A~~ B

- SR 94 between Melody Road and the Project Access (Option 1 or 2) – Because this roadway segment is projected to operate at an unacceptable level of service (i.e., LOS F) under "Long-Term (2020) No Project" conditions, the proposed project's impact represents exacerbation of substandard operations resulting from background traffic growth. As such, the recommended mitigation measure is to provide a fair share contribution toward the cost ~~to widen to a four-lane collector road, which will provide two travel lanes in each direction. Implementation of this roadway widening would improve the level of service of this segment to LOS D (V/C = 0.70).~~ of preparing necessary studies and engineering and design work, as well as construction of operational improvements to SR 94 westerly of the project site. These improvements may consist of passing lane areas, shoulder widening, protected left turn areas and other operational measures deemed feasible and consistent with plans for the corridor.

- Project Access Sight Distance – To ensure safety in the vicinity of the project access point on SR 94, install appropriate signage to provide advance warning of the presence of the project access intersection. Such signage may include some or all of the following standard warning signs: SIGNAL AHEAD (CA MUTCD W3-3), BE PREPARED TO STOP (CA MUTCD W3-4, used as a supplement to W3-3), HILL BLOCKS VIEW (CA MUTCD W7-6), and various signs designating changes in horizontal alignment (CA MUTCD W1-1 through W1-5), as well as appropriate advisory speed plaques. The SIGNAL AHEAD sign should be supplemented with a flashing beacon, as allowed in Section 2C.29 of the *California Manual on Uniform Traffic Control Devices* (CA MUTCD), State of California, Department of Transportation, September 26, 2006.

In addition to the significant impacts and mitigation measures described here, the November 2002 traffic analysis identified significant impacts and corresponding mitigation measures for segments of SR 94 from Jamacha Boulevard to Melody Road. Significant impacts and mitigation measures were also identified for the following intersections:

- SR 94/Jamacha Boulevard (weekday AM peak hour, weekday PM peak hour, and Saturday PM peak hour);
- SR 94/Lyons Valley Road (weekday AM peak hour, weekday PM peak hour, and Saturday PM peak hour);
- SR 94/Cougar Canyon Road (weekday PM peak hour); and
- SR 94/Steele Canyon Road (weekday PM peak hour and Saturday PM peak hour).

The previously-identified mitigation measures remain valid, and should be implemented in addition to the measures presented here.

BUILDOUT (2020) CONDITIONS

The traffic impacts associated with completion of both phases of the proposed Jamul Indian Village Project under "Buildout" conditions in the year 2020 are presented in this section.

Buildout (2020) No Project Conditions

According to information presented in the November 2002 Katz, Okitsu & Associates traffic study, the traffic volume estimates for the Buildout (2020) scenarios are the same as those used in the Long-Term (2020) scenario described in the previous section. However, a variety of intersection or roadway improvements are assumed for Buildout (2020) conditions.

Buildout (2020) No Project Traffic Volumes

Figure 14 illustrates the peak-hour traffic volumes for Buildout (2020) No Project conditions.

Roadway Network

The analysis of Buildout (2020) conditions assumes full implementation of the *County of San Diego General Plan Circulation Element*, as adopted in October 1993. Key elements of the assumed roadway system include the following:

- SR 94 will be a six-lane Prime Arterial from Jamacha Road to Melody Road;
- SR 94 will be a four-lane Major Road from Melody Road to Honey Springs Road/Otay Lakes Road;
- Melody Road will be improved to a four-lane Collector Road.
- The SR 94/SR 54 interchange and related freeway improvements will be completed;
- State Route 125 will be completed; and
- State Route 905 will be completed.

