OTAY WATER DISTRICT
ENGINEERING, OPERATIONS & WATER RESOURCES COMMITTEE MEETING
and
SPECIAL MEETING OF THE BOARD OF DIRECTORS

2554 SWEETWATER SPRINGS BOULEVARD
SPRING VALLEY, CALIFORNIA
Board Room

Monday
February 22, 2010
11:30 A.M.

This is a District Committee meeting. This meeting is being posted as a special meeting in order to comply with the Brown Act (Government Code Section §54954.2) in the event that a quorum of the Board is present. Items will be deliberated, however, no formal board actions will be taken at this meeting. The committee makes recommendations to the full board for its consideration and formal action.

AGENDA

1. ROLL CALL

2. PUBLIC PARTICIPATION – OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO SPEAK TO THE BOARD ON ANY SUBJECT MATTER WITHIN THE BOARD'S JURISDICTION BUT NOT AN ITEM ON TODAY'S AGENDA

DISCUSSION ITEMS

3. APPROVE THE ADOPTION OF THE MITIGATED NEGATIVE DECLARATION FOR THE RANCHO DEL REY GROUNDWATER WELL PROJECT [COBURN-BOYD] (5 minutes)

4. AWARD A PROFESSIONAL AS-NEEDED CONSTRUCTION MANAGEMENT AND INSPECTION SERVICES CONTRACT TO VALLEY CONSTRUCTION MANAGEMENT FOR AN AMOUNT NOT-TO-EXCEED $175,000 [KAY] (5 minutes)

5. APPROVE A PROFESSIONAL SERVICES CONTRACT FOR CONSTRUCTION MANAGEMENT SERVICES TO RBF FOR THE OTAY MESA RECYCLED WATER SUPPLY LINK PROJECT IN AN AMOUNT NOT-TO-EXCEED $708,560 [KAY] (5 minutes)

6. CAPITAL IMPROVEMENT PROGRAM UPDATE REPORT FOR THE SECOND QUARTER OF FISCAL YEAR 2010 [RIPPERGER] (10 minutes)

7. ADJOURNMENT

BOARD MEMBERS ATTENDING:
Jose Lopez, Chair
Gary Croucher

All items appearing on this agenda, whether or not expressly listed for action, may be deliberated and may be subject to action by the Board.

The Agenda, and any attachments containing written information, are available at the District's website at www.otaywater.gov. Written changes to any items to be considered at the open meeting, or to any attachments, will be posted on the District's website. Copies of the Agenda and all attachments are also available through the District Secretary by contacting her at (619) 670-2280.

If you have any disability that would require accommodation in order to enable you to participate in this meeting, please call the District Secretary at 670-2280 at least 24 hours prior to the meeting.

Certification of Posting

I certify that on February 18, 2010 I posted a copy of the foregoing agenda near the regular meeting place of the Board of Directors of Otay Water District, said time being at least 24 hours in advance of the meeting of the Board of Directors (Government Code Section §54954.2).

Executed at Spring Valley, California on February 18, 2010.

Susan Cruz, District Secretary

AGENDA ITEM 3

STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	March 3, 2010
SUBMITTED BY:	Lisa Coburn-Boyd LCB Environmental Compliance Specialist Ron Ripperger Engineering Manager	PROJECT:	P2434-001101 DIV. NO. 2
APPROVED BY: (Chief)	Rod Posada Chief, Engineering		
APPROVED BY: (Asst. GM)	Manny Magaña Assistant General Manager, Engineering and Operations		
SUBJECT:	Adoption of a Mitigated Negative Declaration for the Rancho del Rey Groundwater Well Project		

GENERAL MANAGER'S RECOMMENDATION:

That the Otay Water District (District) Board of Directors (Board) approves the adoption of a Mitigated Negative Declaration (MND) for the Rancho del Rey Groundwater Well Project (see Exhibit A for project location).

COMMITTEE ACTION:

Please see Attachment A.

PURPOSE:

To obtain Board authorization for approval of a Mitigated Negative Declaration for the Rancho del Rey Groundwater Well Project.

ANALYSIS:

The project is the installation and operation of a potable water well and the construction of a water-treatment facility on an approximately 0.2-acre property owned by the District in the Rancho del Rey neighborhood in the City of Chula Vista. A non-operating water well is currently located on the site; installation of the new well will be accomplished by drilling a new borehole at some other

location on the property. The existing well will remain and be used for monitoring or testing purposes. The new well will be drilled to a depth of approximately 860-feet, will be approximately 18-inches in diameter and will be constructed of steel well casing and screening materials.

The onsite water treatment facility will be located in a structure located in the southeast corner of the site. It will feature a water storage tank, chemical treatment tanks, pumps, a fuel vault, and an electrical generator. The treatment facility will feature architecture and materials that mirror the appearance and character of the existing structures in the vicinity of the site.

ICF International (formerly Jones & Stokes) was issued a Task Order to prepare the Initial Study and MND for the project under their As-Needed Environmental Services contract with the District. Based on the findings of these documents, and with proper mitigation measures taken as outlined in the draft MND (see Attachment B), the project will not have a significant effect on the environment. The Initial Study and Draft MND were submitted for a 20-day review period on January 28, 2010. The findings and mitigation measures will be finalized and the final MND will be available after the public review period is complete and any changes are made based on comments received during this period.

FISCAL IMPACT:

None.

STRATEGIC GOAL:

This project supports the District Strategic Goal of designing and constructing new infrastructure to satisfy current and future water needs for potable, recycled, and wastewater services.

LEGAL IMPACT:

No legal impact is anticipated. However, in compliance with the California Environmental Quality Act process, the Final MND will have the normal 30-day legal challenge period once the Notice of Determination (NOD) is recorded with the County of San Diego. The NOD will be recorded within five (5) working days after Board adoption of the MND.

General Manager

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LC-B/RR:jf

Attachments: Attachment A
Attachment B
Exhibit A

QA/QC Approved:

NAME: _____ DATE: 2/5/10

ATTACHMENT A

SUBJECT/PROJECT: P2434-001101	Adoption of a Mitigated Negative Declaration for the Rancho del Rey Groundwater Well Project

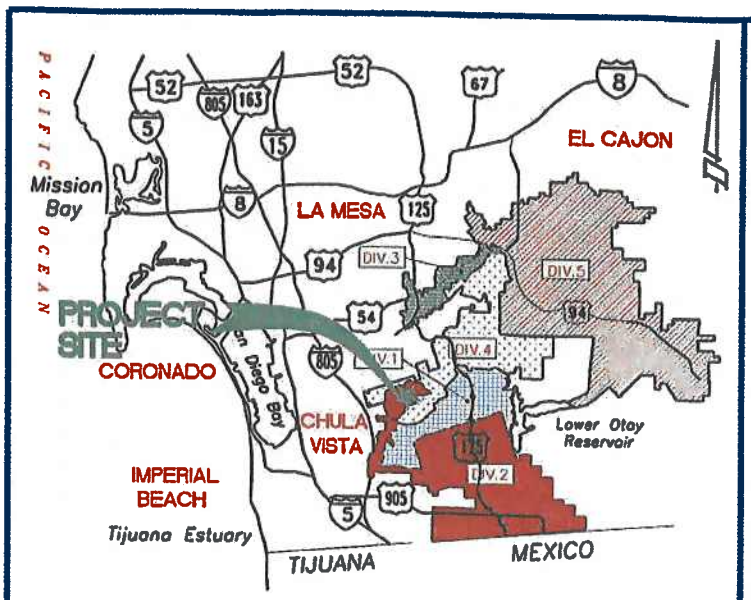
COMMITTEE ACTION:

The Engineering, Operations, and Water Resources Committee reviewed this item at a meeting held on February 22, 2010. The Committee supported Staff's recommendation.

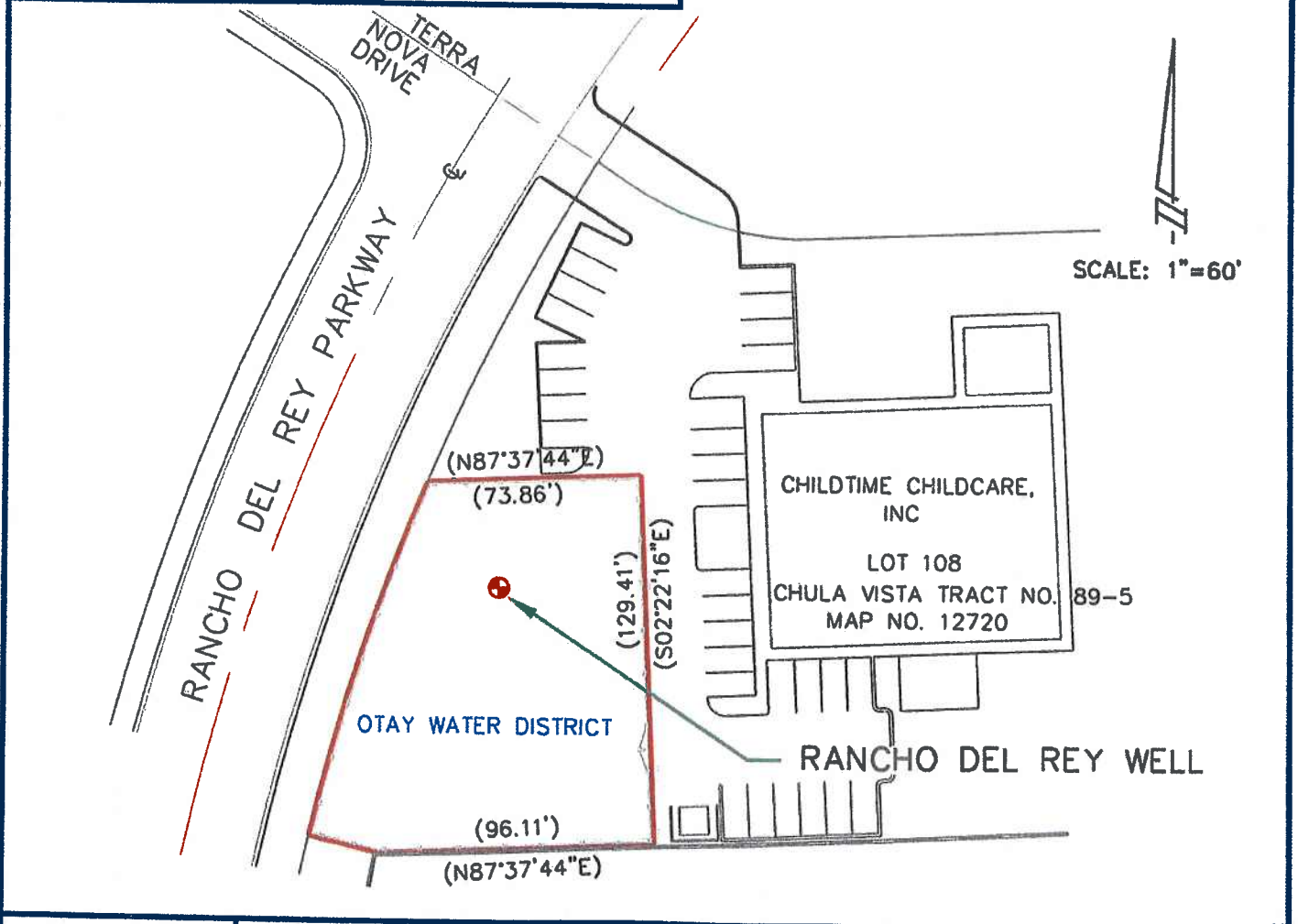
NOTE:

The "Committee Action" is written in anticipation of the Committee moving the item forward for Board approval. This report will be sent to the Board as a Committee approved item, or modified to reflect any discussion or changes as directed from the Committee prior to presentation to the full Board.

ATTACHMENT B



VICINITY MAP



OTAY WATER DISTRICT

RANCHO DEL WAY PARKWAY, CHULA VISTA, CA

RANCHO DEL REY GROUND WATER DEVELOPMENT

CIP P2434

EXHIBIT A

P:\WORKING\CIP P2434\Graphics\Exhibits-Figures\Staff Report - Well Development - Property Site Plan.dwg 2/3/2010 2:27:54 PM PST

Mitigated Negative Declaration for the Otay Water District Rancho del Rey Groundwater Well

The Otay Water District (District) has reviewed the project described below to determine whether it could have a significant effect on the environment as a result of project completion. "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

Name of Project: Rancho del Rey Groundwater Well

Project Description: The project entails installation and operation of a potable water well and observation well, and construction and operation of a water-treatment facility on an approximately 0.2-acre property owned by the District. A non-operating water well is currently located on the site; installation of the new well would either entail removing the existing well casing and enlarging the well's borehole diameter, or drilling a new borehole at some other location on the property and abandoning the existing well.

