

Final Mitigated Negative Declaration
for the proposed
Pump Station 1485-1 Replacement Project

Prepared for:



The Otay Water District
2554 Sweetwater Springs Boulevard
Spring Valley, California 91978

Prepared by:



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San Diego, California 92123

August 2007

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Final Mitigated Negative Declaration

SUBJECT: Pump Station 1485-1 Replacement Project: The proposed project is located in the County of San Diego within the community of Jamul. The proposed project is intended to improve the transmission of potable water in the 1485 pressure zone and to convey flow to the new 1485-2 Reservoir. The project includes the demolition and replacement of the 1485-1 pump station. The proposed station would be constructed on the southern portion of the existing 1485-1 pump station property owned by the Otay Water District. The replacement project would include three electrical driven pumps in parallel rated at 500 gpm each; a diesel emergency generator; a perimeter fence, and landscaping. The proposed station would be enclosed to protect the pumps and electrical equipment from the environment. The current pump station would remain in service for as long as possible while the new station is being constructed. The project would also include grading the site to improve the site drainage and the extension of an existing 12-inch culvert stormwater drain under the property.

I. PROJECT DESCRIPTION:

See attached Initial Study.

II. ENVIRONMENTAL SETTING:

The proposed project would be located in the community of Jamul, within the County of San Diego. South of the project site is the community of Spring Valley; while to the northwest is the community of Jamacha and Cottonwood. To the east of the project is the Cleveland National Forest.

III. DETERMINATION:

Otay Water District has conducted an Initial Study for the Pump Station 1485-1 Replacement Project, which determined that the proposed project could have a significant environmental effect in the following areas: air quality, cultural resources and transportation/traffic. The proposed project has been revised to add specific measures to fully mitigate for these potentially significant impacts. These added measures are part of the proposed project and are described in the Initial Study Analysis. The project as revised now avoids or mitigates the potentially significant environmental effects previously identified, and the preparation of an Environmental Impact Report is not required.

IV. DOCUMENTATION:

The attached Initial Study documents the reasons to support the above Determination.

V. MITIGATION:

See attached Initial Study and Mitigation Measures.

VI. PUBLIC REVIEW DISTRIBUTION:

The following individuals, organizations, and agencies received a copy or notice of the Draft Mitigated Negative Declaration and were invited to comment on its adequacy and sufficiency:

Federal Agencies

U.S Fish and Wildlife Service

State of California

California Department of Fish and Game
Regional Water Quality Control Board, Region 9
San Diego County Air Pollution Control District

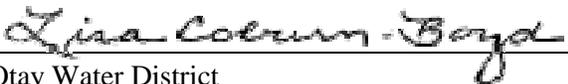
Other

County of San Diego
San Diego County Air Pollution Control District

VII. RESULTS OF PUBLIC REVIEW:

- () No comments were received during the public input period.
- () Comments were received but did not address the Draft Negative Declaration finding or the accuracy/completeness of the Initial Study. No response is necessary. The letters are attached.
- (X) Comments addressing the findings of the Draft Negative Declaration and/or accuracy or completeness of the Initial Study were received during the public input period.

Copies of the Final Mitigated Negative Declaration, the Mitigation Monitoring and Reporting Program and any Initial Study material are available for review upon request at: Otay Water District, 2554 Sweetwater Springs Blvd., Spring Valley, CA 91978-2096. To ensure availability or to make an appointment, please call Daniel Kay at (619) 670-2247.



Otay Water District

June 19, 2007

Date of Draft Report

August 3, 2007

Date of Final Report

Final Environmental Checklist Form

I. INTRODUCTION

1. Project Title:

1485-1 Pump Station Replacement

2. Lead Agency Name and Address:

Otay Water District
2554 Sweetwater Springs Blvd.
Spring Valley, CA 91978-2096

3. Contact Person and Phone Number:

Daniel Kay, Associate Civil Engineer OWD, 619-670-2247

4. Project Location:

Community of Jamul, San Diego County

5. Project Sponsor's Name and Address:

Otay Water District
2554 Sweetwater Springs Blvd.
Spring Valley, CA 91978-2096

6. General Plan Designation:

Medium Density Residential

7. Zoning:

Low density to medium low density residential

8. Description of Project:

Background: In August of 2002, the Otay Water District (District) updated its Master Plan to include new population projections, development plans, water and land use data, and District planning criteria to identify those distribution facilities needed to serve existing and future

potable and recycled water demands within the District. The Master Plan also proposed a capital improvement program that is anticipated to be implemented in three phases.

Within the District's Regulatory Service Area, The Master Plan prescribed a new reservoir in the 1485 Pressure Zone to meet existing and future potable water storage demands and too provide adequate fire protection. The Master Plan recommended the construction of a new 1485-2, 1.6 million gallon (MG) reservoir as part of the phase I improvements. The 1485-2 Reservoir is completed and operational.

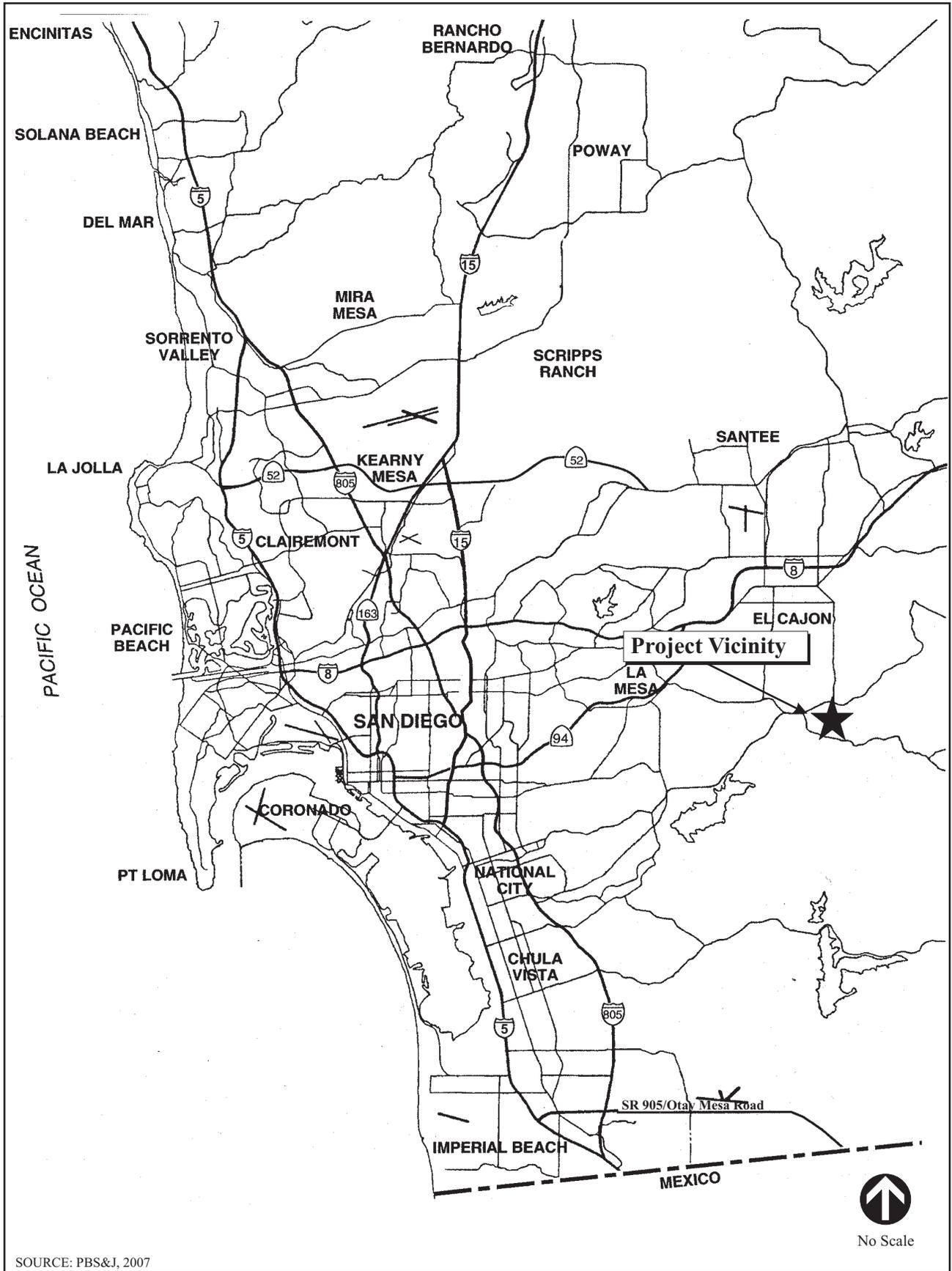
With the construction of the 1485-2 Reservoir, the District proposed rehabilitating the existing 1458-1 Pump Station, which would feed the 1485 zone Reservoirs. After conducting a preliminary study in February 2005, it was found that the existing pump station equipment has reached the end of its useful life. Therefore, the District has chosen to replace the aging station with a new station.

The District proposes the demolition of the existing 1485-1 Pump Station and the construction of a new station. With the construction of the facility, the District would have the capacity to provide higher flow to the 1485 and higher pressure zones.

Proposed Project: The proposed project is located in the County of San Diego within the community of Jamul (Figure 1). The proposed project is intended to improve the transmission of potable water in the 1485 pressure zone and to convey flow to the new 1485-2 Reservoir. The project includes the demolition and replacement of the 1485-1 pump station. The proposed station would be constructed on the southern portion of the existing 1485-1 pump station property owned by the Otay Water District. The replacement project would include three electrical driven pumps in parallel rated at 500 gpm each; a diesel emergency generator; a perimeter fence, and landscaping. The proposed station would be enclosed to protect the pumps and electrical equipment from the environment. The current pump station would remain in service for as long as possible while the new station is being constructed. The project would also include grading the site to improve the site drainage and the extension of an existing 12-inch culvert stormwater drain under the property.

9. Surrounding Land Uses and Setting (Briefly describe the project's surroundings):

The 1485-1 Pump Station is located on the south side of Lyons Valley Road, west of Peg Leg Mine Road, a private road (Figure 2). The station is located on a parcel in the community of Jamul. The pump station is located on a 0.14 acre parcel that is surrounded by residential properties. The District owns this property in fee title.



REGIONAL LOCATION MAP

FIGURE 1



LOCATION MAP

FIGURE 2

II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

III. DETERMINATION: (To be completed by the Lead Agency.)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to be the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to the applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Lisa Colman-Boyd
 Otay Water District

August 3, 2007
 Date

IV. EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, “Earlier Analysis,” may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

V. ISSUES CHECKLIST

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS – Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. AGRICULTURE RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
3. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. BIOLOGICAL RESOURCES – Would the project:				
a) 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 the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. GEOLOGY AND SOILS – Would the project:				
a) Expose 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 of based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off- site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
8. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would 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 would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 or siltation on or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 on or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
9. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				

Checklist Explanations

1. AESTHETICS – Would the project:

a) *Have a substantial adverse effect on a scenic vista?*

Project Impact – No Impact

Based on the *San Diego County General Plan, Jamul/Dulzura Subregional Plan* (2004) no designated scenic vistas or designated view corridors occur in the project area. The proposed project would include the replacement of three pumps within the pump station facility. Mature Oleanders that stand over six feet tall surround the north, south, and west sides of the station. The landscaping visually hides the station from the surrounding residential properties and vehicles traveling along Lyons Valley Road. As a result, there would be no visual impact to scenic vistas.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?*

Project Impact – No Impact

Based on the *San Diego County General Plan, Jamul/Dulzura Subregional Plan* (2004) no state scenic highways occur within the immediate vicinity of the proposed project. However, Lyons Valley Road is a priority to be made a scenic highway. The proposed project is the implementation of a pump station and with the current landscape design would not be visible from Lyons Valley Road. As a result, the proposed project would not result in damage to scenic resources within the viewshed of a scenic highway or proposed scenic highway.

c) *Substantially degrade the existing visual character or quality of the site and its surroundings?*

Project Impact – Less Than Significant Impact

The visual character of the area is defined by low-density residential homes (semi-rural residential characterized by 1 d.u./1,2,4 ac). The implementation of the proposed project would include upgrading of the district's existing pump station. The project would include the installation of three pumps and the removal of three old pumps. Furthermore, the proposed project would include enclosing the pumping hardware. As a result, the project would not degrade the existing visual character of the area. Therefore, impacts are less than significant.

- d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?*

Project Impact – Less Than Significant Impact

The proposed pump station would be completely automated and would not require interior lighting for operation. Artificial outdoor lighting used to illuminate the premises would be strictly for security. The lights would be shielded so that light does not cause glare or light pollution to the residences nearby. Therefore, the project would not significantly degrade the existing visual character or quality of the site and/or its surroundings.

- 2. AGRICULTURE RESOURCES** – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

Project Impact – No Impact

The proposed project is the upgrade of the existing pump station in the community of Jamul. The improvements would occur within a residential area of the community identified as semi-rural residential which is characterized by 1 d.u./1,2,4 ac. No conversion of prime farmland, unique farmland, or farmland of statewide importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency are located in the vicinity of the proposed project site. Therefore, no impact to agricultural resources would occur.

- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

Project Impact – No Impact

Please see 2. a) above. The proposed project site is located in an area of the Jamul community that is zoned as semi-rural residential (1 d.u./1,2,4 ac). As a result, the proposed project site does not have a Williamson Act contract associated with it; therefore, there would be no impact to the Williamson Act contract.

- c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?*

Project Impact – No Impact

The proposed project site is located in an area of the Jamul community that is zoned as semi-rural residential (1 d.u./1,2,4 ac) and would include the upgrade of OWD's existing pump station. There are no existing agricultural lands or uses, either on site or in the immediate vicinity. The project would not

involve any other changes that would result in conversion of farmland to non-agricultural use; therefore, there would be no impact.

3. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Project Impact – Less Than Significant Impact

The adopted long-range plan for the project area is the San Diego County General Plan. This long-range plan has been used by the San Diego Air Pollution Control District (SDAPCD) to prepare the Air Quality Management Plan. The implementation of the proposed project does not include land use changes that would conflict with the long-range air quality projections; rather, the site is entirely consistent with the adopted General Plan and, therefore, the AQMP. In addition, the proposed project would not emit substantial point emissions from on-site operations as the primary source of energy for the pumps station is electricity. The pump station would be fully automated and would require maintenance visits one to three times a week. Additional unexpected vehicle trips would be required for emergency situations such as mechanical or electrical failure and/or vandalism. However, the vehicle trips associated with the proposed project would be minimal and would not conflict with any air quality plans. Therefore, air quality impacts would be less than significant.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Project Impact – Less Than Significant Impact

Please see 3. a) above.

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)?

Project Impact – Less Than Significant Impact with Mitigation Incorporated

Please see 3. a) above. Project implementation would not result in significant air quality impacts. The project would not contribute significantly to the air pollutant burden, either locally or in the San Diego Air Basin, because the proposed project is the upgrade of an existing pump station. However, project construction would necessitate excavation and grading operations to prepare the site for the installation of the pumps. The grading operation would be no more than 3,000 square feet of grading to prepare the pad for upgraded pump station. During the demolition and grading it is not anticipated that there would be any removal of earth material off site. However, if any material needs to be removed from the site, then the earth material would be disposed off site, and would necessitate transportation to a remote location. The excavation, grading, and transportation of dirt have the potential of contributing to a short-term potentially significant impact associated with airborne particulates to the air basin.

However, implementation of mitigation measures to minimize airborne particulates associated with these activities would lessen this impact below a level of significance. These measures include but are not limited to covering the haul trucks and compliance with SDAPCD Rules 403, 431.1 and 431.2. As a result, the project would have a less than a significant impact to air quality.

d) Expose sensitive receptors to substantial pollutant concentrations?

Project Impact – No Impact

Please see 3. a) above. The proposed project is not located near a school, hospital, park, or convalescent center but would entail construction grading activities. However, the extent and duration of the proposed construction would be limited and below a significance threshold established by AQMD. Additionally, the implementation of mitigation measures to minimize airborne particles associated with construction activities would lessen this impact to below a level of significance. The pumps will be electric driven thus any long-term impacts would be caused by emissions from stationary sources at the point electricity is generated and should not exceed the amount previously used for the existing pump station. The backup generator set would be permitted by AQMD and would only be used should back-up power be required for emergency. Additionally, the nearest receptors in the vicinity are located more than 100 feet away from the pump station. Therefore, no significant impacts are anticipated to sensitive receptors.

e) Create objectionable odors affecting a substantial number of people?

Project Impact – Less Than Significant Impact

The proposed project is the upgrade of the Otay Water District's (OWD) existing pump station. During the construction activity a temporary short-term odor impact may occur as result of diesel emissions. However, due to the short-term nature of construction and the small size of the project, odor impacts associated with construction would less than significant.

Air Quality Mitigation Measures

- MM-1** Haul trucks shall be covered and two feet of freeboard shall be left between the top of the load and the top of the truck bed.
- MM-2** Construction operation on any unpaved surfaces shall be suspended when winds exceed 25 miles per hour.
- MM-3** Non-potable water shall be used for construction activities when feasible.
- MM-4** Compliance with Rule 403, which requires that "every reasonable precaution (is taken) to minimize fugitive dust emissions . . ." from grading operations to control particulate emissions.
- MM-5** Adherence to SDAPCD Rules 431.1 and 431.2, which requires the use of low sulfur fuel for stationary construction equipment.

4. BIOLOGICAL RESOURCES – Would the project:

- a) *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 the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Project Impact – Less Than Significant Impact

A biological reconnaissance of the project area was conducted by Rocks Biological Consulting on February 20, 2007. The results of the reconnaissance are documented in the *General Biological Survey Letter Report*, May, 2007 (Appendix A). The study concluded that no existing sensitive plant or animal species, or wildlife migration corridors, occur within the proposed project area. Therefore, the project would have a less than a significant impact to any habitat modification.

- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Project Impact – No Impact

See 4 a), above. The proposed project is the upgrade of the existing pump station in the community of Jamul. The biological study area, which includes 100 feet beyond all limits of impacts from the designated project site, predominately included existing residential development and disturbed lands. Additionally from the field reconnaissance, the biologist determined that there is no riparian habitat on site. No sensitive floral and faunal species were detected during the biological survey and none are expected to occur within the study area.

- c) *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?*

Project Impact – Less Than Significant Impact

The project is the upgrade of OWD's existing pump station. No portion of the project site contains federally protected wetlands as defined by Section 404 of the Clean Water Act, as determined by the biologist. Specifically, no marshes, vernal pools or other wetlands as defined by either the U.S. Army Corps of Engineers or the California Department of Fish and Game are located within the limits of the project site. As a result, no significant impacts to wetlands would occur as a result of project implementation.

- 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?*

Project Impact – Less Than Significant Impact

The project is the upgrade of OWD's existing pump station. The project would be constructed on previously disturbed sites and would not interfere with the movement of any native resident or migratory

fish or wildlife species or interfere with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Therefore, no significant impacts would occur as a result of project implementation.

e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?

Project Impact – Less Than Significant Impact

The project is the upgrade of OWD's existing pump station. As a result, the proposed project would not be in conflict with any local policies or ordinances protecting biological resources. Therefore, potential impacts to biological resource protection policies and ordinances would be less than significant.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Project Impact – Less Than Significant Impact

See 4 a), above.

5. CULTURAL RESOURCES – Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

Project Impact – No Impact

A project site reconnaissance was conducted by ASM Affiliates on December 11, 2006 and the results of the reconnaissance are documented in the *Cultural Resource Study for the Otay Pump Station 1485-1, San Diego County, California*, January 2007 (Appendix B). The field reconnaissance and record search identified no historic structures within the proposed property. As a result, no significant impacts to historic resources are anticipated.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Project Impact – Less Than Significant Impact with Mitigation Incorporated

See 5. a) above. The record search identified 21 cultural resources sites within one mile of the project site. The nearest recorded archaeological site is 50 meters southwest of the project area. However, the excavation activity of the project has the potential of unearthing cultural resources that are buried under the proposed pump station site. As a result, the project has the potential to have a significant impact to unknown cultural resources. However, the implementation of a mitigation measures that would halt work if any cultural resource were unearthed until a qualified archeologist can determine the significance would reduce the impacts to below a level of significance. Therefore, impacts would be less than significant with mitigation incorporated.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Project Impact – Less Than Significant Impact with Mitigation Incorporated

See 5. b), above. The existing pump station was constructed on fill material. The project site has been altered from its natural conditions by the construction of the existing pump station. However, the excavation activity of the project has the potential of unearthing paleontological resources that are buried under the fill material layer of the existing pump station. As a result, the project has the potential to have a significant impact to paleontological resources. However, the implementation of a mitigation measures that would halt work if any paleontological resource were unearthed until a qualified paleontologist can determine the significance would reduce the impacts to below a level of significance. As a result, the proposed project would have a less than a significant impact on paleontological resources with mitigation incorporated.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Project Impact – Less Than Significant Impact

All areas of the project have been previously developed, and the cultural resource surveys and record search revealed no features of ethnic cultural value within the property of the proposed project site. In particular, no human remains are known to exist within the project site, which has been altered as a result of past site activities and no human remains are known to have been discovered during prior site disturbance. However, if at any time any human remains are discovered the State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission. Therefore, compliance with the State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 the proposed project would have a less than a significant impact.

Cultural Resources Mitigation Measures

MM-6 During the grading operation if cultural resources are identified, work shall be halted or redirected until a qualified archeologist can evaluate the significance of the discovery. If the project archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigation may be required to mitigate adverse impacts from project implementation.

MM-7 During the grading operation if paleontological resources are identified, work shall be halted or redirected until a qualified paleontologist can evaluate the significance of the discovery. If the project paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigation may be required to mitigate adverse impacts from project implementation.

MM-8 If at any time any human remains are discovered, abiding by the State Health and Safety Code Section 7050.5, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission.

6. GEOLOGY AND SOILS – Would the project:

- a) *Expose 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 of based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

Project Impact – Less Than Significant Impact

A project site reconnaissance was conducted by Allied Geotechnical Engineers, Inc. on January 17, 2007 and the results of the reconnaissance are documented in the *Geotechnical Desktop Study for the Proposed Otay Water District 1485-1 Pump Station Facility*, February 19, 2007 (Appendix C). The community of Jamul Village is located in a seismically active area. The closest known fault is the Rose Canyon Fault which is approximately 17.6 miles west of the site. There are no known active faults underlying the site or projecting toward the site. The site is not located in an Alquist-Priolo Earthquake Fault Zone. Surface rupture due to faulting beneath the site is considered low. Additionally, by designing pump station to comply with current seismic guidelines the impacts would be less than significant.

ii. Strong seismic ground shaking?**Project Impact** – Less Than Significant Impact

Please see comment 6. a) i. on seismic shaking, above.

iii. Seismic-related ground failure, including liquefaction?**Project Impact** – Less Than Significant Impact

Please see 6. a) ii. above. Prior to the construction of the project facilities, the project sites would be graded and the soils would be compacted. Furthermore, the water distribution facilities would be designed in accordance with Title 24 standards of the Uniform Building Code to minimize seismic ground shaking effects in the event of a major earthquake. Additionally, given the anticipated dense nature of the fill soils when compacted as recommended in this report and the absence of shallow groundwater above granitic materials, the potential for liquefaction to occur is negligible. Therefore, the proposed project would have a less than significant impact to seismic-related ground failure.

iv. Landslides?**Project Impact** – Less Than Significant Impact

The pump station is located in an area that requires grading prior to construction. Once the site is graded flat the soils would be compacted. The pump station would be constructed on the existing site, which is a relatively flat upland area. According to the geotechnical investigation, evidence of ancient landslides or slope instability was not observed at the site during our investigation. The site has been previously compacted from the construction of the existing pump station; therefore, impacts for landslides would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil?**Project Impact** – Less Than Significant Impact

Site grading and excavation activities would disturb soil that would potentially be exposed to wind and water erosion. OWD would comply with the provisions of the appropriate National Pollution Discharge Elimination System (NPDES) Construction Permit for Discharges of Storm Water Associated with Construction Activity administered by the California Regional Water Quality Control Board, San Diego Region. Therefore, by complying with the NPDES construction permit the proposed project would result in a less than significant impact associated with erosion or loss of topsoil.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off- site landslide, lateral spreading, subsidence, liquefaction or collapse?**Project Impact** - Less Than Significant Impact

Please see Sections 6. a) ii. and iv., above.

d) Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?**Project Impact** – Less Than Significant Impact

Site sub-grade soils exhibit a very low soil expansion potential as defined in Table No. 18-1-B “Classification of Expansive Soils” in the Uniform Building Code (1997 Edition). In addition, the project would be located on a site that has been previously developed. The soils within the project site have been previously compacted; therefore, the improvements to the pump station would not create substantial risk to life or property, due to its location on expansive soils. As a result, impacts would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**Project Impact** – No Impact

The project is the replacement and upgrade of OWD’s existing pump station. The project would not include the operation of a septic tank. Therefore, no impact would occur.

7. HAZARDS AND HAZARDOUS MATERIALS – Would the project:

- a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Project Impact – Less Than Significant Impact

The proposed project is to upgrade the OWD's pump station. The project would not require the routine transportation and use of hazardous materials. During normal operation the pumps will primarily operate off electricity. During a power failure the pumps will then operate from electricity provided by a backup generator located on site. The backup generator will have a reserve of diesel fuel. As a result, the proposed project has the potential of having a significant impact associated with hazardous materials. However, the operations at the pump station would be required to comply with all applicable federal, state, and local laws and permits pertaining to the handling, storage, disposal, and use of such materials. In addition, the proposed pump station would meet all required Uniform Fire Codes. Therefore, the impacts would be less than significant.

- b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Project Impact – Less Than Significant Impact

Please see 7. a), above.

- c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Project Impact – No Impact

Please see 7. a) above. In addition, no schools are located within one-quarter mile of the project site. Therefore, no impact would occur.

- d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Project Impact – No Impact

The project site is not included on a list of hazardous materials sites pursuant to Government Code Section 65962.5 (Envirostor Database: DTSC). Therefore, there would be no impact.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in safety hazard for people residing or working in the project area?*

Project Impact – No Impact

The project would be completely automated and is not located within two miles of a public airport. Therefore, no impact would occur.

- f) *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

Project Impact – No Impact

The project is not located with the vicinity of a private airport; therefore, there would be no impact.

- g) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Project Impact – No Impact

The project is the upgrade to OWD's existing pump station. The project would not interfere with an emergency response plan or an emergency evacuation plan because access along Lyon's Valley Road and Peg Leg Mine Road would be retained during construction. No impact would occur.

- h) *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

Project Impact – Less Than Significant Impact

The proposed project is located in the San Diego County, in the Community of Jamul. The entire Community of Jamul is in an area designated as having a high potential for wildfire. The proposed project is the improvement to the existing pump station and would not include habitable structures. In addition, all above-ground structures would be constructed of masonry or fire-resistant materials. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Impacts can be considered less than significant.

8. HYDROLOGY AND WATER QUALITY – Would the project:

- a) *Violate any water quality standards or waste discharge requirements?*

Project Impact – No Impact

The proposed project is the upgrade of the OWD's existing pump station. The project would include the demolition of an existing station, and the construction of a new pump station within the same lot. The

operation of the new station would comply with OWD's policies and permits previously obtained for the operation of the pump station. Therefore, the proposed project would not have any anticipated impacts.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would 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 would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

Project Impact – No Impact

The proposed project is the upgrade of the OWD's existing pump station. The project does not require the use of groundwater; therefore, no impact would occur to the ground water supplies.

- 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 or siltation on or off site?*

Project Impact – Less Than Significant Impact

The project would include the removal of a three pump station and the construction of a new three pump station. The project components would be constructed on an already previously graded site. However, site grading is planned and fill material is expected to be used to better improve the drainage characteristics of the site. The site grading is not expected to 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 or siltation on- or off- site. Therefore, the project would have a less than significant impact.

- 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 on or off site?*

Project Impact – Less Than Significant Impact

Please see 8. c). The project would not substantially alter the existing drainage patterns of the surrounding area, and the impact pertaining to drainage patterns contributing to flooding on or off site would be less than significant.

- e) Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Project Impact – Less Than Significant Impact

The proposed project is the upgrade of the OWD's existing pump station. The project components would be located in an area that is not served by a stormwater system. The proposed project will not create a net increase in the amount of impervious surfaces. Additionally, the project site would be contour graded to minimize runoff off site. As a result, the proposed project would have a less than significant impact to water drainage systems.

f) Otherwise substantially degrade water quality?

Project Impact – Less Than Significant Impact

The proposed project is the upgrade of the OWD's existing pump station. The pumps will be housed within a structure which will prevent any oils or other solvents required for maintenance to be exposed during rain events. As a result, the project would not degrade water quality; therefore, impacts would be less than significant.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate map or other flood hazard delineation map?

Project Impact – No Impact

The proposed project does not include residential development, and the project would be located outside the 100-year and 500-year flood zone; therefore, there would be no impact.

h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

Project Impact – No Impact

The proposed project is the upgrade of the OWD's existing pump station located on the eastern margin of the Peninsular Ranges. The project is not located in a 100-year or 500-year flood hazard area. Therefore, the project would not impede or redirect flood flows.

i) Expose 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?

Project Impact – No Impact

The proposed project is the upgrade of the OWD's existing pump station. In an emergency situation, if a pipeline ruptured or a pump failed in a manner that would discharge water, the telemetry equipment immediately notifies OWD that there is a decline in pressure, thus requiring immediate attention. As a result, the project would not expose people or structures to a significant risk of loss, injury, or death involving flooding. Therefore, the project would not anticipate any impacts.

j) Inundation by seiche, tsunami, or mudflow?

Project Impact – No Impact

Tsunamis are long seismic waves (long compared to the ocean depth) generated by sudden movements of the ocean bottom during submarine earthquakes, landslides, or volcanic activity. The Pacific Ocean rim is highly tectonically active, with most of the world's tsunamis found in the Pacific. The Aleutian Trench and the Peru-Chile Trench are the two source regions that are primarily responsible for tsunamis that are potentially damaging to California. Given the fact that the proposed project is located approximately 18 miles to the east to the coast, in combination with the elevation of the existing pump station land, 1,120' above mean sea level, it is unlikely that a seismically induced wave would ever reach the project. Therefore, no impacts would occur.

9. LAND USE AND PLANNING – Would the project:**a) *Physically divide an established community?*****Project Impact** – No Impact

The proposed project is an upgrade to the existing OWD 1485-1 pump station. The project would include the demolition of the old pump station and the upgrade of a new, three pump station. The total dimensions of the proposed pump station are approximately 50 feet by thirty feet. The proposed project would not physically divide an established community; therefore, there would be no impact.

b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?***Project Impact** – No Impact

The project is consistent with the adopted *Otay Water District's Water Resources Master Plan (2002)*. The applicable land use planning document is the San Diego County General Plan. The project consists of upgrading the OWD existing pump station to better serve the 1485 pressure zone reservoirs. Utility infrastructure is compatible with all land uses in the General Plan. As a result, the project would not conflict any applicable land use plan, policy, or regulation. Therefore, no impact would occur.

c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?***Project Impact** – Less Than Significant Impact

The proposed project would be located within a residential area on OWD property that has previously been developed. As a result, the project would not conflict with any conservation plans or natural community conservation plans. Therefore, impacts would be less than significant.

10. MINERAL RESOURCES – Would the project:**a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*****Project Impact** – Less Than Significant Impact

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 proposed 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.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Project Impact – Less Than Significant Impact

Please see 10. a), above.

11. NOISE – Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Project Impact – Less Than Significant Impact with Mitigation Incorporated

A noise and vibration technical study was prepared for the proposed project by PBS&J dated February 16, 2007. The results of the technical study are documented in the *Otay Water District 1485-1 Pump Station Noise and Vibration Technical Study* February, 2007 (Appendix D). The study concluded that the only component of the proposed project that would create noise of permanent nature would be the operation of the electric pumps. However, the new pumps would be located within concrete structures fitted with acoustic louvers, designed to assure that noise emitted from the structure would comply with the San Diego County's Exterior Noise Standards. As a result, the operational impact of the project would not have a significant noise impact.