Intersection Level of Service

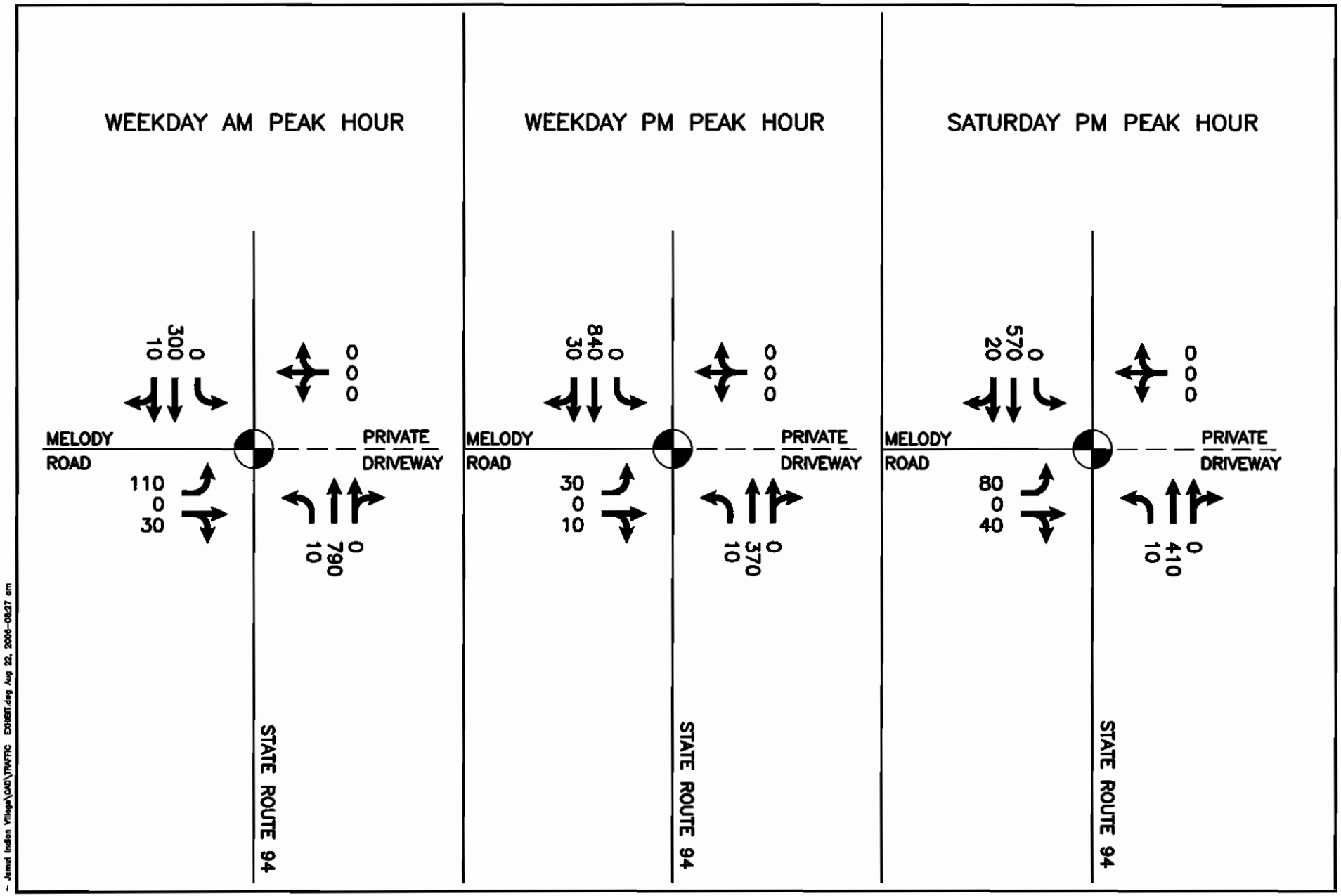
Table 22 presents the results of the intersection level of service calculations under Buildout (2020) No Project conditions.

Weekday AM Peak Hour

With the assumed addition of a traffic signal, the study intersection of SR 94/Melody Road is projected to operate at LOS A under this analysis scenario. This meets the applicable LOS D standard.

Weekday PM Peak Hour

The intersection is also expected to operate at LOS A in the weekday PM peak hour, which again represents acceptable operation.



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BUILDOUT (2020) NO PROJECT CONDITIONS
TRAFFIC VOLUMES

FIGURE 14

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Saturday PM Peak Hour

LOS A is also expected in the Saturday PM peak hour at this intersection, which conforms to the minimum acceptable operation.

Table 22
Intersection Level of Service Summary[1]
Buildout (2020) No Project Conditions

Intersection	Traffic Control	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday PM Peak Hour	
		Delay[2]	LOS[3]	Delay	LOS	Delay	LOS
SR 94/Melody Road	Signal	6.3	A	3.9	A	6.5	A

Notes:
1 Reference: Transportation Research Board, *Highway Capacity Manual*, 2000.
2 Average control delay (seconds per vehicle).
3 Level of service.

Roadway Segment Level of Service

Table 23 summarizes expected operations on the study roadway segments near the project site. Due to the roadway improvements assumed under this scenario, all of the study segments are projected to operate at LOS A. Consequently, the three study roadway segments of Melody Road will all conform to the minimum acceptable level of service guideline.