Project Location and Assessor's Parcel Number: The project would be located on an approximately 0.20-acre site located southeast of the intersection of Rancho del Rey Parkway and Terra Nova Drive, in the community of Rancho del Rey, City of Chula Vista, California. The APN for the site is 59338240.

Mailing Address and Phone Number of Applicant Contact Person:

Otay Water District
Attn: Lisa Coburn-Boyd
2554 Sweetwater Springs Boulevard
Spring Valley, CA 91978-2004
(619) 670-2219
Lisa.Coburn-Boyd@otaywater.gov

Authority to Prepare a Mitigated Negative Declaration

As provided in the California Environmental Quality Act (CEQA) Section 15070 (Title 14 – California Code of Regulations), a Mitigated Negative Declaration (MND) may be prepared for a project subject to CEQA when an initial study has identified potentially significant effects on the environment, but when revisions to the project have been made so that no significant effect on the environment will result from project implementation. The District is the lead agency and is responsible for the planning, construction and operation of the well and treatment facility. Based on the findings of the initial study/environmental checklist form that was prepared for this project and attached hereto, the District has determined that an MND is the appropriate means of presenting the CEQA-compliant environmental review of the project.

Findings

The District finds the project described above will not have a significant effect on the environment in that the attached initial study identifies one or more potentially significant effects on the environment for which the project applicant, before public release of this Draft Mitigated Negative Declaration, has made or agrees to incorporate measures that clearly mitigate the effects to a less-than-significant level. The District further finds that, with incorporation of these measures, there is no substantial evidence that this project may have a significant effect on the environment. The mitigation measures that will be incorporated into the project are listed below.

Impacts and Mitigation Measures

***Aesthetics:* Exterior lighting required during construction may be visible from adjacent residences on a temporary basis.**

> **Mitigation Measure 1: Prepare a Community Awareness Program for Project Construction.** In consultation with representatives of the City of Chula Vista, the District will prepare and maintain a program to enhance community awareness of project construction issues, including noise, vibration, nighttime noise, and nighttime lighting. At least two weeks prior to the initiation of project construction, information packets will be prepared and mailed to all residences within a 1,500-foot radius of project construction. The information packets will include information on the purpose of the project, the estimated construction schedule, and the types of machinery to be used on the site. The packet will also identify the name and phone number of a District representative who will serve as a project liaison to the community. The project liaison will be available to respond to community concerns regarding noise, vibration, and light; provide additional explanation of the extent and duration of the issues of concern; and work to resolve these issues to the greatest extent possible.

***Biological Resources:* Trees and other ornamental vegetation in the vicinity of the site could provide suitable nesting habitat for raptors and other birds protected by the Federal Migratory Bird Treaty Act, and project construction could result in direct and indirect impacts on nesting birds.**

> **Mitigation Measure 2a: Avoid Impacts on Vegetation During the Nesting Bird Season.** In order to avoid all potential impacts on nesting migratory birds and raptors, construction activities involving the removal of vegetation shall be restricted during the breeding season for migratory birds/raptors (approximately January 15 through August 31).

If construction activities are proposed within the identified breeding season, Mitigation Measure 2b would be employed.

> **Mitigation Measure 2b: Preconstruction Nesting Bird Surveys.** If construction activities involving the removal of vegetation occur between January 15 and August 31, a

preconstruction nesting bird survey shall be conducted (within three days prior to construction activities) by a qualified biologist to determine if active nests are present within or adjacent to the project site in order to avoid the nesting activities of breeding birds/raptors. If nesting activities within 200 feet of the proposed work area are not detected, construction activities would be allowed to proceed. If nesting activities are confirmed within this radius, construction activities shall be delayed within an appropriate buffer from the active nest until the young birds have fledged and left the nest or until the nest is no longer active as determined by a qualified biologist. The size of the appropriate buffer shall be determined by a qualified biologist, but shall be at least 25 feet.

Cultural and Peleontological Resources: Well drilling has the potential to disturb previously unidentified paleontological resources or unique geologic features beneath the surface of the site.

Mitigation Measure 3: Halt Work if Paleontological Resources or Unique Geologic Features Are Encountered. If paleontological resources or unique geologic features are discovered by the project geologists during drilling, the drilling work will be halted immediately and the San Diego Museum of Natural History (Natural History Museum) will be contacted. In consultation with the Natural History Museum and the project geologist, the District will determine the proper steps for documenting, removing, or otherwise managing the resources or features.

Hydrology and Water Quality: The project entails discharge of brine into the San Diego Metropolitan Wastewater Department sewer system that may exceed wastewater treatment requirements.

Mitigation Measure 4: Comply with Industrial User Discharge Permit Requirements. The District will obtain an Industrial User Discharge Permit from San Diego Metropolitan Wastewater Department and will comply with all limitations and requirements stated therein with respect to the discharge salt content, quantity, or other aspects.

Noise: Project construction would result in a temporary increase in ambient noise that would be received by adjacent receptors.

Mitigation Measure 1: Prepare a Community Awareness Program for Project Construction (see description above)

Transportation/Traffic: The project would construct a driveway along a curved street with little site visibility.

Mitigation Measure 5: Provide Ample Signage and Safe Design of Project Driveway. The District will coordinate with the City Department of Public Works, Engineering

Division to ensure that the project driveway is designed to meet all relevant City code and features adequate signage to the satisfaction of the Department of Public Works.

Public Review of the Mitigated Negative Declaration

Before February 16, 2010, any person may:

(1) Review the MND; and

(2) Submit written comments regarding the information, analysis, and mitigation measures in the MND. Written comments should be directed to the contact person listed above.

Name: Lisa Coburn-Boyd

Title: Environmental Compliance Specialist

Signed: Lisa Coburn-Boyd

Circulated on: January 28, 2010

Adopted on: _____

Initial Study/Environmental Checklist

1. **Project Title:** Rancho del Rey Groundwater Well
2. **Lead Agency Name and Address:** Otay Water District
   2554 Sweetwater Springs Boulevard
   Spring Valley, CA 91978-2004
3. **Contact Person and Phone Number:** Lisa Coburn-Boyd,
   Environmental Compliance Specialist
   (619) 670-2219
4. **Project Location:** The project site consists of an approximately 0.20-acre site owned by the District and located southeast of the intersection of Rancho del Rey Parkway and Terra Nova Drive, in the community of Rancho del Rey, City of Chula Vista, California. The site's regional location is shown in Figure 1, and an aerial of the site is shown in Figure 2.
5. **Project Sponsor's Name and Address:** Otay Water District
   2554 Sweetwater Springs Boulevard
   Spring Valley, California 91978-2004
6. **General Plan Designation:** Chula Vista: Public and Quasi-Public
7. **Zoning:** Chula Vista: Public and Quasi-Public
8. **Description of Project:**

The project entails installation and operation of a potable water well and nested piezometer groundwater well (referred to as an "observation well" throughout this document) and a related water-treatment facility on an approximately 0.2-acre property owned by Otay Water District (District). A non-operating water well is currently located on the site; installation of the new well would be accomplished by drilling a new borehole at some other location on the property. The existing well would likely remain and be used for monitoring or testing purposes. The new well would be drilled to a depth of approximately 860 feet, would be 18 inches in diameter (enlarged from the existing 12-inch diameter), and would be constructed of stainless steel well casing and screening materials.

After drilling the well, the District would test the well to assess the feasibility of operating the well for the intended purpose. If the testing indicates that the water is not suitable for treatment and usage as potable water, the treatment facility would not be constructed. For purposes of environmental review pursuant to CEQA, the District assumes that the well will be suitable and the treatment facility would be constructed. The facility would feature an approximately 70,000-gallon water-storage tank, three chemical treatment tanks (a hypochlorite tank, caustic tank, and sulfuric acid tank), a cleaning tank, a neutralization tank, pumps, a fuel vault, and an electrical generator. The well head would be located outside the treatment facility, and all treatment-related facilities would be housed inside an approximately 3,600-square-foot, 15-foot-high structure located in the southeast corner of the site. The treatment facility would be equipped with automatic indoor fire-suppression sprinklers to minimize the potential for structure fire. Underground plumbing and electrical connections between the well head and the treatment facility would be installed. The treatment facility would feature architecture and materials to mirror the appearance and character of the residential and institutional structures in the vicinity of the site.

New connections to existing water and sewer facilities in Rancho del Rey Parkway would be installed as part of the project. Two new connections to a District water main would be installed, including one inlet for blending well water with potable water currently running through the system, and one outlet for distribution of well-produced and blended water into the system. A new

connection to the City's sewer system in Rancho del Rey Parkway would also be installed, enabling discharge of byproduct (brine) from the water treatment facility's reverse osmosis process. This discharge would be conveyed through the City's sewer mains and into the City of San Diego Metropolitan Sewerage System (Metropolitan Sewer) for treatment. This discharge to the Metropolitan Sewer would rely on the District's capacity in the system rather than the City's. Power and telephone lines connecting the treatment facility to existing facilities in Rancho del Rey Parkway would also be installed as part of the project.

A new vehicle access would be constructed off Rancho del Rey Parkway, consisting of a concrete driveway and a locked gate. Approximately 3,000 square feet of the site surrounding the treatment facility would be paved with asphalt for parking and circulation for plant employees, chemical-delivery trucks, and other equipment. The site would be designed to convey storm water to the City's system, and would conform to City specifications for storm water facilities. A 6- to 8-foot-high concrete block wall would be constructed around the northern and eastern perimeter of the project site. A concrete block wall is currently located along the site's southern boundary; this wall would not be affected by project construction, and would remain after project completion. A decorative fence would be constructed on the site's western perimeter. Landscaping would be planted around the perimeter of the site as a visual buffer to the site and the proposed walls.

Preliminary analysis of the well's production indicates that the well is anticipated to yield approximately 400 gallons per minute, equating to 645.2 acre feet per year, and is anticipated to have a lifespan of 20–30 years, based on preliminary estimates. The project would draw water from a deep, confined alluvial groundwater aquifer known as the San Diego Formation, which underlies a large portion of southwestern San Diego County.

The treatment facility is anticipated to employ one part-time worker, working approximately 20 hours per week to perform regular operational, maintenance, and oversight duties. Chemical deliveries to the site would occur approximately twice monthly.

Permanent lighting on the site would consist only of security lighting, which would be low level, downward facing, and limited the extent necessary to provide adequate security for the treatment facility, similar in scale to that which exists on the adjacent daycare center.

Project Construction

Project construction would entail site clearing, trenching, grading, drilling the observation well and new water well; paving; erecting the treatment facility structure and perimeter walls; and installing the components of the treatment facility.

Well drilling and well casing installation would be conducted by a truck-mounted hydraulic drill rig. The drill rig will be enclosed at all times by a 10-foot high noise wall placed approximately 20 feet from the rig. Other heavy equipment to be used during the well construction period would include one fork lift, one front loader, and hauling trucks. The drilling work would last for a six-week duration, with work conducted from 7 a.m. to 7 p.m., Monday through Friday. Installation of the well casing would be conducted over two, two-day periods of 24-hour work. These short periods of 24-hour work are required during casing installation because halting the installation of the casings would risk having the walls of the well shaft close, which would require re-drilling. The noisiest aspects of the casing installation, which include moving the casing parts and opening/closing roll-off bins, would be limited to occurring during daylight hours, to the greatest extent possible. Construction lighting would be required on the site during nighttime work, but would be shielded by the presence of the noise wall enclosing the drilling operation.

During drilling, groundwater would be pumped out, separated from the dirt and mud, and pumped back into the ground. During the testing phase, groundwater would be pumped out and discharged to the local sewer system to the extent possible, as described above for project operations.

Construction of the treatment facility would occur an undetermined amount of time after the well drilling, following an investigative testing phase in which the District will assess the feasibility of operating the well for the intended purpose. Site grading, paving, trenching, pipeline installation, and construction of the treatment facility would occur between 8:00 a.m. and 4:00 p.m., Monday through Friday. Installation of water, sewer, telephone, and electric lines from the proposed water

treatment facility to connections in Rancho del Rey Parkway would require trenching. Most of this would occur on site, but some off-site trenching would be required within the roadway. Only a small part of the road would be affected, and the project would not require full closure of Rancho del Rey Parkway. The District would prepare a traffic plan indicating the timing of in-road construction and specifying measures to control traffic during the construction, including alerts to drivers of the construction

Construction-related equipment and materials storage and worker parking would mostly be accommodated in an onsite staging area, though it is possible that a small area adjacent to the site would be required for materials staging. The number of construction workers on site would range from 4 to 12, depending on the phase of construction, with the largest number working during treatment-plant construction.

9. **Surrounding Land Uses and Setting:**

The project site is located in a developed area in the central portion of the City characterized by a mixture of single-family residential and open space uses, with some institutional uses in the vicinity of the project site, including a child daycare facility immediately east of the site and a church farther to the east. The site is bordered on the west by Rancho del Rey Parkway (buffered by an approximately 10-foot-wide landscaped area), on the north and east by an asphalt parking lot associated with the adjacent daycare facility, and on the south by single-family residences. Figure 2 shows the site and surrounding uses.