The demolition and construction of the proposed project would generate noise due to the machinery that is needed which is powered by diesel engines. Construction is short term impact and is temporary in nature. The construction activities are anticipated not last more than approximately 120 days. As a result, the demolition, grading and construction activity of the pump station would have the potential for a short term noise impact to the surrounding residents. However, with the implementation of mitigation would reduce the noise impacts to surrounding residents to below a level of significance. Therefore, potential noise impacts would be less than significant with implementation of MM-9.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Project Impact – Less Than Significant Impact

The existing pump station has been in operation since 1963. All three existing motors for the pumps are rated at 40 horsepower. The new pumps would be outfitted with a 40 horsepower motor fastened to a concrete slab, just as the existing pumps are. Pumps of this size mounted to concrete slabs would not produce groundbourne vibration detectable off site. Therefore, the potential groundbourne vibration impacts would be less than significant.

- c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

Project Impact – No Impact

Please see Section 11. a), above. The new pump station will be completely enclosed. The ambient noise that will be generated from the proposed pump station is estimated to be lower than that of a pump station that is not enclosed. Therefore, an increase in ambient noise levels is not anticipated.

- d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Project Impact – No Impact

Please see Section 11. a), above.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

Project Impact – No Impact

The proposed project is not located within two miles of a public airport. Therefore, there would be no impact.

- f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

Project Impact – No Impact

Examination of an aerial photograph of the vicinity of the proposed project site did not reveal any private airstrip; therefore, there would be no impact.

Noise Mitigation Measures

MM-9 The project contractor shall implement, but not be limited to, the following best management practices to the satisfaction of the District's engineer:

- Construction work on the project shall be limited to the hours of 7:00 A.M. to 7:00 P.M. Monday through Saturday, with no construction allowed on Sundays or federal holidays.
- All construction equipment with a high noise generating potential, including all equipment powered by internal combustion engines, shall be muffled or controlled.
- All stationary noise generating equipment, such as compressors, shall be located as far as possible to the north side of the site.
- Machinery and mobile equipment, including motors, shall be turned off when not in use.
- Sound blankets shall be used to the extent feasible.

12. POPULATION AND HOUSING – Would the project:

- a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

Project Impact – Less Than Significant Impact

The proposed project is the upgrade of a pump station, as required by the *Otay Water District's Water Resources Master Plan (2002)*. The project would increase the reliability and quality of service within the 1485 pressure zone to adequately serve the existing users and fire demands and would not encourage new development or growth within the Jamul Community. As a result, the project would not induce substantial population growth within the Jamul Community. Therefore, impacts would be less than significant.

- b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

Project Impact – Less Than Significant Impact

Please see 12. a) above. The proposed project is to upgrade the OWD's existing pump station on a graded lot that is owned by the OWD. Therefore, the project would not displace a substantial number of homes, necessitating the construction or replacement of housing elsewhere. As a result, the proposed project would have a less than significant impact on housing.

- c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

Project Impact – Less Than Significant Impact

Please see 12. a), above.

13. PUBLIC SERVICES – Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental 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 public services:***Fire Protection?*****Project Impact** – No Impact

The project is the upgrade to the existing pump station within the OWD near the community of Jamul. The project does not include any extraordinary uses or operations that would create additional demand for public services. As a result, the project would not have significant impact to public services.

Police Protection?**Project Impact – No Impact**

The project is the upgrade to the existing pump station within the OWD near the community of Jamul. The project does not include any extraordinary uses or operations that would create additional demand for public services. As a result, the project would not have significant impact to public services.

Schools?**Project Impact – No Impact**

The project is the upgrade to the existing pump station within the OWD near the community of Jamul. The project does not include any extraordinary uses or operations that would create additional demand for public services. As a result, the project would not have significant impact to public services.

Parks?**Project Impact – No Impact**

The project is the upgrade to the existing pump station within the OWD near the community of Jamul. The project does not include any extraordinary uses or operations that would create additional demand for public services. As a result, the project would not have significant impact to public services.

Other public facilities?**Project Impact – No Impact**

The project is the upgrade to the existing pump station within the OWD near the community of Jamul. The project does not include any extraordinary uses or operations that would create additional demand for public services. As a result, the project would not have significant impact to public services.

14. RECREATION

- a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial deterioration of the facility would occur or be accelerated?*

Project Impact – No Impact

The project is the upgrade to the existing pump station within the OWD near the community of Jamul. The project would be constructed within OWD property that has previously been developed. No impact would occur to recreational resources.

- b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Project Impact – No Impact

Please see 14. a), above.

15. TRANSPORTATION/TRAFFIC – Would the project:

- a) *Cause an increase in 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 vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?*

Project Impact – Less Than Significant Impact with Mitigation Incorporated

The project is the upgrade to the existing pump station within the OWD near the community of Jamul. The only vehicle trips required by the project are for maintenance purposes. However, during construction the project would require the import of soil materials and grading activities will occur during construction. As indicated in the traffic report prepared by LOS Engineering, *Otay Pump Replacement Traffic Impact Analysis*, dated February 15, 2007 (Appendix E), temporary construction would add an estimate of 22 Average Daily Trips to ten nearby roadway segments. This temporary increase in ADT is estimated to last between six and nine months. As a result, the project would have temporary traffic impacts associated with the transportation of equipment and materials. It is not anticipated that any closure of any routes of circulation will occur. However, the build-out permanent traffic is estimated to consist of 2 round trips per month (one round trip every other week). The permanent traffic was evaluated at the same nearby ten intersections. Under existing conditions with the addition of the permanent increase in traffic no direct impacts were determined because the project traffic does not exceed the allowable traffic threshold. When the permanent traffic was evaluated with the existing conditions with the addition of the project and cumulative increase in traffic three roadway segments were found to operate with more than 200 ADT at a Level of Service (LOS) F. Upon build-out (2030), with the addition of the project conditions the project was calculated to not have any impacts because the project traffic would not exceed the allowable traffic threshold.

The project is calculated to have cumulative effects to traffic on three roadway segments. To mitigate the impacts, the project will pay in the TIF program. With implementation of MM 10, and a traffic control plan during construction, MM 11, would reduce traffic impacts to below a level of significance.

- b) *Exceed, either individually or cumulatively, a level of service standard established by the county congestion/management agency for designated roads or highways?*

Project Impact – Less Than Significant Impact with Mitigation Incorporated

Please see 15. a), above.

- c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

Project Impact – No Impact

The project is the upgrade to the existing pump station within the OWD near the community of Jamul. The implementation of the project would not result in a change in air traffic patterns. Therefore, no impact would occur.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Project Impact – No Impact

The project does not propose to vacate or construct any new roadways, nor does it propose the use of dangerous equipment that would pose a hazard to the public. Therefore, no impact would occur.

e) Result in inadequate emergency access?

Project Impact – No Impact

Adequate emergency access would be provided in accordance with County standards; therefore, there would be no impact.

f) Result in inadequate parking capacity?

Project Impact – Less Than Significant Impact

The proposed project would provide parking for maintenance trucks within the pump station property owned by OWD. Therefore potential parking impacts would be less than significant.

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Project Impact – No Impact

The project is the upgrade to the existing pump station within the OWD near the community of Jamul. The implementation of the project would not conflict with adopted policies, plans, or programs supporting alternative transportation. Therefore, no impact would occur.

Mitigation Measures

MM-10 Prior the issuance of the grading plan, the OWD shall contribute to a fair share contribution to the San Diego County Traffic Impact Fees (TIF) for traffic impacts.

MM-11 Prior to the approval of the grading permit, the applicant shall develop and implement a traffic control plan to the satisfaction of the County Engineer. The traffic control plan shall include the limitation on construction to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday.

16. UTILITIES AND SERVICE SYSTEMS – Would the project:

- a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

Project Impact – No Impact

The project is the upgrade to the existing pump station within the OWD near the community of Jamul. The project would not increase the amount of water being distributed, but rather it would increase the pressure and capacity for storage of the existing pump station. Given that the project would not serve new users, the production of wastewater would not vary from the existing conditions. As a result, the project would not exceed wastewater treatment requirements. No impacts are anticipated.

- 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 environmental effects?*

Project Impact – No Impact

The project is the upgrade to the existing pump station within the OWD near the community of Jamul. As a result, the project would not require the construction of a new water or wastewater treatment facility. No impacts are anticipated.

- 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 environmental effects?*

Project Impact – No Impact

The project is the upgrade to the existing pump station within the OWD near the community of Jamul. The project would not require the construction of a new storm drain system; therefore, no impact would occur.

- d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

Project Impact – Less Than Significant Impact

The project is the upgrade to the existing pump station operated by the OWD. The project is consistent with OWD master plan and would increase the storage capacity for the water district. As a result, the project would have a less than significant impact to water supply.

- e) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Project Impact – No Impact

The project is the upgrade to the existing pump station within the OWD near the community of Jamul. The project would not increase the amount of water being distributed, but rather it would increase the

pressure and capacity for storage of the existing pump station. Given that the project would not serve new users the production of wastewater would not vary from the existing conditions. As a result, the project would not exceed wastewater treatment requirements. No impacts are anticipated

- f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

Project Impact – Less Than Significant Impact

The contractor hired by the OWD would be responsible for subcontracting with a certified commercial waste hauler for the collection and disposal of project-related non-recyclable solid waste from construction in accordance with federal, state and local regulations. Therefore, impacts would be less than significant.

- g) Comply with federal, state, and local statutes and regulations related to solid waste?*

Project Impact – Less Than Significant Impact

Please see 16 f), above.

17. MANDATORY FINDINGS OF SIGNIFICANCE

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Project Impact – Less Than Significant Impact

See the responses to Section 4. It has been identified that there are not special status habitat or special status species in the immediate area of the proposed project site. Therefore, the proposed project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, because no such resources exist on site. In addition, ASM Affiliates conducted a cultural resource investigation for the proposed project and it was determined that the project would not eliminate important examples of the major periods of California history or prehistory. Therefore, the project would result in a less than a significant impact to these resources.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulative considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

Project Impact – Less Than Significant Impact with Mitigation Incorporated

The proposed project is the upgrade of the OWD's existing pump station. There are no nearby past, present or probable projects in the project vicinity that would contribute to a cumulative impact. Potential construction-related impacts to traffic would be short-term in nature. However, the two trips per month will add to a cumulative significant effect on three roadway segments. The impacts will be mitigated by the contribution towards the County's TIF. Therefore, the project would have a less than significant impacts towards cumulative impacts with mitigation.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Project Impact – Less Than Significant Impact

The proposed project would not generate or store hazardous materials on site. The project would be an upgrade of the OWD's existing pump station to increase the pressure and capacity for storage. The proposed project would not have the potential to generate significant environmental effects which could cause adverse effects on humans, either directly (e.g. ozone, traffic and circulation, etc.) or indirectly (e.g., contribute to deficiencies in public services and/or facilities). Therefore, impacts to humans would be less than significant.

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**PUMP STATION 1485-1 REPLACEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY
MITIGATED NEGATIVE DECLARATION**

Mitigation Measures	Implementation Action	Method of Verification	Timing of Verification	Responsible Person	Verification Date
AIR QUALITY					
MM-1 Haul trucks shall be covered and two feet of freeboard shall be left between the top of the load and the top of the truck bed.	Condition of approval	Plan Check	Prior to the issuance of any grading or building permit	OWD Engineering Department	
MM-2 Construction operation on any unpaved surfaces shall be suspended when winds exceed 25 miles per hour.	Condition of approval	Plan Check	Prior to the issuance of any grading or building permit	OWD Engineering Department	
MM-3 Non-potable water shall be used for construction activities when feasible.	Condition of approval	Plan Check	Prior to the issuance of any grading or building permit	OWD Engineering Department	
MM-4 Compliance with Rule 403, which requires that “every reasonable precaution (is taken) to minimize fugitive dust emissions . . .” from grading operations to control particulate emissions.	Condition of approval	Plan Check	Prior to the issuance of any grading or building permit	OWD Engineering Department	
MM-5 Adherence to SCAQMD Rules 431.1 and 431.2, which requires the use of low sulfur fuel for stationary construction equipment.	Condition of approval	Plan Check	Prior to the issuance of any grading or building permit	OWD Engineering Department	
CULTURAL RESOURCES					
MM-6 During the grading operation if cultural resources are identified, work shall be halted or redirected until a qualified archeologist can evaluate the significance of the discovery. If the project archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigation may be required to mitigate adverse impacts from project implementation.	Condition of approval	Plan Check	Prior to the issuance of any grading or building permit	OWD Engineering Department	
MM-7 During the grading operation if paleontological resources are identified, work shall be halted or redirected until a qualified paleontologist can evaluate the significance of the discovery. If the project paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigation may be required to mitigate adverse impacts from project implementation.	Condition of approval	Plan Check	Prior to the issuance of any grading or building permit	OWD Engineering Department	
MM-8 If at any time any human remains are discovered, abiding by the State Health and Safety Code Section 7050.5, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission.	Condition of approval	Plan Check	Prior to the issuance of any grading or building permit	OWD Engineering Department	

Mitigation Measures	Implementation Action	Method of Verification	Timing of Verification	Responsible Person	Verification Date
NOISE					
<p>MM-9 The project contractor shall implement, but not be limited to, the following best management practices to the satisfaction of the District's engineer:</p> <ul style="list-style-type: none"> • Construction work on the project shall be limited to the hours of 7:00 A.M. to 7:00 P.M. Monday through Saturday, with no construction allowed on Sundays or federal holidays. • All construction equipment with a high noise generating potential, including all equipment powered by internal combustion engines, shall be muffled or controlled. • All stationary noise generating equipment, such as compressors, shall be located as far as possible to the north side of the site. • Machinery and mobile equipment, including motors, shall be turned off when not in use. • Sound blankets shall be used to the extent feasible. 	Condition of approval	Plan Check	Prior to the issuance of any grading or building permit	OWD Engineering Department	
TRANSPORTATION/TRAFFIC					
<p>MM-10 Prior the issuance of the grading plan, the OWD shall contribute to a fair share contribution to the San Diego County Traffic Impact Fees (TIF) for traffic impacts.</p>	Condition of approval	Plan Check	Prior to the issuance of any grading or building permit	OWD Engineering Department	
<p>MM-11 Prior to the approval of the grading permit, the applicant shall develop and implement a traffic control plan to the satisfaction of the County Engineer. The traffic control plan shall include the limitation on construction to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday.</p>	Condition of approval	Plan Check	Prior to the issuance of any grading or building permit	OWD Engineering Department	

RESPONSES

COMMENTS



ARNOLD SCHWARZENEGGER
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



CYNTHIA BRYANT
DIRECTOR

July 23, 2007

Lisa Coburn-Boyd
Otay Water District
2554 Sweetwater Springs Boulevard
Spring Valley, CA 91978-2096

Subject: Pump Station 1485-1 Replacement Project
SCH#: 2007061090

Dear Lisa Coburn-Boyd:

The State Clearinghouse submitted the above named Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on July 20, 2007, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

S-1 This comment is the cover letter from the State Clearinghouse and Planning Unit regarding the review of the Negative Declaration. No further response is necessary.

S-1

RESPONSES

COMMENTS

**Document Details Report
State Clearinghouse Data Base**

SCH# 2007061090
Project Title Pump Station 1485-1 Replacement Project
Lead Agency Otay Water District

Type Neg Negative Declaration
Description The proposed station would be constructed on the southern portion of the existing 1485-1 pump station property owned by the Otay Water District. The replacement project would include three electrical driven pumps, a diesel emergency generator, a perimeter fence, and landscaping.

Lead Agency Contact

Name Lisa Coburn-Boyd
Agency Otay Water District
Phone (619) 670-2219 **Fax**
email
Address 2554 Sweetwater Springs Boulevard
City Spring Valley **State** CA **Zip** 91978-2096

Project Location

County San Diego
City
Region
Cross Streets Lyons Valley Road / Peg Leg Mine Road
Parcel No.
Township 16S **Range** 1E **Section** 34 **Base** SBB&M

Proximity to:

Highways
Airports
Railways
Waterways
Schools
Land Use Medium Density Residential

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Cumulative Effects; Geologic/Seismic; Growth Inducing; Landuse; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife

Reviewing Agencies Caltrans, District 11; Department of Water Resources; Department of Fish and Game, Region 5; Office of Historic Preservation; Native American Heritage Commission; Department of Parks and Recreation; Regional Water Quality Control Board, Region 9; Resources Agency

Date Received 06/21/2007 **Start of Review** 06/21/2007 **End of Review** 07/20/2007

RESPONSES

COMMENTS

STATE OF CALIFORNIA

Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
 SACRAMENTO, CA 95814
 (916) 653-6251
 Fax (916) 657-5390
 Web Site www.nahc.ca.gov
 e-mail: ds_nahc@pacbell.net



July 9, 2007

Ms. Lisa Coburn-Boyd
Otay Water District
 2554 Sweetwater Springs Boulevard
 Spring Valley, CA 91978-2096

Re: SCH#2007061090: CEQA Notice of Completion; draft Mitigated Negative Declaration; for Pump Station 1485-1 Replacement Project; The Otay Water District; San Diego County, California

Dear Ms. Coburn-Boyd:

Thank you for the opportunity to comment on the above-referenced document. The Native American Heritage Commission is the state's Trustee Agency for Native American Cultural Resources. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per CEQA guidelines § 15064.5(b)(c). In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

√ Contact the appropriate California Historic Resources Information Center (CHRIS). Contact information for the Information Center nearest you is available from the State Office of Historic Preservation (916/653-7278)/ <http://www.ohp.parks.ca.gov/1068/files/IC%20Roster.pdf>. The record search will determine:

- If a part or the entire APE has been previously surveyed for cultural resources.
 - If any known cultural resources have already been recorded in or adjacent to the APE.
 - If the probability is low, moderate, or high that cultural resources are located in the APE.
 - If a survey is required to determine whether previously unrecorded cultural resources are present.
- √ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure.
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological information center.

√ Contact the Native American Heritage Commission (NAHC) for:
 * A Sacred Lands File (SLF) search of the project area and information on tribal contacts in the project vicinity that may have additional cultural resource information. Please provide this office with the following citation format to assist with the Sacred Lands File search request: USGS 7.5-minute quadrangle citation with name, township, range and section.

- The NAHC advises the use of Native American Monitors to ensure proper identification and care given cultural resources that may be discovered. The NAHC recommends that contact be made with Native American Contacts on the attached list to get their input on potential project impact (APE).

- √ Lack of surface evidence of archaeological resources does not preclude their subsurface existence.
- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archaeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

√ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigation plans.

* CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens.

S-2

S-3

S-4

S-5

S-6

S-7

S-2 This comment describes the requirements of CEQA with respect to cultural resources and recommends several actions to adequately assess the project's impacts to cultural resources. These recommendations are discussed below in response to comments S-3 through S-7.

S-3 This comment suggests conducting a record search, which would indicate previous surveys in the area, previously recorded resources, and the probability of unrecorded resources existing within the project area. As discussed on page 2 of Appendix B and page 26 of the Draft MND, records searches were conducted at the South Coastal Information Center (SCIC) at San Diego State University in June and December 2006 for the Pump Station 1485-1 Replacement Project. The SCIC search included a review of all recorded historic and prehistoric cultural resources located within one mile of the proposed project boundaries. The records search indicated that no previously recorded cultural resources are located within the project area and that the nearest recorded archeological site is located 50 meters southwest of the project area. In addition to the records search, an extensive field survey was conducted in December 2006. No cultural resources were found within the project parcel as a result of the field survey. However, as stated on page 26 of the Draft MND, because there is a potential for the proposed project to unearth unknown resources, archeological monitoring during grading would be required. Therefore, a records search was conducted, previously recorded resources were reviewed, and the probability of unrecorded resources was discussed.

S-4 This comment provides the requirements of a report, which would summarize the findings of a records search and archaeological inventory field survey. A report which details the findings and recommendations of the records search and field survey was complete in January 2007 and is attached as Appendix B to the Draft MND. Further, a copy of this letter report was sent to the South Coastal Information Center.

S-5 This comment suggests contacting the Native American Heritage Commission (NAHC) for a Sacred Lands File (SLF) search to determine the potential for sacred lands on the project site. However, because no cultural resources have been previously recorded and none were observed within the project area, the potential for sacred lands to exist in the vicinity of the project site is unlikely. Therefore, no record search would be required. Also, see response to comment S-3.

RESPONSES

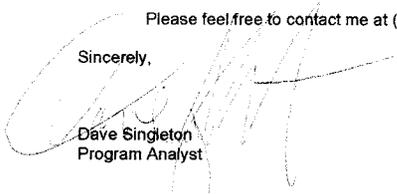
COMMENTS

S-7 | ✓ Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the CEQA Guidelines mandate procedures to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

S-8 | ✓ Lead agencies should consider avoidance, as defined in § 15370 of the CEQA Guidelines, when significant cultural resources are discovered during the course of project planning.

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,



Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: List of Native American Contacts

S-6 This comment recommends including a mitigation measure to address accidental discovery of resources, including human remains, during construction. As stated in the Mitigation Monitoring and Reporting Program Summary of the Draft MND, mitigation measures, which require that work be halted if a cultural resource was unearthed and the resources significance to be determined, are included as a provision of issuance of a grading permit. Therefore, the recommended mitigation measure is included in the Draft MND.

S-7 This comment lists laws and regulations which mandate procedures in the event of discovery of human remains. As stated in the Mitigation Monitoring and Reporting Program of the Draft MND, if human remains were discovered during construction, no further disturbance would occur until the County Coroner was able to make a determination of the origin and disposition of the remains pursuant to Health and Safety Code 7050.5, Public Resources Code 5097.98, and Section 15064.5(d) of the CEQA Guidelines. Therefore, the project would comply with laws and regulations which mandate procedures in the event of discovery of human remains.

S-8 This comment suggests that lead agencies avoid significant cultural resources. However, as discussed in response to comments S-3 through S-7, no significant cultural resources have been, or are anticipated to be, discovered. However, mitigation measures have been provided which would minimize impacts to unrecorded subsurface resources discovered during grading. Therefore, with the records search, field survey, and mitigation measures, significant impacts to cultural resources would be avoided.

RESPONSES**COMMENTS**

Native American Contacts
San Diego County
July 9, 2007

Sycuan Band of the Kumeyaay Nation Danny Tucker, Chairperson 5459 Sycuan Road El Cajon, CA 92021 ssilva@sycuan-nsn.gov 619 445-2613 619 445-1927 Fax	Diegueno/Kumeyaay	Kumeyaay Cultural Heritage Preservation Paul Cuero 36190 Church Road, Suite 5 Campo, CA 91906 (619) 478-9046 (619) 478-9505 (619) 478-5818 Fax	Diegueno/ Kumeyaay
Viejas Band of Mission Indians Bobby L. Barrett, Chairperson PO Box 908 Alpine, CA 91903 daguilar@viejas-nsn.gov (619) 445-3810 (619) 445-5337 Fax	Diegueno/Kumeyaay	Kwaaymii Laguna Band of Mission Indians Carmen Lucas P.O. Box 775 Pine Valley, CA 91962 (619) 709-4207	Diegueno -
Kumeyaay Cultural Historic Committee Ron Christman 56 Viejas Grade Road Alpine, CA 92001 (619) 445-0385	Diegueno/Kumeyaay	Kumeyaay Cultural Repatriation Committee Steve Banegas, Spokesperson 1095 Barona Road Lakeside, CA 92040 (619) 443-6612 (619) 443-0681 FAX	Diegueno/Kumeyaay
Jamul Indian Village Leon Acebedo, Chairperson P.O. Box 612 Jamul, CA 91935 jamulrez@sctdv.net (619) 669-4785 (619) 669-48178 - Fax	Diegueno/Kumeyaay	Santa Ysabel Band of Diegueno Indians Devon Reed Lomayevsa, Esq, Tribal Attorney PO Box 701 Santa Ysabel, CA 92070 drlomayevsa@verizon.net (760) 765-0845 (760) 765-0320 Fax	Diegueno

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American with regard to cultural resources for the proposed SCH#2007061090; CEQA Notice of Completion; draft Mitigated Negative Declaration for Pump Station 1485-1 Replacement Project; The Otay Water District; San Diego County, California.

APPENDIX A

BIOLOGICAL RESOURCE REPORT

ROCKS BIOLOGICAL CONSULTING

May 11, 2007

Mr. Kevin Smith
PBS&J
9275 Sky Park Court, Suite 200
San Diego, CA 92123

Subject: Biological Resource Constraints Report for the Otay Water District 1485 Pump Station Project

Dear Mr. Smith,

This letter presents the results of the vegetation mapping and general biological constraints analysis that Rocks Biological Consulting (RBC) conducted at the Otay Water District (OWD) 1485 Pump Station project site on February 20, 2007. The project area is located in San Diego County, CA near the town of Jamul at the intersection of Lyons Valley Road and Peg Leg Mine Road. The following is a discussion of potential biological resource constraints on construction of the project. The field effort and this report are focused on addressing what may be considered *significant* biological constraints, but is not intended to be an exhaustive list. Additional biological constraints may be identified by the resource agencies such as the California Dept. of Fish and Game (CDFG), U.S. Fish and Wildlife Service (USFWS), Army Corps of Engineers (ACOE), and local jurisdictions.

The proposed project and 100' buffer area were surveyed on foot and all areas were accessible. A routine wetland delineation per ACOE protocol was conducted. Focused surveys for rare plants and animals were not conducted and the early season timing of the survey precluded the observation of many plant species.

Vegetation Communities

The proposed location of the project is within Developed areas with Ornamental vegetation (Figure 1). No vegetation communities that the resource agencies consider sensitive were identified within the project site or buffer. Table 1 lists the vegetation communities or land uses that occur within the project area and buffer and their relative size.

Table 1. Vegetation Communities and Land Uses within the Proposed OWD 1485 Pump Station Project Area

Vegetation Community	Total Acreage in the Survey Area
Developed	0.6
Developed/Ornamental	1.1
Total	Approx. 1.7

Developed areas include paved roads and parking areas, existing equipment staging areas, and residential housing. Developed/Ornamental is also mapped here based on the presence of planting of non-native horticultural plants such as Oleander (*Nerium oleander*), Olive (*Olea europea*), Pepper Trees (*Schinus molle*, *S. terebinthifolius*), and Eucalyptus (*Eucalyptus* spp.).

Sensitive Plant and Wildlife Species

No USFWS, CDFG, or California Native Plant Society (CNPS) sensitive habitats, plants, or wildlife were observed within the proposed project area or buffer. The site is Developed with associated Ornamental plantings and has very low potential to support sensitive habitats, plants, or wildlife.

Wetlands and Other Waters of the United States

The ACOE routine, onsite method was used to delineate jurisdictional areas during the survey on February 20, 2007. There is an erosion scour at the edge of the gravel driveway access area. It appears to collect stormwater runoff from Lyons Valley and Peg Leg Mine Roads and site runoff. The scour occurs at the boundary between the compacted gravel access area and the adjacent soft, loose soil where a pipe conveys water under Peg Leg Mine Road and discharges onto the project site. The scour then allows water to cross the site into a drainage swale that runs under Rio Madre and then along Lyons Valley Road. This scour is an artificially created erosion feature and is not a jurisdictional wetland or Other Waters of the U.S. The following section describes the vegetation, hydrology, and soils associated with the erosion scour. None of these three parameters meet ACOE criteria for wetlands or Other Waters of the U.S. Please see the attached data sheet for additional information.

Vegetation

Vegetation along the scour is nearly absent. The only vegetation that is present are non-native species such as Peruvian Pepper Tree (*Schinus molle*), Tree Tobacco (*Nicotiana glauca*), and Bermuda Grass (*Cynodon dactylon*). There are no hydrophytic species present and the area is mostly barren. As a result, the drainage does not support a dominance of wetland indicator species and does not meet the ACOE or CDFG criterion of hydrophytic vegetation.

Hydrology

The erosion scour has been created by runoff across the gravel access area that consists of fill material. Bed and banks are not present and other wetland hydrology indicators are not present in the project site. The ACOE and CDFG wetland criterion of hydrology is not present within the project site.

Soils

No hydric soil indicators were observed along the scour. The soil examined in the field consisted of fill material likely put in place to build the existing gravel access area. The soils would best be classified as sandy loam. The matrix color was 10YR 4/3 at a depth

of 16 inches. The soils were well drained and lacked ACOE or CDFG hydric soil indicators.

Jurisdictional Determination

The site does not support ACOE or CDFG jurisdictional areas and therefore an ACOE Section 404 Permit or CDFG Streambed Alteration Agreement is not required.

Conclusion

Based on onsite conditions observed during the biological survey, the site does not support significant biological resource constraints to development. No USFWS, CDFG, or CNPS sensitive habitat, plant or wildlife species were observed onsite and none are expected because of a lack of suitable habitat. If impacts occur on Developed or Developed/Ornamental areas, no mitigation is required.

Thank you for the opportunity to work with you on this project. Please do not hesitate to contact me at (619) 843-6640 if you have any questions or concerns about this report.

Sincerely,

A handwritten signature in black ink, appearing to read 'JR', with a wavy line extending to the right.

Jim Rocks, Principal
Rocks Biological Consulting

Attachments: Site Photos
Wetland Delineation Field Data Sheet

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OWD 1485 Pump Station Site Photographs – February 20, 2007



Photo 1. View of project site with gravel access road/parking and erosion scour.



Photo 2. View of erosion scour and existing equipment onsite.



Photo 3. View of erosion scour showing pipe that conveys water under Peg Leg Mine Road and onto the OWD 1485 Pump Station site causing erosion.



Photo 4. View of project site showing dense Ornamental vegetation (*Olea europaea*) onsite.

DATA FORM
 ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>DWD 1485-1 Ramp Station</u>	Date: <u>2/20/07</u>
Applicant/Owner: _____	County: <u>San Diego</u>
Investigator: <u>J. Rocks</u>	State: <u>CA</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No	Community ID: _____
Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No	Transect ID: _____
Is the area a potential Problem Area: (If needed, explain on reverse)	Plot ID: <u>1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Schinus molle</u>	<u>S 10%</u>	<u>—</u>	9. _____	_____	_____
2. <u>Cynodon dactylon</u>	<u>H 10%</u>	<u>FAC</u>	10. _____	_____	_____
3. <u>Nicotiana glauca</u>	<u>S 10%</u>	<u>FAC</u>	11. _____	_____	_____
4. <u>Bare Ground</u>	<u>— 70%</u>	<u>—</u>	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC) _____

Remarks: No hydrophytic veg; mostly bare ground

HYDROLOGY

<p>Recorded Data (Describe in Remarks):</p> <p>_____ Stream, Lake, or Tide Gauge</p> <p>_____ Aerial Photographs</p> <p>_____ Other</p> <p>_____ No Recorded Data Available</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p>_____ Inundated</p> <p>_____ Saturated in Upper 12 Inches</p> <p>_____ Water Marks</p> <p>_____ Drift Lines</p> <p>_____ Sediment Deposits</p> <p>_____ Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p>_____ Oxidized Root Channels in Upper 12 Inches</p> <p>_____ Water-Stained Leaves</p> <p>_____ Local Soil Survey Data</p> <p>_____ FAC-Neutral Test</p> <p>_____ Other (Explain in Remarks)</p>
<p>Field Observations:</p> <p>Depth of Surface Water: _____ (in.)</p> <p>Depth to Free Water in Pit: _____ (in.)</p> <p>Depth to Saturated Soil: _____ (in.)</p>	<p>Remarks: <u>No hydrology indicators</u></p>

SOILS

Map Unit Name (Series and Phase): _____		Drainage Class: _____	
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type? Yes No	
Profile Description:			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)
		Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
1/2		10YR 4/3	Fill Material, Sandy loam
Hydric Soil Indicators:			
<input type="checkbox"/>	Histosol	<input type="checkbox"/>	Concretions
<input type="checkbox"/>	Histic Epipedon	<input type="checkbox"/>	High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/>	Sulfidic Odor	<input type="checkbox"/>	Organic Streaking in Sandy Soils
<input type="checkbox"/>	Aquic Moisture Regime	<input type="checkbox"/>	Listed on Local Hydric Soils List
<input type="checkbox"/>	Reducing Conditions	<input type="checkbox"/>	Listed on National Hydric Soils List
<input type="checkbox"/>	Gleyed or Low-Chrom Colors	<input type="checkbox"/>	Other (Explain in Remarks)
Remarks: No hydric soils			

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)	(Circle)
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)	Is this Sampling Point Within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)
Remarks: Erosion scour, does not meet ACOE jurisd. criteria	

APPENDIX B

CULTURAL RESOURCE REPORT



January 8, 2007

Kevin Smith
PBS&J
9275 Sky Park Court, Suite 200
San Diego, Ca 92123

Re: Cultural Resources Study for Otay Pump Station 1485-1

Dear Mr. Smith,

This report presents the results of a cultural resources study conducted by ASM Affiliates, Inc. (ASM), for the proposed construction of the Otay Pump Station 1485-1, San Diego County (Figure 1). The project is located in Section 3 of Township 17 South, Range 1 East on the Dulzura quadrangle (Figure 2). The study was performed to determine the presence or absence of potentially significant prehistoric and historic resources within the project boundaries. It consisted of a review of all relevant site records and reports on file with the South Coastal Information Center (SCIC) at San Diego State University and the San Diego Museum of Man, followed by an intensive pedestrian survey of the proposed project area. No cultural resources were identified within the proposed project as a result of the field survey or as a result of the records search, and based on the results of the study it is unlikely that subsurface archaeological deposits exist in the project area. Therefore, no cultural resources will be impacted by the project and no further studies are recommended. The project description, study methods, and results are provided below.