Table 23
Roadway Segment Level of Service Summary[1]
Buildout (2020) No Project Conditions

Roadway Segment	Lanes/Classification	Roadway Capacity (VPD[2])	Daily Traffic Volume	V/C[3] Ratio	LOS[4]
Melody Road - West of SR 94	4 Lanes/Collector	34,200 VPD[5]	2,320 VPD	0.07	A
SR 94 - Melody Rd. to the Project Access Rd.	4 Lanes/Major Arterial	40,000 VPD[6]	11,660 VPD	0.29	A
SR 94 - South of the Project Access Rd.	4 Lanes/Major Arterial	40,000 VPD[6]	11,660 VPD	0.29	A

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Vehicles per day.
3 Volume/capacity.
4 Level of service.
5 Reference: *Public Road Standards* (County of San Diego, Department of Public Works, Adopted July 14, 1999).
6 Reference: *SANTEC/ITE Guidelines for Traffic Impact Studies [TIS] in the San Diego Region*, March 2000.

Buildout (2020) With Project Conditions

The incremental impacts of the proposed project under Buildout conditions are presented below.

Buildout (2020) With Project Traffic Volumes

As noted above, the Buildout (2020) With Project traffic volumes are identical to the Long-Term (2020) With Project figures. The projected traffic volumes for both long-term scenarios reflect a modified trip distribution, which indicates that substantially more of the project traffic will approach and depart the site via Melody Road to the west. That trip distribution was illustrated on Figure 11.

Figure 12 illustrated the assignment of project traffic to the study area road system for this scenario. Figure 15 presents the projected peak-hour intersection traffic volumes under Buildout (2020) With Project conditions.

Intersection Level of Service

The results of the intersection level of service calculations for this scenario are provided in Table 24.

Weekday AM Peak Hour

The intersection of SR 94/Melody Road will operate at LOS A, even with addition of the project-generated traffic. At the STOP-sign-controlled project access intersection (Option 1 or 2), LOS E is projected, primarily because drivers attempting to exit the site will experience excessive delays in turning onto SR 94. Therefore, a ***significant impact*** is anticipated at the intersection of SR 94/Project Access (Option 1 or 2).

Weekday PM Peak Hour

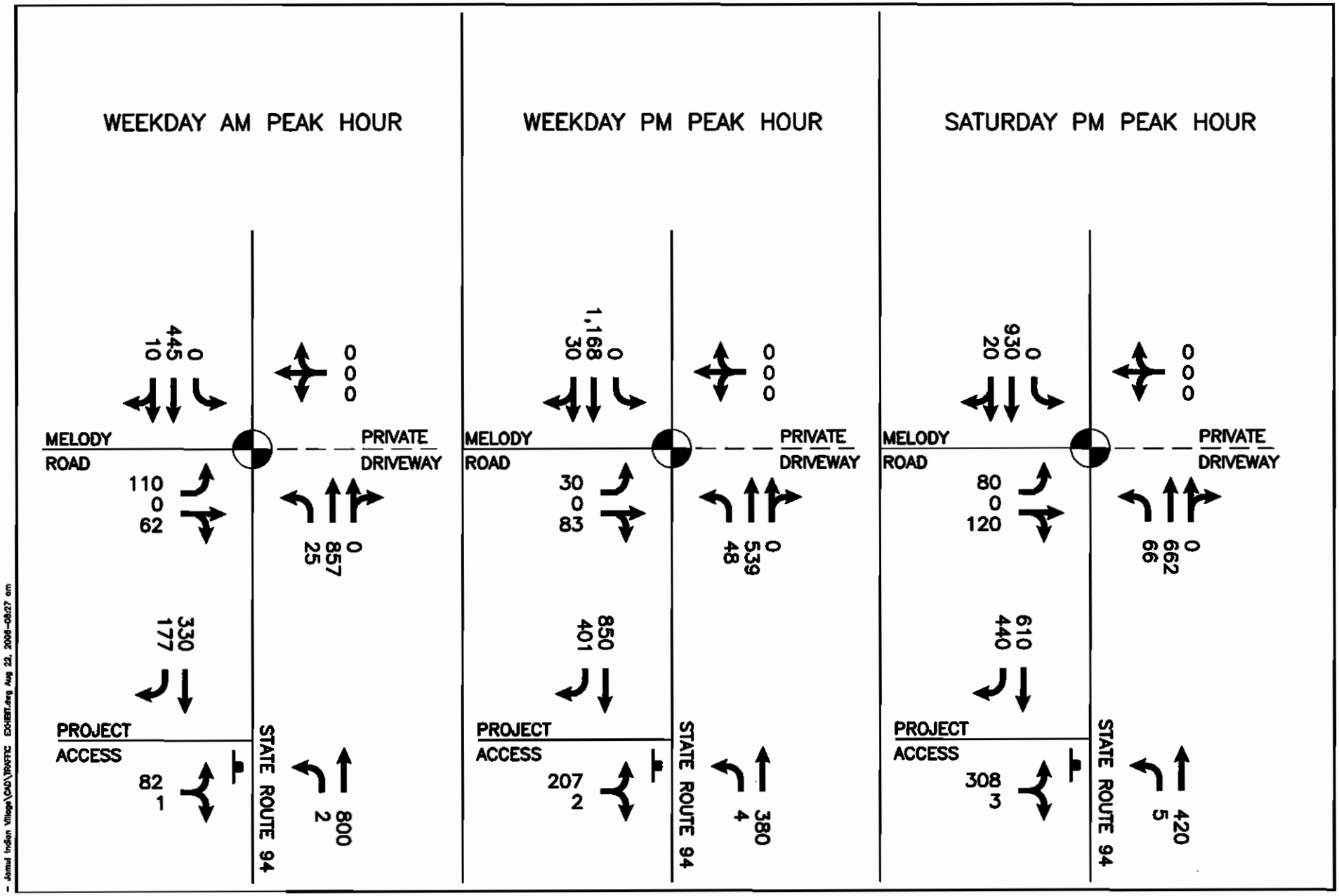
LOS A is again projected at SR 94/Melody Road in this time period. At the intersection of SR 94/Project Access (Option 1 or 2), LOS F is anticipated, which constitutes a ***significant impact***.