The project site is a 0.2-acre, irregularly shaped parcel that is entirely disturbed and covered in non-native grass (turf). The site is currently accessed via the paved parking lot associated with the adjacent daycare center. The site sits on a graded terrace that separates the site from the adjacent residences to the south. A decorative wooden fence is located on the site's southern boundary to separate the site from the residential development. The existing groundwater well is located in the north-central portion of the site. This well is 865 feet deep with a submersible pump and a 5-foot-tall, 2-foot diameter aboveground well head. It was installed in 1991 to supply dust-control water used during nearby residential construction. Use of the well was discontinued in 1994, after which the District purchased the property but never reinstated the onsite well.

10. **Other Public Agencies Whose Approval is Required:**

- City of Chula Vista: Encroachment Permit, Wastewater Disposal Permit
- County of San Diego Department of Environmental Health: Water Well Permit
- San Diego Metropolitan Wastewater District: Industrial User Discharge Permit

Environmental Factors Potentially Affected

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

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

Determination

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 to the project have been made by or agreed to by 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 an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Lisa Coburn-Boyd
Signature

1/28/10
Date

Lisa Coburn-Boyd
Printed Name

Otay Water District
For

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 if 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 offsite as well as onsite, 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, 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 Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "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 Analyses", may be cross-referenced.)
5. Earlier analyses may be used if, pursuant to 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 earlier analyses 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 Incorporated," describe the mitigation measures that 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, when 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.

I. Aesthetics	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☒	☐	☐

a. Have a substantial adverse effect on a scenic vista?

Less-than-Significant Impact. As shown in Figure 3, the project site consists of an approximately 0.20-acre disturbed, fenced area surrounded by commercial and residential development. The project includes the installation of wells and the construction of an associated treatment facility, which would be housed in a structure measuring approximately 15 feet high and located within the existing fenced site that houses the existing well. Construction of the proposed facilities would represent an extension of the visual character of the area, which includes the well site and the existing childcare facility and associated parking lot. The perimeter of the 0.20-acre site currently contains ornamental landscaping, and the project would also include landscaping around the perimeter of the site, which would serve to screen the site from the adjacent childcare facility and from motorists on Rancho del Rey Parkway. As a result, construction of the project would result in a less-than-significant impact to the visual character of the surrounding area.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?

No Impact. There are no scenic highways within the vicinity of the project site. Therefore, the project would not substantially damage scenic resources along a scenic highway. Additionally, there are no other scenic resources on the site. Therefore, there would be no impact.

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

Less-than-Significant Impact. See 1.a above. The project is located on a disturbed parcel of land owned by the District that contains an existing well. Construction of the project would involve the presence of equipment and earth disturbance on a temporary basis. This activity would be visible from the adjacent daycare facility, but would primarily be screened from view by existing vegetation surrounding the project site. Activity would not be directly visible from adjacent residences due to topographic changes because the project site is at a higher elevation than the nearby residences. Therefore, the project's temporary construction impact would be less than significant. Permanent

features on the site include an approximately 15-foot-high structure to house the treatment facility and a concrete-block wall surrounding the site. The structure would be designed to be consistent with the existing structures in the area and would represent an extension of the visual character of the existing uses within and surrounding the project site. Landscaping currently surrounds the 0.20-acre project site, and the project would also include landscaping around the perimeter of the site. As a result, implementation of the project would result in a less-than-significant impact to the visual character of the area surrounding the project site.

d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Less-than-Significant with Mitigation Incorporated. The project site is located in a previously developed area with existing sources of light and glare. Interior and exterior lighting would be required for security and operational purposes during both construction and operation of the project. Construction lighting would be required during night work activities, which are estimated to occur until 7:00 p.m. nightly for approximately six weeks and around the clock for two periods of one or two nights during the casing installation. This lighting mostly be contained by the noise attenuation system built around the well-installation area and would be downward directed and shielded, but may be partially visible from adjacent residences on a temporary basis during construction. The mitigation measure listed below would reduce this impact by fostering community understanding of the project construction process and providing a project liaison to field complaints from the community and provide resolution to these complaints to the greatest extent feasible.

Mitigation Measure 1: Prepare a Community Awareness Program for Project Construction.

In consultation with representatives of the City of Chula Vista, the District will prepare and maintain a program to enhance community awareness of project construction issues, including noise, vibration, nighttime noise, and nighttime lighting. At least two weeks prior to the initiation of project construction, information packets will be prepared and mailed to all residences within a 1,500-foot radius of project construction. The information packets will include information on the purpose of the project, the estimated construction schedule, and the types of machinery to be used on the site. The packet will also identify the name and phone number of a District representative who will serve as a project liaison to the community. The project liaison will be available to respond to community concerns regarding noise, vibration, and light; provide additional explanation of the extent and duration of the issues of concern; and work to resolve these issues to the greatest extent possible.

Operational lighting associated with the project would be low level, downward facing, and limited to the extent necessary to provide adequate security for the treatment facility. Lighting within the City is regulated by the City's Municipal Code. Construction and operational lighting associated with the project would be designed to minimize spill light in accordance with Section 17.28.020 the City's Municipal Code, which requires shielding for onsite lighting. Shielding the lights would focus light on site to avoid spillover onto neighboring properties, while only using lighting necessary for safety and security purposes. In addition, the project will comply with Section 19.66.100 of the City's Municipal Code, which regulates direct and sky-reflected glare from floodlights and high-temperature processes such as combustion or welding. The project would not entail combustion- or welding-related lighting, and any security floodlights would be downward facing and shielded, as described above. Finally, project lighting would be similar in

scale to that which exists on the adjacent daycare center. As a result, the project would not adversely affect daytime or nighttime views in the area by creating a significant new source of light and glare. Impacts would be less than significant.

II. Agricultural Resources	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
In determining whether impacts on 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 Department of Conservation. 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?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☐	☐	☐	☒
c. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☒

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?

No Impact. The project would be located on land that is entirely disturbed and covered in turf and features scattered ornamental landscaping. According to the San Diego County Important Farmland Map (CDC 2006), the project site is designated as Urban and Built-Up Lands under the Farmland Mapping and Monitoring Program (FMMP); therefore, the proposed site does not contain any designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Thus, no Prime, Unique, or Farmland of Statewide Importance would be converted to non-agricultural use as a result of the project.

b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?

No Impact. See 2.a above. The project site and adjacent areas are not designated with agricultural zoning, and the project would not conflict with existing zoning for agricultural use since it would be located on land that is currently disturbed and designated as Urban and Built-Up Lands under the FMMP. According to the San Diego County Williamson Act Lands Map, the project site is designated as Built-up Lands under the Williamson Act (CDC 2008). Thus, no Williamson Act contracts exist for the site. In addition, no agricultural lands are located in the project vicinity. Therefore, implementation of the project would not conflict with existing agricultural zoning or Williamson Act contracts. No impact would occur.

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

No Impact. See 2.a and 2.b above. There are no agricultural land uses located within or adjacent to the project site. The project would not involve any other changes to the existing environment that could result in the conversion of Farmland to non-agricultural use. Therefore, no impact to Farmland would result from implementation of the project.

III. Air Quality	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
When 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?	☐	☐	☒	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	

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

Less-than-Significant Impact. The project site is located in the San Diego Air Basin (SDAB), which is contiguous with San Diego County. The San Diego Air Pollution Control District (SDAPCD) is required, pursuant to the federal and state Clean Air Acts, to reduce emissions of criteria pollutants for which the Basin is in nonattainment. The SDAB is currently classified as a nonattainment area for the federal ozone (8-hour O_3) standard and a maintenance area for the federal carbon monoxide (CO) standard. In addition, the SDAB is classified as a serious nonattainment area for state ozone (O_3) and a nonattainment area for the state particulate matter less than 2.5 microns (PM2.5) and particulate matter less than 10 microns (PM10) standards (SDAPCD 2008).

All areas designated as nonattainment are required to prepare plans showing how the area would meet the state and federal air quality standards by its attainment dates. The San Diego Regional Air Quality Strategy (RAQS) is the region's plan for improving air quality in the region. It addresses the state and federal requirements and demonstrates attainment with ambient air quality standards.

The applicable air quality plans within the SDAB rely on information from California Air Resources Board (CARB) and the San Diego Association of Governments, including projected growth in the county, which is based in part on local general plans. Therefore, projects that propose development that is consistent with the land use designations and growth anticipated by the general plan would be consistent with applicable air quality plans. As described in response 9.b, the project would be consistent with the City of Chula Vista's General Plan Quasi-Public land use designation since it would construct and operate a well and water treatment facility intended to serve the public's

demand for water resources. The project does not feature any long-term aspects that would be substantial pollutant emission sources. Project-related traffic generation is limited to vehicle trips from one part-time employee and truck trips from bi-monthly chemical deliveries. This small amount of vehicle activity would not be a considerable source of air pollutant emissions. Therefore, construction of the proposed project would be consistent with the general plan and operation would not conflict with any local air quality plan or result in violation of air quality standards. This impact is considered less than significant.

The project entails temporary construction activity, including well drilling, clearing, trenching, grading, paving, erecting the treatment facility structure and perimeter walls, and installing the components of the treatment facility. The primary construction-related pollutant in terms of the SDAB air quality plan is PM10. Grading and construction activities would be subject to SDAPCD rules and regulations, including Rule 50 (Visible Emissions), Rule 51 (Nuisance), and Rule 55 (Fugitive Dust Control) (SDAPCD 2009). The principal source of PM10 emissions would be fugitive dust from earthmoving activities and vehicle travel on unpaved and paved surfaces. The requirements of Rules 50, 51, and 55 can be met by the implementation of standard construction best management practices (BMPs) for dust control. The standard construction measures utilized by the District during recent construction projects that will be included as part of the project include:

- dust prevention to eliminate amounts of dust that could damage property, cultivated vegetation, or domestic animals, or cause a nuisance to persons living in or occupying buildings in the vicinity of the site;
- measures to enclose, cover, water (as needed), or apply non-toxic soil binders according to manufacturer's specifications on material piles (i.e., gravel, sand, dirt) with a silt content of 5% or greater; and
- the application of water or non-toxic soil stabilizers to maintain adequate dust control for active or inactive construction areas.

The construction and grading activities for the project would also be required to adhere to these dust control measures, and would thereby be in adherence with applicable SDAPCD rules and regulations.

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

Less-than-Significant Impact. See response to 3a. A discussion of the project's potential construction-period air quality impacts is provided below.

<u>Construction Impacts</u>

Construction of the Rancho del Rey Groundwater Well would result in emissions as a result of ground disturbance, off-road construction vehicle exhaust, emissions from employee and delivery travel, and as a result of off-gasing from paving activities. Emissions would vary from day to day, depending on the level of activity, the specific type of construction activity occurring, and, for fugitive dust, prevailing weather conditions. The project's construction emissions were estimated and compared to SDAPCD air quality impact analysis (AQIA) trigger levels, as shown in SDAPCD Rule 20.2. An adverse impact on air quality would result if the emission levels from the project were to exceed any of the AQIA trigger levels. As shown in Table 2, project construction is not anticipated to exceed any AQIA trigger levels.

Emissions were calculated using the URBEMIS2007 emissions model. A detailed project construction schedule and inventory of construction equipment that would be used for the project's drilling phase was provided by the client. URBEMIS defaults were used to estimate schedule and inventory of equipment for the remaining phases of project construction. The assumed construction schedule, hours of construction per day, and types of construction equipment for each phase of construction is presented in Table 1 below. For purposes of analysis, it was assumed that project construction would occur in seven separate phases. Drilling the production well would occur first, followed by installation of the casings for the production well. Next, the observation well would be drilled and then cased. For modeling input purposes, it was assumed that building construction, trenching for utilities, and asphalt paving would take place simultaneously after completion of the drilling and installation, though the treatment-plant-related construction would actually occur an undetermined amount of time after the well is drilled, following an investigative testing phase.

Table 1. Assumed Construction Inputs

Construction Phase	Start Date	End Date	Hours Per Day	Equipment Assumptions
Well Drilling, water well (15 work days) [1]	2/1/2010	2/19/2010	12	drill, compressor, backhoe, generator, light, tractor
Well Casing, water well (2 days) [1]	2/22/2010	2/23/2010	24	drill (casing), compressor, backhoe, generator, light, tractor
Well Drilling, observation well (15 work days) [1]	2/24/2010	3/16/2010	12	drill, compressor, backhoe, generator, light, tractor
Well Casing, observation well (2 days) [1]	3/17/2010	3/18/2010	24	drill (casing), compressor, backhoe, generator, light, tractor
Building Construction (18 work days) [2]	3/19/2010	4/13/2010	8	forklift, backhoe, compressor, generator
Trenching for Utilities (18 work days) [2]	3/19/2010	4/13/2010	8	excavator, crusher, loader, backhoe, trencher, welder
Paving (7 work days) [2]	4/6/2010	4/14/2010	8	4 cement/mortar mixers, paver, roller, backhoe

[1] Construction equipment, horsepower, and hours of operation for well drilling and well casing were provided by the client's drilling contractor (personal communication with Bill Stuckey, WDC Exploration & Wells, January 2010).
[2] Building construction, trenching, and paving were based on URBEMIS default construction assumptions.