Project Description

The Otay Water District (OWD) proposes the replacement of an existing pump station on Lyons Valley Road. The existing pump station has reached the end of its use-life and replacement of the facility is necessary. The new pump station will be built immediately south of the existing pumps and associated equipment. The site will be graded and probably filled to improve drainage in the pump station vicinity. An existing 12-inch culvert draining onto the project property from the east will be deepened and extended westward to accommodate construction of the new facility. The new pump station will be enclosed to protect the pumps and related equipment from the

elements and direct sunlight. The existing pump station will continue to operate as long as possible during construction of the new facility. A temporary pump station will be installed on the project property when the existing pump station is demolished while new appurtenances are extended to the new pump station. Decorative foliage is proposed around the pump station site.

Environmental and Cultural Setting

The project property is situated in Lyons Valley near the northeastern base of the Jamul Mountains and the southern base of McGinty Mountain at approximately 1100 feet above mean sea level (amsl). The Jamul and McGinty Mountains belong to the greater Peninsular Range Province, characterized by north-south trending mountains and valleys. Lyons valley drains Steele Canyon to the west and Jamul Creek to the south. The headwaters of an unnamed tributary of the Sweetwater River are approximately 400 meters southwest of the project parcel. The native vegetation community for the project vicinity is comprised of sage-scrub.

Human occupation of southern California is generally accepted to have taken place by at least 9,000 years before present (B.P.) and potentially as early as 11,500 B.P. The prehistory of the region is typically subdivided into three time periods: the Paleoindian Period (11,500 B.P.-8500/7500 B.P.), the Archaic Period (8500 B.P.-1300/800 B.P.), and the Late Prehistoric (1300/800 B.P.-200 B.P.). The Paleoindian Period is generally represented by exploitation of coastal and major drainage systems, characterized archaeologically with cobble tools, ground stone implements, and a limited amount of large projectile points (Demcak 1988; Moratto 1984). Drier and warmer conditions in the Archaic Period were accompanied by cultural material changes associated with an increase of terrestrial plant and animal resources, including mortars, pestles and large stemmed and notched projectile points (Moratto 1984; Wallace 1955; Warren 1968). The introduction of the bow and arrow, represented by relatively small projectile points in the archaeological record, and an intensified use of bedrock mortars characterize the Late Prehistoric Period (Demcak 1988; Wallace 1955; Warren 1968).

The proposed project is located within the traditional aboriginal territory of the Yuman speaking Diegueño or "Kumeyaay" (Ipai-Tipai). These include the Kumeyaay, the Kamia, and groups living in Baja California (Meigs 1939). In general, the Kumeyaay ranged from the coast through the Peninsular Ranges and the Kamia resided in Imperial Valley and on the Colorado River in historic times (Luomala 1978). Animal resources for the Kumeyaay consisted mostly of small game such as rabbits (*Sylvilagus* spp.), hares (*Lepus californicus*), woodrats (*Neotoma* spp.), lizards, some snakes, and grasshoppers (Spier 1923:335-336; Gifford 1931:14; Shipek 1991:32). Larger game, mostly mule deer (*Odocoileus hemionus*) and possibly pronghorn (*Antilocapra americana*, now locally extinct) were also hunted.

Study Methods

Methods used to assess the presence or absence of cultural resources within the property included a search of existing records and an intensive field survey. The records searches were conducted at the South Coastal Information Center (SCIC), San Diego State University on June 5, 2006, and at the San Diego Museum of Man on December 4, 2006. The searches included areas within one mile of the study area boundaries.

The field survey was conducted on December 11, 2006, by ASM Project Archaeologist Dave Iversen, under the direction of Principal Investigator Susan Hector, Ph.D. Field methods consisted of walking transects at 5-m intervals from one corner of the project area to another while examining the ground for artifacts or other evidence of human activity greater than 50 years old. The survey area was transected from east to west and then back on adjacent transects until the entire project area was covered. Existing ground exposures, including cut-banks and drainages, were closely examined for possible buried cultural resources. Notes and digital photographs were taken to document the overall character and existing condition of the project area.

Study Results

The records search indicated that no previously recorded cultural resources are located within the project area, and At least 21 cultural resources are located within one mile of the project area. The nearest recorded archaeological site (SDI-10818) is 50 meters southwest of the project area. Extensive bedrock milling features with associated artifacts and ecofacts comprise the site. Milling features at the site include slicks, basins, and mortars on granitic boulder outcrops. Artifacts identified at the site include ground stone implements, bifaces, retouched flakes, debitage, ceramics, as well as historic glass, metal, and pottery. Flaked stone material from the site is described as quartz, chert, and metavolcanic. Ecofacts recorded at SDI-10818 consist of both vertebrate and invertebrate faunal remains. Additionally, a large artifact scatter containing potential human remains (SDI-4744) is recorded approximately 400 meters south of the project area.

The records search also demonstrates that no previous archaeological studies have been conducted for the project property. Approximately 18 previous cultural resource studies have been carried out within a one-mile radius of the project area. One study (RBR & Associates, Inc. 1987) was conducted immediately west of and adjacent to the project property, and resulted in the recordation of SDI-10818.

No cultural resources were found within the project parcel as a result of the intensive field survey. The entire project area is graded and filled in association with the existing pump station. The pump station sits on a concrete pad in the northwest corner of the property, and related electrical vaults, manholes, and drainage culverts exist across the project area. The majority of the exposed ground surface is covered with imported road gravel. Small drainages or swales run along the north and south ends of the project parcel. A small, relatively dense stand of trees and underbrush are in the northeast corner of the property, and may represent the least disturbed portion of the project area. An approximately one-meter high cut-bank immediately west of the project property slopes westward into a small swale containing a grove of undeveloped woods and large granite boulders. The project parcel is bordered to the to the south by a cleared field, and to the north and east by existing paved roads.

January 8, 2007

Mr. Smith

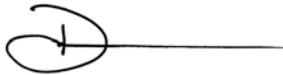
Page 4 of 5

Management Considerations

A search of records on file at SCIC and the Museum of Man indicates no cultural resources are present within the project area, and no newly discovered prehistoric or historic cultural resources were identified during the field survey. Based on the extensive ground disturbances to the project property, it is also unlikely that subsurface archaeological resources exist within the project area. As such, it is concluded that implementation of the proposed project will not result in direct or indirect impacts to any cultural resources. Therefore, no further treatment or investigations are recommended.

Should you have any questions regarding this study, please do not hesitate to call me or Dr. Susan Hector

Sincerely,

A handwritten signature in black ink, consisting of a stylized initial 'D' followed by a horizontal line extending to the right.

Dave Iversen

ASM Project Archaeologist

Attachments:

Figure 1 - Project vicinity map.

Figure 2 - Project location map.

January 8, 2007

Mr. Smith

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1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast. In *Archaic Prehistory in the Western United States*, edited by Cynthia Irwin-Williams, pp. 1-14. Eastern New Mexico University Contributions in Anthropology No. 1. Portales.



Figure 1. Project vicinity map.

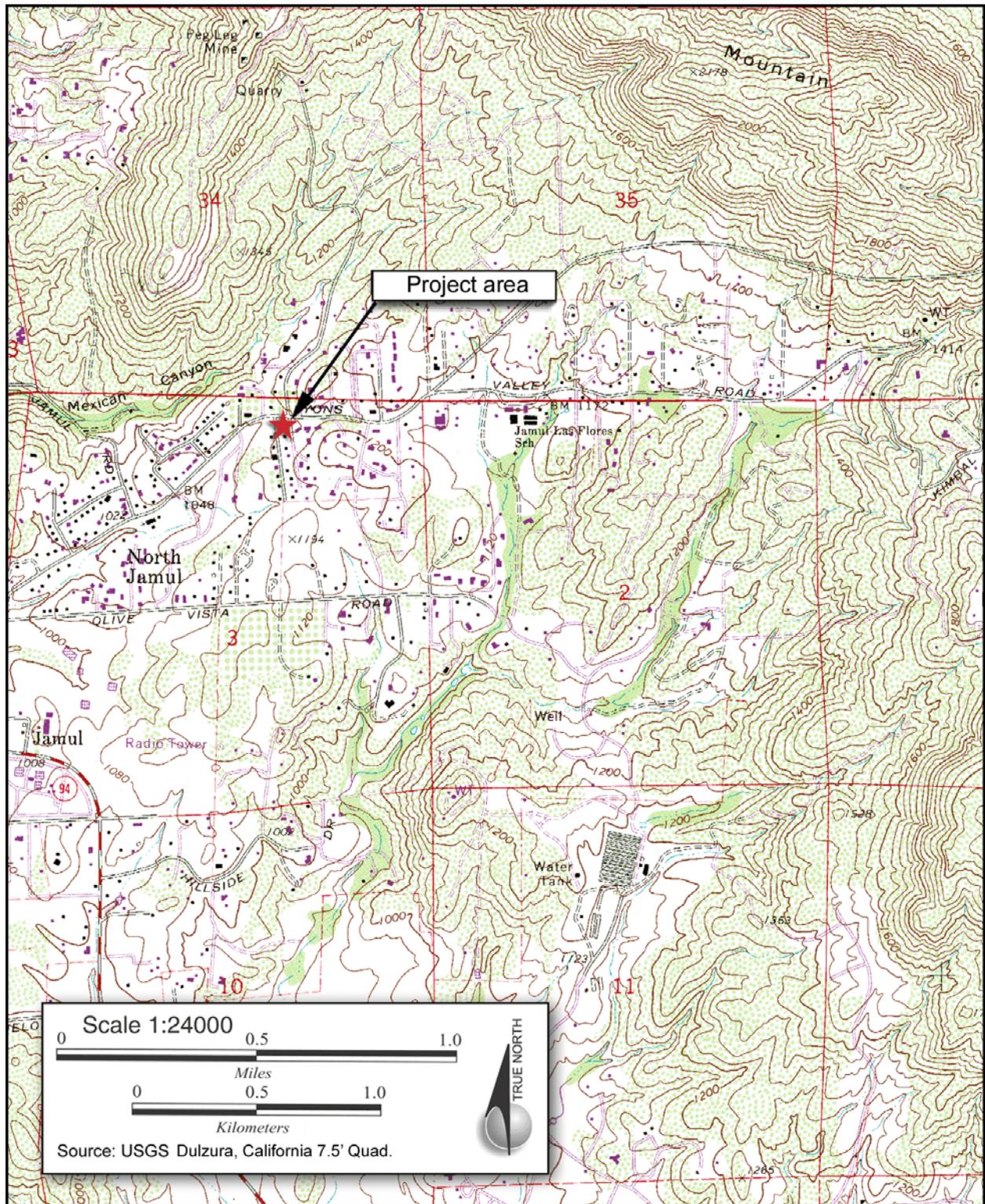


Figure 2. Project location map.

APPENDIX C

GEOTECHNICAL REPORT

**GEOTECHNICAL DESKTOP STUDY FOR THE
PROPOSED OTAY WATER DISTRICT
1485-1 PUMP STATION FACILITY**

Submitted to:

POST BUCKLEY SCHUH & JERNIGAN
9275 Sky Park Court, Suite 200
San Diego, CA 92123

By:

ALLIED GEOTECHNICAL ENGINEERS, INC.
9500 Cuyamaca Street, Suite 102
Santee, California 92071-2685

February 19, 2007



February 19, 2007

Mr. Kevin A. Smith
Post Buckley Schuh & Jernigan
9275 Sky Park Court, Suite 200
San Diego, CA 92123

**SUBJECT: GEOTECHNICAL DESKTOP STUDY FOR THE
PROPOSED OTAY WATER DISTRICT
1485-1 PUMP STATION FACILITY
Our Project No. 63pE607**

Dear Mr. Smith:

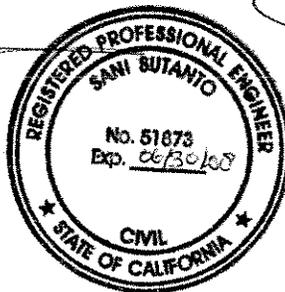
We are pleased to submit this report for your use in the development of environmental documentation and completing the California Environmental Quality Act requirements. This report presents the results of a geotechnical desktop study that is based on a review of readily available geologic literature and a visual reconnaissance of the project site and its surrounding area.

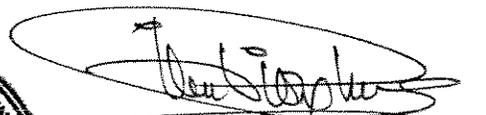
Please give us a call if you have any questions regarding the contents of this report. The opportunity to be of service on this important project is greatly appreciated.

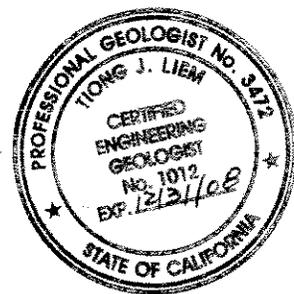
Very truly yours,

ALLIED GEOTECHNICAL ENGINEERS, INC.


Sani Sutanto, P.E.
Senior Engineer




Tiong J. Liem, R.G., C.E.G.
Project Manager



SS/TJL:mes
Distr. (6) Addressee

**GEOTECHNICAL DESKTOP STUDY FOR THE
PROPOSED OTAY WATER DISTRICT
1485-1 PUMP STATION FACILITY**

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Figure 1	Location Map
Figure 2	Site Plan
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1.0 INTRODUCTION

This report presents the results of a geotechnical desktop study that was performed by Allied Geotechnical Engineers, Inc. (AGE) for the proposed Otay Water District (District) 1485-1 Pump Station facility in the Jamul area in San Diego County, California. This desktop study was performed in general accordance with the authorized scope of work as outlined in the Agreement for Subconsultant Services executed between Post Buckley Schuh & Jernigan (PBS&J) and AGE on November 13, 2006.

AGE understands that the District plans to design and construct a new pump station to replace the existing facility at the project site, and that the findings of this desktop study will be used to prepare the California Environmental Quality Act (CEQA) documents for the proposed project.

2.0 PROJECT LOCATION AND DESCRIPTION

The scope of the proposed project involves the construction of an approximately 1,500 square foot pump station facility to replace the District's existing 1485-1 Pump Station. The project site is located on the south side of Lyons Valley Road, west of Peg Leg Mine Road in the community of Jamul in San Diego County, California (see Location Map, Figure 1).

The project site encompasses an approximately 0.14-acre parcel that is situated on relatively level to gently sloping ground with site elevations ranging from +1125 feet to +1134 feet above mean sea level (MSL). The existing pump station is situated on a graded pad that is bounded by a 7- to 8-foot high fill slope along its western edge. The site is bounded by Lyons Valley Road on the north, a utility easement on the east, and single-family residential properties on the south and west.

A partially gravel-lined driveway provides access to the site from Peg Leg Mine Road. The existing pump station and appurtenant facilities occupy the northwestern portion of the site, and include an SDG&E meter box, an underground vault, valve boxes, and several manholes. Other site improvements include chain-link fencing around the perimeter of the pump station, asphalt paving in the northern half, and unlined drainage swales along the northern and southern boundaries. On-site vegetation includes a row of bushes along the northern, eastern and western site boundaries, and several olive and pepper trees.

SECTION TWO

PROJECT LOCATION AND DESCRIPTION

Based on the information provided to us, it is our understanding that the proposed (new) pump station will be constructed on the south side of the existing facility as depicted on the Site Plan (Figure 2). We further understand that the existing pump station will be demolished and that the existing 12-inch asphaltic-concrete drain will be extended along the southern boundary of the project site. Information regarding the design of the proposed pump station building foundations and structural loads is not available at this time. PBS&J anticipates that the proposed pump station building will likely be one-story in height and be of concrete masonry unit (CMU) construction with a 10-foot deep wet well.

3.0 OBJECTIVE AND SCOPE OF INVESTIGATION

The objective of this preliminary study is to characterize the subsurface conditions at the project site and evaluate major geologic and geotechnical constraints that may impact the proposed project. In order to achieve this objective, we performed a geotechnical desktop study which includes several tasks as described in more detail below.

3.1 Information Review

This task involved a review of readily available information pertaining to the project area. The information that was reviewed includes published geologic literature and maps, topographic maps, and project-related information that was provided to us by PBS&J. A listing of the references that were reviewed is presented in Appendix A.

3.2 Field Reconnaissance

Senior personnel from our office visited the project site on January 17, 2007. The purpose of the site visit was to observe existing site conditions and geologic exposures.

3.3 Data Interpretation and Memorandum Preparation

This task consists of an interpretation of the data gathered from our information review and site reconnaissance in order to develop preliminary opinions and recommendations for use in the design of this project. A summary of our preliminary findings, opinions, and recommendations are presented in the following sections.

4.0 GENERAL SITE GEOLOGY

4.1 Geologic Setting and Physiography

The project study area is located on the eastern margin of the Peninsular Ranges geomorphic province which extends from the Los Angeles basin into Baja California, Mexico. The project site and surrounding area are underlain primarily by Mesozoic metamorphic rocks that have been intruded by plutonic rocks of the southern California Batholith.

4.2 Tectonic Setting

The project site is not located astride or near any known (mapped) active faults. Major active regional faults of tectonic significance to the project area include the Rose Canyon fault zone, the offshore located Coronado Bank, San Diego Trough, and San Clemente fault zones, the faults in Baja California, including the San Miguel-Vallecitos and Agua Blanca fault zones; and the faults located further to the east in Imperial Valley which include the Elsinore, San Jacinto and San Andreas fault zones. A regional fault map is shown on Figure 3.

A summary of seismic source characteristics for faults that present the most significant seismic hazard potential to the area where the project site is located is presented in the table below.

Fault	Maximum Magnitude (Mw)	Total Length (miles)	Slip Rate (mm/year)	Closest Distance to Site (miles)
La Nacion	6.5	16	0.05	10
Rose Canyon	7	80	1.5	18
Coronado Bank	7.5	86	3	29
San Andreas (South)	7.5	120	24	47
San Clemente	7.0	6.0	1.5	60
San Jacinto	7.5	120	17	58
San Diego Trough	7.5	91	1	35
Elsinore	7	109	0.5	30

4.3 Geologic Units

For site characterization purposes, the subsurface soil/rock materials beneath the project site can be categorized into three geologic units which include (in order of increasing age): fill soils, colluvial soils, and weathered granitic rocks. A brief description of each unit is presented in the following sections.



4.3.1 Fill Soils

Fill soils were reportedly encountered in all four test pits that were excavated at the site by Geotechnics (2006). The fill materials reportedly consist of a reddish brown, loose silty sand with a few rock fragments, and extended to an approximate depth of 1 to 7 feet below the existing ground surface (bgs). During our site visit, small boulder-sized rocks were observed on the surface of the fill slope along the western site boundary.

There is no documentation regarding the original placement of the on-site fill materials. Therefore, the fill materials are not considered capable of providing a safe and reliable support for structures or facilities in their present condition.

4.3.2 Slopewash Deposits

The fill materials are underlain by slopewash (colluvial) deposits which were encountered in three of the four test pits that were excavated by Geotechnics (2006). The thickness of the slopewash layer was found to be approximately 3 to 4 feet, and the colluvial soil materials were described as a reddish brown, loose silty sand with some root and rock fragments up to 8 inches in size.

4.3.3 Granitic Rocks

The project site and surrounding areas are underlain by granitic rocks of the Southern California Batholith of Cretaceous age. Refusal on rock was reportedly encountered in three of the four Geotechnics' test pits at depths ranging from 7 to 12 feet bgs. Geotechnics also reported that an approximately 4- to 5-foot thick layer of residual soil derived from weathering of the underlying bedrock was encountered in three of their test pits.

4.4 **Groundwater Conditions**

Geotechnics reportedly did not encounter groundwater in any of their test pits at the time of their field investigation. The depth to groundwater beneath the project site is unknown but is estimated to be more than 100 feet bgs. In our opinion, the potential for groundwater-related problems affecting the proposed project is considered very low. It must be noted, however, that the underlying soil/rock types possess variable permeability characteristics that may result in the development of localized perched water conditions, especially during and after the rainy seasons.

The project site lies within the Jamacha Hydrologic Subarea of the Middle Sweetwater Hydrologic Area of the Sweetwater Hydrologic Unit as designated by the California Regional Water Quality Control Board (CRWQCB), San Diego Region (9). Groundwater in this area is designated as having municipal, agricultural and industrial uses.

5.0 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS**5.1 Potential Geologic Hazards****5.1.1 Faulting and Seismicity**

Considering that there are no known (mapped) active faults within the project area, the potential risk of damage to the proposed project as a result of fault ground rupture is considered very low. The nearest active fault is the Rose Canyon fault zone (RCFZ) which is located approximately 18 miles to the west of the project site.

The San Diego region is located in a seismically active area, and is subject to seismic-induced ground shaking from both local and distant (regional) active faults. The closest regional active fault to the site with recurring magnitude 4.0 and greater earthquakes is the RCFZ. Other more distant, active faults that are considered potential sources of seismic activity include the offshore located San Diego Trough, Coronado Bank and San Clemente fault zones and some of the faults in Imperial Valley which include the Elsinore, San Jacinto and San Andreas fault zones.

It is our opinion that the major geologic hazard affecting the project area would be seismic-induced ground shaking in response to an earthquake occurring on the nearby RCFZ or one of the above-mentioned active regional faults. Assuming a maximum probable earthquake (MPE) magnitude of 7.0 on the RCFZ, a peak horizontal ground acceleration on the order of 0.15g is estimated.

If Uniform Building Code (UBC) 1997 methods are used for the seismic design, the following parameters may be applied:

<u>REFERENCE</u>	<u>PARAMETER</u>
Table 16-I	$Z = 0.40$
Table 16-J	Soil profile Type S_c
Table 16-Q	$C_a = 0.40N_a$
Table 16-R	$C_v = 0.40N_v$
Table 16-S	$N_a = 1.0$
Table 16-T	$N_v = 1.0$
Table 16-U	Rose Canyon Fault - Type B Seismic Source

5.1.2 Soil Liquefaction

Seismically-induced soil liquefaction is a phenomenon in which loose to medium dense, saturated granular materials undergo matrix rearrangement, develop high pore water pressure, and lose shear strength due to cyclic ground vibrations induced by earthquakes or other means.

Considering the well-consolidated and fine-grained nature of the underlying granitic rock and the absence of a shallow permanent water table beneath the site, the potential for seismic-induced soil liquefaction or ground settlement is considered negligible.

5.1.3 Other Seismic-induced Hazards

The elevation of the site and absence of nearby located large open bodies of water preclude the risk of damage to the proposed project as a result of seismic-induced wave action, such as tsunamis or seiches. The project site is not located in close proximity to any major dams or enclosed bodies of water. Furthermore, a review of the pertinent FEMA National Flood Insurance Map indicates that the project site is not located within a 100- or a 500-year flood plain. It is our opinion that the potential for property damage as a result of flooding at the project site is insignificant.

5.1.4 Landslides

The project site is not located on or below any known (mapped) ancient landslides. Furthermore, the relatively gentle topography and type of bedrock units underlying the project site are not considered conducive to the development of slope stability hazards.

5.2 **Construction Related Considerations**

5.2.1 Undocumented Fill/Colluvium/Slopewash Deposits

The project site is underlain by loose and potentially compressible fill and colluvial soil materials of variable thickness. In their current condition, these materials are not considered suitable to provide a competent support for the proposed pump station facility. We recommend that remedial grading

(removal and recompaction) be performed in the area of the proposed building and appurtenant facilities. The horizontal limits/extent and depth of the remedial grading should be determined based on the design structural loads and settlement tolerance of the proposed facilities.

5.2.2 Expansive Soil

Based on our visual observations and the findings presented in the Geotechnics report (2006), it appears that the soil materials beneath the project site are primarily composed of sandy materials which are generally considered to be non-expansive or possess very low expansion potential. In the event that soil materials with moderate to high expansion potential (Expansion Index greater than 30) are encountered during construction, we recommend that those expansive soils not be used as structural or backfill materials.

5.2.3 Construction Dewatering

We do not anticipate the need for dewatering of excavations made during construction of the project. In the event that localized perched water conditions are encountered during construction, it is anticipated that dewatering can be accomplished using sump pumps. The design, installation, and operation of any construction dewatering measures, if necessary, shall be the sole responsibility of the contractor.

5.2.4 Environmental Concerns

The authorized scope of our geotechnical investigation did not include the performance of a Phase I environmental site assessment (Phase I ESA study) to evaluate the possible presence of soil or groundwater contamination at the project site. Although land use at the project site and surrounding areas has historically been for non-industrial or commercial purposes, the potential occurrence of hazardous materials contamination cannot be totally precluded. In the event that hazardous or toxic materials are encountered during the construction phase, the contractor should immediately notify the District and be prepared to handle and dispose of such materials in accordance with current industry practices and applicable Local, State and Federal regulations.

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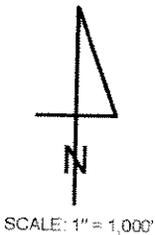
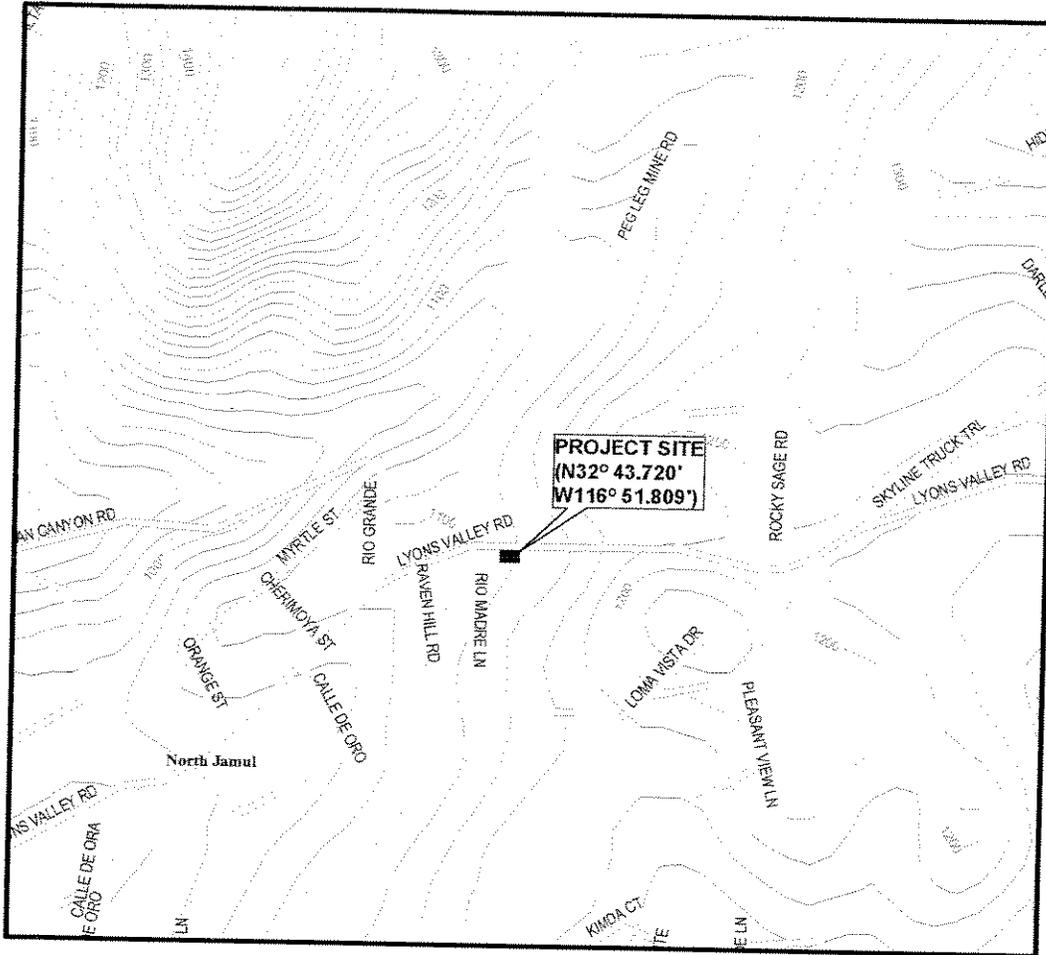
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7.0 LIMITATIONS

The information presented in this report is intended for the sole use of Post Buckley Schuh & Jernigan and the Otay Water District for their use in the preparation of the project environmental documents in conformance with the requirements of the California Environmental Quality Act. This report is based a review and evaluation of currently available information, various assumptions to bridge over data gaps, and our general experience in the project area.

This preliminary study was performed in accordance with the authorized scope of work for this project. The findings and professional opinions presented in this report were developed in general conformance with the current practices and standard of care exercised by local geotechnical engineering consultants performing similar tasks at the present time. No other warranty, either expressed or implied, is made with regard to the findings and professional opinions presented in this report.