Saturday PM Peak Hour

The level of service results for this peak-hour period are similar to those for the weekday PM peak hour. LOS A is projected at SR 94/Melody Road, while LOS F is expected at SR 94/Project Access (Option 1 or 2). Again, a ***significant impact*** is projected at the project access intersection.

Roadway Segment Level of Service

The project's impacts with regard to daily roadway segment operations are summarized in Table 25. All three study segments will operate at LOS C or better, thereby meeting the County's LOS D standard. Thus, the project's impacts will be less-than-significant.



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BUILDOUT (2020) WITH PROJECT CONDITIONS
TRAFFIC VOLUMES

FIGURE 15

N:\2005\20544 Lakes Ent. - Jamul Indian Village\CAD\TRAFFIC EXHIBIT.dwg Aug 22, 2006--08:27 am

Table 24
Intersection Level of Service Summary[1]
Buildout (2020) With Project Conditions

Intersection	Traffic Control	Weekday AM Peak Hour				Weekday PM Peak Hour				Saturday PM Peak Hour			
		No Project Conditions		With Project Conditions		No Project Conditions		With Project Conditions		No Project Conditions		With Project Conditions	
		Delay[2]	LOS[3]	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 94/Melody Road	Signal	6.3	A	7.1	A	3.9	A	6.6	A	6.5	A	8.2	A
SR 94/Project Access[4]	STOP Sign	N.A.[5]	N.A.	**40.6**	**E**[6]	N.A.	N.A.	**> 50.0**	**F**	N.A.	N.A.	**> 50.0**	**F**

Notes:
1 Reference: Transportation Research Board, *Highway Capacity Manual*, 2000.
2 Average control delay (seconds per vehicle).
3 Level of service.
4 "Project Access" refers to either Option 1 or Option 2 access points.
5 Not applicable; Project access road only exists under "with project" conditions.
6 Significant impacts are designated with **bold** font.

Table 25
Roadway Segment Level of Service Summary[1]
Buildout-Term (2020) With Project Conditions

Roadway Segment	Lanes/Classification	Roadway Capacity (VPD[2])	No Project Conditions			With Project Conditions		
			Daily Traffic Volume	V/C[3] Ratio	LOS[4]	Daily Traffic Volume	V/C Ratio	LOS
Melody Road - West of SR 94	4 Lanes/Collector	34,200 VPD[5]	2,320 VPD	0.07	A	4,020 VPD	0.12	A
SR 94 - Melody Rd. to the Project Access Rd.[6]	4 Lanes/Major Arterial	40,000 VPD[7]	11,660 VPD	0.29	A	21,008 VPD	0.53	C
SR 94 - South of the Project Access Rd.[6]	4 Lanes/Major Arterial	40,000 VPD[7]	11,660 VPD	0.29	A	11,754 VPD	0.29	A

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Vehicles per day.
3 Volume/capacity.
4 Level of service.
5 Reference: *Public Road Standards* (County of San Diego, Department of Public Works, Adopted July 14, 1999).
6 "Project Access" refers to either Option 1 or Option 2 access points.
7 Reference: *SANTEC/ITE Guidelines for Traffic Impact Studies [TIS] in the San Diego Region*, March 2000.