As shown in Table 2, construction of the project would be below applicable SDAPCD thresholds for criteria pollutants. Construction of the project would not result in an impact on air quality in that emissions would not exceed SDAPCD applicable air quality standards or contribute to existing air quality violations.

Table 2. Estimated Construction Emissions

Construction Phase	Pounds per day						Metric Tons per year
	ROG	NO_X	CO	SO_X	PM10	PM2.5	CO_2e
Well Drilling, water well (15 days)	8.72	76.99	38.18	<1	8.4	4.88	60.5
Well Casing, water well (2 days)	14.36	143.91	59.44	<1	10.61	6.91	16.9
Well Drilling, observation well (15 days)	8.72	76.99	38.18	<1	8.4	4.88	60.5
Well Casing, observation well (2 days)	14.36	143.91	59.44	<1	10.61	6.91	16.9
Building Construction (18 days) [2]	3.36	35.45	12.99	<1	1.55	1.42	31.1
Trenching for Utilities (18 days) [2]	3.91	26.29	16.44	<1	1.7	1.56	20.9
Paving (7 days) [2]	2.04	12.11	8.86	<1	1.05	0.96	3.9
Maximum Emissions	**14.36**	**143.91**	**59.44**	**<1**	**10.61**	**6.91**	**210.7**
SDAPCD Significance Threshold	*75*	*250*	*550*	*250*	*100*	*55*	-
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***	***N/A***

ROG = reactive organic gas.
CO = carbon monoxide.
PM10 = particulate matter equal to or less than 10 microns.
CO_2e = carbon dioxide equivalent
NO_X = oxides of nitrogen.
SO_X = sulfur oxides.
PM2.5 = particulate matter less than 2.5 microns.
Note: URBEMIS emission output sheets and GHG calculation worksheets are provided in Appendix A.

Operational Impacts

Operation of the project would result in minimal emissions as a result of vehicle trips from one part-time employee and bi-monthly chemical delivery trucks. Onsite use of electricity for the groundwater well, lights, and ancillary equipment would be provided by a connection to the local electrical grid. Therefore, operational emissions are expected to be minimal and are not anticipated to exceed SDAPCD thresholds. Operation of the project would not result in an impact on air quality and emissions would not exceed applicable air quality standards or contribute to existing air quality violations.

Greenhouse Gas Emissions

Project construction would result in greenhouse gas (GHG) emissions as a result of off-road diesel equipment exhaust and emissions from employee and material delivery travel. The primary emissions occur as carbon dioxide (CO2) from gasoline and diesel combustion, with more limited vehicle tailpipe emissions of nitrous oxide and methane as well as other GHG emissions related to vehicle cooling systems. Construction period CO2 emissions were obtained from the URBEMIS2007 model, and construction period methane (CH4) and nitrous oxide (N2O) emissions were calculated based on the methodology found in the Climate Registry General Reporting Protocol, Version 3.1, for construction diesel-fuel emission estimates (California Climate Action Registry 2009). GHG emissions were presented as CO2equivalent (CO2e) using the methodology for calculating CO2e found in the Climate Registry General Reporting Protocol, Version 3.1 (California Climate Action

Registry 2009). As shown in Table 2, project construction would result in approximately 211 metric tons of CO2e over the entire construction period. The relative quantity of project-related GHG emissions during short-term construction is negligible in comparison to statewide and worldwide daily emissions. The project's amount of emissions, without considering other cumulative global emissions, would be insufficient to cause substantial climate change directly. Thus, project emissions in isolation are considered less than significant. However, climate change is a global cumulative impact, and thus the proper context for analysis of this issue is not a project's emissions in isolation, but rather as a contribution to cumulative GHG emissions, which is discussed in the response to 3.c below.

Because quantitative GHG guidelines, including thresholds, have not been developed by the SDAPCD, these emissions are provided for information purposes only.

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

Less-Than-Significant Impact. See response to 3a and 3b. Cumulative construction impacts on nearby receptors may occur if the project is constructed at the same time as other development projects in the area, thereby exposing sensitive receptors to cumulative emission concentrations (See response 3.d below). However, it is anticipated that with the incorporation of the standard SDAPCD dust control measures, the contribution of the project to cumulative impacts related to PM10 and PM2.5 emissions would be less than significant.

Operation of the project would not contribute to any significant cumulative impacts related to non-attainment status for ozone, PM10, or PM2.5. The proposed facilities would involve one part-time worker and bi-monthly truck trips for chemical deliveries. In addition, as shown in response 3.a, the project is consistent with applicable air quality management plan because it proposes a land use consistent with the local general plan.

Construction and operation of the proposed project would not result in significant impacts related to climate change and greenhouse gas emissions. Construction of the project would short-term in nature and the net-increase in emissions that would result from construction would be negligible when compared to state and worldwide emissions. In term of operations, water imported from other parts of the state and/or region require the use of energy, and GHG emissions associated with water supply result from the indirect consumption of electricity to pump water throughout the state and region. The purpose of this project is to provide potable water supply to nearby residents and businesses which may reduce the need for water from other parts of the state and/or region. Therefore, it can be assumed that long-term operation of the project would result in a reduction in indirect energy consumption, thereby reducing the amount of GHG emissions related to water supply. As a result the project would result in a less than significant contribution to cumulative conditions related to climate change and GHG emissions.

d. Expose sensitive receptors to substantial pollutant concentrations?

Less-Than-Significant Impact. See response to 3a and 3b. Construction of the project could potentially expose sensitive receptors to pollution concentrations as on-road vehicles and off-road construction equipment operate on the project site for approximately 2 months. Diesel engines (including construction equipment) emit toxic air contaminants (TACs), which are known to

increase the risk of developing cancer and have acute and chronic health risks in the case of excessive human exposure. Of particular importance is diesel particulate matter (DPM), which is identified by the California Air Resources Board (CARB) as a toxic air contaminant and is a known carcinogen (CARB 1998). Due to the temporary operation of diesel engines in proximity to sensitive receptors, including the daycare facility east of the site and residences surrounding the site, the project's TAC emissions were quantified and incorporated into a health-risk analysis for project construction. For TACs including DPM that can cause cancer, a unit risk factor can be developed to evaluate cancer risk. For non-cancer health risks, a similar factor called a Hazard Index (HI) is used to evaluate risk. The HI is calculated by summing the hazard quotients for substances that affect the same target organ or organ system (e.g., respiratory system). The hazard quotient is the ratio of potential exposure to the substance and the level at which no adverse health effects are expected. An increased cancer risk of 1 in one million is considered potentially significant while an increased cancer risk of 10 in one million is considered significant. An HI of less than one indicates no adverse health effects are expected from exposure, while an HI greater than one indicates adverse health effects are possible.

Potential sources of DPM include exhaust emissions from on-road vehicles, off-road vehicles (such as trucks, loaders, backhoes, and excavators), and portable equipment (such as compressors, drills, and generators). The DPM of greatest health concern are those in the categories of fine (PM10) and ultra-fine (PM2.5). These fine and ultra-fine particles are respirable, which means that they can avoid many of the human respiratory system defense mechanisms and enter deeply into the lungs. Therefore, and as discussed below, the use of diesel-powered engines for project construction could expose nearby sensitive receptors to substantial pollutant concentrations, potentially resulting in adverse health effects.

The nearest sensitive land uses to the project area are a daycare facility to the immediate east of the project site as well as residences to the north, west, and south. Therefore, a health risk screening analysis was conducted using the EPA's SCREEN3 dispersion model to determine if elevated health risks would result from construction activities at these locations in the vicinity of the project area. The screening analysis assumes that sensitive receptors are exposed to the approximately 2 months (59 days) of construction exhaust for 9 hours per day, which is the assumed total daily operating hours for the daycare facility, the nearest receptor. Receptors were placed at distances ranging from zero to 4,920 feet (1,500 meters) away from construction activities. These sensitive receptor locations were selected for the screening analysis to represent the locations where sensitive receptors at the daycare facility and nearby residences could be exposed to the maximum levels of DPM from construction equipment activities. This analysis considers the total construction DPM emissions that would be emitted at the project site over the length of the construction period. The DPM screening analysis results are presented in Table 3.

Table 3. Summary of Potential Health Risk from Project Construction DPM Emissions at the Daycare Facility

Estimated Health Impact for Receptors Adjacent to Construction Activities	Cancer Risk (per 1,000,000)	Chronic Hazard Index
Maximum health impact (154 feet from construction activities)	0.2	0.98
10 feet from construction activities	0.08	0.3
25 feet from construction activities	0.11	0.5
65 feet from construction activities	0.2	0.7
100 feet from construction activities	0.2	0.9
250 feet from construction activities	0.2	0.7
500 feet from construction activities	0.07	0.3
SDAPCD Significance Threshold	*10*	*1*

Note: SCREEN3 model outputs and health risk calculations are provided in Appendix A.

Table 3 summarizes the modeled project-generated construction-related health risk (potential cancer and chronic health risks) from DPM at various distances from construction activities. The doorstep of the daycare facility is approximately 25 feet from the edge of construction activities, while the parking areas and playgrounds range from 10 feet to 250 feet away from construction activities. The nearest residence south of the project area is approximately 35 feet away. This worst-case analysis assumes the nearest receptors (at the daycare facility) are directly downwind of construction activities with little to no elevation difference between the source and the receptor. The highest DPM concentrations and health risks occur between 3 to 250 feet from construction activities and reduce significantly beyond 250 feet. The maximum health impact would occur at approximately 154 feet from construction activities. This distance represents the middle of the daycare facility property as well as the distance to nearby residences. However, as shown in Table 3, construction-related DPM emissions would not exceed SDAPCD thresholds for increased cancer risk and chronic hazard index. DPM emissions would represent a minimal impact to receptors at both the daycare facility and nearby residences. Therefore, the project's construction would not expose sensitive receptors to substantial pollutant concentrations, and the construction impact would be less than significant.

Beyond the construction phase, the project would not result in considerable pollutant emissions because operation would entail operations would only include a part-time employee and bi-monthly material deliveries. Therefore, the project's operational phase would not expose sensitive receptors to substantial pollutant concentrations, and the operational impact would be less than significant.

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

Less-Than-Significant Impact. Project-related odor emission would be limited to the construction period, where emissions from the construction equipment may be evident in the immediately surrounding area on a temporary basis. Potential sources that may emit odors during construction activities include asphalt paving. In addition, material deliveries from heavy-duty truck trips could create an occasional "whiff" of diesel exhaust for nearby receptors along roadways. These odors would not affect a substantial number of people, as the scale of construction is small, the frequency of permanent trips is very low, and the potentially affected area is limited due to the localized evidence of these odors. In terms of operations, there would be no permanent impacts because the

water treatment processing would be conducted in an enclosed area. Therefore, the project's odor impact would be less than significant.

IV. Biological Resources	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
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, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
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?	☐	☐	☒	☐

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?

Less than Significant with Mitigation Incorporated. ICF Jones & Stokes staff conducted a site visit on June 11, 2009, to determine existing biological resources conditions on the site and to analyze potential effects of the project on sensitive biological resources. The project site consists of an existing disturbed, fenced area that supports bare ground and some scattered non-native species and is surrounded by developed areas and some associated ornamental landscaping. The project footprint would be limited to the existing disturbed/fenced area and some of the surrounding

ornamental plantings. The project site and immediately surrounding areas do not provide suitable habitat for listed species. However, the project site is near open space areas and, as a result, onsite and adjacent ornamental plantings, including pine trees, could provide suitable nesting habitat for raptors and other birds protected by the Federal Migratory Bird Treaty Act (MBTA). The MBTA, enacted in 1918, is a federal statute whose purpose is to prohibit the kill or transport of native migratory birds, or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA. Direct impacts (through loss of habitat) and indirect impacts (through increased noise and dust during construction) on nesting birds/raptors resulting from implementation of the project would be considered significant. Implementation of either Mitigation Measure 2a or Mitigation Measure 2b would reduce this impact to less than significant.

Mitigation Measure 2a: Avoid Impacts on Vegetation During the Nesting Bird Season.

In order to avoid all potential impacts on nesting migratory birds and raptors, construction activities involving the removal of vegetation shall be restricted during the breeding season for migratory birds/raptors (approximately January 15 through August 31).

If construction activities are proposed within the identified breeding season, Mitigation Measure 2b would be employed.

Mitigation Measure 2b: Preconstruction Nesting Bird Surveys.