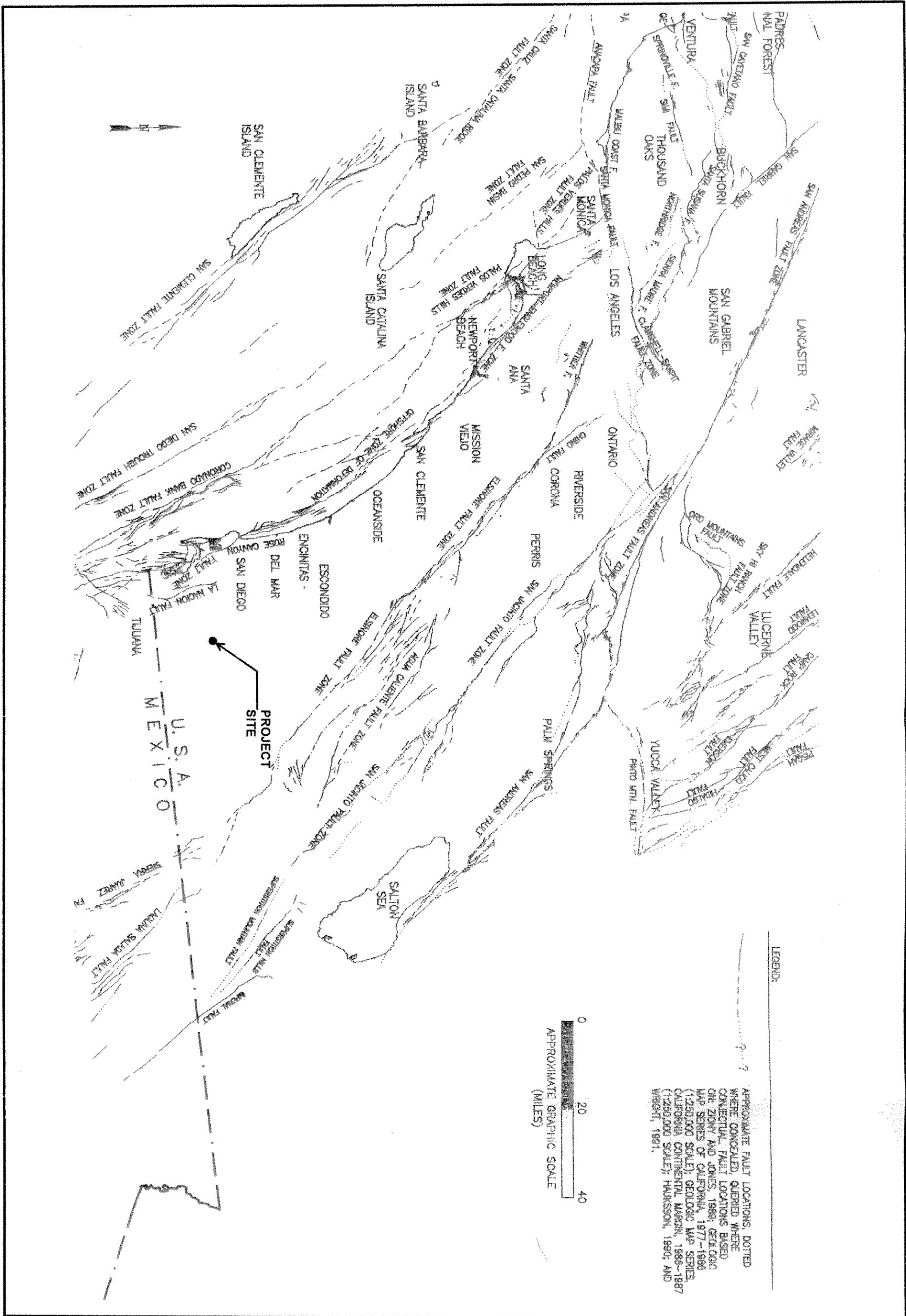


SOURCE:

USGS, DULZURA QUADRANGLE
PHOTOREVISED 1975

**VICINITY MAP
OTAY WATER DISTRICT - 1485-1 PUMP STATION**

PROJECT NO. 63pE607	ALLIED GEOTECHNICAL ENGINEERS, INC.	FIGURE 1
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<p>PROJECT NO. 63_pE607</p>	<p>ALLIED GEOTECHNICAL ENGINEERS, INC.</p>	<p>FIGURE 3</p>
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APPENDIX D

NOISE AND VIBRATION TECHNICAL REPORT

Draft Noise and Vibration Technical Report
for the proposed
Pump Station 1485-1 Replacement Project

Prepared for:



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Prepared by:



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April 2007

Introduction

This environmental noise analysis evaluates the potential noise impacts resulting from replacement of an existing pump station in unincorporated San Diego County. The purpose of this analysis is to evaluate the noise impacts of the project on the surrounding community. This includes the potential for the project to cause a substantial temporary and/or permanent increase in ambient noise levels within or around the project site or to expose people to excessive noise levels.

Project Description

The proposed project is located in the County of San Diego within the community of Jamul. The proposed project is intended to improve the transmission of potable water in the 1485 pressure zone and to convey flow to the new 1485-2 Reservoir. The project includes the demolition and replacement of the 1485-1 pump station. The proposed station would be constructed on the southern portion of the existing 1485-1 pump station property owned by the Otay Water District. The replacement project would include three electrical driven pumps in parallel rated at 500 gpm each; a diesel emergency generator; a perimeter fence, and landscaping. The proposed station would be enclosed to protect the pumps and electrical equipment from the environment. The current pump station would remain in service for as long as possible while the new station is being constructed. The project would also include grading the site to improve the site drainage and the extension of an existing 12-inch culvert stormwater drain under the property.

Fundamentals of Noise

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound. A typical noise environment consists of a base of steady “background” noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from traffic on a major highway. Table 1 lists noise levels for common events in the environment.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely

dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- L_{eq} , the equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- CNEL, the Community Noise Equivalent Level, is a 24-hour average L_{eq} with a 10 dBA “penalty” added to noise during the hours of 10:00 P.M. to 7:00 A.M., and an additional 5 dBA penalty during the hours of 7:00 P.M. to 10:00 P.M. to account for noise sensitivity in the evening and nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
- L_{min} , the minimum instantaneous noise level experienced during a given period of time.
- L_{max} , the maximum instantaneous noise level experienced during a given period of time.

Table I Representative Environmental Noise Levels

<i>Common Outdoor Activities</i>	<i>Noise Level (dBA)</i>	<i>Common Indoor Activities</i>
	—110—	Rock Band
Jet Fly-over at 100 feet		
	—100—	
Gas Lawnmower at 3 feet		
	—90—	Food Blender at 3 feet
Diesel Truck going 50 mph at 50 feet	—80—	Garbage Disposal at 3 feet
Noisy Urban Area during Daytime		
Gas Lawnmower at 100 feet	—70—	Vacuum Cleaner at 10 feet
Commercial Area		Normal Speech at 3 feet
Heavy Traffic at 300 feet	—60—	
		Large Business Office
Quiet Urban Area during Daytime	—50—	Dishwasher in Next Room
Quiet Urban Area during Nighttime	—40—	Theater, Large Conference Room (background)
Quiet Suburban Area during Nighttime		
	—30—	Library
Quiet Rural Area during Nighttime		Bedroom at Night, Concert Hall (background)
	—20—	
		Broadcast/Recording Studio
	—10—	
Lowest Threshold of Human Hearing	—0—	Lowest Threshold of Human Hearing

SOURCE: California Department of Transportation 1998

Noise environments and consequences of human activities are usually well represented by median noise levels during the day, night, or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 45 dBA, moderate in the 45 to 60 dBA range, and high above 60 dBA. Noise levels greater than 85 dBA can cause temporary or permanent hearing loss. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with more noisy urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Generally, a difference of 3 dBA over 24 hours is a barely-perceptible increase to most people. A 5 dBA increase is readily noticeable, while a difference of 10 dBA would be perceived as a doubling of loudness.

Noise levels from a particular source generally decline as distance to the receptor increases. Other factors, such as the weather and reflecting or shielding, also intensify or reduce the noise level at any given location. A commonly used rule of thumb for roadway noise is that for every doubling of distance from the source, the noise level is reduced by about 3 dBA. Noise from stationary or point sources is reduced by about 6 dBA for every doubling of distance. Noise levels may also be reduced by intervening structures. Generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 dBA with closed windows. The exterior-to-interior reduction of newer homes is generally 30 dBA or more.

Existing Noise Levels

The proposed project site currently contains an existing pump station, but is located in close proximity to existing residential units to the south and east, with heavy vegetation to the west and bordered by Lyons Valley Road to the north. Existing noise levels within the project site are primarily influenced by environmental conditions such as vegetation moving in the wind, by activities at the nearby residential properties, and by nearby roadways. Traffic on the local roadways is only generated primarily by the local residents and occasional service vehicles using the roadways to access various homes in the area.

Existing daytime noise levels were monitored at five locations on the project site on February 7, 2007 in order to identify representative noise levels near in close proximity to the existing nearby residences. The measured noise levels are presented in Table 2. These daytime noise levels are relatively quiet and characteristic of suburban residential environments.

Table 2 Existing On-Site Noise Levels

<i>Location</i>	<i>Primary Noise Sources</i>	<i>Noise Level Statistics</i>		
		<i>L_{eq}</i>	<i>L_{min}</i>	<i>L_{max}</i>
Southern edge of project site across dry creek bed	Traffic on Lyons Valley Road	56.4	33.6	73.7
East of existing pump, across Peg Leg Mine Road	Traffic on Lyons Valley Road	58.8	38.4	70.9
Northeast corner of Lyons Valley Road and Peg Leg Mine Road	Traffic, garbage truck	69.7	38.7	81.7
North of Lyons Valley Road, in front of preschool	Traffic, children playing	69.6	42.4	82.4
West of existing pump, across Rio Madre Lane	Traffic on Lyons Valley Road, school bus stopping	64.1	37.7	76.0

SOURCE: EIP/PBS&J, 2007.

Regulatory Framework

■ County of San Diego General Plan Noise Element

The California Government Code requires that a noise element be included in the general plan of each county and city in the State. The Noise Element of the County of San Diego General Plan is a comprehensive program for including noise control in the planning process. It is a tool that County planners use to achieve and maintain compatible land uses with environmental noise levels.

■ County of San Diego Noise Ordinance

The County of San Diego Noise Ordinance includes restrictions on activities related to construction and demolition. Section 31.460 includes restrictions on the hours and days when construction activity can occur and restrictions on the noise levels generated by the activities. As per Section 31.460, it is unlawful for any person to operate construction equipment between the hours of 7 P.M. of any day and 7 A.M. of the following day and is prohibited on Sundays and federal holidays. In addition, Section 31.460 of the County of San Diego Municipal Code makes loud noises exceeding a decibel level of seventy-five (75) dBA as measured from any adjacent residential property line unlawful during the hours of 7 A.M. and 7 P.M.

Project Impacts

■ Thresholds of Significance

The following thresholds of significance are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Noise impacts would be considered significant if one or more of the following conditions result from implementation of the proposed project:

- Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Cause a substantial periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

- Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Site Preparation and Construction Activities

Project development would require the use of heavy equipment for site grading and excavation and installation of utilities. Development activities would also involve the use of smaller power tools, generators, and other sources of noise. During each stage of development, there would be a different mix of equipment operating, and noise levels would vary based on the amount of equipment in operation and the location of the activity.

The Environmental Protection Agency (U.S. EPA) has compiled data regarding the noise-generating characteristics of specific types of construction equipment and typical construction activities. These data is presented in Table 3 and Table 4. The noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance. For example, a noise level of 84 dBA measured at 50 feet from the noise source to the receptor would reduce to 78 dBA at 100 feet from the source to the receptor and reduce by another 6 dBA to 72 dBA at 200 feet from the source to the receptor.

Table 3 Noise Ranges of Typical Construction Equipment

<i>Construction Equipment</i>	<i>Noise Levels at 50 Feet with Mufflers (dBA L_{eq})</i>
Front Loader	73–86
Trucks	82–95
Cranes (moveable)	75–88
Vibrator	68–82
Saws	72–82
Pneumatic Impact Equipment	83–88
Jackhammers	81–98
Pumps	68–72
Generators	71–83
Compressors	75–87
Concrete Mixers	75–88
Concrete Pumps	81–85
Back Hoe	73–95
Tractor	77–98
Scraper/Grader	80–93
Paver	85–88

¹Machinery equipped with noise-control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.

Source: U.S. EPA, 1971 as presented in City of Los Angeles, 1998.

Table 4 **Typical Outdoor Construction Noise Levels**

<i>Construction Phase</i>	<i>Noise Levels at 50 Feet (dBA L_{eq})</i>	<i>Noise Levels at 50 Feet with Mufflers (dBA L_{eq})</i>
Ground Clearing	84	82
Excavation, Grading	89	86
Foundations	78	77
Structural	85	83
Finishing	89	86

Source: U.S. EPA, 1971 as presented in City of Los Angeles, 1998.EPA, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971

The nearest sensitive receptors are the single-family residential units to the south and east of the project site. Construction activities would generate noise levels of up to 82 dBA L_{eq} at these homes during ground clearing, 86 dBA L_{eq} during excavation and grading, 77 dBA L_{eq} when cement foundations are poured, 83 dBA L_{eq} when the pump station enclosure is built, and up to 86 dBA L_{eq} when finishing touches are applied. The project applicant would be required to adhere to the policies outlined in the County of San Diego’s General Plan and Noise Ordinance. This ordinance states the times at which construction activities producing noise levels over 60 dBA CNEL at residences may occur. Construction of the replacement pump station would not be significant with implement of the following mitigation measure.

MM-1 The project contractor shall implement, but not be limited to, the following best management practices:

- *Construction work on the project shall be limited to the hours of 7:00 A.M. to 7:00 P.M. Monday through Saturday, with no construction allowed on Sundays or federal holidays.*
- *All construction equipment with a high noise generating potential, including all equipment powered by internal combustion engines, shall be muffled or controlled*
- *All stationary noise generating equipment, such as compressors, shall be located as far as possible to the north side of the site*
- *Machinery and mobile equipment, including motors, shall be turned off when not in use*
- *Sound blankets shall be used to the extent feasible.*

Operational On-Site Noise Levels

Future noise levels within the project site would continue to be dominated by environmental conditions and human activity. Vehicular traffic on the nearby roadways would continue to be the primary influence on noise level within the project site. Traffic on the local roadways is primarily generated by the local residents and occasional service vehicles using the roadways to access various homes and facilities in the area. As discussed earlier, the existing noise levels at the project site and surrounding vicinity are low and characteristic of a suburban residential environment. However, the replacement pump station is not considered a noise sensitive use. Noise generated by the replacement pump station would be similar to the noise generating by the existing pump station, which would not affect nearby residence. The primary source of noise in the project area is

traffic along Lyons Valley. At the residence to the south of the existing pump station, which is the sensitive receptor closest to the project site, noise levels were monitored to average 56.4 dBA L_{eq} , at would not change substantial as a result of operation of the replacement pump station.

Noise levels would also be generated by human activity within the project site. Types of noise could include people talking, doors closing, use of maintenance equipment, etc. Noise levels associated with these non-roadway noise sources would average between 45 and 55 dBA L_{eq} within the project site. These noise levels would be similar to those generated by the existing residences that border the project site and are below the existing noise levels monitored around the existing pump station, as shown in Table 2. Therefore, the overall noise environment at these residences would not change as a result of project operation. This would not be a significant impact.

Project Impacts

Based on the information presented in this analysis, construction and operation of the replacement pump station would not cause a significant noise impact on the existing residences located in close proximity to the project site. Implementation of mitigation measure MM-1 would ensure that impacts from construction activity would remain less than significant.

References

- Environmental Protections Agency. PA 1971. Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717.
- San Diego, County of. 2006. *General Plan 2020 Noise Element*. Adopted February 1975. Amended September 2006
- San Diego, County of. n.d. *San Diego County Code of Regulatory Ordinances. Noise Abatement and Control*.

APPENDIX E

TRAFFIC STUDY

**Otay Water District 1485-1 Pump Station Replacement
San Diego County (Jamul)
February 15, 2007**

Draft Traffic Impact Analysis

Prepared for:

Otay Water District
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Spring Valley, CA 91978-2004

Prepared by Justin Rasas (RCE 60690) with:



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Job #642

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Executive Summary

Otay Water District 1485-1 Pump Station Replacement

The proposed 1485-1 Pump Station replacement project is located on the southeast corner of Lyons Valley Road and Peg Leg Mine Road in the Jamul area of San Diego County, California. The project site is currently occupied by an existing pump station that will be removed as part of this project.

Two levels of project traffic generation will occur: temporary construction traffic (estimated to last between 6 and 9 months) and permanent bi-monthly site visits there after. The near-term conditions were analyzed using the temporary construction traffic and the build-out conditions were analyzed using the permanent bi-monthly site visits there after. The specific traffic generation for each scenario is described below.

- 1) The near-term temporary construction traffic is estimated to consist of a couple utility trucks with multiple in and out trips as needed for materials, a large tractor trailer with a backhoe/excavator, a flatbed truck for pump parts, and a concrete truck as needed. The temporary construction period is estimated to last between 6 and 9 months. A Passenger Car Equivalent (PCE) factor of 2.0 from the Highway Capacity Manual (HCM) was applied to the trucks to account for the slower operational characteristics. With the addition of the PCE factor to the tractor trailers, flatbeds and concrete trucks, an estimate of 22 ADT is calculated for all of the construction traffic.
- 2) The build-out permanent traffic is estimated to consist of 2 round trips per month that will consist of one round trip every other week for readings and maintenance. On a daily basis, the highest estimated traffic would be 2 ADT occurring bi-monthly.

Based on a review of San Diego County records, ten (10) nearby cumulative projects were identified and included in this analysis. Six (6) scenarios were analyzed, which included existing, existing + project, existing + cumulative, existing + cumulative + project, build-out (2030), and build-out (2030) + project conditions.

The project is calculated to have no direct impacts under either existing or built-out (2030) conditions. The project is calculated to have three (3) cumulative impacts under existing conditions. To mitigate the cumulative impacts, the project applicant proposes to pay into the Transportation Impact Fee (TIF) program.

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1.0 Introduction

The purpose of this study is to determine and analyze traffic impacts for the proposed 1485-1 Pump Station Replacement. The project is to be located on the southeast corner of Lyons Valley Road and Peg Leg Mine Road in the Jamul area of San Diego County, California. The location of the project is shown in **Figure 1**. A preliminary site plan is shown in **Figure 2**.

This report describes the existing roadway network in the vicinity of the project site and includes a review of the existing and proposed activities for weekday daily traffic conditions during the project construction and when the project is completed. The format of this study includes the following chapters:

1.0	Introduction
2.0	Study Methodology
3.0	Existing Conditions
4.0	Project Description
5.0	Existing + Project Conditions
6.0	Cumulative Projects
7.0	Existing + Cumulative Conditions
8.0	Existing + Project + Cumulative Conditions
9.0	Build-Out (2030) Conditions
10.0	Build-Out (2030) + Project Conditions
11.0	Mitigation Measures
12.0	Conclusion and Recommendations

Figure 1: Project Location

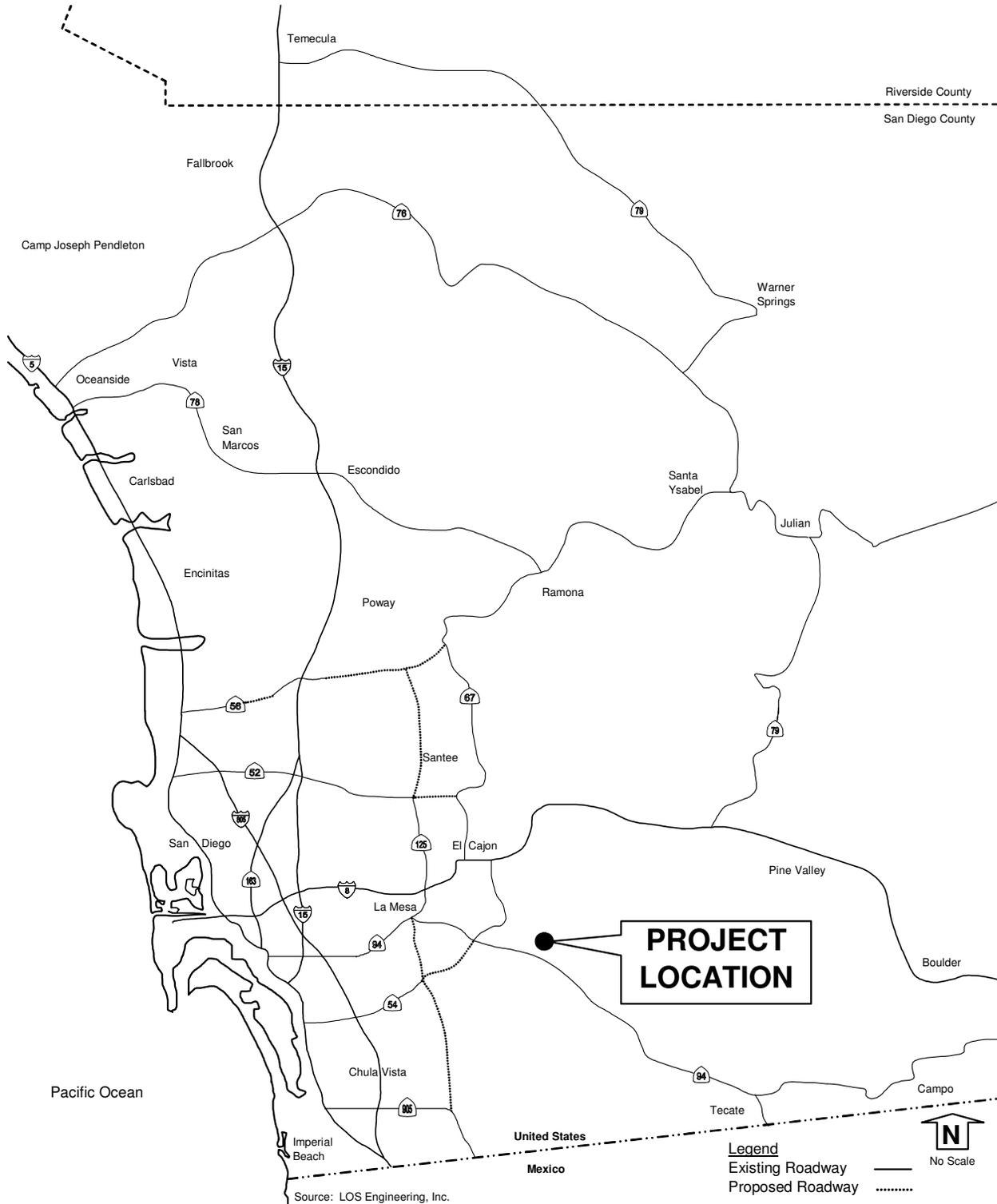
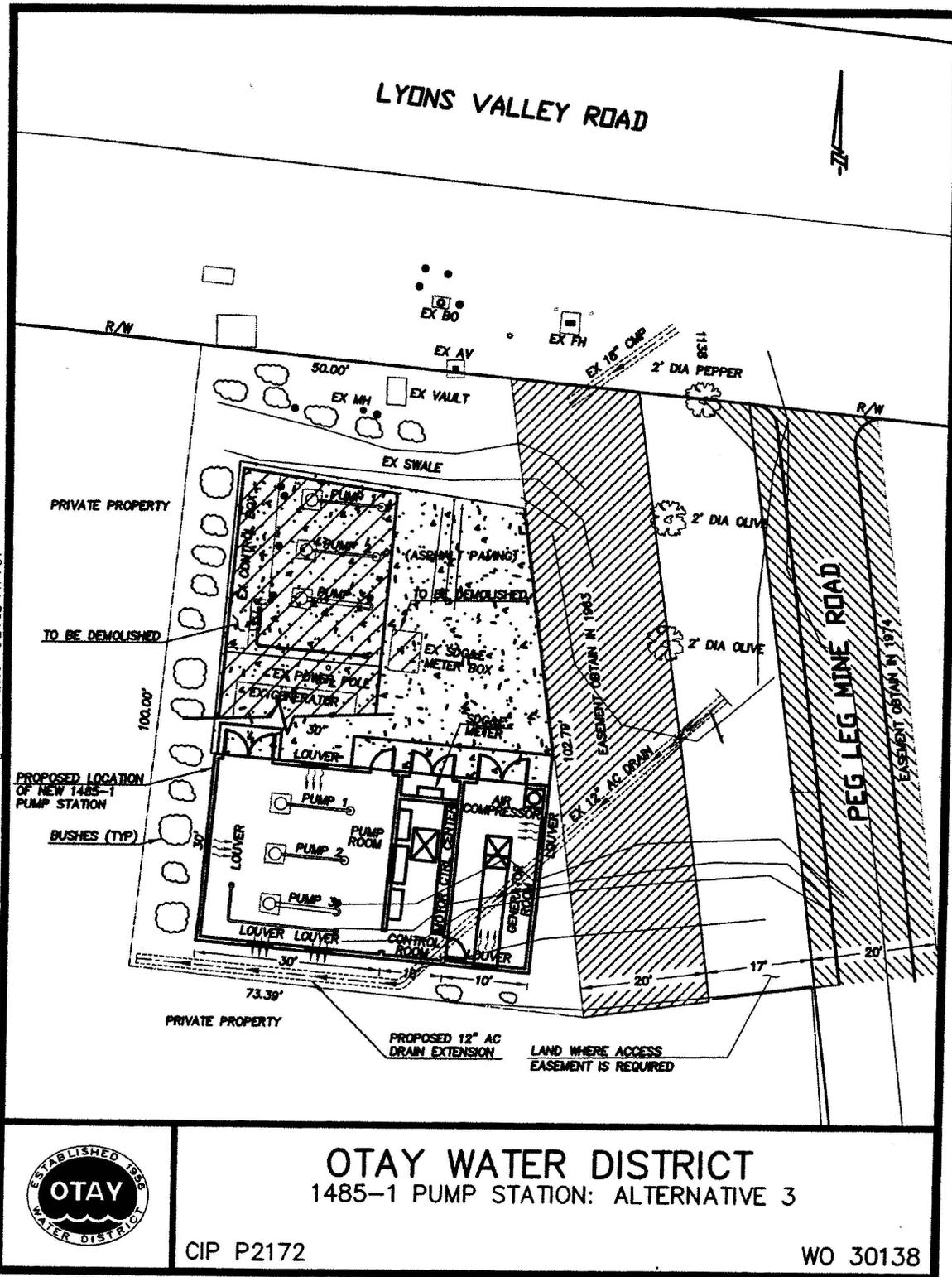


Figure 2: Site Plan



Source: Otay Water District

2.0 Study Methodology

The parameters by which this traffic study was prepared included the determination of what roadways are to be analyzed, the scenarios to be analyzed and the methods required for analysis. The criteria for each of these parameters are included herein.

2.1 Study Area Criteria

The project study area is generally determined by the limits or extent of where 25 peak hour project trips would travel to or from the site, which is based on the San Diego County *Report Format & Content Requirements Transportation and Traffic*, September 26, 2006. No intersections were analyzed as part of this study because the project is forecasted to generate less than 25 peak hour trips. The following street/highway segments were analyzed as part of this study:

- 1) SR-94 (Campo Road) from Jamacha Blvd to Jamacha Road
- 2) SR-94 (Campo Road) from Jamacha Road to Steele Canyon Road
- 3) SR-94 (Campo Road) from Steele Canyon Road to Lyons Valley Road
- 4) Lyons Valley Road from SR-94 (Campo Road) to Jefferson Road
- 5) Lyons Valley Road from Jefferson Road to Jamul Drive
- 6) Lyons Valley Road from Jamul Drive to Peg Leg Mine Road

2.2 Scenario Criteria

The number of scenarios to be analyzed is typically based on the size of the project, the number of cumulative projects and whether the project conforms to current zoning. For this project, the following scenarios were included:

- 1) Existing Conditions
- 2) Existing + Project Conditions
- 3) Existing + Cumulative Conditions
- 4) Existing + Project + Cumulative Conditions
- 5) Build-Out (2030) Conditions
- 6) Build-Out (2030) + Project Conditions

2.3 Traffic Analysis Criteria

The traffic analyses prepared for this study were based on the *2000 Highway Capacity Manual* (HCM) operations analysis using Level of Service (LOS) evaluation criteria. The operating conditions of the study intersections, street segments, and highway segments are measured using the HCM LOS designations, which ranges from A through F. LOS A represents the best operating condition and LOS F denotes the worst operating condition. The individual LOS criteria for each roadway component are described below.

2.3.1 Street Segments

The street segments were analyzed based on the functional classification of the roadway using the County of San Diego *Average Daily Vehicle Trips* capacity lookup table. The roadway segment capacity and LOS standards used to analyze street segments are summarized in **Table 1**.

TABLE 1: STREET SEGMENT DAILY CAPACITY AND LOS (COUNTY OF SAN DIEGO)

Circulation Element Road Classification	CROSS SECTION	LOS A	LOS B	LOS C	LOS D	LOS E
Expressway	126/146	<36,000	<54,000	<70,000	<86,000	<108,000
Prime Arterial	102/122	<22,200	<37,000	<44,600	<50,000	<57,000
Major Road	78/98	<14,800	<24,700	<29,600	<33,400	<37,000
Collector	64/84	<13,700	<22,800	<27,400	<30,800	<34,200
Town Collector	54/74	<3,000	<6,000	<9,500	<13,500	<19,000
Light Collector	40/60	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Collector	40/84	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Light Collector	40/60	<1,900	<4,100	<7,100	<10,900	<16,200
Recreational Parkway	40/100	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Mountain	40/100	<1,900	<4,100	<7,100	<10,900	<16,200
<u>Non-Circulation Roads</u>						
Residential Collector	40/60	NA	NA	<4,500	NA	NA
Residential Road	36/56	NA	NA	<1,500	NA	NA

Source: County of San Diego Department of Public Works *Public Road Standards* July 14, 1999.

2.4 Significance Criteria

Based on the San Diego County *Report Format & Content Requirements Transportation and Traffic*, September 26, 2006, a project may have a direct and/or cumulative impact if the significance criteria are exceeded, as shown in **Table 2**.

TABLE 2: COUNTY OF SAN DIEGO SIGNIFICANT TRAFFIC IMPACT THRESHOLDS

Measures of Significant Project Impacts to Congestion Allowable Increases on Congested Roads and Intersections						
Operations	Road Segments			Intersections		
	2-Lane Road	4-Lane Road	6-Lane Road	Signalized	Un-signalized	
LOS E	200 ADT	400 ADT	600 ADT	Delay of 2 seconds	20 peak hour trips on a critical movement	
LOS F	100 ADT	200 ADT	300 ADT	Delay of 1 second, or 5 peak hour trips on a critical movement	5 peak hour trips on a critical movement	

Source: County of San Diego *Guidelines for Determining Significance* Table 1 from page 9. Note: A critical movement is one that is experiencing excessive queues. By adding proposed project trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts. The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

A direct impact would occur when the significance criteria is exceeded. If the proposed project exceeds the values provided in the above table, then the individually proposed project would result in a direct traffic impact. Specific improvements to mitigate direct impacts must be identified.

A cumulative impact would occur when two conditions are met: 1) will build-out of all near term projects result in a cumulative traffic impact and 2) does the amount of traffic generated by the

individual proposed project contribute (even in a small part) to that cumulative impact. Both conditions must be met for an individual project to result in a cumulative traffic impact. If the traffic generated from all the near term projects (cumulative projects) would result in a cumulative traffic impact then condition one is met. If the total amount of traffic generated exceeds the values provided in the above table, then condition 2 is met and the individually proposed project would result in a cumulative traffic impact. Fairshare contributions toward cumulative impacts may only be provided when a specific project and schedule for completion of the project has been identified.

Potential mitigation measures can include traffic signal improvements, physical road improvements, street re-striping and parking prohibitions, fair share contributions, and transportation demand management programs.

The County of San Diego *Guidelines for Determining Significance and Report Format and Content Requirements Transportation and Traffic*, dated September 26, 2006 includes a summary of how a project's potential traffic impact would be perceptible to the average driver on roadway segments:

“Based on these criteria [Table 2 above], an impact from new development on an LOS E road would be reached when the increase in average daily trips (ADT) on a two-lane road exceeds 200 ADT. Using SANDAG's “Brief Guide for Vehicular Traffic Generation Rates for the San Diego Region” for most discretionary projects this would generate less than 25 peak hour trips. On average, during peak hour conditions, this would be only one additional car every 2.4 minutes. Therefore, the addition of 200 ADT, in most cases, would result in changes to traffic flow that would not be noticeable to the average driver and therefore would not constitute a significant impact on the roadway. Significance criteria were also established for four-lane and six-lane roads operating at LOS E and are based upon the above 24 hour ADT significance criterion established for two-lane roads. The two-lane road criterion was doubled to determine impacts to four-lane roads and tripled to determine impacts to six-lane roads. This was considered to be conservative since the 24 hour per lane road capacity for a 4-lane road is more than double that of a two-lane road and the per lane capacity of a six-lane road is more than triple that of the two-lane road. For LOS E roads, the additional significance criteria are 400 ADT for a four-lane road and 600 ADT for a six-lane road. Similar to criterion for two-lane road, the 400 ADT for a 4-lane road and 600 ADT for a 6-lane road criteria would generate less than 25 per lane peak hour trips for most discretionary projects. On average, during peak hour conditions, this would be only one additional car per lane every 2.4 minutes. The addition of 200 ADT per lane (400 ADT for a 4 lane road or 600 for a 6-lane road), in most cases, would result in changes to traffic flow that would not be noticeable to the average driver and therefore would not constitute a significant impact on the roadway...”