Mitigation Measures

Under the Buildout (2020) With Project Conditions scenario, a significant impact is projected at the intersection of SR 94/Project Access (Option 1 or 2) in all three peak-hour periods, even with the assumed improvements on SR 94 (i.e., widening to a four-lane Major Road, as called for in the *County of San Diego General Plan Circulation Element*). The project-related impact would be fully mitigated through implementation of the mitigation measure described below:

- SR 94/Project Access (Option 1 or 2) – Install a traffic signal at this intersection. The recommended intersection lane configurations are as follows:
  - Northbound: Provide a dedicated left-turn lane and two through lanes,
  - Southbound: Provide a free-flow right-turn lane and two through lanes, and
  - Eastbound: Provide a dedicated left-turn lane and a shared left/right-turn lane.

Implementation of this recommended mitigation measure will result in the following delay and level of service values:

	Intersection Delay	LOS
o Weekday AM peak hour	3.8 seconds/vehicle	A
o Weekday PM peak hour	5.9 seconds/vehicle	A
o Saturday PM peak hour	6.1 seconds/vehicle	A

- Project Access Sight Distance – To ensure safety in the vicinity of the project access point on SR 94, install appropriate signage to provide advance warning of the presence of the project access intersection. Such signage may include some or all of the following standard warning signs: SIGNAL AHEAD (CA MUTCD W3-3), BE PREPARED TO STOP (CA MUTCD W3-4, used as a supplement to W3-3), HILL BLOCKS VIEW (CA MUTCD W7-6), and various signs designating changes in horizontal alignment (CA MUTCD W1-1 through W1-5), as well as appropriate advisory speed plaques. The SIGNAL AHEAD sign should be supplemented with a flashing beacon, as allowed in Section 2C.29 of the *California Manual on Uniform Traffic Control Devices* (CA MUTCD), State of California, Department of Transportation, September 26, 2006.

No other mitigation measures were identified for this analysis scenario in the November 2002 study. Therefore, implementation of these measures will fully mitigate the project-related impacts of the proposed Jamul Indian Village project.

ANALYSIS OF PROJECT ALTERNATIVES

The previous sections of this report have described the effects of adding the traffic generated by the Jamul Indian Village Preferred Alternative to the roadway system in the study area. This section addresses the relative impacts associated with alternatives to the preferred project.

Project Alternatives

The Preferred Alternative, which is addressed in detail in the previous sections of this report, is designated Alternative A in the Final Environmental Impact Statement (FEIS) for the Jamul Indian Village. In addition to this proposed development project, the FEIS described the impacts of four other potential development projects, plus the "No Action" alternative. Several of those alternatives have since been determined to be infeasible. The remaining project alternatives (including the Preferred Alternative) are summarized below:

- Alternative A – Preferred Casino and Hotel
  - Phase A
    - Casino – 205,194-square-foot (SF) casino, including 73,469 SF of gaming floor area with 2,000 slot machines, as well as various spaces for public use and administration and management of the facility;
    - Parking garage – Approximately 2,550 parking spaces;
    - Human resources building – 30,000 SF;
    - Fire station; and
    - Sewage treatment facility.
  - Phase B
    - Hotel – 300 rooms, including a 24,000 SF event center.
- Alternative A Variant – Reduced Casino and Hotel Development
  - Phase A
    - Casino – 138,308 SF total (55,473 SF of gaming floor area with 1,000 slot machines);
    - Parking garage – Approximately 1,675 parking spaces;
    - Human resources building – Identical to Alternative A (Preferred Casino and Hotel);
    - Fire station; and
    - Sewage treatment facility.
  - Phase B
    - Hotel – 150 rooms with a 12,000 SF event center.
- No Action Alternative: Under this alternative no development project would be accomplished on the site, and none of the traffic impacts described in this analysis would be realized.

Analysis of Project Alternatives

The relative traffic impacts associated with each of the project alternatives described above are presented in the following paragraphs. This analysis is based primarily on trip generation information presented in the *Jamul Indian Village Traffic Impact Analysis* (Katz, Okitsu & Associates, November 2002). As described in that report, certain of the proposed land uses are assumed to generate little or no external traffic. Those uses include the human resources building, the fire station, and the sewage treatment facility.