If construction activities involving the removal of vegetation occur between January 15 and August 31, a preconstruction nesting bird survey shall be conducted (within three days prior to construction activities) by a qualified biologist to determine if active nests are present within or adjacent to the project site in order to avoid the nesting activities of breeding birds/raptors. If nesting activities within 200 feet of the proposed work area are not detected, construction activities would be allowed to proceed. If nesting activities are confirmed within this radius, construction activities shall be delayed within an appropriate buffer from the active nest until the young birds have fledged and left the nest or until the nest is no longer active as determined by a qualified biologist. The size of the appropriate buffer shall be determined by a qualified biologist, but shall be at least 25 feet.

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

No Impact. The project site consists of an existing disturbed area surrounded by development and associated ornamental landscaping. No riparian habitat or other sensitive natural community is located within or adjacent to the project site. Therefore, no impacts to riparian habitats or other sensitive natural communities would occur as a result of the project.

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, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The project site consists of an existing disturbed area surrounded by development. No jurisdictional wetlands or waterways occur within or immediately adjacent to the project site. Therefore, the project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act. No impacts would occur.

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?

Less than Significant Impact. See 4.a above. Construction and operation of the project would not interfere with the movement of any native resident or migratory fish or impede the use of native wildlife nursery sites because no waterways with the ability to support fish exist on the site and no native wildlife nursery sites occur in the project area. The project site consists of a disturbed area surrounded by commercial and residential development and associated ornamental landscaping. Removal of ornamental landscaping could disturb potentially suitable nesting habitat for birds/raptors, as described above in 4.a, but the scattered ornamental plantings and roadside vegetation in the project area do not serve as a wildlife corridor because they do not link areas of native habitat. Therefore, impacts to wildlife movement from the project would be less than significant.

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

Less than Significant Impact. The project site is located within the City of Chula Vista's Multiple Species Conservation Program (MSCP) Subarea. The project site is within an area mapped as "Development Area" and within a "Major Projects Boundaries" area. Therefore, the project would not conflict with the City's MSCP Subarea Plan. Impacts 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?

Less than Significant Impact. See 4.e above. The project would be consistent with provisions identified in the City's MSCP. Impacts would be less than significant.

V. Cultural Resources	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☐	☒
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

No Impact. The site is a previously disturbed and graded parcel that is part of a residential and public facilities master development that occurred in the 1990s. No historical resources are located within or immediately adjacent to the project site. Therefore, the project would not cause a substantial adverse change in the significance of a historic resource.

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

No Impact. The site is a previously disturbed and graded parcel and, therefore, is not likely to contain subsurface archaeological resources. Therefore, there would be no impact.

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

Less Than Significant with Mitigation Incorporated. The presence or absence of paleontological resources or unique geologic features beneath the surface of the site cannot be determined. The well-drilling aspect of the project has a very low potential to disturb any resources or features that may be present due to the limited scope of the ground disturbance (i.e., an 18-inch well shaft). Because the absence of these resources and features cannot be confirmed, this is a significant impact, and mitigation is identified below that would reduce this impact to a less-than-significant level. As a standard practice of well drilling, one or more qualified geologists would be present during the project-related drilling for geologic monitoring and testing purposes. As part of their regular monitoring process, these geologists would be checking the earth material that is displaced by the drilling and would be vigilant of unusual circumstances such as the presence of paleontological resources or unique geologic features. The following mitigation would be implemented on the project to ensure that the project would not substantially destroy any such resources or features.

Mitigation Measure 3: Halt Work if Paleontological Resources or Unique Geologic Features Are Encountered.

If paleontological resources or unique geologic features are discovered by the project geologists during drilling, the drilling work will be halted immediately and the San Diego Museum of Natural History (Natural History Museum) will be contacted. In consultation with the Natural History Museum and the project geologist, the District will determine the proper steps for documenting, removing, or otherwise managing the resources or features.

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

No Impact. Please see 5.b above.

VI. Geology and Soils	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
2. Strong seismic groundshaking?	☐	☐	☒	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
4. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the 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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or based on other substantial evidence of a known fault?

Less-than-Significant Impact. The Alquist-Priolo Earthquake Fault zoning Map shows the nearest fault from this system, the Point Loma Earthquake Fault Zone, located approximately 6 miles west of the site. The project would not be subject to rupture along this fault. Figure 9-7 of the Chula Vista General Plan shows potentially active traces of the La Nacion fault approximately 0.5 miles east of the site. The greatest magnitude earthquake expected on the La Nacion fault is estimated to be 6.0. The project would not experience ground rupture from a quake along this fault system, but may be

subject to strong seismic ground shaking, as discussed below. The rupture-related impact would be less than significant.

2. Strong seismic ground shaking?

Less-than-Significant Impact. As with most areas throughout southern California, the project site would be subject to strong ground shaking in the event of a major earthquake along a nearby fault. Adverse affects on construction due to ground shaking are routinely addressed by standard measures set forth in the Uniform Building Code. As described above in the response to 6.a.1, the project is approximately 0.5 miles east of potentially active traces of the La Nacion fault system, which is estimated as producing up to a 6.0 earthquake. This could produce ground shaking on the site, but not to the extent that would be out of the ordinary and that could not be dealt with by implementing standard UBC measures. The "Geology and Soils Information Report" prepared for the project by Southern California Soils & Testing, Inc. (Appendix B of this MND) includes seismic design recommendations in accordance with the 2007 California Building Code, which would be incorporated into the site. Therefore, this impact would be less than significant.

3. Seismic-related ground failure, including liquefaction?

No Impact. Figure 9-7 of the Chula Vista General Plan identifies areas within the City that are subject to hazards due to liquefaction. The project site is not shown as a liquefaction hazard area on this map. Furthermore, the Geology and Soils Information Report (Appendix B) did not identify the potential for liquefaction to occur on the site. Therefore, there would be no impact.

4. Landslides?

No Impact. Figure 9-7 of the Chula Vista General Plan identifies areas within the City that are subject to hazards due to landslides. The project site is not shown as a landslide hazard area on this map. Therefore, there would be no impact.

b. Result in substantial soil erosion or the loss of topsoil?

Less-than-Significant Impact. The project site is situated on approximately 0.20 acres of level terrain that has been previously graded and disturbed and is surrounded by developed areas. The project would entail a minor amount of grading on the project site that, due to the limited size of the site and the limited scope of grading, would not result in substantial soil erosion or loss of topsoil. Therefore, this impact would be less than significant.

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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less-than-Significant Impact. The project would withdraw approximately 645 acre-feet per year of groundwater from the San Diego Formation, a deep, confined alluvial aquifer. The total storage capacity of the San Diego Formation has been estimated to approach or exceed 2 million acre feet (SDCWA 1997, SDCWA 2003).

In 1996, the San Diego County Water Authority formed the San Diego Formation Task Force to assess issues associated with groundwater supply development from the San Diego Formation. To avoid water quality impacts associated with seawater intrusion and to avoid subsidence impacts, the San Diego Formation Task Force concluded that groundwater production from the San Diego Formation may be limited to approximately 40,000 to 90,000 acre-feet per year (SDCWA 2003).

Current and proposed pumping from the middle portion of the San Diego Formation is projected to be significantly below this threshold. Sweetwater Authority is the only entity currently pumping water from the San Diego Formation aquifer in the general project area. Sweetwater Authority's total pumping from the San Diego Formation is currently approximately 6,000 acre-feet per year (Sweetwater Authority 2009). Ultimate Sweetwater Authority groundwater pumping from the San Diego Formation is projected at approximately 11,000 acre-feet per year (Sweetwater Authority 2009).

Sweetwater Authority has developed an Interim Groundwater Management Plan (2001) that, in part, establishes a goal of maintaining long-term groundwater levels in the San Diego Formation aquifer. By maintaining long-term static groundwater levels, the interim plan seeks to ensure that San Diego Formation pumping does not lead to such adverse effects such as seawater intrusion or subsidence (Sweetwater Authority 2001).

Land subsidence or geologic instability could occur when a confined groundwater aquifer is excessively pumped to the point where groundwater aquifer piezometric heads (groundwater aquifer pressures) are significantly reduced. The projected groundwater pumping rate (645 acre-feet per year) is a tiny fraction of 1% of the total San Diego Formation groundwater storage. Total ultimate groundwater pumping from the middle portion of the San Diego Formation (existing Sweetwater Authority pumping, proposed ultimate Sweetwater Authority pumping, and the proposed Otay Water District project) would also represent a small fraction of the San Diego Formation groundwater storage. Because the proposed project involves small groundwater pumping volumes compared to the available aquifer storage, the project (by itself or in combination with other regional groundwater pumping projects) would not result in significant changes in groundwater piezometric heads. As a result, the project is not projected to not result in geologic instability or discernible subsidence, and these impacts would be less than significant.

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?

Less-than-Significant Impact. The Geology and Soils Report prepared for the project (Appendix B) indicated that the site is on land that may partially be expansive, but concludes that the site is capable of supporting a light structure, such as the proposed treatment plant. The report includes recommended specifications for constructing foundations on the site, and these recommendations would be incorporated into the site design. Therefore, this impact would be less than significant.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?

No Impact. The project does not propose the use of septic tanks or alternative wastewater disposal systems; therefore, no impacts would occur.

VII. Hazards and Hazardous Materials	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site that 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?	☐	☐	☐	☒
e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐

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

Less-than-Significant Impact. Like nearly all construction projects, project equipment would use diesel fuel and other common petroleum-based products, but not in quantities that would be considered beyond that of any standard construction project and not of the quantities that would present any danger to the public. All materials would be transported and used in accordance with standard practices. Therefore, these construction-related impacts would be less than significant.

Ongoing operation of the treatment facility would entail transport, storage, and usage of chemicals, including hypochlorite, caustic soda, and sulfuric acid. Transport of these chemicals would occur via bi-monthly truck deliveries. Transport of these materials is regulated by the California Health and Safety Code, and project-related transport would comply with all mandatory regulations to ensure prevention of hazardous conditions. Once on the site, these materials would be stored in double-walled tanks and bins constructed for the specific purpose of properly containing the chemicals and preventing spills or leaks. No chlorine gas would be used on the site. The District has set forth standard and mandatory safety procedures for the delivery, storage, and use of hypochlorite in HMS 101.21, "Sodium and Calcium Hypochlorite Safety Procedure," which lays out safe work practices to protect employees and container, delivery, and disposal procedures to protect the environment and other people who may be in proximity to these chemicals.

Additionally, the site would be required to prepare a Hazardous Materials Business Plan, in accordance with California Health and Safety Code Section 6.95 and County Department of Environmental Health (DEH) regulations. These mandatory plans document procedures for use and storage of these materials, precautions to prevent spills, and response procedures in case of a spill so as to prevent substantial risk to human health or the environment. The project-related plan must be submitted to DEH and approved prior to operation of the project, and must be reviewed and revised annually for recertification with DEH. Mandatory preparation of and ongoing compliance with this plan and adherence to HMS 101.21 would ensure that the project's impacts due to the project-related presence of hazardous materials 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?

Less-than-Significant Impact. See response to 7.a, above.

c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less-than-Significant Impact. The project is located adjacent to (within 0.25-mile of) a daycare facility. The project does not entail the routine emission of hazardous substances. As described in 7.a, above, the project would use and store chemicals necessary to treat the groundwater before adding it to the potable water system, but these chemicals will be properly and securely stored within the enclosed treatment facility, in accordance with the Hazardous Materials Business Plan that will be prepared for the site. Therefore, the on-site chemicals would not pose a significant hazard to the adjacent daycare facility, and this impact would be less than significant.

d. Be located on a site that 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?

No Impact. A review of the EnviroStar database of hazardous materials sites pursuant to Government Code Section 65962.5 maintained by the California Department of Toxic Substances Control (http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm) shows that the project site is not included in this listing. Therefore, there would be no impact.

e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?

No Impact. The project site is not located within 2 miles of an airport land use plan, public airport, or public use airport; therefore, no impacts would occur.

f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?

No Impact. The project site is not located within the vicinity of a private airstrip; thus, no impacts would occur.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less-than-Significant Impact. The project would not result in road closures or otherwise physically obstruct any roads or access points. The project would result in a very minor amount of construction traffic and a lesser amount of permanent operational traffic, which would likely access the site via I-805, H Street, Del Rey Boulevard, and Rancho del Rey Parkway. This small amount of project-related traffic would not be substantial enough to interfere with emergency response or evacuation. Therefore, this impact would be less than significant.

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?

Less-than-Significant Impact. The project is located in the vicinity of wildland canyons but is buffered by development on all sides. Therefore, the project would not have the potential for causing a wildland fire. The project features a very small structure and minimal human presence on the site on an ongoing basis, and therefore would not expose a significant amount of structures or people to wildland fires that may occur in nearby canyons. Therefore, this impact is less than significant.