“The second significance criteria listed in [Table 2 above] addresses roadways presently operating at LOS F. Under LOS F congested conditions, small changes and disruptions to the traffic flow on County Circulation Element Road can have a greater effect on traffic operations when compared to other LOS conditions. In order to better account for potential effects of increased traffic on LOS F road more stringent significance criteria was established when compared to that for LOS E. Based on this guidance, an impact from new development on an LOS F road would be reached when the increase in average

daily trips (ADT) on a two-lane road exceeds 100. Again, using SANDAG's "Brief Guide for Vehicular Traffic Generation Rates for the San Diego Region" for most discretionary projects this would generate less than 12.5 peak hour trips. On average, during peak hour conditions, this would be only one additional car every 4.8 minutes. The addition of 100 ADT, in most cases, would not be noticeable to the average driver and therefore would not constitute a significant impact on the roadway. The same approach used to determine significance criteria for four-lane and six-lane roads operating at LOS E was used to determine appropriate significance criteria for four-lane and six-lane road operating at LOS F. Based on this approach, the significance criteria for a four-lane road (200 ADT) and for a six-lane road (300 ADT) would generate less than 12.5 per lane peak hour trips for most discretionary projects. On average, during peak hour conditions, this would be only one additional car per lane every 4.8 minutes. The addition of 100 per lane ADT (200 ADT for a 4-lane and 300 ADT for a 6-lane road) would, in most cases, not be noticeable to the average driver and therefore would not constitute a significant impact on the roadway. In summary, under extremely congested LOS F conditions, small changes and disruptions to the traffic flow can significantly affect traffic operations and additional project traffic can increase the likelihood or frequency of these events. Therefore, the LOS F ADT significance criteria was set at 100 ADT (50% of the LOS E threshold) to provide a higher level of assurance that the traffic allowed under the threshold would not significantly impact traffic operation on the road segment."

2.4.1 County of San Diego General Plan Public Facilities Element (Part XII)

The County of San Diego *Guidelines for Determining Significance and Report Format and Content Requirements Transportation and Traffic* dated September 26, 2006 includes a summary of the Public Facilities Element of the San Diego County General Plan as follows:

"The County of San Diego General Plan Public Facilities Element establishes policies and implementation measures regarding the assessment and mitigation of traffic impacts of new development. One of the goals of the Public Facilities Element (PFE) is to provide "A safe, convenient, and economical integrated transportation system including a wide range of transportation modes (PFE, page XII-4-18)." The PFE also identifies an objective in the Transportation Section to provide a "Level of Service C or better on County Circulation Element roads (PFE, page XII-4-18)." The PFE, however, establishes LOS D as an off-site mitigation threshold for discretionary projects. When an existing Level of Service is already D, "a LOS of D may be allowed (PFE, page XII-4-18)." According to the PFE, projects that significantly increase congestion on roads operating at LOS E or LOS F must provide mitigation. According to the PFE, this mitigation can consist of a fair share contribution to an established program or project to mitigate the project's impacts. If impacts cannot be mitigated, the project will be denied unless a specific statement of overriding findings is made pursuant to Sections 15091 and 15093 of the State CEQA Guidelines to approve the project as proposed."

The County of San Diego significance criteria is consistent with the aforementioned summary of PFE Policy 1.1, which requires mitigation for projects that significantly increase congestion on roads operating at LOS E or LOS F.

PFE Policy 1.2 states “General Plan Amendments and Rezones shall be reviewed to ensure that any proposed increases in density of intensity of use will not prevent the planned Circulation Element road system from operating at its planned Level of Service at buildout.” The project does not propose to change the existing site use as a pump station – just replace the old pump station with a new pump station.

In summary, the County of San Diego traffic impact significance criteria covers the significance criteria identified in PFE policies 1.1 and 1.2.

2.5 Congestion Management Program Criteria

The Congestion Management Program (CMP), adopted in January 2003 by the SANDAG Board, is intended to determine if a large project (greater than 2,400 ADT or more than 200 peak hour trips) will adversely impact the CMP transportation system. A CMP analysis is NOT included because this project is calculated to generate less than 2,400 ADT and less than 200 peak hour trips.

2.6 Study Limitations

The findings and recommendations of this report were prepared in accordance with generally accepted professional traffic and transportation engineering principles and practice for the County of San Diego at this time. No other warranty, express or implied is made.

3.0 Existing Conditions

This section describes the study area street system, daily roadway volumes, and existing LOS.

3.1 Existing Street System

In the vicinity of the project, only the roadways where project traffic is anticipated to travel were analyzed as part of this study, which included:

SR-94 (Campo Road) from Jamacha Boulevard to Jamacha Road is classified as a *Prime Arterial with bike lanes* on the San Diego County Circulation Element map (A copy from the San Diego County Circulation Element Map is included in **Appendix A**). This four-lane roadway is generally constructed within approximately 78 feet of pavement with two twelve (12) foot travel lanes and a paved shoulder/bike lane of approximately eight (8) feet in each direction with a center median of approximately 14 feet delineated by double yellow striping on each side. The posted speed limit is 55 Miles per Hour (MPH).

SR-94 (Campo Road) from Jamacha Road to the Sweetwater River is classified as a *Collector with bike lanes* on the San Diego County Circulation Element map. The narrowest portion of this segment is a two-lane undivided roadway generally constructed within approximately 34 feet of pavement with one twelve (12) foot travel lane and a paved shoulder/bike lane of approximately five (5) feet in each direction. The portion of the roadway adjacent to the Rancho San Diego Towne Center (southeast corner of Camp Road and Jamacha Road) is constructed as a 4 lane divided roadway. A posted speed limit was not observed on this segment.

SR-94 (Campo Road) from Sweetwater River to Cougar Canyon Road is classified as a *Prime Arterial with bike lanes* on the San Diego County Circulation Element map. This two-lane undivided roadway is generally constructed within approximately 34 feet of pavement with one twelve (12) foot travel lane and a paved shoulder/bike lane of approximately five (5) feet in each direction. A posted speed limit was not observed on this segment.

SR-94 (Campo Road) from Cougar Canyon Road to Steele Canyon Road is classified as a *Prime Arterial with bike lanes* on the San Diego County Circulation Element map. This two-lane undivided roadway is generally constructed within approximately 46 feet of pavement with one twelve (12) foot travel lane and a paved shoulder/bike lane of approximately five (5) feet in each direction and a center Two Way Left Turn Lane (TWLTL) of approximately 12 feet. A posted speed limit was not observed on this segment.

SR-94 (Campo Road) from Steele Canyon Road to Lyons Valley Road is classified as a *Prime Arterial with bike lanes* on the San Diego County Circulation Element map. This two-lane undivided roadway is generally constructed within approximately 34 feet of pavement with one twelve (12) foot travel lane and a paved shoulder/bike lane of approximately five (5) feet in each direction. A posted speed limit was not observed on this segment.

Lyons Valley Road from SR-94 to Peg Leg Mine Road is classified as a *Collector with bike lanes* on the San Diego County Circulation Element map. This two-lane undivided roadway is generally constructed within approximately 30 feet of pavement with one twelve (12) foot travel lane and 3 foot shoulder in each direction. The posted speed limit is 45 MPH. Between Jefferson Road and Jamul Drive the northbound 85th percentile speed was measured at 57 MPH and the southbound 85th percentile speed was measured at 51 MPH. Between Jamul Drive and Peg Leg Mine Road the eastbound 85th percentile speed was measured at 54 MPH and the westbound 85th percentile speed was measured at 54 MPH.

The existing roadway conditions are shown in **Figure 3**.

3.2 Existing Traffic Volumes and LOS Analyses

The following street/highway segments (source and count dates) were analyzed as part of this study:

- 1) SR-94 from Jamacha Blvd to Jamacha Road (Caltrans 2005 factored up to 2007)
- 2) SR-94 from Jamacha Road to Steele Canyon Road (Caltrans 2005 factored up to 2007)
- 3) SR-94 from Steele Canyon Road to Lyons Valley Rd (Caltrans 2005 factored up to 2007)
- 4) Lyons Valley Road from SR-94 to Jefferson Road (LOS Engineering 2/08/07)
- 5) Lyons Valley Road from Jefferson Road to Jamul Drive (LOS Engineering 2/16/2006)
- 6) Lyons Valley Road from Jamul Drive to Peg Leg Mine Rd (LOS Engineering 8/22/2006)

The existing ADT volumes are shown on **Figure 4**, with count and speed data included in **Appendix B**. The LOS calculated for the street segments are shown in **Table 3**.

TABLE 3: EXISTING SEGMENT ADT VOLUMES AND LEVEL OF SERVICE

Segment	Current Classification (as built)	LOS E Capacity	Existing		
			Daily Volume	V/C	LOS
<u>SR-94 (Campo Road)</u>					
Jamacha Blvd to Jamacha Rd	Prime (4U+C)	37,000	73,900	1.997	F
Jamacha Rd to Steele Canyon	Coll. & Prime (2U)	16,200	26,500	1.636	F
Steele Canyon to Lyons Valley Rd	Prime (2U)	16,200	21,470	1.325	F
<u>Lyons Valley Road</u>					
SR-94 to Jefferson Rd	Collector (2U)	16,200	5,945	0.367	C
Jefferson Rd to Jamul Dr	Collector (2U)	16,200	8,419	0.520	D
Jamul Dr to Peg Leg Mine Rd	Collector (2U)	16,200	9,213	0.569	D

Notes: (as built) = # of current lanes (i.e. Prime (4U+C) = Prime with 4 lanes & center painted median; Coll. & Prime = portion is classified as Collector and portion classified as Prime). Daily volume = 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity ratio.

Under existing conditions, all study roadways were calculated to operate at LOS D or better with the exception of the:

- 1) The segment of SR-94 from Jamacha Blvd to Jamacha Rd (LOS F, ADT basis)
- 2) The segment of SR-94 from Jamacha Rd to Steele Canyon Rd (LOS F, ADT basis)
- 3) The segment of SR-94 from Steele Canyon Rd to Lyons Valley Rd (LOS F, ADT basis)

Figure 3: Existing Roadway Conditions

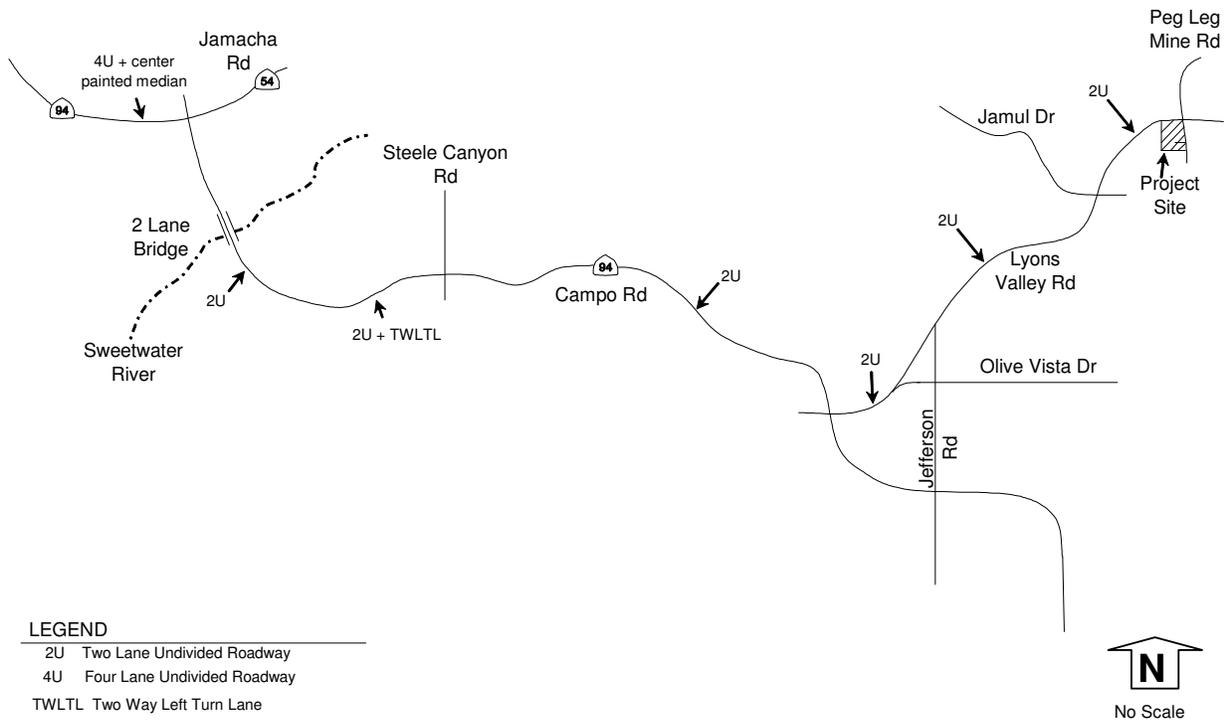
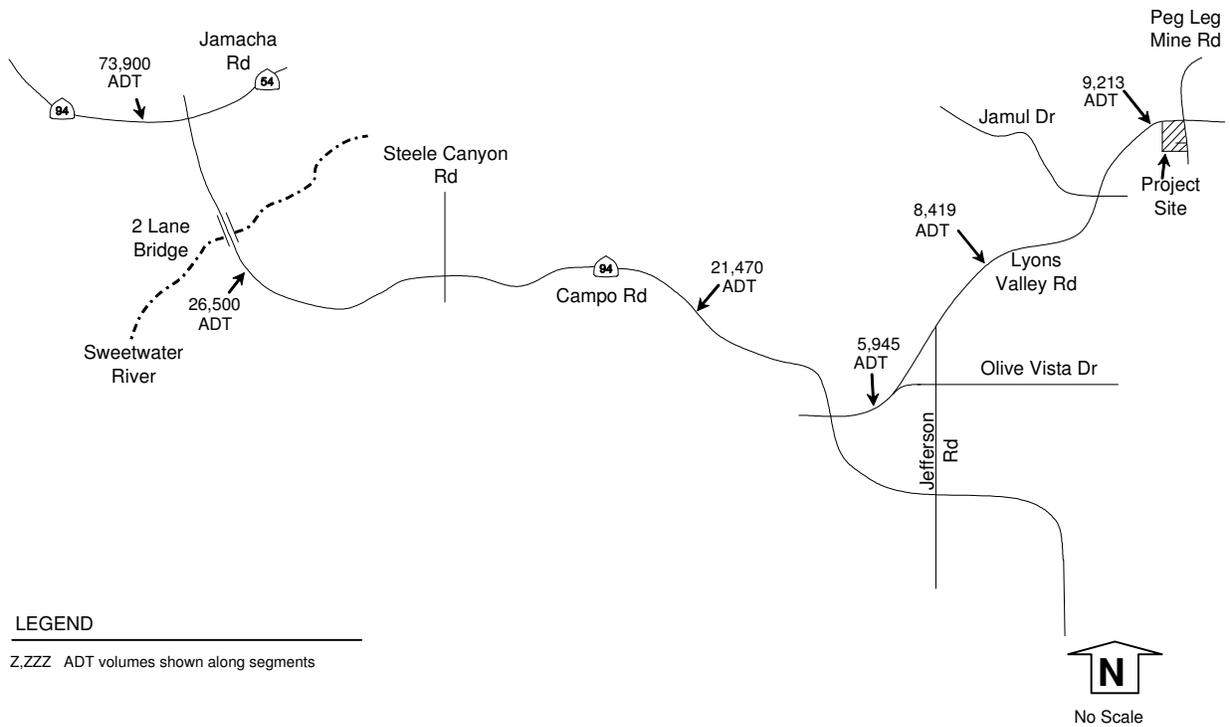


Figure 4: Existing Volumes



4.0 Project Description

The project is a pump station replacement project that will replace an existing pump station that has reached the end of its useful life with a replacement pump station to be constructed immediately south of the existing pumps and equipment. Project access will remain unchanged (existing driveway on Peg Leg Mine Road). The new pump station will be on Otay Water District property.

4.1 Project Traffic Generation

Two levels of project traffic will occur: temporary construction traffic and permanent bi-monthly site visits. The near-term conditions were analyzed using the temporary construction traffic and the build-out conditions were analyzed using the permanent bi-monthly site visits there after.

The near-term temporary construction traffic is estimated to consist of a couple utility trucks with multiple in and out trips as needed for materials, a large tractor trailer with a backhoe/excavator, a flatbed truck for pump parts, and a concrete truck as needed. The temporary construction period is estimated to last between 6 and 9 months. A Passenger Car Equivalent (PCE) factor of 2.0 from the Highway Capacity Manual (HCM) was applied to the trucks to account for the slower operational characteristics. With the addition of the PCE factor for the tractor trailers, flatbeds and concrete trucks, an estimate of 22 Average Daily Trips (ADT) is calculated for the total construction traffic. The calculations are summarized in **Table 4**.

TABLE 4: TEMPORARY PROJECT CONSTRUCTION TRAFFIC (6-9 MONTH DURATION)

Number of Vehicles and Type	Vehicle Frequency	Daily worst case assumptions	ADT	PCE Factor	ADT including PCE factor
Two Utility Trucks	Daily with multiple in and out trips as needed for materials, etc.	5 in & 5 out trips	10	NA	10
One Large Tractor Trailer (for backhoe/excavator)	Daily	1 in & 1 out	2	2	4
One flatbed with parts	Occasionally	1 in & 1 out	2	2	4
One concrete truck	Occasionally	1 in & 1 out	2	2	4
			Total ADT		22

Notes: NA - Not Applicable. PCE - Passenger Car Equivalent

The build-out permanent traffic is estimated to consist of 2 round trips per month that will consist of one round trip every other week for readings and maintenance. On a daily basis, the highest estimated traffic would be 2 ADT occurring bi-monthly.

4.2 Temporary Project Construction Traffic Distribution and Assignment

The near-term and build-out traffic patterns are anticipated to be same with the exception that SANDAG shows a new alignment of SR-94 at built-out. The anticipated travel route toward San Diego is via SR-94 (Campo Road). Jamul Drive and Steele Canyon Road also provide alternate

routes to reach Jamacha Road; however, SR-94 was selected for analysis as SR-94 appears to be a more direct route toward San Diego and while it may not be used all of the time, has the potential to be used at some point in time. The distribution for the near-term conditions (temporary construction traffic) is shown in **Figure 5** with the distribution for the build-out conditions (permanent readings and maintenance traffic) shown in **Figure 6**. The near-term assignment of the temporary construction traffic is shown in **Figure 7**. The build-out assignment of the permanent readings and maintenance traffic is shown in **Figure 8**.

4.3 Project Driveway

The existing project driveway on Peg Leg Mine Road will be used for the replacement project. Direct project access is NOT proposed to Lyons Valley Road.

Figure 5: Near-Term Traffic Distribution

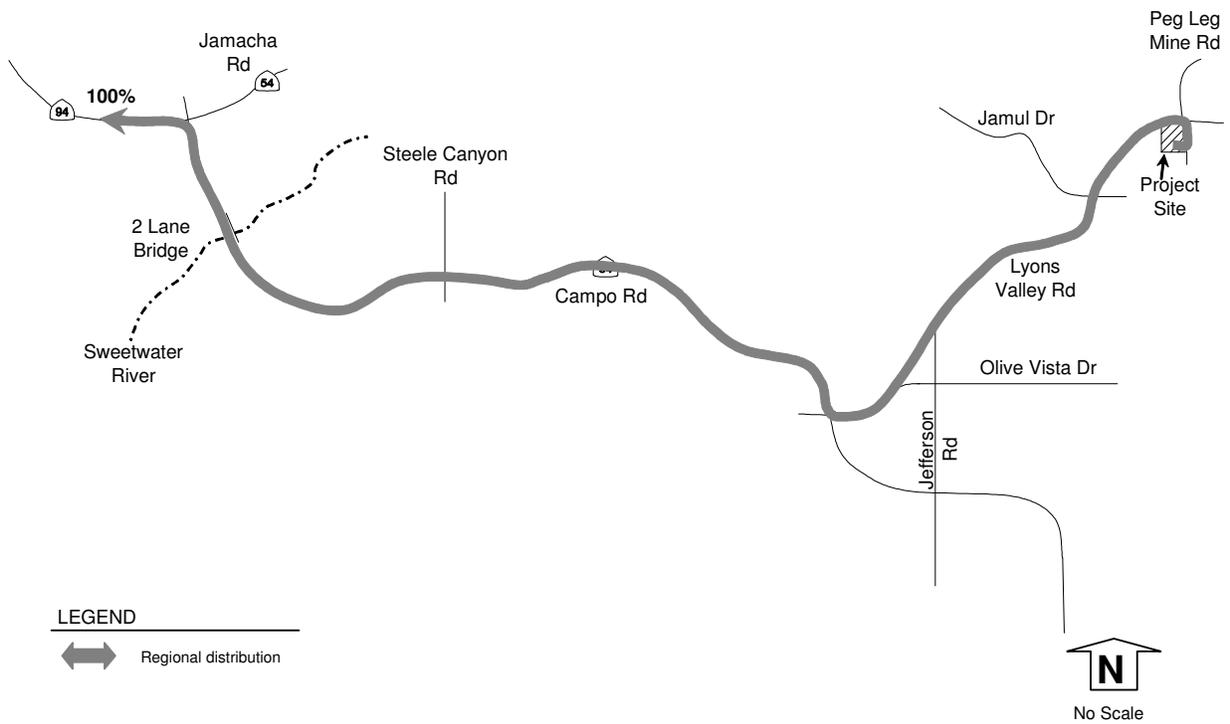


Figure 6: Build-Out Traffic Distribution

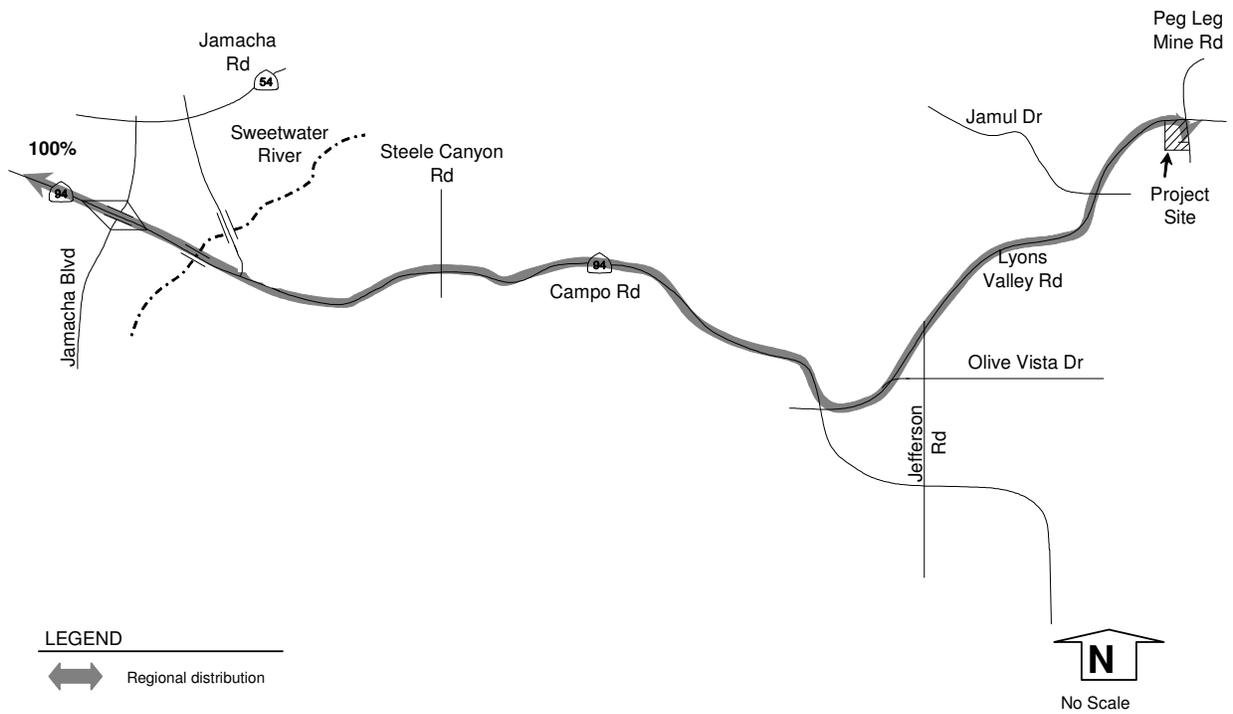


Figure 7: Near-Term Project Traffic Assignment (Construction Traffic)

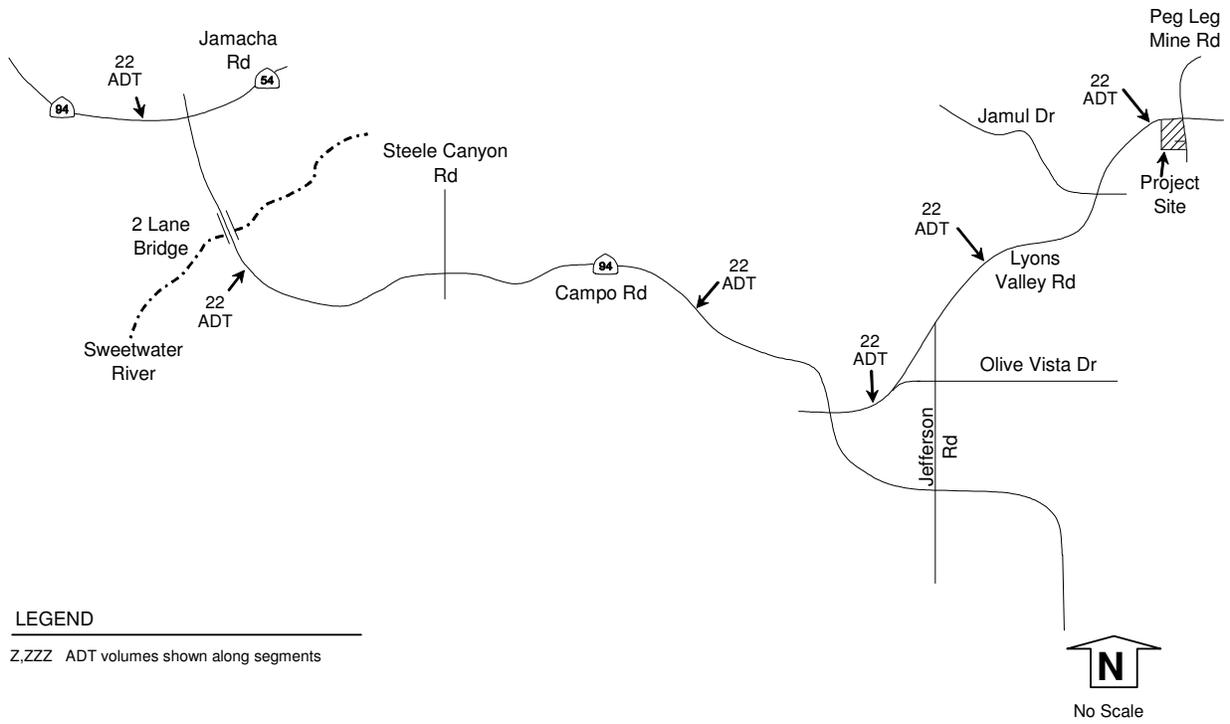
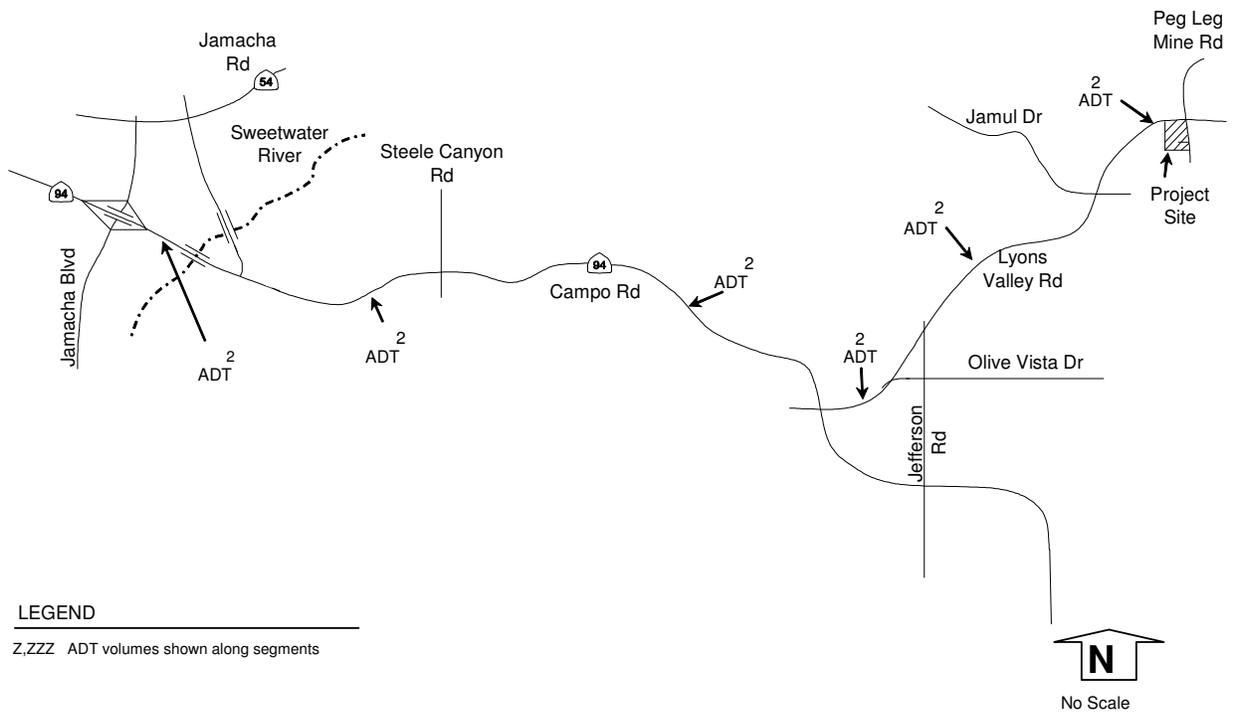


Figure 8: Build-Out Project Traffic Assignment (Readings and Maintenance Traffic)



5.0 Existing + Project Conditions

This scenario accounts for the addition of project traffic onto the existing background traffic for daily conditions. The daily traffic volumes for this scenario of existing + project are shown in **Figure 9**. The LOS calculated for the street segments is shown in **Table 5**.

TABLE 5: EXISTING + PROJECT SEGMENT ADT VOLUMES AND LEVEL OF SERVICE

Segment	Current Classification (as built)	LOS E Capacity	Existing			Project Daily Volume	Existing + Project			Direct Impact?	
			Daily Volume	V/C	LOS		Daily Volume	V/C	LOS		
<u>SR-94 (Campo Road)</u>											
Jamacha Blvd to Jamacha Rd	Prime (4U+C)	37,000	73,900	1.997	F	22	73,922	1.998	F	0.001	No
Jamacha Rd to Steele Canyon	Coll. & Prime (2U)	16,200	26,500	1.636	F	22	26,522	1.637	F	0.001	No
Steele Canyon to Lyons Valley Rd	Prime (2U)	16,200	21,470	1.325	F	22	21,492	1.327	F	0.001	No
<u>Lyons Valley Road</u>											
SR-94 to Jefferson Rd	Collector (2U)	16,200	5,945	0.367	C	22	5,967	0.368	C	0.001	No
Jefferson Rd to Jamul Dr	Collector (2U)	16,200	8,419	0.520	D	22	8,441	0.521	D	0.001	No
Jamul Dr to Peg Leg Mine Rd	Collector (2U)	16,200	9,213	0.569	D	22	9,235	0.570	D	0.001	No

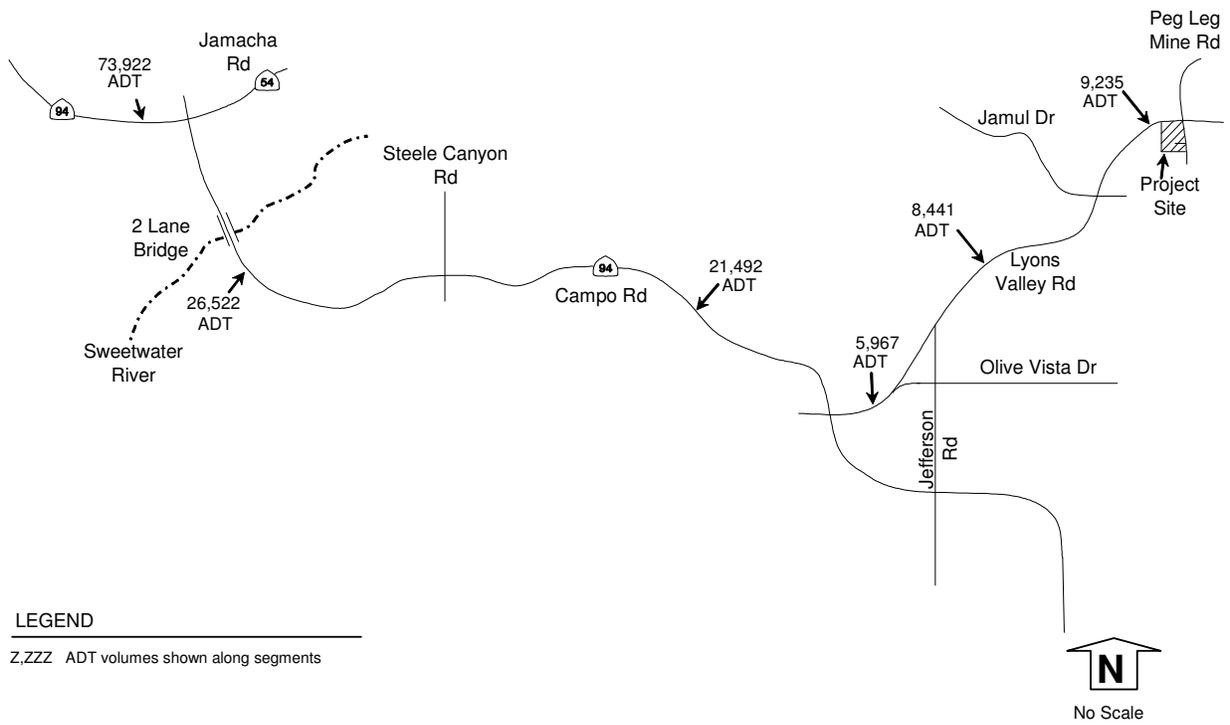
Notes: (as built) = # of current lanes (i.e. Prime (4U+C) = Prime with 4 lanes & center painted median; Coll. & Prime = portion is classified as Collector and portion classified as Prime). Daily volume = 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity ratio.