Alternative A – Preferred Alternative Variant

As described above, this alternative would result in a reduced level of development on the project site, particularly with regard to the sizes of the casino and the hotel. The proposed casino would be almost 25 percent smaller under this alternative, and the hotel and event center would be approximately half the size of the proposed project. Consequently, the Alternative A Variant will generate considerably less traffic than the Preferred Alternative.

Table 26 summarizes a comparison of the estimated volume of traffic generated by this alternative relative to Alternative A, the Preferred Alternative. On a daily basis, the Alternative A Variant would generate about two-thirds as much traffic, while the peak hour trip generation estimates range from 65 percent to 71 percent of the Preferred Alternative figures.

Based on this, it is highly likely that the full implementation of Alternative A Variant (i.e., both Phases A and B) would result in lesser traffic impacts than the Preferred Alternative. For example, the vehicular delay values at the study intersections (i.e., SR 94/Melody Road and SR 94/Project Access) would probably be lower than the values documented in the previous sections of this report. Also, the V/C ratios on the three study roadway segments would be lower than were found for the Preferred Alternative.

No Action Alternative

Under this alternative, no development would be undertaken on the project site and, as a result, no substantial quantity of additional traffic would be generated at that location. Consequently, no project-related traffic impacts would occur and no mitigation would be required. Traffic volumes in the study area will continue to increase, however, due to construction of other approved and planned development projects.

Traffic operations reflecting this alternative are presented in this document as the "no project" scenario. As documented earlier in this report, background traffic growth in the study area will, over time, result in substandard traffic operations, even if the proposed Jamul Indian Village project is not completed. For example, under Long-Term (2020) No Project conditions, deficient traffic operations are projected at the intersection of SR 94/Melody Road in the weekday AM peak hour. In that same time frame, substandard conditions are projected on the segment of SR 94 south of Melody Road. The traffic analysis documented in the FEIS has identified a number of other such locations throughout the greater study area addressed by that analysis, for both near-term and long-term conditions.

Table 26
Trip Generation Estimate Comparison[1]
Alternative A Variant

Land Use	Size	Weekday Daily Trips	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday PM Peak Hour
Alternative A - Preferred Casino and Hotel					
Casino	73,469 SF[2,3]	7,714	217	363	505
Resort Hotel	300 Rooms	900	45	63	63
Event Center	24,000 SF[2]	828	0	187	187
ALTERNATIVE A TOTAL		9,442	262	613	755
Alternative A Variant					
Casino	55,473 SF[2,3]	5,420	164	274	381
Resort Hotel	150 Rooms	450	23	32	32
Event Center	12,000 SF[2]	414	0	94	94
ALTERNATIVE A VARIANT TOTAL		6,284	187	400	507
INCREMENTAL INCREASE		-3,158	-75	-213	-248

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Square feet.
3 Gaming floor area only.

ANALYSIS OF MODIFIED HOTEL

This section addresses the potential traffic impacts of a modified plan for the hotel proposed as Phase B of the Jamul Indian Village project.

Modified Hotel Development Program

As originally planned (and analyzed in the FEIS and the previous sections of this report), Phase B of the proposed project would consist of a hotel having 300 guest rooms, combined with a 24,000 SF event center. Recent site planning activities have resulted in a modification to that plan. Currently under consideration is a hotel with 400 guest rooms and no event center.

Trip Generation Comparison

Table 27 summarizes the results of a trip generation analysis for the modified hotel. Shown there is the trip generation estimate for the original development proposal, as well as the modified project trip generation and the net increase or decrease in trips associated with the new plan.

On a daily basis, the modified hotel will generate about 30 percent fewer trips than the original proposal, primarily due to the elimination of the event center. The overall project, as modified, will generate over 500 fewer trips over the course of a typical weekday.

In the weekday AM peak hour, 15 additional trips would result from the modified hotel – 9 more inbound and 6 more outbound. This is solely due to the increase in the number of guest rooms; no event center traffic was projected in this time period under the original proposal.

Weekday PM peak hour trip generation would decrease from 613 trips to 447 trips, a reduction of 166 trips (27 percent). Although the number of outbound trips would increase slightly (13 trips), this is more than offset by a substantial reduction in inbound traffic (again due to elimination of the event center).

The Saturday PM peak hour analysis results are similar to those for the weekday PM peak hour. Again, 166 fewer trips are projected for the modified hotel, with 179 fewer inbound trips and 13 more outbound trips. The net change is equivalent to a 22 percent reduction in traffic with the modified hotel proposal.