VIII. Hydrology and Water Quality	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in 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 that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	☐	☐	☒	☐
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 that would result in flooding onsite or offsite?	☐	☐	☒	☐
e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f. Otherwise substantially degrade water quality?	☐	☐	☒	☐
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?	☐	☐	☐	☒
h. Place within a 100-year flood hazard area structures that would impede or redirect floodflows?	☐	☐	☐	☒
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?	☐	☐	☐	☒
j. Contribute to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

a. Violate any water quality standards or waste discharge requirements?

Less-than-Significant Impact with Mitigation Incorporated. Project construction is small-scale and not located adjacent to any natural water bodies. Runoff from the project site does enter the City's storm drain system, specifically gutters along Rancho del Rey Parkway. Project construction would entail a minor amount of stormwater discharge that, due to the nature of construction, has the potential to include sediment and pollutants associated with the construction process. Project construction will comply with the City of Chula Vista's Development Storm Water Manual, which spells out compliance with the City's requirements for projects to comply with their National Pollutant Discharge Elimination System (NPDES) permit and Standard Urban Storm Water Mitigation Plan. The project would be required to prepare and implement a project-specific Stormwater Pollution Prevention Plan (SWPPP), which includes a site map and a description of proposed construction activities, demonstration of compliance with relevant local ordinances and regulations, and description of BMPs that would be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Permittees are further required to ensure that BMPs are correctly implemented and effective in controlling the discharge of stormwater-related pollutants. Adherence to these mandatory criteria would ensure that project construction would have a less-than-significant impact with respect to water quality standards and waste discharge requirements.

Project operation entails discharge of brine from the water treatment facility into the City's sewer system, and ultimately into the Metropolitan Sewer system for treatment and disposal. Unchecked discharge from this source could result in a significant impact on waste discharge requirements maintained by the San Diego Metropolitan Wastewater Department. However, the project requires an Industrial User Discharge Permit from that agency, and the permit may place limits on the salt content or quantity of discharge to minimize the project's environmental impacts. Permit specifics cannot be determined at this time, but compliance with all requirements set forth in the permit would ensure that this impact would be less than significant.

Mitigation Measure 4: Comply with Industrial User Discharge Permit Requirements.

The District will obtain an Industrial User Discharge Permit from San Diego Metropolitan Wastewater Department and will comply with all limitations and requirements stated therein with respect to the discharge salt content, quantity, or other aspects.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in 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 that would not support existing land uses or planned uses for which permits have been granted)?

Less-than-Significant Impact. The project would entail drawing groundwater from the San Diego Formation, a deep, confined, alluvial groundwater aquifer that underlies a large portion of southwestern San Diego County. The San Diego Formation underlies a large portion of southwestern San Diego County. Based on recent information developed as part of the San Diego County Water Authority San Diego Formation Task Force, the San Diego Formation is believed to be at least 1,000 feet thick in an area that extends from the International Border to Mission Bay, approximately 2 miles inland from the La Naçion and Rose Canyon Fault Zones (Huntley et al. 1996, SDCWA 1997, SDCWA 2003). The western extent of the San Diego Formation is not well defined, but it is believed to extend to and under San Diego Bay (Huntley et al. 1996, SDCWA 2003).

The total storage capacity of the San Diego Formation has been estimated to approach or exceed 2 million acre feet (SDCWA 1997, SDCWA 2003). While the groundwater storage volume within the

San Diego Formation is large, usable storage within the aquifer may be limited by water quality or hydrogeologic factors. To prevent the potential for inducing land subsidence and/or seawater intrusion, the San Diego Formation Task Force estimates that the total water supply development potential of the San Diego Formation is approximately 40,000 to 90,000 acre-feet per year (SDCWA 2003). Within the middle portions of the aquifer (e.g. mid-bay and Otay River area), the annual production potential of the San Diego Formation may approach 35,000 acre-feet per year (SDCWA 2003).

Only a limited number of existing wells withdraw from this aquifer due to its depth and the salinity levels. Sweetwater Authority operates several wells that largely (or in part) derive supply from the San Diego Formation. For decades, Sweetwater Authority's National City well field has historically produced approximately 1,500 to 2,500 acre-feet per year of supply (Sweetwater Authority 2009). In 1999, Sweetwater Authority implemented additional groundwater pumping from San Diego Formation wells to feed the Sweetwater Authority Richard A. Reynolds Groundwater Desalination Facility. Since this time, Sweetwater Authority groundwater pumping to the desalination facility has ranged from approximately 2,000 to 4,400 acre-feet per year (Sweetwater Authority 2009). Sweetwater Authority is proposing to expand the capacity of its desalination facility to a production capacity of approximately 8 million gallons per day. With this proposed expansion, Sweetwater Authority estimates that its total groundwater pumping from the San Diego Formation may ultimately reach approximately 11,000 acre-feet per year.

The project may extract approximately 645 acre-feet or greater per year. This minor pumping volume would represent a tiny fraction of the potential storage volume of the San Diego Formation. The proposed pumping capacity would also represent a small percentage of the estimated groundwater production capacity of the San Diego Formation. Further, the projected 645 acre-feet per year production would represent less than 6% of the total ultimate pumping proposed by Sweetwater Authority. Because of the limited amount of project-related groundwater extraction and the separation distance between the project and Sweetwater Authority's San Diego Formation wells, the project would have a negligible effect on groundwater production in other wells and would have no effect on the water service capabilities of the Sweetwater Authority. Therefore, this impact would be less than significant.

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 that would result in substantial erosion or siltation onsite or offsite?

Less-than-Significant Impact. The project site is a small, irregularly shaped parcel that is entirely disturbed and covered in turf and ornamental vegetation. The site has relatively level terrain and is not located on a major drainage system. The project would increase the site's impervious surface area by constructing an approximately 3,600 square-foot building and paving approximately 3,000 square feet of the site surrounding the treatment facility with asphalt to accommodate parking and circulation for plant employees, chemical-delivery trucks, and other equipment. Construction period impacts that may result in on- or offsite erosion or siltation would be minimized to less-than-significant levels by the implementation of BMPs set forth in the SWPPP (see 8.a above). Operational impacts related to siltation or erosion would be minimized to less-than-significant levels by the development and use of standard stormwater drainage features. Additionally, no waterways flow through the project site so the alteration of a stream or river would not occur. Therefore, the project would not substantially alter the existing drainage pattern of the project 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. Impacts would be less than significant.

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 that would result in flooding onsite or offsite?

Less-than-Significant Impact. See 8.a and 8.c above. Although the project would increase the site's impervious surface area, implementation of standard stormwater drainage features would be sufficient to handle the increase in stormwater runoff and would not result in flooding on or off site. Therefore, impacts would be less than significant.

e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less-than-Significant Impact. See 8.a and 8.c above.

f. Otherwise substantially degrade water quality?

Less-than-Significant Impact. See 8.a and 8.c above.

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?

No Impact. The project consists of the construction/development of a well and associated treatment facility and does not propose the construction of any housing. Therefore, no impact associated with the placement of housing within a 100-year flood hazard area would occur.

h. Place within a 100-year flood hazard area structures that would impede or redirect floodflows?

No Impact. The project site is mapped as being outside of the 100-year and 500-year floodplain (FEMA 1997). Thus, no impact would occur.

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?

No Impact. As discussed above, the project area is not located in an area that is prone to flooding events. The project would not 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 because there are no levees or dams located in the project vicinity. No impact would occur.

j. Contribute to inundation by seiche, tsunami, or mudflow?

No Impact. The project site is located approximately 6 miles east of the Pacific Ocean. The closest body of water is the Sweetwater River, located approximately 1 mile northwest of the project site. No impacts associated with inundation by seiche, tsunami, or mudflow would occur.

IX. Land Use and Planning	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

a. Physically divide and established community?

No Impact. The project is located on a small, fenced site that is not connected to the surrounding community. Therefore, the project would not divide an established community.

b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less-than-Significant Impact. The project site has the General Plan land use designation Public & Quasi-Public (P-Q), as defined by the Land Use Element of the City's General Plan. The P-Q designation for the site depicts the possible location of future public facilities. The project would be consistent with the site's P-Q designation since it would construct and operate a well and water treatment facility intended to serve the public's demand for water resources. The project site has the P-Q—Public/Quasi-Public zone designation, as defined by the City's Zoning Ordinance. Permitted uses in the P-Q zone include agricultural uses, including grazing and livestock raising; water reservoirs; and public parks. Uses that are conditionally permitted in the P-Q zone include utility substations and unclassified uses, which would be consistent with the well and water treatment facility proposed by the project. The Because the project does not conflict with the General Plan or the Zoning Ordinance, impacts would be less than significant.

c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The project site is located within the City of Chula Vista's MSCP Subarea. The project site is within an area mapped as "Development Area" and within a "Major Projects Boundaries" area. The project would occur on a disturbed graded site and would not result in direct or indirect impacts to sensitive biological resources. The project would not conflict with the City's MSCP Subarea Plan. Impacts would be less than significant.

X. Mineral Resources	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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?

No Impact. Figure 9-4 of the Chula Vista General Plan shows the project site as not being within an Aggregate Resource Area. Therefore, the site does not contain known mineral resources, and there would be no impact.

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?

No Impact. See 10.a above.

XI. Noise	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	☐	☐	☐	☒
b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e. Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f. Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

a. Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?

No Impact. Chapter 19.68 of the Chula Vista Municipal Code (Noise Ordinance) establishes rules regarding noise in the city limits. The District is an independent agency that is not subject to the Noise Ordinance, and does not operate under its own adopted noise ordinance. Furthermore, Section 19.68.060 of the Noise Ordinance exempts construction activities from complying with the decibel-level standards set forth in the Noise Ordinance. Therefore, the project would not generate noise levels exceeding applicable noise standards, and there would be no impact. (Additional discussion of the noise generated by the project is provided below in the response to 11.d.)

b. Expose persons to or generate excessive ground-borne vibration or ground-borne noise levels?

Less-than-Significant Impact. The project would not generate ground-borne noise. The well-drilling and construction aspects of the project may generate a very small amount of ground-borne vibration, but not of the level that is likely to be perceptible to off-site receptors or cause building damage. Therefore, this impact is less than significant.

c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less-than-Significant Impact. The project would not result in a permanent increase in ambient noise. Permanent features of the project-related treatment facility would be encased inside a building, which would prevent any treatment-equipment noise from being heard from neighboring residences and the daycare center. Permanent project-related traffic is limited to approximately one vehicle trip per day for the onsite operator and approximately one bi-monthly delivery trip. This increase in traffic would not increase the ambient noise perceived by residences in the project area. As a result, this impact would be less than significant. Construction noise is temporary, and is addressed below in the response to 11.d.

d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less-than-Significant Impact with Mitigation Incorporated. Project construction would entail an increase in ambient noise emitted from the project site and received by surrounding residences and the daycare center. Construction noise sources would include operation of the drill rig engine, which would likely run throughout the construction day (7 a.m. to 7 p.m.) Monday through Friday for two estimated three-week periods; well pipe installation, which would be limited to two 1–2 day period, including overnight work; trenching and installation of the onsite utility lines, which would occur within the stated daytime construction hours; and construction of the treatment facility structure, which would also occur within the stated daytime construction hours. Well drilling and well pipe installation—the noisiest aspects of project construction—would be contained on all sides day and night by a noise curtain, which would reduce the noise perceived off site. However, these and other aspects of construction noise would be received by adjacent receptors throughout the project, including the daycare center and church east of the site (daytime only, as these facilities does not operate during the night) and by adjacent residences. As referenced in the discussion of 11.b above, Mitigation Measure 1 has been incorporated into the project to increase community understanding of the project and to provide a project liaison to receive, respond to, and resolve noise complaints to the greatest extent possible. This mitigation measure would reduce this impact to a less-than-significant level.

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

No Impact. The project site is not located within an airport land use plan or within 2 miles of an airport land use plan, public airport, or public use airport; therefore, no impacts would occur.

f. Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?

No Impact. There are no private airstrips located in the project vicinity, so no one residing or working in the project area would be exposed to excessive noise levels. No impact would occur.

XII. Population and Housing	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☒	☐
b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

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

Less-Than-Significant Impact. The project would increase the amount of potable water available to existing and future planned District customers. The purpose of the project is to reduce District reliance on expensive imported water to serve these customers, and the project is not intended to expand the District's service area or increase its customer base above that which is currently planned. Therefore, the project would not indirectly induce population growth, and this impact would be less than significant.

b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?

No Impact. There are no housing units located on the project site, and the project would not entail any removal of housing units. Therefore, there would be no impact.

c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?

No Impact. No people reside on site, and the project would not otherwise displace people. Therefore, there would be no impact.

XIII. Public Services	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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 following public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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 following public services:

Fire protection?