Under existing + project conditions, all study roadways segments were calculated to operate at LOS D or better with the exception of the:

- 1) The segment of SR-94 from Jamacha Blvd to Jamacha Rd (LOS F, ADT basis)
- 2) The segment of SR-94 from Jamacha Rd to Steele Canyon Rd (LOS F, ADT basis)
- 3) The segment of SR-94 from Steele Canyon Rd to Lyons Valley Rd (LOS F, ADT basis)

The project not calculated to have any direct project impacts because the project traffic does not exceed the allowable traffic threshold.

Figure 9: Existing + Project Volumes



LEGEND

Z,ZZZ ADT volumes shown along segments

6.0 Cumulative Projects

Based on a review of San Diego County records, ten (10) nearby cumulative projects were identified, which are anticipated to generate traffic and use identical roadways as the project. Other potential cumulative projects, such as a proposed hotel casino in Jamul, would add traffic to the study area roadways; however, since these other potential projects have not been formally submitted, their specific traffic information cannot be obtained to be included within this analysis. As the County has a TIF program, the applicant has a choice to pay a flat TIF fee per project trip regardless of how many cumulative projects are involved.

A summary of the cumulative projects is included below with their respective and cumulative traffic generation shown in **Table 6**.

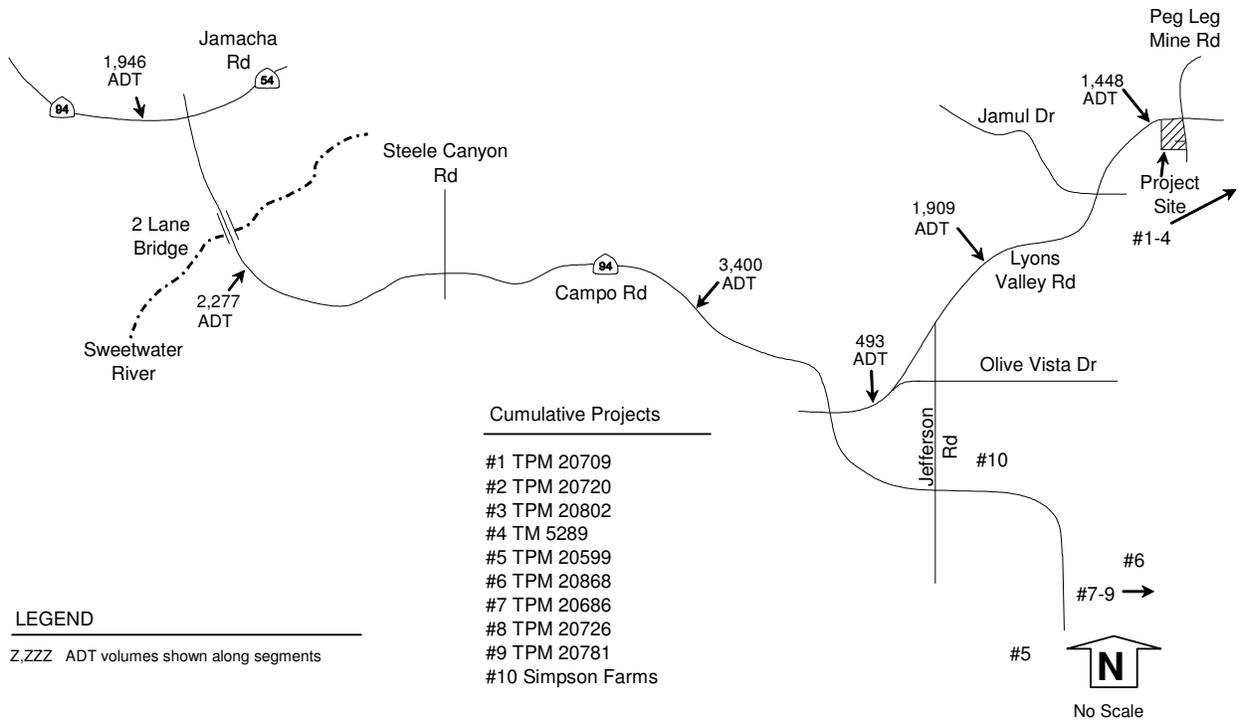
- 1) *TPM 20709 (Saflar)* – A two-lot single-family residential project on Lyons Valley Road. The traffic generation for this cumulative project is calculated at 24 ADT with 2 AM and 3 PM peak hour trips.
- 2) *TPM 20720 (Preski/Gonya)* – A four-lot single-family residential subdivision project at 16887 Skyline Truck Trail. The traffic generation for this cumulative project is calculated at 48 ADT with 4 AM and 4 PM peak hour trips.
- 3) *TPM 20802 (Impink)* – A four-lot single-family residential subdivision project at 3115 Vista De Chaparros Drive. The traffic generation for this cumulative project is calculated at 48 ADT with 4 AM and 4 PM peak hour trips.
- 4) *TM 5289 (Jamul Highlands)* – A 23-lot single-family residential subdivision project with access from Jamul Highlands Road. The traffic generation for this cumulative project is calculated at 276 ADT with 22 AM and 27 PM peak hour trips.
- 5) *TPM 20599 (Blanco)* – A 4-lot single-family residential subdivision project. The traffic generation for this cumulative project is calculated at 48 ADT with 4 AM and 4 PM peak hour trips.
- 6) *TPM 20868* – A 2-lot single-family residential subdivision project at the corner of Hillside Drive and Via de Jamul. The traffic generation for this cumulative project is calculated at 24 ADT with 2 AM and 3 PM peak hour trips.
- 7) *TPM 20686 (Tibbot)* – A 4-lot single-family residential subdivision project near Bee Valley Road. The traffic generation for this cumulative project is calculated at 48 ADT with 4 AM and 4 PM peak hour trips.
- 8) *TPM 20726 (Robnett)* – A 4-lot single-family residential subdivision project near Honey Springs Road. The traffic generation for this cumulative project is calculated at 48 ADT with 4 AM and 4 PM peak hour trips.
- 9) *TPM 20781 (Deichler)* – A 2-lot single-family residential subdivision project near Honey Springs Road. The traffic generation for this cumulative project is calculated at 24 ADT with 2 AM and 3 PM peak hour trips.
- 10) *Simpson Farms* – A residential subdivision of 98 homes and a retail/commercial project of 115,000 square feet. The project is to be located on the northeast corner of SR-94 (Campo Road) and Jefferson Road in the Jamul area of San Diego County,

TABLE 6: CUMULATIVE PROJECT TRAFFIC GENERATION

Cumulative Projects	ADT	AM		PM	
		IN	OUT	IN	OUT
1) TPM 20709 (Saflar)	24	1	1	2	1
2) TPM 20720 (Preski/Gonya)	48	1	3	3	1
3) TPM 20802 (Impink)	48	1	3	3	1
4) TM 5289 (Jamul Highlands)	276	7	15	19	8
5) TPM 20599 (Blanco)	48	1	3	3	1
6) TPM 20868	24	1	1	2	1
7) TPM 20686 (Tibbot)	48	1	3	3	1
8) TPM 20726 (Robnett)	48	1	3	3	1
9) TPM 20781 (Deichler)	24	1	1	2	1
10) Simpson Farms	7690	170	161	307	260
Total	8278	185	194	347	276

The individual and group cumulative project locations and volumes are shown on **Figure 10** with support data included in **Appendix C**.

Figure 10: Cumulative Project Locations and Volumes



7.0 Existing + Cumulative Conditions

This scenario accounts for the addition of cumulative project traffic onto the existing daily traffic conditions. The daily traffic volumes for this scenario of existing + cumulative projects are shown in **Figure 11**. The LOS calculated for street segments are shown in **Table 7**.

TABLE 7: EXISTING + CUMULATIVE SEGMENT ADT VOLUMES AND LEVEL OF SERVICE

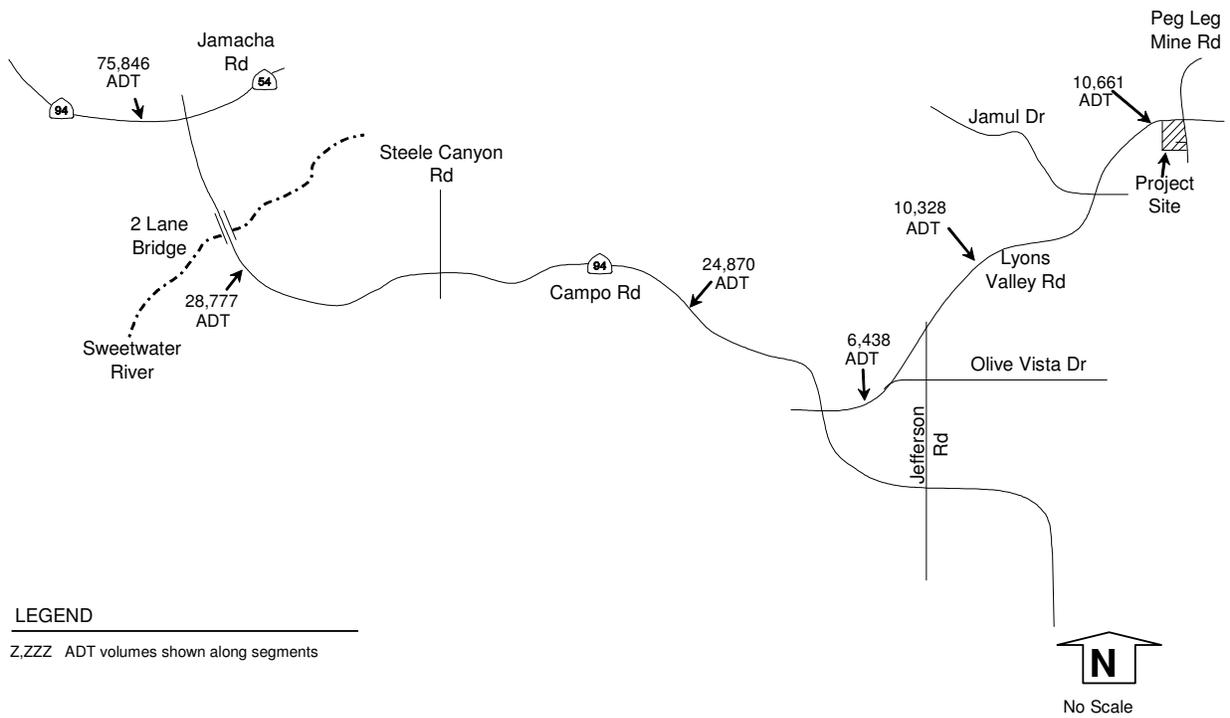
Segment	Current Classification (as built)	LOS E Capacity	Existing			Cumulative Daily Volume	Existing + Cumulative Daily		
			Daily Volume	V/C	LOS		Volume	V/C	LOS
<u>SR-94 (Campo Road)</u>									
Jamacha Blvd to Jamacha Rd	Prime (4U+C)	37,000	73,900	1.997	F	1,946	75,846	2.050	F
Jamacha Rd to Steele Canyon	Coll. & Prime (2U)	16,200	26,500	1.636	F	2,277	28,777	1.776	F
Steele Canyon to Lyons Valley Rd	Prime (2U)	16,200	21,470	1.325	F	3,400	24,870	1.535	F
<u>Lyons Valley Road</u>									
SR-94 to Jefferson Rd	Collector (2U)	16,200	5,945	0.367	C	493	6,438	0.397	C
Jefferson Rd to Jamul Dr	Collector (2U)	16,200	8,419	0.520	D	1,909	10,328	0.638	D
Jamul Dr to Peg Leg Mine Rd	Collector (2U)	16,200	9,213	0.569	D	1,448	10,661	0.658	D

Notes: (as built) = # of current lanes (i.e. Prime (4U+C) = Prime with 4 lanes & center painted median; Coll. & Prime = portion is classified as Collector and portion classified as Prime). Daily volume = 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity ratio.

Under Existing + cumulative conditions, all study roadway segments were calculated to operate at LOS D or better with the exception of:

- 1) The segment of SR-94 from Jamacha Blvd to Jamacha Rd (LOS F, ADT basis)
- 2) The segment of SR-94 from Jamacha Rd to Steele Canyon Rd (LOS F, ADT basis)
- 3) The segment of SR-94 from Steele Canyon Rd to Lyons Valley Rd (LOS F, ADT basis)

Figure 11: Existing + Cumulative Volumes



LEGEND

Z,ZZZ ADT volumes shown along segments

8.0 Existing + Cumulative + Project Conditions

This scenario accounts for the addition of project traffic onto the existing + cumulative traffic for daily conditions. The daily traffic volumes for this scenario of existing + cumulative + project conditions are shown in **Figure 12**. The LOS calculated for the street segments are shown in **Table 8**.

TABLE 8: EXISTING + CUMULATIVE + PROJECT SEGMENT ADT VOLUMES AND LEVEL OF SERVICE

Segment	Current Classification (as built)	LOS E Capacity	Existing			Project Daily Volume	Existing + Cumulative + Project				
			Daily Volume	V/C	LOS		Daily Volume	V/C	LOS	Change in V/C	Cumulative Impact?
SR-94 (Campo Road)											
Jamacha Blvd to Jamacha Rd	Prime (4U+C)	37,000	73,900	1.997	F	22	75,868	2.050	F	0.053	Yes
Jamacha Rd to Steele Canyon	Coll. & Prime (2U)	16,200	26,500	1.636	F	22	28,799	1.778	F	0.142	Yes
Steele Canyon to Lyons Valley Rd	Prime (2U)	16,200	21,470	1.325	F	22	24,892	1.537	F	0.211	Yes
Lyons Valley Road											
SR-94 to Jefferson Rd	Collector (2U)	16,200	5,945	0.367	C	22	6,460	0.399	C	0.032	No
Jefferson Rd to Jamul Dr	Collector (2U)	16,200	8,419	0.520	D	22	10,350	0.639	D	0.119	No
Jamul Dr to Peg Leg Mine Rd	Collector (2U)	16,200	9,213	0.569	D	22	10,683	0.659	D	0.091	No

Notes: (as built) = # of current lanes (i.e. Prime (4U+C) = Prime with 4 lanes & center painted median; Coll. & Prime = portion is classified as Collector and portion classified as Prime). Daily volume = 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity ratio.

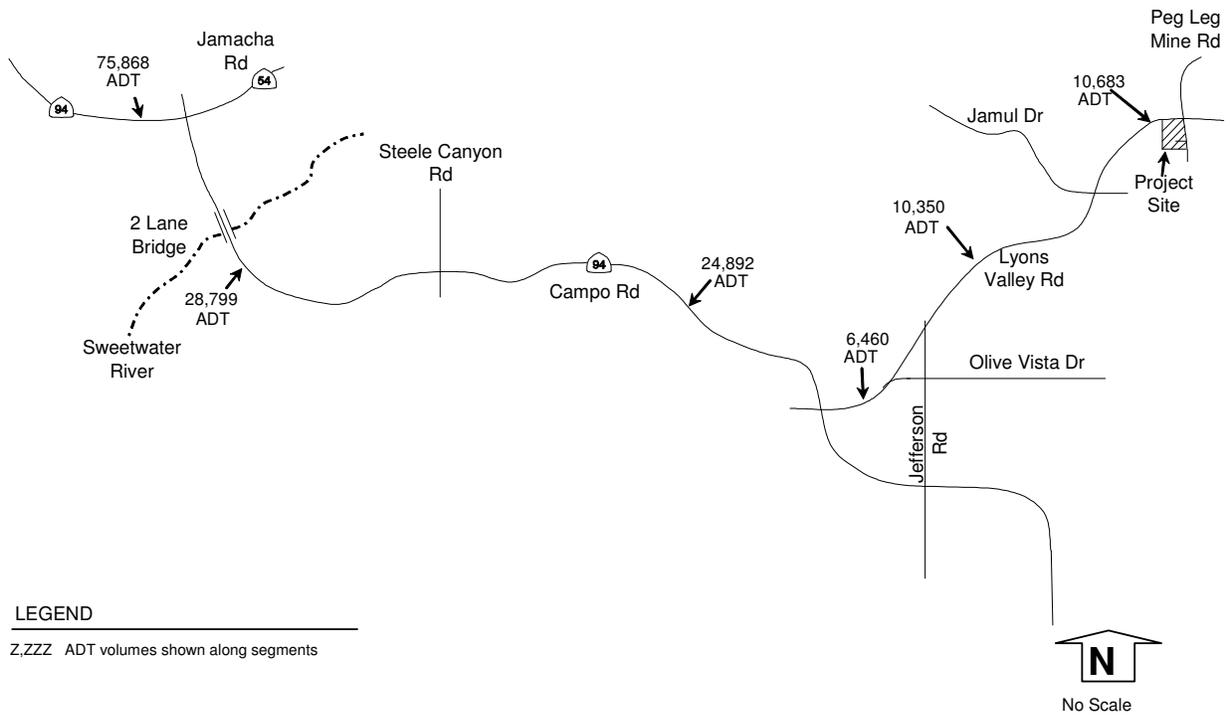
Under Existing + cumulative + project conditions, all study roadway segments were calculated to operate at LOS D or better with the exception of:

- 1) The segment of SR-94 from Jamacha Blvd to Jamacha Rd (LOS F, ADT basis)
- 2) The segment of SR-94 from Jamacha Rd to Steele Canyon Rd (LOS F, ADT basis)
- 3) The segment of SR-94 from Steele Canyon Rd to Lyons Valley Rd (LOS F, ADT basis)

The project is calculated to have three (3) cumulative impacts because traffic from the project plus traffic from the proposed cumulative projects exceed the allowable traffic thresholds. The roadways with cumulative impacts include:

- 1) The segment of SR-94 from Jamacha Blvd to Jamacha Rd (more than 200 ADT on a 4 lane roadway at LOS F, ADT basis)
- 2) The segment of SR-94 from Jamacha Rd to Steele Canyon Rd (more than 100 ADT on a 2 lane roadway at LOS F, ADT basis)
- 3) The segment of SR-94 from Steele Canyon Rd to Lyons Valley Rd (more than 100 ADT on a 2 lane roadway at LOS F, ADT basis)

Figure 12: Existing + Cumulative + Project Volumes



9.0 Build-Out (2030) Conditions

Build-out (2030) conditions were analyzed using SANDAG year 2030 forecasted ADTs for the study area roadways (**Appendix D**). The roadway operations were calculated using the number of lanes shown in the SANDAG model under year 2030 conditions.

The daily traffic volumes are shown in **Figure 13**. The LOS calculated for the street segments are shown in **Table 9**.

TABLE 9: BUILD-OUT (2030) SEGMENT ADT VOLUMES AND LEVEL OF SERVICE

Segment	SANDAG (2030) Classification (SANDAG # of lanes)	LOS E Capacity	Buildout		
			Daily Volume	V/C	LOS
<u>SR-94 (Campo Road)</u>					
New Alignment over Sweetwater River	Prime (4 Ln)	37,000	50,000	1.351	F
Sweetwater River to Steele Canyon Rd	Prime (4 Ln)	37,000	41,000	1.108	F
Steele Canyon to Lyons Valley Rd	Prime (2 Ln)	16,200	35,000	2.160	F
<u>Lyons Valley Road</u>					
SR-94 to Jefferson Rd	Collector (4 Ln)	34,200	9,000	0.263	A
Jefferson Rd to Jamul Dr	Collector (4 Ln)	34,200	17,000	0.497	B
Jamul Dr to Peg Leg Mine Rd	Collector (4 Ln)	34,200	20,000	0.585	B

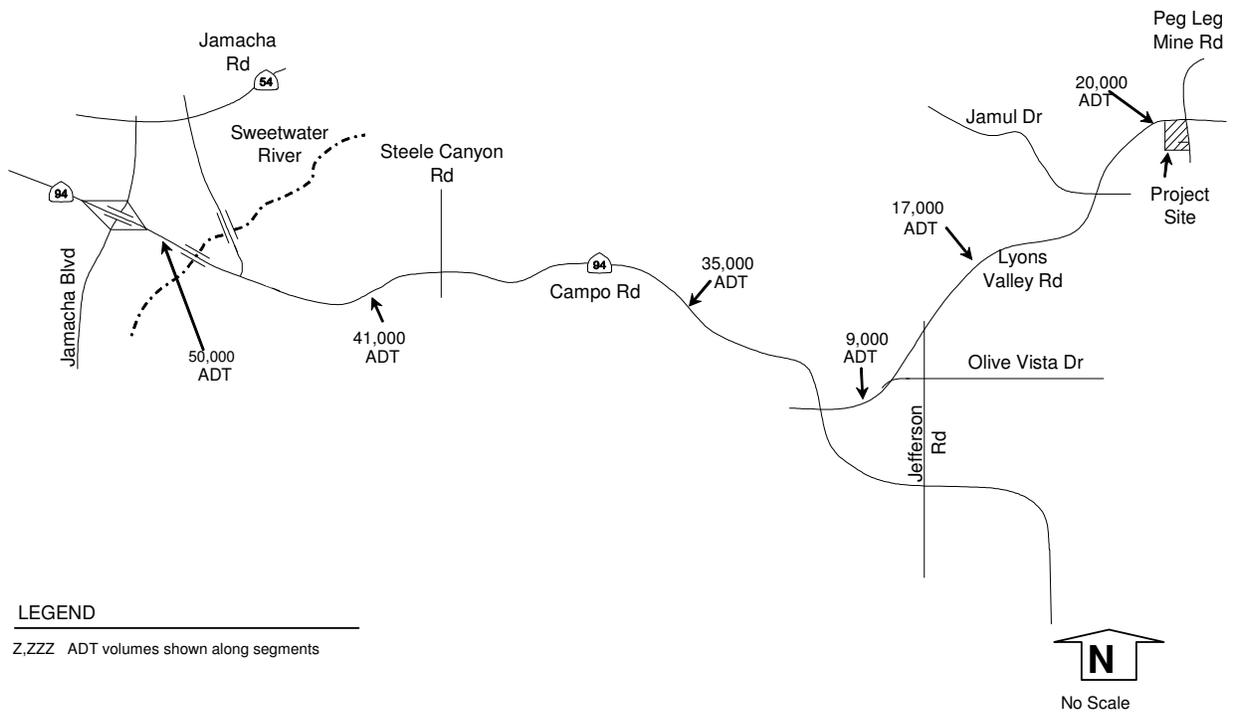
Notes: Buildout Classification as coded in SANDAG model.

Daily volume is a 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity ratio.

Under build-out (2030) conditions, all study roadway segments were calculated to operate at LOS D or better with the exception of:

- 1) The segment of SR-94 along the new alignment over Sweetwater River (LOS F, ADT basis)
- 2) The segment of SR-94 from Sweetwater River to Steele Canyon Rd (LOS F, ADT basis)
- 3) The segment of SR-94 from Steele Canyon Rd to Lyons Valley Rd (LOS F, ADT basis)

Figure 13: Build-Out (2030) Volumes



10.0 Build-Out (2030) + Project Conditions

This scenario accounts for the addition of project traffic onto build-out (2030) volumes for daily traffic conditions. The daily traffic volumes for this scenario are shown in **Figure 14**. The LOS calculated for the street segments are shown in **Table 10**.

TABLE 10: BUILD-OUT (2030) + PROJECT SEGMENT ADT VOLUMES AND LEVEL OF SERVICE

Segment	SANDAG (2030) Classification (SANDAG # of lanes)	LOS E Capacity	Buildout			Project Daily Volume	Buildout + Project					
			Daily Volume	V/C	LOS		Daily Volume	V/C	LOS	Change In V/C	Build-Out Impact?	
<u>SR-94 (Campo Road)</u>												
New Alignment over Sweetwater River	Prime (4 Ln)	37,000	50,000	1.351	F	2	50,002	1.351	F	0.000	No	
Sweetwater River to Steele Canyon Rd	Prime (4 Ln)	37,000	41,000	1.108	F	2	41,002	1.108	F	0.000	No	
Steele Canyon to Lyons Valley Rd	Prime (2 Ln)	16,200	35,000	2.160	F	2	35,002	2.161	F	0.000	No	
<u>Lyons Valley Road</u>												
SR-94 to Jefferson Rd	Collector (4 Ln)	34,200	9,000	0.263	A	2	9,002	0.263	A	0.000	No	
Jefferson Rd to Jamul Dr	Collector (4 Ln)	34,200	17,000	0.497	B	2	17,002	0.497	B	0.000	No	
Jamul Dr to Peg Leg Mine Rd	Collector (4 Ln)	34,200	20,000	0.585	B	2	20,002	0.585	B	0.000	No	

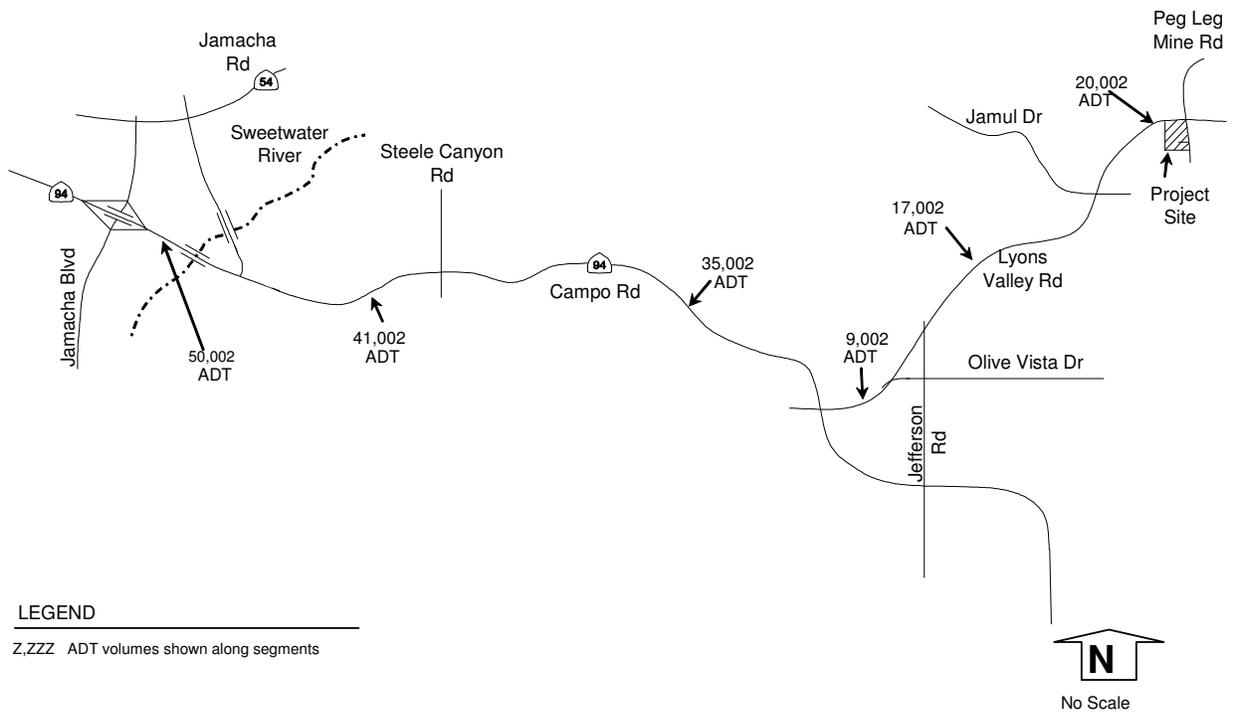
Notes: Buildout Classification as coded in SANDAG model. Daily volume is a 24 hour volume. LOS:Level of Service. V/C:Volume to Capacity ratio.

Under build-out (2030) + project conditions, all study roadway segments were calculated to operate at LOS D or better with the exception of:

- 1) The segment of SR-94 along the new alignment over Sweetwater River (LOS F, ADT basis)
- 2) The segment of SR-94 from Sweetwater River to Steele Canyon Rd (LOS F, ADT basis)
- 3) The segment of SR-94 from Steele Canyon Rd to Lyons Valley Rd (LOS F, ADT basis)

The project not calculated to have any built-out impacts because the project traffic does not exceed the allowable traffic threshold.

Figure 14: Build-Out (2030) + Project Volumes



11.0 Mitigation Measures

The project is calculated to have no direct impacts under either existing or built-out (2030) conditions. The project is calculated to have three (3) cumulative impacts under existing conditions. This section describes the recommended mitigation measures.

To mitigate the cumulative impacts, the project applicant proposes to pay into the Transportation Impact Fee (TIF) program. The County of San Diego has developed an overall programmatic solution that addresses existing and projected future road deficiencies in the unincorporated portion of San Diego County. This program includes the adoption of a TIF program to fund improvements to roadways necessary to mitigate potential cumulative impacts caused by traffic from future development. Based on SANDAG regional growth and land use forecasts, the SANDAG Regional Transportation Model was utilized to analyze projected build-out (year 2030) development conditions on the existing circulation element roadway network throughout the unincorporated area of the County. Based on the results of the traffic modeling, funding necessary to construct transportation facilities that will mitigate cumulative impacts from new development was identified. Existing roadway deficiencies will be corrected through improvement project funded by other public funding sources, such as TransNet, gas tax, and grants. Potential cumulative impacts to the region's freeways have been addressed in SANDAG's Regional Transportation Plan (RTP). This plan, which considers freeway buildout over the next 30 years, will use funds from TransNET, state, and federal funding to improve freeways to projected level of service objectives in the RTP.

The proposed project generates temporary construction traffic estimated at 22 ADT to occur for a 6 to 9 month period under near-term conditions. Under built-out conditions, the project is estimated to generate 2 ADT on a bi-monthly basis. These trips will be distributed on circulation element roadways in the County that were analyzed by the TIF program, some of which currently or are projected to operate at inadequate levels of service. These project trips therefore contribute to a potential significant cumulative impact and mitigation is required. The potential growth represented by this project was included in the growth projections upon which the TIF project is based. Therefore, payment of the TIF, which will be required at issuance of building permits, in combination with other components of the program describe above, will mitigate potential cumulative impacts to less than significant.