Potential Traffic Impacts

Detailed intersection level of service calculations have not been performed for this development scenario. However, the substantial reduction in project-related trips on a daily basis and in the two PM peak hour periods leads to the conclusion that no additional traffic impacts would result from implementation of this modified plan. In fact, it is possible that the traffic impacts would be reduced compared to the impacts documented in this report. Although a slight increase in weekday AM peak hour trips is estimated, that change is expected to have a negligible effect on intersection operations, and no further traffic impact is considered likely in that time period.

Table 27
Revised Trip Generation Estimate Summary[1]
Modified Hotel

Land Use	Size	Weekday Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Phase A											
Casino	73,469 SF[2,3]	7,714	152	65	217	192	171	363	232	273	505
Phase B – Original											
Resort Hotel	300 Rooms	900	27	18	45	25	38	63	25	38	63
Event Center	24,000 SF[2]	828	0	0	0	187	0	187	187	0	187
PHASE B SUBTOTAL		1,728	27	18	45	212	38	250	212	38	250
ORIGINAL PROJECT TOTAL		***9,442***	***179***	***83***	***262***	***404***	***209***	***613***	***444***	***311***	***755***
Phase B – Modified											
Resort Hotel	400 Rooms	1,200	36	24	60	33	51	84	33	51	84
MODIFIED PROJECT TOTAL		***8,914***	***188***	***89***	***277***	***225***	***222***	***447***	***265***	***324***	***589***
Mod. Project Net Increase (Decrease)		***(528)***	***9***	***6***	***15***	***(179)***	***13***	***(166)***	***(179)***	***13***	***(166)***

Notes:
1 Reference: Katz, Okitsu & Associates, *Jamul Indian Village Traffic Impact Analysis*, November 2002.
2 Square feet.
3 Gaming floor area only.

SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The analysis documented in this report has identified significant traffic impacts and associated mitigation measures for four time frames – two near-term scenarios and two sets of long-term conditions. In addition to daily conditions, the report has addressed traffic operations in three peak-hour periods – weekday AM peak hour, weekday PM peak hour, and Saturday PM peak hour.

Table 28 summarizes the mitigation measures recommended to offset the significant traffic impacts related to completion of the proposed Jamul Indian Village project.

Table 28
Mitigation Measure Summary

Study Location	Time Period	Mitigation Measure	Traffic Operations Results			
			Without Mitigation		With Mitigation	
			Delay[1] or V/C[2]	LOS[3]	Delay or V/C	LOS
Existing Plus Expected Development With Project Conditions						
SR 94/Project Access[4]	Weekday PM Peak Hour	Install traffic signal and provide the following lane configurations: • Northbound: One dedicated left-turn lane and one through lane, • Southbound: One free-flow right-turn lane and one through lane, and • Eastbound: One dedicated left-turn lane and one ~~shared left/~~right-turn lane.	39.7	E	~~7.0~~ 7.9	A
	Saturday PM Peak Hour		41.8	E	~~6.7~~ 7.9	A
	All	Install appropriate signage to provide advance warning of the presence of the project access intersection. Such signage may include some or all of the following standard warning signs: SIGNAL AHEAD (CA MUTCD W3-3), BE PREPARED TO STOP (CA MUTCD W3-4, used as a supplement to W3-3), HILL BLOCKS VIEW (CA MUTCD W7-6), and various signs designating changes in horizontal alignment (CA MUTCD W1-1 through W1-5), as well as appropriate advisory speed plaques. The SIGNAL AHEAD sign should be supplemented with a flashing beacon.	N.A.[5]	N.A.	N.A.	N.A.
SR 94 – Melody Rd. to Project Access	Daily	~~Widen to a four-lane collector road (i.e., two travel lanes in each direction)~~ Contribute to the cost of preparing necessary studies and engineering and design work, as well as construction of operational improvements to SR 94 westerly of the project site. These improvements may consist of passing lane	1.59	F	--[6]	--