Less-Than-Significant Impact. Fire protection service for the site is provided by the Chula Vista Fire Department (CVFD) Fire Station 4, which is located at 850 Paseo Ranchero. Emergency response times for the project area are currently timed at less than 7 minutes. The project would neither increase response times nor necessitate additional firefighters for the project area because it would be limited to the installation and operation of an existing potable water well and construction of a water-treatment facility in a previously developed area. The water-treatment facility would consist of a small structure in a developed area that would not present a considerable new fire risk such that existing response times or performance objectives services would be affected. The site is anticipated to employ one part-time worker, working approximately 20 hours per week to perform regular operational, maintenance, and oversight duties. In addition, chemical deliveries would occur on a bi-monthly basis. Therefore, human presence at the site would be limited and the increased need for emergency response would be negligible. The project would not result in a considerable demand on fire-protection services resulting in the requirement for new or altered fire-protection services, and this impact would be less than significant.

Police protection?

No Impact. See above. Police protection for the site is provided by the Chula Vista Police Department. Priority 1 emergency response times for the project area are currently timed at 4 minutes and 19 seconds, and Priority 2 emergency response times for the area are timed at 9 minutes and 18 seconds. As described above, implementation of the project would install a small permanent building in a developed area and would not result in a substantial increase in onsite human occupation. The project would not create any security concerns necessitating additional police patrol. Therefore, the project would not increase the demand for or impact response times to police protection services. No impacts would occur.

Schools?

No Impact. The project would not generate a demand for public school services. No impacts would occur.

Parks?

No Impact. The project would not increase residential or occupational population; therefore, there would be no project-related demand on parks, and there would be no impact.

Other public facilities?

No Impact. No other public facilities would be affected by the project. No impact would occur.

XIV. Recreation	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The project would not increase the use of existing neighborhood parks, regional parks, or other recreational facilities; thus, substantial physical deterioration of these facilities would not occur or be accelerated. No impact would occur.

b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No Impact. The project does not include the construction of new recreational facilities or the expansion of existing recreational facilities. The construction or expansion of recreational facilities would not be required. No impact would occur.

XV. Transportation/Traffic	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b. Cause, either individually or cumulatively, exceedance of a level-of-service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
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?	☐	☐	☐	☒
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
e. Result in inadequate emergency access?	☐	☐	☐	☒
f. Result in inadequate parking capacity?	☐	☐	☐	☒
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?

Less-than-Significant Impact. The project would not generate a considerable amount of traffic during the temporary construction period or during ongoing operation. Construction traffic would likely access the site via the I-805 H Street exit, Del Rey Boulevard, and Rancho del Rey Parkway. Because of the small size of the proposed facilities, the small scale of project-related grading, and the limited equipment required for well drilling, construction would require a very limited amount of materials and workers and, accordingly, would not entail much material or equipment delivery or worker traffic. Therefore, construction traffic would not result in a substantial increase in volume-to-capacity ratio on local roads or a substantial increase in intersection congestion. Ongoing project operation and facility maintenance would entail one part-time employee on a regular basis and bi-monthly chemical delivery visits. Therefore, the project would generate an average of fewer than one trip per day on an ongoing basis. This would not result in a substantial increase in volume-to-capacity ratio on local roads or a substantial increase in intersection congestion. This impact would be less than significant.

b. Cause, either individually or cumulatively, exceedance of a level-of-service standard established by the county congestion management agency for designated roads or highways?

Less-than-Significant Impact. See the response to 15.a above. The project would not generate traffic of a great enough volume to affect level-of-service standards, and this would be a less-than-significant impact.

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?

No Impact. The project is not located near an airport and does not feature any components that would in any way affect air traffic. Therefore, there would be no impact.

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

Less-than-Significant Impact with Mitigation Incorporated. The project entails constructing a new driveway to access the project site from Rancho del Rey Parkway. This driveway would be approximately 150 feet south of Terra Nova Drive and the driveway to the adjacent daycare center. The access would be gated and only available to authorized District personnel. As explained above in the response to 15.a, the project would generate a very minor amount of traffic during construction and on a permanent basis, limiting the amount of trips into and out of this driveway. However, the driveway would be located on a curve and near another intersection along Rancho del Rey Parkway, and would have the potential to result in conflicts between project-related vehicles and other vehicles travelling Rancho del Rey Parkway. Proper design and signage of the driveway would ensure safe conditions at this location, and this has been incorporated into mitigation explained below.

> **Mitigation Measure 5: Provide Ample Signage and Safe Design of Project Driveway.**
>
> The District will coordinate with the City Department of Public Works, Engineering Division to ensure that the project driveway is designed to meet all relevant City code and features adequate signage to the satisfaction of the Department of Public Works.

Implementation of this measure would ensure that safe conditions would be maintained in the vicinity of the project, and would reduce this traffic-hazards impact to a less-than-significant level.

e. Result in inadequate emergency access?

No Impact. The project would not block existing roads, generate a substantial amount of traffic on existing roads, or otherwise obstruct existing emergency access. Therefore, there would be no impact on emergency access.

f. Result in inadequate parking capacity?

No Impact. Worker parking would be accommodated at an onsite construction staging area and would not utilize any offsite parking lots or street-parking areas. Permanent parking demand of the facility would entail space for one part-time worker and for chemical delivery and maintenance trucks, which would be fully accommodated on site. Therefore, the project would not result in no impact with respect to parking.

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

No Impact. Transit service to the general project area is provided by the San Diego Metropolitan Transit Service (MTS). The project is not located along an MTS route. Rancho del Rey Parkway contains bike lanes, but the project would not remove or obstruct these bike lanes either during construction or operation. The project would not remove or adversely affect bike racks or any other alternative transportation facilities. Therefore, there would be no impact.

XVI. Utilities and Service Systems	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☒	☐	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	☐	☐	☐	☒
e. Result in a determination by the wastewater treatment provider that 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?	☐	☐	☒	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less-than-Significant Impact with Mitigation Incorporated. Project construction is small in scale and not located adjacent to any natural water bodies. Runoff from the project site does enter the City's storm drain system, specifically gutters along Rancho del Rey Parkway. Project construction would entail a minor amount of stormwater discharge that, due to the nature of construction, has the potential to include sediment and pollutants associated with the construction process. Project construction will comply with the City of Chula Vista's Development Storm Water Manual, which spells out compliance with the City's NPDES permit and Standard Urban Storm Water Mitigation Plan. The project would be required to prepare and implement a project-specific SWPPP to demonstrate compliance with relevant local ordinances and regulations, and describes BMPs that would be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Permittees are further required to ensure that BMPs are correctly implemented and effective in controlling the discharge of

stormwater-related pollutants. Adherence to these mandatory criteria would ensure that project construction would have a less-than-significant impact with respect to water quality standards and waste discharge requirements.

Project operation entails discharge of brine from the water treatment facility into the City's sewer system, and ultimately into the Metropolitan Sewer system for treatment in the Point Loma Wastewater Treatment Plant and ultimate disposal in the Pacific Ocean. The Point Loma facility uses a chemical process to treat sewage before discharge. Unchecked discharge from this source could result in a significant impact on waste discharge requirements maintained by the San Diego Metropolitan Wastewater Department. However, the project requires an Industrial User Discharge Permit from that agency, and the permit may place limits on the salt content or quantity of discharge to minimize the project's environmental impacts. Permit specifics cannot be determined at this time, but compliance with all requirements set forth in the permit would ensure that this impact would be less than significant.

Mitigation Measure 4: Comply with Industrial User Discharge Permit Requirements.

The District will obtain an Industrial User Discharge Permit from San Diego Metropolitan Wastewater Department and will comply with all limitations and requirements stated therein with respect to the discharge salt content, quantity, or other aspects.

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?

Less-than-Significant Impact. The project entails installing new connections to the District's existing water conveyance system and the City's sewer conveyance system. The project would receive potable water from the existing system to mix with the well-related groundwater, but this usage would not be great enough to require the expansion or construction of water-treatment facilities. As explained above in the discussion of 16.a, the project would discharge wastewater into the City system for conveyance to the Metropolitan Sewer treatment system. This would require a permit from the San Diego Metropolitan Wastewater Department, but the volume of discharge would not be of a volume that would require expansion of the existing treatment facilities because the existing Point Loma Wastewater Treatment Plant has adequate capacity to handle project-related volume. Therefore, this impact would be less than significant.

c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less-than-Significant Impact. The project would entail paving a portion of the site and installing onsite storm water drainage facilities that would connect to the City system via a gutter drain in Rancho del Rey Parkway. The increased amount of stormwater flow from the site would not be of the scale that would require expansion of existing City facilities. Therefore, this impact would be less than significant.

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?

No Impact. The project would entail using existing District water supplies to allow blending of water treated on site with potable water currently running through the system. The project would not consume water; therefore, no impact would occur.

e. Result in a determination by the wastewater treatment provider that 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?

Less-than-Significant Impact. See the responses to 16.a and 16.b above. The project would discharge wastewater into the City system for conveyance to Metropolitan Sewer's Point Loma Wastewater Treatment Plant. The plant has adequate capacity to handle project-related volume. Additionally, the District has an agreement with Metropolitan Sewer whereby they pay for a certain amount of discharge into the system, and there is adequate capacity in the District's agreed-upon volume. Therefore, this impact would be less than significant.

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

Less-than-Significant Impact. The project would not generate solid waste on an ongoing basis. Closure of the existing well, if it occurs, may require disposal of a small amount of material, likely in the Otay Landfill. The small amount of project-related solid waste would not be of a scale that would affect the landfill. Therefore, this impact would be less than significant.

g. Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. Project construction and operation would not entail any features that would preclude compliance with solid waste regulations. No impact would occur.

XVII. Mandatory Findings of Significance	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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, substantially 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?	☐	☐	☒	☐
b. Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively 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.)	☐	☐	☒	☐
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

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, substantially 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?

Less-than-Significant Impact. Discussion of the project's impacts with respect to a full range of environmental issue areas is provided above. The project would not result in any impacts on the environment, fish/wildlife habitat, or fish/wildlife/plant species that are not discussed above in Section 4. The project would not result in any impacts on the cultural resources that are not discussed above in Section 5. These impacts are less than significant.

b. Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively 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.)

Less-than-Significant Impact. The project site is located in a developed area that is not planned to support additional development. There are three cumulative projects listed on the City's website—the the Eastlake III Senior Housing Project (Draft EIR in April 2006); the High Tech High University Park project (MND in November 2007); and the Target project (MND in March 2009). The first two of these projects are located more than 5 miles east of the project site, and the third project is located more than 3 miles west of the project site; due to the distance between the project site and

the cumulative project sites, these projects would not combine to create any cumulative construction-phase or operational impacts. The Eastlake III and High Tech High projects are within the service area of the Otay Water District, and the project-related increase in availability of potable water would improve the water service to these cumulative projects. The Target project is in the service area of the Sweetwater Authority, and the project would have no cumulative effect on providing water to the Target project.

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

Less-than-Significant Impact. The project's human-health impacts have been fully evaluated and discussed above, including impacts related to air quality, hazards, and noise. A significant impact with respect to temporary increases in ambient noise was identified, and mitigation is provided that reduces this impact to a less-than-significant level, but this impact is community-nuisance related, rather than human-health related. Project construction would not produce noise received off site that would be physically hazardous to people's hearing; therefore, this impact is not a substantial adverse effect on human beings.

XVIII. Earlier Analysis

This initial study does not rely on earlier analyses.

References

California Air Resources Board. 1998. Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant. Available: <http://www.arb.ca.gov/regact/diesltac/diesltac.htm>.

California Climate Action Registry. 2009. California Climate Action Registry General Reporting Protocol: Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1. Los Angeles, CA. January.

California Department of Conservation. 2006. *San Diego County Important Farmland Map 2006.* Available: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2006/sdg06_west.pdf>. Accessed: October, 2009.

_____. 2008. *San Diego County Williamson Act Lands 2008.* Available: <ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Map%20and%20PDF/San%20Diego/SanDeigoWA_08_09.pdf>. Accessed: October 2009.

City of Chula Vista. 2009. Growth Management Oversight Commission 2009 Annual Report.

_____. 2005. City of Chula Vista General Plan.

_____. 2004. Chula Vista Municipal Code, Chapter 19.

_____. 2008. Chula Vista Development Storm Water Manual.

_____. Chula Vista Fire Department Website. Available: <http://www.chulavistaca.gov/City_Services/Public_Safety/Fire_Department/Stations/default.asp>. Accessed October 2009.

Huntley, David, Shaun Biehler, and C. Monte Marshall. *Distribution and Hydrogeologic Properties of the San Diego Formation, Southwestern San Diego County.* San Diego Formation Task Force Report of Investigation. 1996.

Otay Water District. 2009. Health Safety Manual Section 101.21: Sodium and Calcium Hypochlorite Safety Procedure.

San Diego Air Pollution Control District (SDAPCD). 2008. Fact Sheet: Attainment Status. Available: <http://www.sdapcd.org/info/facts/attain.pdf>. Accessed: January 2010.