The cumulative impacts are calculated to occur on Caltrans' State Route 94. The "County of San Diego Transportation Impact Fee Report" dated January 2005 and adopted by the Board of Supervisors on April 13, 2005 states in the Executive Summary on page i "The TIF program differentiates between 'local' transportation facilities (collectors and minor streets) that benefit primarily the community in which they are located, and 'regional' facilities (state routes, prime arterials, major roads, and other regionally significant roadways)." also on the same page of the Executive Summary "Regional facilities costing a total of \$581M were identified, including states routes, prime arterials, and major roads." The applicant agrees to pay into the TIF program (which has a regional and local component) that will mitigate the potential cumulative impact on State Route 94, which is a "state route" and is included in the TIF as documented above. TIF report excerpts are included in **Appendix E** that show where the report states in the Transportation Needs Assessment on page 6 "The traffic assessment and TIF program included State operated highways (2 to 4 lane arterial roadways with at-grade intersections), and did not

include fully access controlled freeways of Interstate facilities, the improvement of which would be beyond the scope of the TIF program.” The portion of SR-94 analyzed within this report is a 2 to 4 lane arterial roadway with at-grade intersections. Also included in Appendix D are excerpts showing the base year and build-out deficiencies that list SR-94, Campo Road, and Lyons Valley Road.

12.0 Conclusion and Recommendations

The proposed 1485-1 Pump Station replacement project is located on the southeast corner of Lyons Valley Road and Peg Leg Mine Road in the Jamul area of San Diego County, California. The project site is currently occupied by an existing pump station that will be removed as part of this project.

Two levels of project traffic generation will occur: temporary construction traffic (estimated to last between 6 and 9 months) and permanent bi-monthly site visits there after. The near-term conditions were analyzed using the temporary construction traffic and the build-out conditions were analyzed using the permanent bi-monthly site visits there after. The specific traffic generation for each scenario is described below.

- 1) The near-term temporary construction traffic is estimated to consist of a couple utility trucks with multiple in and out trips as needed for materials, a large tractor trailer with a backhoe/excavator, a flatbed truck for pump parts, and a concrete truck as needed. The temporary construction period is estimated to last between 6 and 9 months. A Passenger Car Equivalent (PCE) factor of 2.0 from the Highway Capacity Manual (HCM) was applied to the trucks to account for the slower operational characteristics. With the addition of the PCE factor to the tractor trailers, flatbeds and concrete trucks, an estimate of 22 ADT is calculated for all of the construction traffic.
- 2) The build-out permanent traffic is estimated to consist of 2 round trips per month that will consist of one round trip every other week for readings and maintenance. On a daily basis, the highest estimated traffic would be 2 ADT occurring bi-monthly.

Based on a review of San Diego County records, ten (10) nearby cumulative projects were identified and included in this analysis.

Six (6) scenarios were analyzed, which included existing, existing + project, existing + cumulative, existing + cumulative + project, build-out (2030), and build-out (2030) + project conditions. Operational findings by scenario are summarized below:

Under existing conditions, all study roadway segments were calculated to operate at LOS D or better with the exception of:

- 1) The segment of SR-94 from Jamacha Blvd to Jamacha Rd (LOS F, ADT basis)
- 2) The segment of SR-94 from Jamacha Rd to Steele Canyon Rd (LOS F, ADT basis)
- 3) The segment of SR-94 from Steele Canyon Rd to Lyons Valley Rd (LOS F, ADT basis)

Under existing + project conditions, the project was calculated to have ***no direct impacts because the project traffic does not exceed the allowable traffic threshold.*** All study roadway segments were calculated to operate at LOS D or better with the exception of:

- 1) The segment of SR-94 from Jamacha Blvd to Jamacha Rd (LOS F, ADT basis)
- 2) The segment of SR-94 from Jamacha Rd to Steele Canyon Rd (LOS F, ADT basis)
- 3) The segment of SR-94 from Steele Canyon Rd to Lyons Valley Rd (LOS F, ADT basis)

Under existing + cumulative conditions, all study intersections and roadways were calculated to operate at LOS D or better with the exception of:

- 1) The segment of SR-94 from Jamacha Blvd to Jamacha Rd (LOS F, ADT basis)
- 2) The segment of SR-94 from Jamacha Rd to Steele Canyon Rd (LOS F, ADT basis)
- 3) The segment of SR-94 from Steele Canyon Rd to Lyons Valley Rd (LOS F, ADT basis)

Under existing + cumulative + project conditions, the project is calculated to have **three (3) cumulative impacts**, which include:

- 1) The segment of SR-94 from Jamacha Blvd to Jamacha Rd (more than 200 ADT at LOS F, ADT basis)
- 2) The segment of SR-94 from Jamacha Rd to Steele Canyon Rd (more than 200 ADT at LOS F, ADT basis)
- 3) The segment of SR-94 from Steele Canyon Rd to Lyons Valley Rd (more than 200 ADT at LOS F, ADT basis)

Under build-out (2030) conditions, all study intersections and roadways were calculated to operate at LOS D or better with the exception of:

- 1) The segment of SR-94 along the new alignment over Sweetwater River (LOS F, ADT basis)
- 2) The segment of SR-94 from Sweetwater River to Steele Canyon Rd (LOS F, ADT basis)
- 3) The segment of SR-94 from Steele Canyon Rd to Lyons Valley Rd (LOS F, ADT basis)

Under build-out (2030) + project conditions, the project is calculated to have **no build-out impacts because the project traffic does not exceed the allowable traffic threshold**. All of the study roadway segments were calculated to operate at LOS D or better with the exception of:

- 1) The segment of SR-94 along the new alignment over Sweetwater River (LOS F, ADT basis)
- 2) The segment of SR-94 from Sweetwater River to Steele Canyon Rd (LOS F, ADT basis)
- 3) The segment of SR-94 from Steele Canyon Rd to Lyons Valley Rd (LOS F, ADT basis)

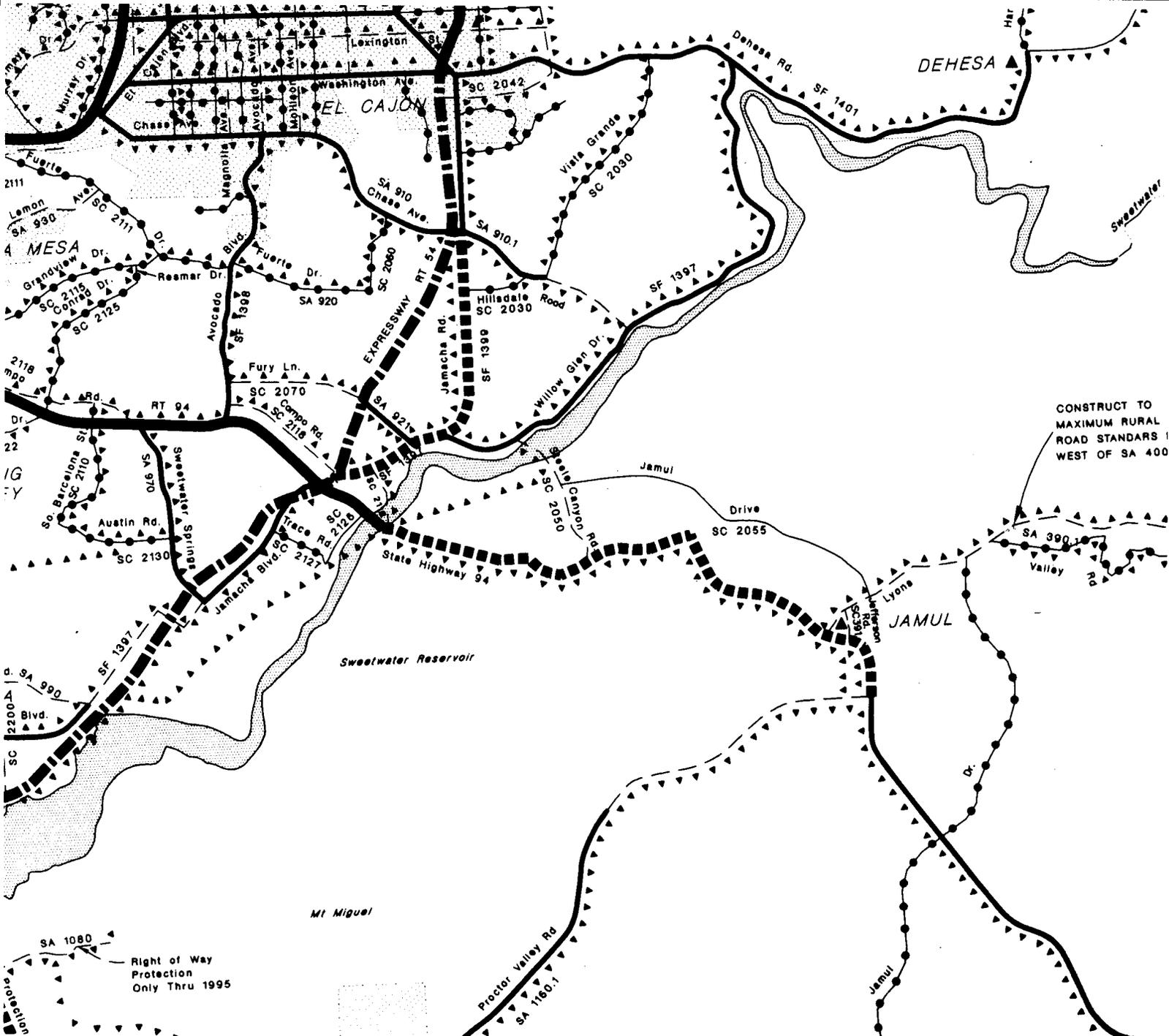
12.1 Recommended Mitigation Measures

The project is calculated to have three (3) cumulative impacts. To mitigate the cumulative impacts, the project applicant proposes to pay into the TIF program.

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Appendix A

County of San Diego Circulation Element Classification



LEGEND

	FREEWAYS		THREE LANE COLLECTOR
	FREEWAYS (Proposed)		RURAL COLLECTORS
	EXPRESSWAYS		RURAL LIGHT COLLECTORS
	PRIME ARTERIALS		LIGHT COLLECTORS
	MAJOR ROADS		RURAL MOUNTAIN ROADS
	RECREATIONAL PARKWAYS		BICYCLE NETWORK SYSTEM
	COLLECTOR ROADS		

INCORPORATED CITIES



Appendix B

Count Data

Caltrans Data

						Back	Back		Ahead	Ahead		
						Peak	Peak	Back	Peak	Peak	Ahead	
District	Route	Suf	County	PM Prefix	Post mile	Description	Hour	Month	AAADT	Hour	Month	AAADT
Year 1997												
	11	94	SD		14.33	JAMACHA ROAD	3200	35500	34500	3900	43500	42000
	11	94	SD		14.86	JCT. RTE. 54 NORTH	3900	43500	42000	1250	14000	13600
	11	94	SD		17.35	STEEL CANYON ROAD	1250	14000	13600	1400	15300	14800
Year 1998												
	11	94	SD		14.33	JAMACHA ROAD	3250	36000	35000	4000	44500	43000
	11	94	SD		14.86	JCT. RTE. 54 NORTH	4000	44500	43000	1300	14300	13800
	11	94	SD		17.35	STEEL CANYON ROAD	1300	14300	13800	1400	15600	15100
Year 1999												
	11	94	SD		14.33	JAMACHA ROAD	3350	38500	37000	4150	47500	45500
	11	94	SD		14.86	JCT. RTE. 54 NORTH	4150	47500	45500	1350	15200	14600
	11	94	SD		17.35	STEEL CANYON ROAD	1350	15200	14600	1450	16700	16000
Year 2000												
	11	94	SD		14.33	JAMACHA ROAD	4150	48000	46500	4900	57000	55000
	11	94	SD		14.86	JCT. RTE. 54 NORTH	4900	57000	55000	1750	19900	19300
	11	94	SD		17.35	STEELE CANYON ROAD	1750	19900	19300	1550	18000	17400
Year 2001												
	11	94	SD		14.33	JAMACHA ROAD	3750	49000	48000	4500	58000	57000
	11	94	SD		14.86	JCT. RTE. 54 NORTH	4500	58000	57000	1550	20300	19900
	11	94	SD		17.35	STEELE CANYON ROAD	1550	20300	19900	1350	17700	17400
Year 2002												
	11	94	SD		14.33	JAMACHA ROAD	4000	51000	49500	4800	61000	59000
	11	94	SD		14.86	JCT. RTE. 54 NORTH	4800	61000	59000	1650	21200	20600
	11	94	SD		17.35	STEELE CANYON ROAD	1650	21200	20600	1450	18500	18000
Year 2003												
	11	94	SD		14.33	JAMACHA ROAD	3800	45000	44000	5000	59000	58000
	11	94	SD		14.86	JCT. RTE. 54 NORTH	5000	59000	58000	1750	20800	20300
	11	94	SD		17.35	STEELE CANYON ROAD	1750	20800	20300	1550	18100	17700
Year 2004												
	11	94	SD		14.33	JAMACHA ROAD	4150	50000	48500	5500	66000	64000
	11	94	SD		14.86	JCT. RTE. 54 NORTH	5500	66000	64000	1900	22900	22300
	11	94	SD		17.35	STEELE CANYON ROAD	1900	22900	22300	1650	19900	19400
Year 2005												
	11	94	SD		14.33	JAMACHA ROAD	4150	50000	49500	5500	66000	65000
	11	94	SD		14.86	JCT. RTE. 54 NORTH	5500	66000	65000	1900	23000	22700
	11	94	SD		17.35	STEELE CANYON ROAD	1900	23000	22700	1650	20000	19800

ADT GROWTH CALCULATIONS

Based on AADT counts from Caltrans website (shown on previous page).

SR-94 between Jamacha and SR-54 North

Year	Delta in Years	ADT		Change in ADT	% change for year shown	Average Growth Factor Per Year
1997		42,000	Caltrans Historical Data			
1998	1	43,000		1,000	2.3%	
1999	1	45,500		2,500	5.5%	
2000	1	55,000		9,500	17.3%	
2001	1	57,000		2,000	3.5%	
2002	1	59,000		2,000	3.4%	
2003	1	58,000		-1,000	-1.7%	
2004	1	64,000		6,000	9.4%	
2005	1	65,000		1,000	1.5%	
2007	Forecast	73,900				

SR-94 between SR-54 North and Steele Canyon

Year	Delta in Years	ADT		Change in ADT	% change for year shown	Average Growth Factor Per Year
1997		13,600	Caltrans Historical Data			
1998	1	13,800		200	1.4%	
1999	1	14,600		800	5.5%	
2000	1	19,300		4,700	24.4%	
2001	1	19,900		600	3.0%	
2002	1	20,600		700	3.4%	
2003	1	20,300		-300	-1.5%	
2004	1	22,300		2,000	9.0%	
2005	1	22,700		400	1.8%	
2007	Forecast	26,500				

SR-94 between Steele Canyon and Lyons Valley

Year	Delta in Years	ADT		Change in ADT	% change for year shown	Average Growth Factor Per Year
1997		14,800	Caltrans Historical Data			
1998	1	15,100		300	2.0%	
1999	1	16,000		900	5.6%	
2000	1	17,400		1,400	8.0%	
2001	1	17,400		0	0.0%	
2002	1	18,000		600	3.3%	
2003	1	17,700		-300	-1.7%	
2004	1	19,400		1,700	8.8%	
2005	1	19,800		400	2.0%	
2007	Forecast	21,470				

Daily Vehicle Volume Report

Location:

Lyons Valley Road btwn SR-94 & Jefferson Rd

File Number: 68601

Counter ID: 89319

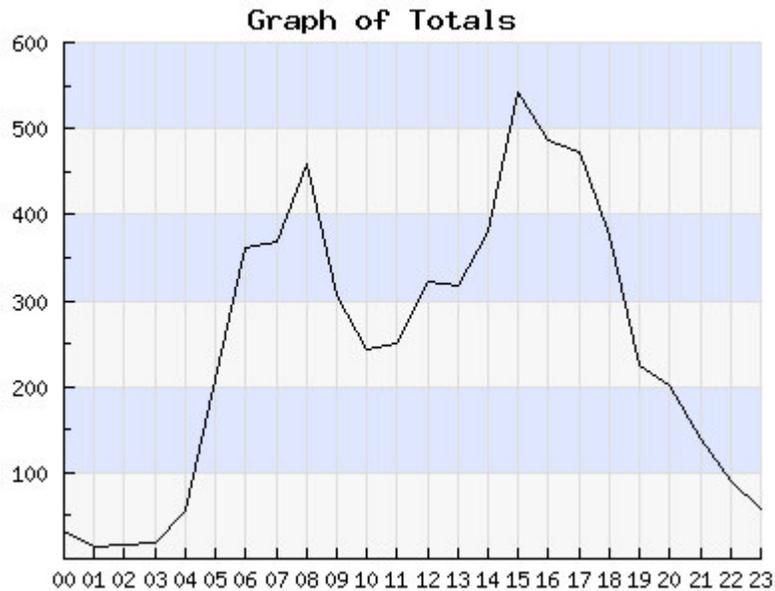
Report Duration:

Thursday Feb 08, 2007 - 00:00 to

Thursday Feb 08, 2007 - 23:59

Other Notes:

None at this time.



Time	Total Volume		Total Volume
00:00 - 00:59	32	0	32
01:00 - 01:59	14	0	14
02:00 - 02:59	17	0	17
03:00 - 03:59	19	0	19
04:00 - 04:59	56	0	56
05:00 - 05:59	208	0	208
06:00 - 06:59	362	0	362
07:00 - 07:59	369	0	369
08:00 - 08:59	459	0	459
09:00 - 09:59	305	0	305
10:00 - 10:59	243	0	243
11:00 - 11:59	250	0	250
12:00 - 12:59	322	0	322
13:00 - 13:59	318	0	318
14:00 - 14:59	381	0	381
15:00 - 15:59	542	0	542
16:00 - 16:59	487	0	487
17:00 - 17:59	472	0	472
18:00 - 18:59	376	0	376
19:00 - 19:59	224	0	224
20:00 - 20:59	202	0	202
21:00 - 21:59	138	0	138
22:00 - 22:59	91	0	91
23:00 - 23:59	58	0	58
Total	5945	0	5945
AM Peak	8:15	0:00	8:15
Hour	9:14	0:59	9:14
Volume	497	0	497
PM Peak	15:00	12:00	15:00
Hour	15:59	12:59	15:59
Volume	542	0	542

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Daily Vehicle Volume Report

Location:

Lyons Valley Rd btwn Jamul Dr & Jefferson Rd

File Number: 54506

Counter ID: N026

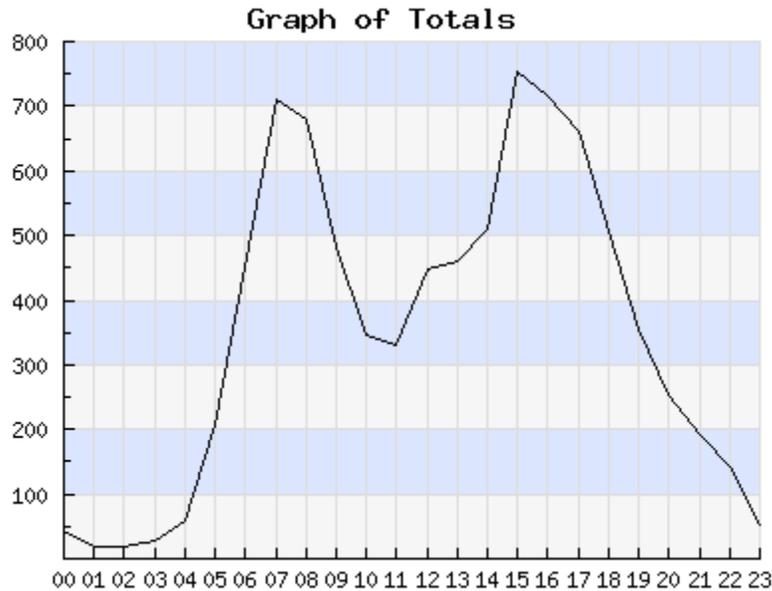
Report Duration:

Thursday Feb 16, 2006 - 05:00 to

Friday Feb 17, 2006 - 04:59

Other Notes:

None at this time.



Time	North Bound Volume	South Bound Volume	Total Volume
00:00 - 00:59	36	7	43
01:00 - 01:59	15	3	18
02:00 - 02:59	10	7	17
03:00 - 03:59	10	18	28
04:00 - 04:59	12	46	58
05:00 - 05:59	26	182	208
06:00 - 06:59	89	361	450
07:00 - 07:59	241	468	709
08:00 - 08:59	261	417	678
09:00 - 09:59	163	320	483
10:00 - 10:59	130	217	347
11:00 - 11:59	170	160	330
12:00 - 12:59	220	229	449
13:00 - 13:59	226	233	459
14:00 - 14:59	282	228	510
15:00 - 15:59	413	340	753
16:00 - 16:59	451	267	718
17:00 - 17:59	363	297	660
18:00 - 18:59	300	207	507
19:00 - 19:59	244	112	356
20:00 - 20:59	179	74	253
21:00 - 21:59	148	44	192
22:00 - 22:59	105	36	141
23:00 - 23:59	39	13	52
Total	4133	4286	8419
AM Peak Hour	8:15 - 9:14	6:30 - 7:29	8:15 - 9:14
Volume	269	491	731
PM Peak Hour	16:00 - 16:59	15:00 - 15:59	15:15 - 16:14
Volume	451	340	761

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Daily Vehicle Volume Report

Location:

Lyons Valley Rd btwn Jamul Dr and Peg Leg Mine Rd

File Number: 63301

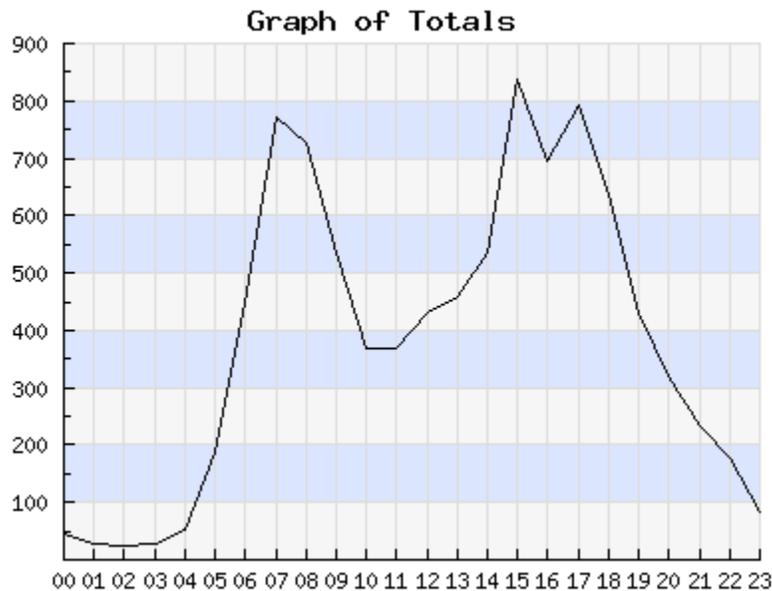
Counter ID: N026

Report Duration:

Tuesday Aug 22, 2006 - 00:00 to
Tuesday Aug 22, 2006 - 23:59

Other Notes:

None at this time.



Time	East Bound Volume	West Bound Volume	Total Volume
00:00 - 00:59	34	12	46
01:00 - 01:59	20	7	27
02:00 - 02:59	15	11	26
03:00 - 03:59	9	19	28
04:00 - 04:59	9	42	51
05:00 - 05:59	21	167	188
06:00 - 06:59	63	387	450
07:00 - 07:59	231	539	770
08:00 - 08:59	289	436	725
09:00 - 09:59	166	368	534
10:00 - 10:59	142	225	367
11:00 - 11:59	152	217	369
12:00 - 12:59	216	216	432
13:00 - 13:59	209	251	460
14:00 - 14:59	308	227	535
15:00 - 15:59	501	338	839
16:00 - 16:59	453	242	695
17:00 - 17:59	471	320	791
18:00 - 18:59	394	242	636
19:00 - 19:59	276	154	430
20:00 - 20:59	225	95	320
21:00 - 21:59	180	54	234
22:00 - 22:59	139	38	177
23:00 - 23:59	69	14	83
Total	4592	4621	9213
AM Peak Hour	8:15	6:45	8:15
Volume	302	570	793
PM Peak Hour	15:00	15:00	15:00
Volume	501	338	839

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Speed Report

Date: 8/22/06

Site: [633.01] Lyons Valley Rd btwn Jamul Dr and Peg Leg Mine F

EASTBOUND

		5	10	15	20	25	30	35	40	45	50	55	60	65	70	
Time		9	14	19	24	29	34	39	44	49	54	59	64	69	74+	Total
00:00	AM	0	0	0	0	0	0	1	4	10	13	5	0	1	0	34
01:00		0	0	0	0	0	0	1	4	2	6	5	2	0	0	20
02:00		0	0	0	0	0	0	1	2	4	6	2	0	0	0	15
03:00		0	0	0	0	0	0	0	1	1	3	3	0	0	1	9
04:00		0	0	0	0	0	0	0	1	1	1	1	1	4	0	9
05:00		0	0	0	0	0	0	1	3	7	6	2	2	0	0	21
06:00		0	0	0	0	0	1	2	5	21	25	6	3	0	0	63
07:00		0	0	1	0	1	0	9	45	82	69	23	1	0	0	231
08:00		0	1	1	0	8	5	14	47	85	101	21	6	0	0	289
09:00		0	3	0	1	2	3	14	27	59	39	13	4	1	0	166
10:00		0	0	0	0	0	1	9	29	52	32	13	6	0	0	142
11:00		0	0	1	1	1	3	4	25	57	37	19	4	0	0	152
12:00	PM	0	0	0	0	1	4	7	40	81	48	29	4	1	1	216
13:00		0	0	0	1	1	2	8	22	89	56	26	4	0	0	209
14:00		0	0	1	0	4	11	25	67	93	71	33	2	0	1	308
15:00		0	2	3	5	3	14	35	96	169	132	32	9	1	0	501
16:00		0	0	0	0	2	13	16	78	176	134	27	7	0	0	453
17:00		0	0	1	0	2	6	10	62	172	170	42	2	4	0	471
18:00		0	1	0	0	0	0	9	60	154	125	40	5	0	0	394
19:00		0	0	0	1	2	2	17	52	97	68	26	8	1	2	276
20:00		0	0	1	0	0	10	16	48	84	45	16	2	3	0	225
21:00		0	0	1	0	0	1	12	33	46	54	28	5	0	0	180
22:00		0	0	0	0	1	3	6	21	34	44	16	10	4	0	139
23:00		0	0	0	0	0	1	2	9	23	20	5	6	1	2	69
Totals		0	7	10	9	28	80	219	781	1599	1305	433	93	21	7	4592
% of Totals			0%	0%	0%	1%	2%	5%	17%	35%	28%	9%	2%	0%	0%	100%
% AM			0%	0%	0%	0%	0%	1%	4%	8%	7%	2%	1%	0%	0%	25%
AM Peak Hour		09:00	07:00	09:00	08:00	08:00	08:00	08:00	08:00	08:00	07:00	08:00	04:00	03:00	08:00	
Volume		3	1	1	8	5	14	47	85	101	23	6	4	1	289	
% PM			0%	0%	0%	0%	1%	4%	13%	27%	21%	7%	1%	0%	0%	75%
PM Peak Hour		15:00	15:00	15:00	14:00	15:00	15:00	15:00	16:00	17:00	17:00	22:00	17:00	19:00	15:00	
Volume		2	3	5	4	14	35	96	176	170	42	10	4	2	501	

Average Speed	50th Percentile	85th Percentile
48.4	49	54

Speed Report

Date: 8/22/06

Site: [633.01] Lyons Valley Rd btwn Jamul Dr and Peg Leg Mine F

WESTBOUND

		5	10	15	20	25	30	35	40	45	50	55	60	65	70	
Time		9	14	19	24	29	34	39	44	49	54	59	64	69	74+	Total
00:00	AM	0	0	0	1	1	0	1	1	2	4	1	1	0	0	12
01:00		0	0	0	0	0	1	1	3	0	2	0	0	0	0	7
02:00		0	0	0	0	0	0	2	3	2	2	0	1	1	0	11
03:00		0	0	0	0	0	0	1	3	6	7	1	1	0	0	19
04:00		0	0	0	0	0	1	2	6	9	12	11	1	0	0	42
05:00		0	0	0	0	0	0	2	21	62	53	20	6	2	1	167
06:00		0	0	0	0	2	3	16	63	139	134	24	6	0	0	387
07:00		0	0	0	0	1	17	35	83	198	166	34	3	2	0	539
08:00		0	0	2	0	0	4	11	82	173	126	34	4	0	0	436
09:00		0	0	0	0	1	3	22	77	156	91	14	4	0	0	368
10:00		0	0	0	0	1	0	8	46	86	67	14	3	0	0	225
11:00		0	0	0	0	2	1	11	41	77	56	28	0	1	0	217
12:00	PM	0	0	0	1	0	1	7	38	80	69	16	4	0	0	216
13:00		0	0	0	0	0	8	12	50	106	55	17	3	0	0	251
14:00		0	0	0	0	0	1	15	59	63	67	16	5	1	0	227
15:00		0	0	0	0	0	3	27	61	148	83	14	2	0	0	338
16:00		0	0	0	0	1	4	16	47	84	63	22	5	0	0	242
17:00		0	0	0	0	0	0	11	79	133	70	24	3	0	0	320
18:00		0	0	0	1	3	2	12	43	115	49	15	2	0	0	242
19:00		0	0	0	0	0	1	17	32	63	34	7	0	0	0	154
20:00		0	0	0	0	0	2	17	27	27	16	4	2	0	0	95
21:00		0	0	0	0	1	0	6	12	18	11	3	3	0	0	54
22:00		0	0	0	0	0	0	5	5	13	9	4	1	1	0	38
23:00		0	0	0	0	0	1	0	2	4	3	3	0	0	1	14
Totals		0	0	2	3	13	53	257	884	1764	1249	326	60	8	2	4621
% of Totals				0%	0%	0%	1%	6%	19%	38%	27%	7%	1%	0%	0%	100%
% AM				0%	0%	0%	1%	2%	9%	20%	16%	4%	1%	0%	0%	53%
AM Peak Hour			08:00		06:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	05:00	05:00	05:00	07:00
Volume			2		1	2	17	35	83	198	166	34	6	2	1	539
% PM					0%	0%	0%	3%	10%	18%	11%	3%	1%	0%	0%	47%
PM Peak Hour					12:00	18:00	13:00	15:00	17:00	15:00	15:00	17:00	14:00	14:00	23:00	15:00
Volume					1	3	8	27	79	148	83	24	5	1	1	338

Average Speed	50th Percentile	85th Percentile
48.0	48	Page 10 of 29

Speed Statistics

SpeedStat-545.6-NB

Site: 6.0NS
Description: Lyons Valley Rd btwn Jamul Dr and Jefferson
Filter time: 5:00 Thursday, February 16, 2006 => 5:00 Friday, February 17, 2006
Scheme: Vehicle classification (Scheme F99)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(N) Sp(5,100) Sep(>0)

Vehicles = 4133

Posted speed limit= 37 mph, Exceeding = 3779 (91.43%), Mean Exceeding = 50.04 mph

Maximum = 89.5 mph, **Minimum =** 10.0 mph, **Mean =** 48.6 mph

85% Speed = 57.3 mph, **95% Speed =** 62.2 mph, **Median =** 48.8 mph

10 mph Pace = 45 - 55, **Number in Pace =** 1778 (43.02%)

Variance = 74.82, **Standard Deviation =** 8.65 mph

Speed Bins

Speed	Bin	Below	Above	Energy	vMult	n * vMult
0 - 5	0 0.0%	0 0.0%	4133 100.0%	0.00	0.00	0.00
5 - 10	0 0.0%	0 0.0%	4133 100.0%	0.00	0.00	0.00
10 - 15	2 0.0%	2 0.0%	4131 100.0%	0.00	0.00	0.00
15 - 20	2 0.0%	4 0.1%	4129 99.9%	0.00	0.00	0.00
20 - 25	10 0.2%	14 0.3%	4119 99.7%	0.00	0.00	0.00
25 - 30	41 1.0%	55 1.3%	4078 98.7%	0.00	0.00	0.00
30 - 35	167 4.0%	222 5.4%	3911 94.6%	0.00	0.00	0.00
35 - 40	465 11.3%	687 16.6%	3446 83.4%	0.00	0.00	0.00
40 - 45	751 18.2%	1438 34.8%	2695 65.2%	0.00	0.00	0.00
45 - 50	814 19.7%	2252 54.5%	1881 45.5%	0.00	0.00	0.00
50 - 55	954 23.1%	3206 77.6%	927 22.4%	0.00	0.00	0.00
55 - 60	578 14.0%	3784 91.6%	349 8.4%	0.00	0.00	0.00
60 - 65	242 5.9%	4026 97.4%	107 2.6%	0.00	0.00	0.00
65 - 70	74 1.8%	4100 99.2%	33 0.8%	0.00	0.00	0.00
70 - 75	24 0.6%	4124 99.8%	9 0.2%	0.00	0.00	0.00
75 - 80	5 0.1%	4129 99.9%	4 0.1%	0.00	0.00	0.00
80 - 85	3 0.1%	4132 100.0%	1 0.0%	0.00	0.00	0.00
85 - 90	1 0.0%	4133 100.0%	0 0.0%	0.00	0.00	0.00
90 - 95	0 0.0%	4133 100.0%	0 0.0%	0.00	0.00	0.00
95 - 100	0 0.0%	4133 100.0%	0 0.0%	0.00	0.00	0.00