		areas, shoulder widening, protected left turn areas and other operational measures deemed feasible and consistent with plans for the corridor.				
Near-Term (2009) With Project Conditions						
SR 94/Melody Rd.	Weekday PM Peak Hour	Install traffic signal and provide the following lane configurations: • Northbound: One dedicated left-turn lane and one shared through/right-turn lane, • Southbound: One dedicated left-turn lane and one shared through/right-turn lane, • Eastbound: One dedicated left-turn lane and one shared through/right-turn lane, and • Westbound: Private driveway unchanged.	44.9	E	5.9	A
	Saturday PM Peak Hour		> 50.0	F	5.9	A
SR 94/Project Access[4]	Weekday PM Peak Hour	Same as under Existing Plus Expected Development With Project conditions	> 50.0	F	~~6.9~~ 8.3	A
	Saturday PM Peak Hour		> 50.0	F	~~6.6~~ 8.3	A
	All	Install appropriate signage to provide advance warning of the presence of the project access intersection. Such signage may include some or all of the following standard warning signs: SIGNAL AHEAD (CA MUTCD W3-3), BE PREPARED TO STOP (CA MUTCD W3-4, used as a supplement to W3-3), HILL BLOCKS VIEW (CA MUTCD W7-6), and various signs designating changes in horizontal alignment (CA MUTCD W1-1 through W1-5) as well as appropriate advisory speed plaques. The SIGNAL AHEAD sign should be supplemented with a flashing beacon.	N.A.	N.A.	N.A.	N.A.
SR 94 – Melody Rd. to Project Access[4]	Daily	Same as under Existing Plus Expected Development With Project conditions	1.85	F	--[6]	--

Table 28 (Continued)
Mitigation Measure Summary

Study Location	Time Period	Mitigation Measure	Traffic Operations Results			
			Without Mitigation		With Mitigation	
			Delay or V/C	LOS	Delay or V/C	LOS
Long-Term (2020) With Project Conditions						
SR 94/Melody Rd.	Weekday AM Peak Hour	Same as under Near-Term (2009) With Project conditions	> 50.0	F	10.1	B
	Weekday PM Peak Hour		> 50.0	F	13.6	B
	Saturday PM Peak Hour		> 50.0	F	11.9	B
SR 94/Project Access[4]	Weekday AM Peak Hour	Same as under Near-Term (2009) With Project conditions	40.6	E	~~4.0~~ 6.4	A
	Weekday PM Peak Hour		> 50.0	F	~~8.0~~ 10.6	~~A~~ B
	Saturday PM Peak Hour		> 50.0	F	~~7.6~~ 10.5	~~A~~ B
	All	Install appropriate signage to provide advance warning of the presence of the project access intersection. Such signage may include some or all of the following standard warning signs: SIGNAL AHEAD (CA MUTCD W3-3), BE PREPARED TO STOP (CA MUTCD W3-4, used as a supplement to W3-3), HILL BLOCKS VIEW (CA MUTCD W7-6), and various signs designating changes in horizontal alignment (CA MUTCD W1-1 through W1-5) as well as appropriate advisory speed plaques. The SIGNAL AHEAD sign should be supplemented with a flashing beacon.	N.A.	N.A.	N.A.	N.A.
SR 94 – Melody Rd. to Project Access[4]	Daily	Make a fair share contribution toward the cost ~~to widen to a four-lane collector road (i.e., two travel lanes in each direction)~~ of preparing	2.10	F	--[6]	--

		necessary studies and engineering and design work, as well as construction of operational improvements to SR 94 westerly of the project site. These improvements may consist of passing lane areas, shoulder widening, protected left turn areas and other operational measures deemed feasible and consistent with plans for the corridor.				
Buildout (2020) With Project Conditions						
SR 94/Project Access[4]	Weekday AM Peak Hour	Install traffic signal and provide the following lane configurations: • Northbound: One dedicated left-turn lane and two through lanes, • Southbound: One free-flow right-turn lane and two through lanes, and • Eastbound: One dedicated left-turn lane and one shared left/right-turn lane.	40.6	E	3.8	A
	Weekday PM Peak Hour		> 50.0	F	5.9	A
	Saturday PM Peak Hour		> 50.0	F	6.1	A
	All	Install appropriate signage to provide advance warning of the presence of the project access intersection. Such signage may include some or all of the following standard warning signs: SIGNAL AHEAD (CA MUTCD W3-3), BE PREPARED TO STOP (CA MUTCD W3-4, used as a supplement to W3-3), HILL BLOCKS VIEW (CA MUTCD W7-6), and various signs designating changes in horizontal alignment (CA MUTCD W1-1 through W1-5) as well as appropriate advisory speed plaques. The SIGNAL AHEAD sign should be supplemented with a flashing beacon.	N.A.	N.A.	N.A.	N.A.

Notes:
1 Average control delay (seconds per vehicle).
2 Volume/capacity ratio.
3 Level of service.
4 "Project Access" refers to either Option 1 or Option 2 access points.
5 Not applicable; Mitigation measure is safety-related and will have no direct effect on V/C or LOS.
6 Impact reduced to less-than-significant; Mitigated V/C ratio depends upon specific improvements constructed