Total Speed Rating = 0.00

Total Moving Energy (Estimated) = 0.00

Speed limit fields

Limit	Below	Above
0 37 (PSL)	354 8.6%	3779 91.4%

Speed Statistics

SpeedStat-545.6-SB

Site: 6.0NS
Description: Lyons Valley Rd btwn Jamul Dr and Jefferson
Filter time: 5:00 Thursday, February 16, 2006 => 5:00 Friday, February 17, 2006
Scheme: Vehicle classification (Scheme F99)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(S) Sp(5,100) Sep(>0)

Vehicles = 4287
Posted speed limit= 37 mph, Exceeding = 4145 (96.69%), Mean Exceeding = 46.59 mph
Maximum = 73.8 mph, **Minimum =** 14.6 mph, **Mean =** 46.1 mph
85% Speed = 51.2 mph, **95% Speed =** 54.4 mph, **Median =** 45.9 mph
10 mph Pace = 41 - 51, **Number in Pace =** 3014 (70.31%)
Variance = 28.42, **Standard Deviation =** 5.33 mph

Speed Bins

Speed	Bin	Below	Above	Energy	vMult	n * vMult
0 - 5	0	0 0.0%	4287 100.0%	0.00	0.00	0.00
5 - 10	0	0 0.0%	4287 100.0%	0.00	0.00	0.00
10 - 15	1	1 0.0%	4286 100.0%	0.00	0.00	0.00
15 - 20	10	11 0.3%	4276 99.7%	0.00	0.00	0.00
20 - 25	3	14 0.3%	4273 99.7%	0.00	0.00	0.00
25 - 30	8	22 0.5%	4265 99.5%	0.00	0.00	0.00
30 - 35	44	66 1.5%	4221 98.5%	0.00	0.00	0.00
35 - 40	375	441 10.3%	3846 89.7%	0.00	0.00	0.00
40 - 45	1308	1749 40.8%	2538 59.2%	0.00	0.00	0.00
45 - 50	1627	3376 78.7%	911 21.3%	0.00	0.00	0.00
50 - 55	737	4113 95.9%	174 4.1%	0.00	0.00	0.00
55 - 60	139	4252 99.2%	35 0.8%	0.00	0.00	0.00
60 - 65	24	4276 99.7%	11 0.3%	0.00	0.00	0.00
65 - 70	6	4282 99.9%	5 0.1%	0.00	0.00	0.00
70 - 75	5	4287 100.0%	0 0.0%	0.00	0.00	0.00
75 - 80	0	4287 100.0%	0 0.0%	0.00	0.00	0.00
80 - 85	0	4287 100.0%	0 0.0%	0.00	0.00	0.00
85 - 90	0	4287 100.0%	0 0.0%	0.00	0.00	0.00
90 - 95	0	4287 100.0%	0 0.0%	0.00	0.00	0.00
95 - 100	0	4287 100.0%	0 0.0%	0.00	0.00	0.00

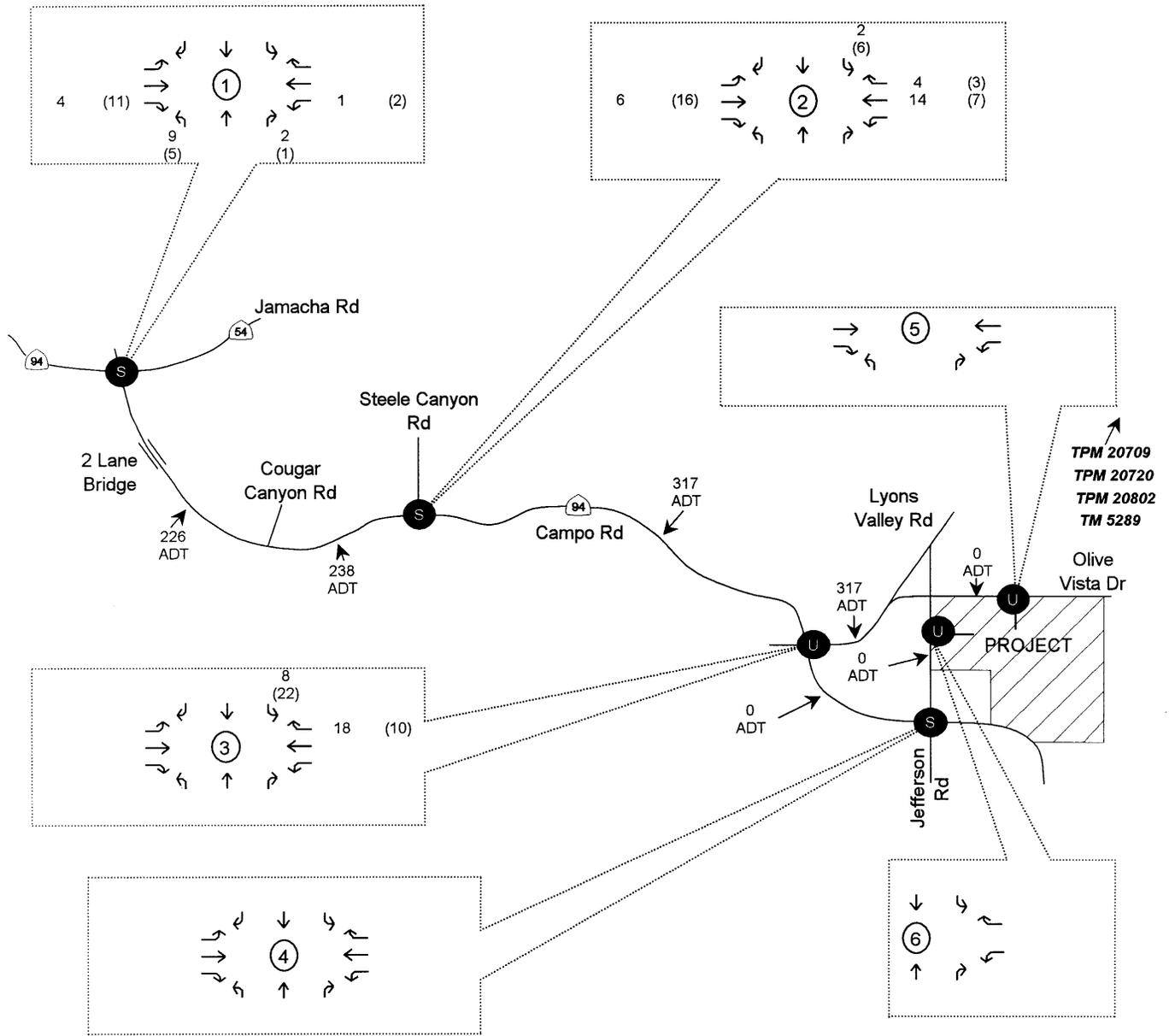
Total Speed Rating = 0.00
Total Moving Energy (Estimated) = 0.00

Speed limit fields

Limit	Below	Above
0 37 (PSL)	142 3.3%	4145 96.7%

Appendix C

Cumulative Project Information



TPM 20709
 TPM 20720
 TPM 20802
 TM 5289

LEGEND

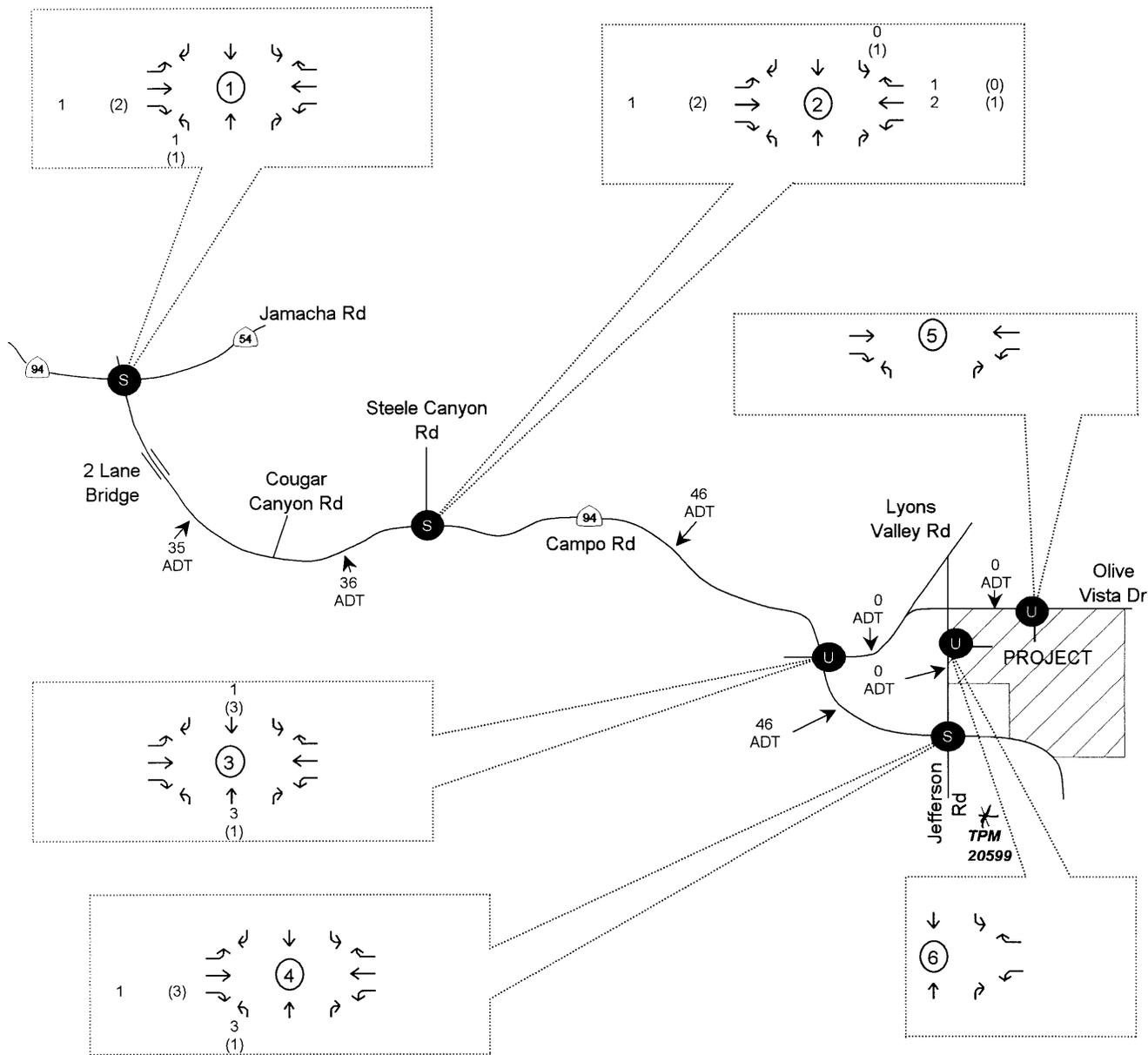
- XX AM peak hour volumes at intersections
- (YY) PM peak hour volumes at intersections
- Z,ZZZ ADT volumes shown along segments
- ① Intersection Reference Number to LOS Tables
- U Study Intersection - Un-signalized
- S Study Intersection - Signalized



Total (TPM 20709 TPM 20720 TPM 20802, TM 5289)

Proposed Land Use	Rate	Size & Units	ADT	%	Split	AM			PM		
						IN	OUT	%	Split	IN	OUT
Residential - Estate	12 /DU	33 DU	396	8%	0.3 0.7	10	22	10%	0.7 0.3	28	12

Source: SANDAG Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002 and ITE 7th Edition Trip Generation. DU - Dwelling Unit; ADT-Average Daily Traffic; Split-percent inbound and outbound.



LEGEND

- XX AM peak hour volumes at intersections
- (YY) PM peak hour volumes at intersections
- Z,ZZZ ADT volumes shown along segments
- (1) Intersection Reference Number to LOS Tables
- (U) Study Intersection - Un-signalized
- (S) Study Intersection - Signalized

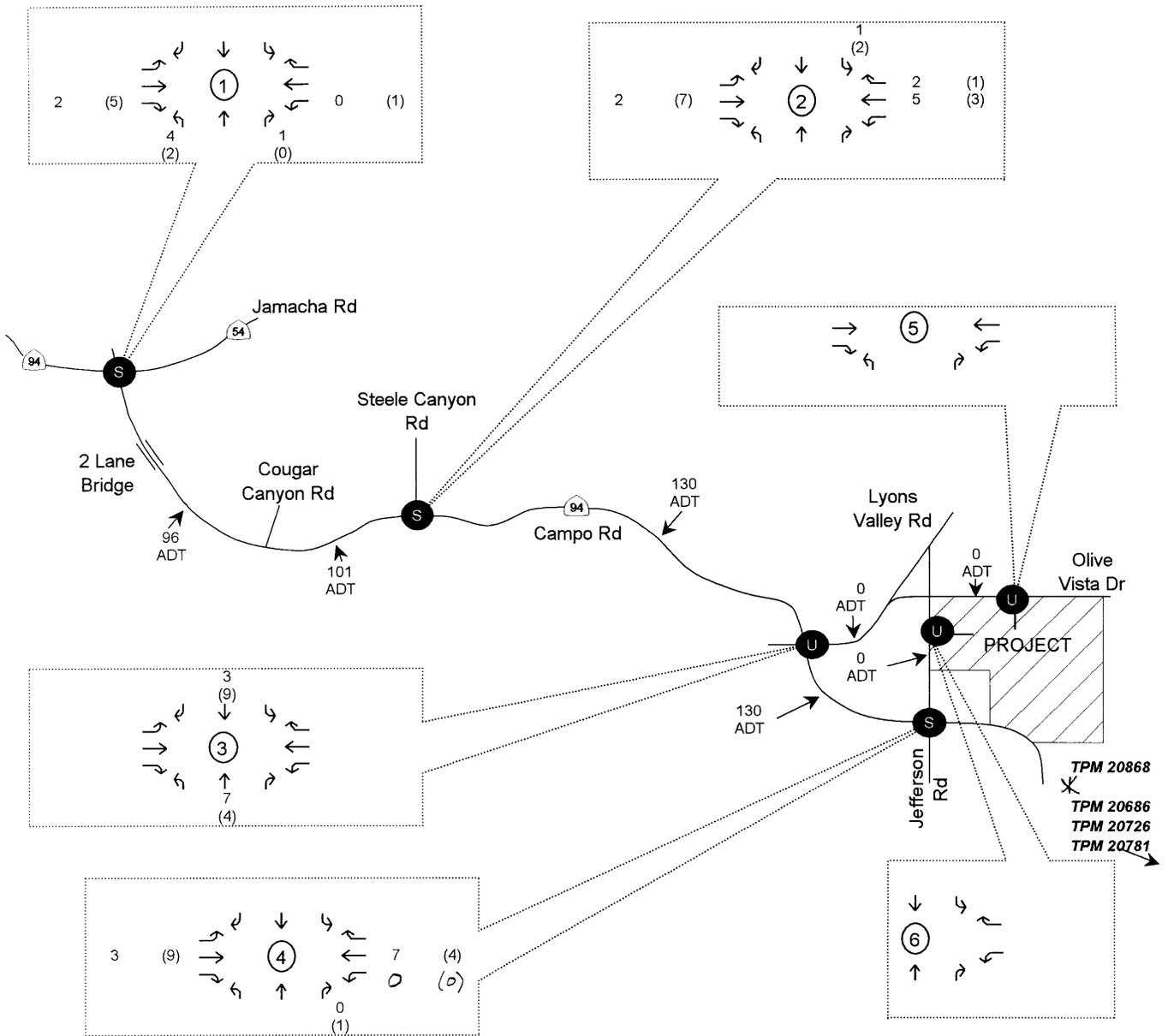


TPM 20599

Proposed Land Use	Rate	Size & Units	ADT	%	Split	AM		PM	
						IN	OUT	IN	OUT
Residential - Estate	12 /DU	4 DU	48	8%	0.3 0.7	1 3	10%	0.7 0.3	3 1

Source: SANDAG Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002 and ITE 7th Edition

Trip Generation. DU - Dwelling Unit; ADT-Average Daily Traffic; Split-percent inbound and outbound.



LEGEND

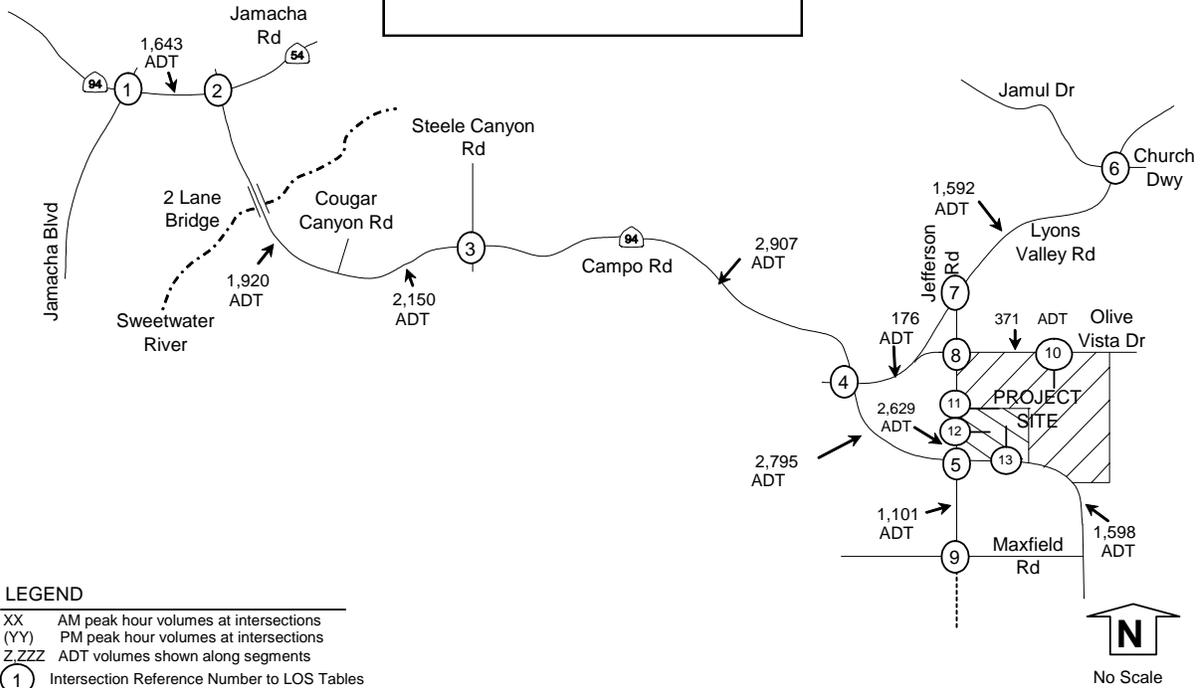
- XX AM peak hour volumes at intersections
- (YY) PM peak hour volumes at intersections
- Z,ZZZ ADT volumes shown along segments
- ① Intersection Reference Number to LOS Tables
- U Study Intersection - Un-signalized
- S Study Intersection - Signalized



Proposed Land Use	Rate	Size & Units	ADT	%	Split	AM		PM			
						IN	OUT	IN	OUT		
Residential - Estate	12 /DU	12 DU	144	8%	0.3 / 0.7	3	8	10%	0.7 / 0.3	10	4

Source: SANDAG Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002 and ITE 7th Edition Trip Generation. DU - Dwelling Unit; ADT-Average Daily Traffic; Split-percent inbound and outbound.

Figure 9: Total Project Assignment



Appendix D

SANDAG Build-Out 2030 Volumes



Appendix E

County of San Diego TIF Report Excerpts

County of San Diego Transportation Impact Fee Report

County of San Diego

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Chandra Wallar
Assistant Director of Public Works

Robert D. Christopher
LUEG Program Manager

S. Jeff Bosvay
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Robert Goralka, PE
Traffic/Transportation Planning Manager

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Eugene F. Shank, PE

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David R. Spencer, PE

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Sherry Ryan, PhD

Stephen C. Cook

January 2005

SD-S03-317-00

BOYLE

7807 Convoy Court, Suite 200

San Diego, CA 92111

Executive Summary

Working with stakeholder groups, the County of San Diego (County) has identified the need to develop a County transportation impact fee (TIF) program to mitigate the indirect, cumulative traffic impacts of development throughout the unincorporated areas of the County. State law allows such programs, and about 60% of the counties in California have implemented them. The proposed program will fund the construction of identified transportation facilities and allocate the associated costs equitably among future developing properties. The program will not pay for fixing existing deficiencies.

For purposes of the County TIF, the unincorporated area of the County was divided into three regions: North, South and East. San Diego Association of Governments (SANDAG) regional land use forecasts and traffic models were used to determine the amount of expected future development and the types of transportation improvements needed. Future growth was evaluated on the basis of Equivalent Dwelling Units (EDU's), and it was found that future development (assuming build-out) would yield a total of 168,349 additional EDU's as follows:

- ◆ 60,652 EDU's in the communities of the North region
- ◆ 54,579 EDU's in the communities of the South region
- ◆ 53,118 EDU's in the communities of the East region

The TIF program differentiates between “local” transportation facilities (collectors and minor streets) that benefit primarily the community in which they are located, and “regional” facilities (state routes, prime arterials, major roads, and other regionally significant roadways) that benefit both the community and surrounding area – in this case the North, South or East region. Thus each community will have a different TIF rate comprised of a local component and a regional component.

The following facility costs and TIF rates were determined:

- ◆ Local facilities costing a total of \$328M were identified, including streets of collector classification and below. This resulted in local TIF rates varying by community from \$0 to \$5,408.
- ◆ Regional facilities costing a total of \$581M were identified, including state routes, prime arterials, and major roads. This

resulted in regional TIF rates of \$4,731 for the North region, \$2,859 for the South region, and \$2,596 for the East region.

- ◆ Combining the local and regional components, total TIF rates vary from \$2,596 in several communities to \$10,139 in Bonsall.
- ◆ TIF rates for the communities of Fallbrook and Ramona were studied separately in the *Fallbrook and Ramona Transportation Impact Fee Report*, January 2005.

Further studies, including required environmental review, may result in the identification of different project alternatives with different costs. Also, the County is currently working on a general plan update (GP 2020). The County TIF program may be periodically reviewed and/or amended to accommodate such project changes. It is recommended that the TIF rates be indexed annually in order to keep up with future increases in the cost of construction.

Aside from TIF revenues, other revenue sources will be required to fund the non-eligible portions of the identified facilities (including existing deficiencies). Having TIF funds available can help the County leverage these other funding programs, especially state and federal grant programs.

The TIF program will satisfy the requirement of the recently voter-enacted TransNet sales tax extension (Proposition A) for a \$2,000 fee for each new single family dwelling unit for regional transportation facilities.

FINAL REPORT

Transportation Needs Assessment

County Transportation Impact Fee (TIF) Program (Project Number: X4310-034)

Prepared for:



**County of
San Diego**

Department of Public Works
5201 Ruffin Road, Suite D
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January 2005

Transportation Needs Assessment

County Transportation Impact Fee (TIF) Program

(Project Number: X4310-034)

Prepared by:

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January 2005

TABLE 2.2 (continued)
County of San Diego
Roadway Segment Daily Capacity and LOS Standards

Circulation Element Roads		Level of Service				
Class	X-Section	A	B	C	D	E
Light Collector	40/60	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Collector	40/84	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Light Collector	40/60	<1,900	<4,100	<7,100	<10,900	<16,200
Recreational Parkway	40/100	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Mountain	40/100	<1,900	<4,100	<7,100	<10,900	<16,200

Source: County of San Diego *Public Road Standards* (amended July 1999)

State Facilities

The traffic assessment and TIF program included State operated highways (2 to 4 lane arterial roadways with at-grade intersections), and did not include fully access controlled freeways or Interstate facilities, the improvement of which would be beyond the scope of the TIF program. For State highways, the procedure for calculating LOS involves the estimation of peak hour roadway volume to capacity (v/c) ratios. The resulting peak hour v/c ratio is then compared to accepted ranges of v/c values corresponding to various Levels of Service. The procedure for calculating LOS on State highways is also affected by the grouping of segments in the SANDAG transportation model and assumptions related to the peak period versus peak hour traffic flows, as discussed below.

Grouping of Roadway Segments: Roadway segments in SANDAG’s transportation model network are grouped to facilitate data reporting, as well as to reflect the availability of existing traffic counts. Typically, LOS is assigned to an entire group of segments (referred to as a roadway section) based upon the lowest performing segment in the group. Thus means that when a roadway segment is identified as being substandard LOS, the roadway segments (of similar cross-section) on either side are also identified as substandard.

Peak Hour versus Peak Period: SANDAG’s transportation model assignment process outputs AM peak period, PM peak period, and off-peak period traffic volumes. Methodologies for calculating LOS on state facilities requires peak hour directional traffic volumes. To obtain peak hour directional traffic volumes from the peak period traffic volumes, SANDAG applies an hourly distribution factor to the peak period traffic volume. The hourly distribution factor is developed from hourly traffic count data collected at permanent Caltrans count stations. With the estimated peak hour directional traffic volume and freeway capacity, SANDAG calculates a peak hour v/c ratio.

The v/c ratio ranges utilized by SANDAG for determining LOS A through F on the State highways is displayed in **Table 2.3**.

Appendix A
Base Year Deficiencies
State Facilities

CPA	Name	Lanes	Additional Lane Miles Required
Bonsall	MISSION	2	6.77
Bonsall	PALA	2	0.56
Fallbrook	PALA	2	0.30
Jamul-Dulzura	CAMPO	2	4.39
Jamul-Dulzura	SR-94	2	0.83
Lakeside	SR-67	2	7.81
Ramona	JULIAN	2	0.89
Ramona	MAIN	4	0.22
Ramona	SR-67	2	5.40
Spring Valley	SR-54 EB	4	0.31
Sweetwater	SOUTH BAY PARKWAY	2	1.70
Valle De Oro	CAMPO	2	2.87

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Jamul-Dulzura	LYONS VALLEY	JAMUL	RIO GRANDE	Light Collector	Collector	0.85
Jamul-Dulzura	LYONS VALLEY	JEFFERSON	RESERVOIR	Light Collector	Collector	0.39
Jamul-Dulzura	LYONS VALLEY	RESERVOIR	JAMUL	Light Collector	Collector	0.36
Jamul-Dulzura	LYONS VALLEY	RIO GRANDE	SC 760	Light Collector	Collector	0.70
Jamul-Dulzura	PROCTOR VALLEY	CALLE BUENO GANA	SCHLEE CANYON	Light Collector	Town Collector	0.41
Jamul-Dulzura	PROCTOR VALLEY	MAXFIELD	ZONE CONNECTOR	Light Collector	Collector	0.22
Jamul-Dulzura	PROCTOR VALLEY	MELODY	CALLE BUENO GANA	Light Collector	Town Collector	0.11
Jamul-Dulzura	PROCTOR VALLEY	SCHLEE CANYON	MAXFIELD	Light Collector	Collector	0.52
Jamul-Dulzura	PROCTOR VALLEY	ZONE CONNECTOR	JEFFERSON	Light Collector	Collector	0.16
Lakeside	ASHWOOD	WILDCAT CANYON	ZONE CONNECTOR	Light Collector	Collector	0.85
Lakeside	ASHWOOD	ZONE CONNECTOR	ZONE CONNECTOR	Light Collector	Collector	0.76
Lakeside	ASHWOOD	ZONE CONNECTOR	MAPLEVIEW	Light Collector	Collector	0.36
Lakeside	CHANNEL	LAKESIDE	UNKNOWN	Light Collector	Collector	0.26
Lakeside	EL NOPAL	11354	RIVERFORD	Light Collector	Collector	0.22
Lakeside	EL NOPAL	UNKNOWN	11354	Light Collector	Town Collector	0.21
Lakeside	EL NOPAL	UNNAMED LKS	UNKNOWN	Light Collector	Town Collector	0.12
Lakeside	I-8 BUSINESS	13490	LOS COCHES/CM CA	Light Collector	Collector	0.81
Lakeside	I-8 BUSINESS	JACKSON HILL	LAVALA	Light Collector	Collector	1.01
Lakeside	I-8 BUSINESS	LOS COCHES/CM CA	UNKNOWN	Light Collector	Collector	0.32
Lakeside	I-8 BUSINESS	PINKARD	LAKEVIEW/13754	Light Collector	Town Collector	0.23
Lakeside	I-8 BUSINESS	UNKNOWN	JACKSON HILL	Light Collector	Collector	0.59
Lakeside	JULIAN	CACTUS	LOS COCHES/MAINE	Light Collector	Town Collector	0.18
Lakeside	JULIAN	PINO	LAKEVIEW	Light Collector	Town Collector	0.16
Lakeside	LAKE JENNINGS PA	EL MONTE	ZONE CONNECTOR	Light Collector	Collector	1.00
Lakeside	LAKE JENNINGS PA	HARRITT	HWY 8/BLOSSOM VA	Light Collector	Collector	0.23
Lakeside	LAKE JENNINGS PA	HWY 8/BLOSSOM VA	RAMP I-8 WB	Light Collector	Collector	0.10
Lakeside	LAKE JENNINGS PA	PINKARD	HARRITT	Light Collector	Collector	0.20
Lakeside	LAKE JENNINGS PA	RAMP I-8 WB	RAMP I-8 WB	Light Collector	Collector	0.06
Lakeside	LAKE JENNINGS PA	RAMP I-8 WB	SIERRA ALTA	Light Collector	Collector	0.14
Lakeside	LAKE JENNINGS PA	ZONE CONNECTOR	PINKARD	Light Collector	Collector	1.74
Lakeside	LAKESIDE	RIVERSIDE	ZONE CONNECTOR	Town Collector	Collector	0.28
Lakeside	LAKESIDE	ZONE CONNECTOR	CHANNEL	Town Collector	Collector	0.15
Lakeside	LOS COCHES	BOWER	LAKEVIEW	Town Collector	Collector	0.40
Lakeside	LOS COCHES	DEL SOL	ZONE CONNECTOR	Town Collector	Collector	1.01
Lakeside	LOS COCHES	LAKEVIEW	I-8 BUSINESS	Town Collector	Collector	0.58

Appendix B
Buildout Deficiencies
State Facilities

CPA	Name	Lanes	Additional Lane Miles Required
Bonsall	MISSION	2	14.02
Bonsall	PALA	2	2.55
Central Mountain	JULIAN	2	5.21
Fallbrook	PALA	2	11.43
Fallbrook	PALA-NEW	2	1.01
Jamul-Dulzura	CAMPO	2	15.13
Jamul-Dulzura	SR-94	2	0.83
Lakeside	SR-67	3	7.13
Mountain Empire	TECATE	2	2.93
North County Metro	SAN PASQUAL VALLEY	2	2.24
North County Metro	SR-78	2	2.01
North County Metro	SR-78 NEW	4	0.00
North Mountain	JULIAN	2	2.71
Pala-Pauma	SR-76	2	2.50
Ramona	JULIAN	2	4.81
Ramona	MAIN	4	2.56
Ramona	SR-67	2	8.90
Ramona	SR-78	2	3.85
Valle De Oro	CAMPO	2	2.75

RESPONSES

COMMENTS

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July 9, 2007

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Diegueno/Kumeyaay

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American with regard to cultural resources for the proposed SCH#2007061090; CEQA Notice of Completion; draft Mitigated Negative Declaration for Pump Station 1485-1 Replacement Project; The Otay Water District; San Diego County, California.