———. 2009. Rules & Regulations. Available: http://www.sdapcd.org/rules/ rules/randr.html. Accessed: January 2010.

San Diego County Water Authority. *San Diego County Water Authority Groundwater Report.* 1997.

San Diego County Water Authority (SDCWA). *San Diego Formation Aquifer Storage and Recovery Study, Phase I.* 2003.

Sweetwater Authority. 2001. *Interim Groundwater Management Plan.*

Sweetwater Authority. *Water Supply Assessment.* 2009.

Welch, Michael R., Ph.D., P.E. Consulting Engineer. San Diego, CA. January 13, 2010—telephone conversation with Alex Hardy, ICF International.

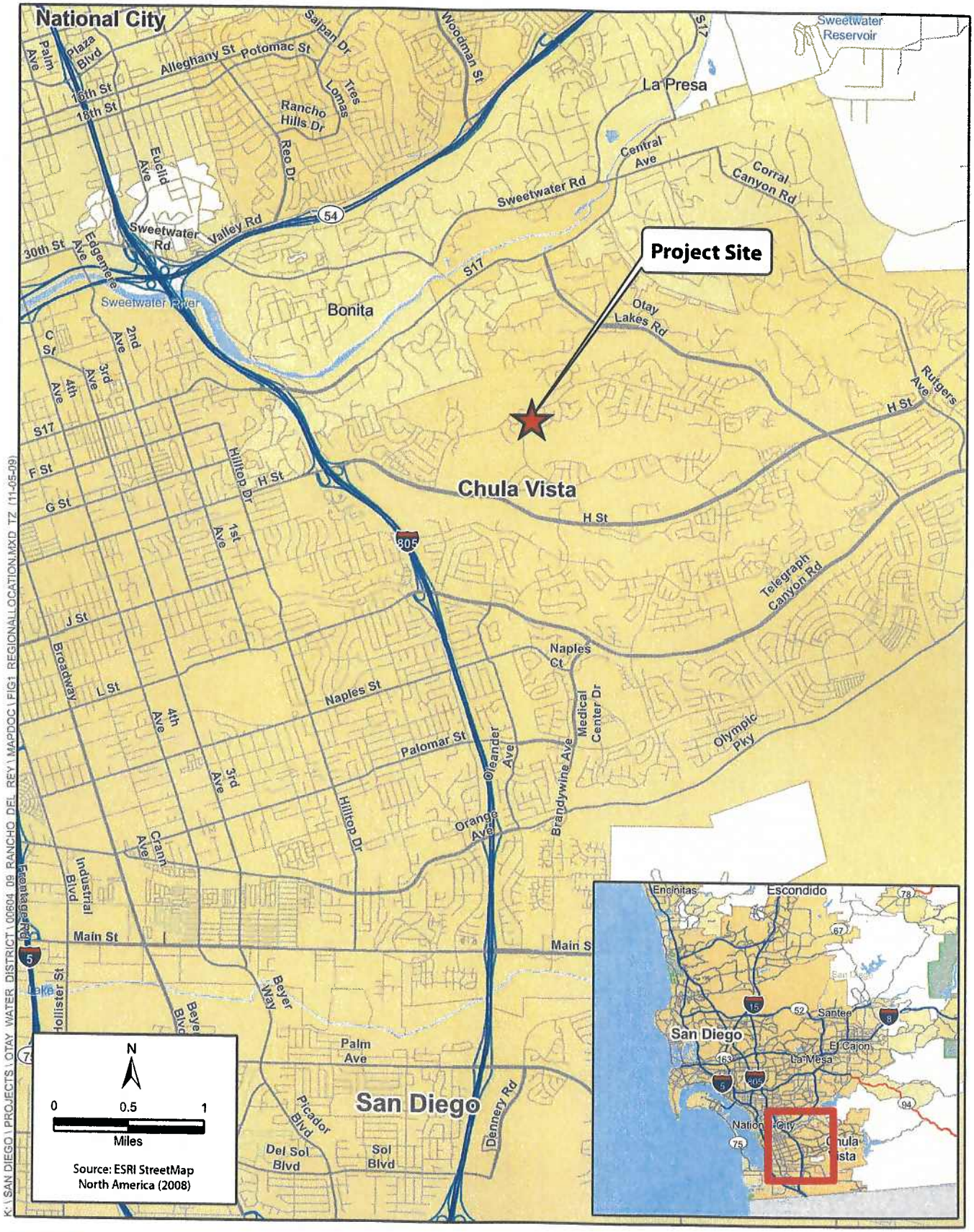


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Figure 1
Regional Location

K:\SAN DIEGO\PROJECTS\OTAY WATER DISTRICT\00604 09 RANCHO DEL REY\MAPDOC\FIG2 PROJECTSITE.MXD TZ (11-05-09)

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Figure 2
Project Site

Appendix A
Air Quality Data

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: G:\San Diego\10_Staff\Air Quality Staff\OWD_rancho del rey\Urbemis runs\Construction.urb924

Project Name: OWD Rancho del Rey

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2010 TOTALS (lbs/day unmitigated)	14.36	143.91	59.44	0.00	4.01	6.60	10.61	0.84	6.07	6.91	18,429.42
2010 TOTALS (lbs/day mitigated)	14.36	143.91	59.44	0.00	4.01	6.60	8.40	0.84	6.07	6.27	18,429.42

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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Time Slice 2/1/2010-2/19/2010 Active Days: 15	8.72	76.99	38.18	0.00	**4.01**	4.39	8.40	**0.84**	4.04	4.88	8,809.17
Mass Grading 02/01/2010-02/19/2010	8.72	76.99	38.18	0.00	4.01	4.39	8.40	0.84	4.04	4.88	8,809.17
Mass Grading Dust	0.00	0.00	0.00	0.00	4.00	0.00	4.00	0.84	0.00	0.84	0.00
Mass Grading Off Road Diesel	8.68	76.90	36.61	0.00	0.00	4.38	4.38	0.00	4.03	4.03	8,622.57
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.09	1.57	0.00	0.01	0.01	0.01	0.00	0.00	0.01	186.59
Time Slice 2/22/2010-2/23/2010 Active Days: 2	**14.36**	**143.91**	**59.44**	0.00	**4.01**	**6.60**	**10.61**	**0.84**	**6.07**	**6.91**	**18,429.42**
Mass Grading 02/22/2010-02/23/2010	14.36	143.91	59.44	0.00	4.01	6.60	10.61	0.84	6.07	6.91	18,429.42
Mass Grading Dust	0.00	0.00	0.00	0.00	4.00	0.00	4.00	0.84	0.00	0.84	0.00
Mass Grading Off Road Diesel	14.31	143.81	57.86	0.00	0.00	6.60	6.60	0.00	6.07	6.07	18,242.82
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.09	1.57	0.00	0.01	0.01	0.01	0.00	0.00	0.01	186.59
Time Slice 2/24/2010-3/10/2010 Active Days: 11	7.27	61.74	29.44	0.00	0.01	3.24	3.25	0.00	2.98	2.98	6,297.41
Building 02/24/2010-03/21/2010	3.36	35.45	12.99	0.00	0.00	1.55	1.55	0.00	1.42	1.42	3,771.95
Building Off Road Diesel	3.34	35.25	12.68	0.00	0.00	1.54	1.54	0.00	1.42	1.42	3,716.31
Building Vendor Trips	0.02	0.20	0.14	0.00	0.00	0.01	0.01	0.00	0.01	0.01	34.74
Building Worker Trips	0.01	0.01	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.90
Trenching 02/24/2010-03/21/2010	3.91	26.29	16.44	0.00	0.01	1.69	1.70	0.00	1.56	1.56	2,525.46
Trenching Off Road Diesel	3.86	26.20	14.87	0.00	0.00	1.69	1.69	0.00	1.55	1.55	2,338.87
Trenching Worker Trips	0.05	0.09	1.57	0.00	0.01	0.01	0.01	0.00	0.00	0.01	186.59

1/20/2010 2:07:12 PM

Time Slice 3/11/2010-3/19/2010 Active Days: 7	9.32	73.86	38.30	**0.00**	0.02	4.28	4.30	0.01	3.93	3.94	7,509.54
Asphalt 03/11/2010-03/21/2010	2.04	12.11	8.86	0.00	0.01	1.04	1.05	0.00	0.95	0.96	1,212.13
Paving Off-Gas	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.95	11.89	6.98	0.00	0.00	1.03	1.03	0.00	0.94	0.94	979.23
Paving On Road Diesel	0.01	0.11	0.04	0.00	0.00	0.00	0.01	0.00	0.00	0.00	15.21
Paving Worker Trips	0.06	0.11	1.83	0.00	0.01	0.01	0.02	0.00	0.00	0.01	217.69
Building 02/24/2010-03/21/2010	3.36	35.45	12.99	0.00	0.00	1.55	1.55	0.00	1.42	1.42	3,771.95
Building Off Road Diesel	3.34	35.25	12.68	0.00	0.00	1.54	1.54	0.00	1.42	1.42	3,716.31
Building Vendor Trips	0.02	0.20	0.14	0.00	0.00	0.01	0.01	0.00	0.01	0.01	34.74
Building Worker Trips	0.01	0.01	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.90
Trenching 02/24/2010-03/21/2010	3.91	26.29	16.44	0.00	0.01	1.69	1.70	0.00	1.56	1.56	2,525.46
Trenching Off Road Diesel	3.86	26.20	14.87	0.00	0.00	1.69	1.69	0.00	1.55	1.55	2,338.87
Trenching Worker Trips	0.05	0.09	1.57	0.00	0.01	0.01	0.01	0.00	0.00	0.01	186.59

Phase Assumptions

Phase: Mass Grading 2/1/2010 - 2/19/2010 - Well drilling

Total Acres Disturbed: 0

Maximum Daily Acreage Disturbed: 0.2

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Air Compressors (350 hp) operating at a 0.65 load factor for 12 hours per day

1 Bore/Drill Rigs (500 hp) operating at a 0.2 load factor for 12 hours per day

1 Generator Sets (325 hp) operating at a 0.62 load factor for 12 hours per day

1 Signal Boards (10 hp) operating at a 0.8 load factor for 12 hours per day

1/20/2010 2:07:12 PM

1 Skid Steer Loaders (500 hp) operating at a 0.7 load factor for 12 hours per day

1 Tractors/Loaders/Backhoes (85 hp) operating at a 0.88 load factor for 12 hours per day

Phase: Mass Grading 2/22/2010 - 2/23/2010 - Well pulling pipe

Total Acres Disturbed: 0

Maximum Daily Acreage Disturbed: 0.2

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Air Compressors (350 hp) operating at a 0.65 load factor for 24 hours per day

1 Bore/Drill Rigs (500 hp) operating at a 0.6 load factor for 24 hours per day

1 Generator Sets (325 hp) operating at a 0.62 load factor for 24 hours per day

1 Signal Boards (10 hp) operating at a 0.8 load factor for 24 hours per day

1 Skid Steer Loaders (500 hp) operating at a 0.7 load factor for 12 hours per day

1 Tractors/Loaders/Backhoes (85 hp) operating at a 0.88 load factor for 12 hours per day

Phase: Trenching 2/24/2010 - 3/21/2010 - Trenching for Utilities

Off-Road Equipment:

1 Crushing/Processing Equip (142 hp) operating at a 0.78 load factor for 8 hours per day

1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

1 Trenchers (63 hp) operating at a 0.75 load factor for 8 hours per day

1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Paving 3/11/2010 - 3/21/2010 - paving

Acres to be Paved: 0.07

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1/20/2010 2:07:12 PM

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 2/24/2010 - 3/21/2010 - Building Construction

Off-Road Equipment:

1 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day

1 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day

1 Generator Sets (549 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 2/1/2010-2/19/2010 Active Days: 15	8.72	76.99	38.18	0.00	**4.01**	4.39	8.40	**0.84**	4.04	4.88	8,809.17
Mass Grading 02/01/2010-02/19/2010	8.72	76.99	38.18	0.00	4.01	4.39	8.40	0.84	4.04	4.88	8,809.17
Mass Grading Dust	0.00	0.00	0.00	0.00	4.00	0.00	4.00	0.84	0.00	0.84	0.00
Mass Grading Off Road Diesel	8.68	76.90	36.61	0.00	0.00	4.38	4.38	0.00	4.03	4.03	8,622.57
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.09	1.57	0.00	0.01	0.01	0.01	0.00	0.00	0.01	186.59

1/20/2010 2:07:12 PM

Time Slice 2/22/2010-2/23/2010 Active Days: 2	**14.36**	**143.91**	**59.44**	0.00	0.92	**6.60**	7.52	0.19	**6.07**	6.27	**18,429.42**
Mass Grading 02/22/2010-02/23/2010	14.36	143.91	59.44	0.00	0.92	6.60	7.52	0.19	6.07	6.27	18,429.42
Mass Grading Dust	0.00	0.00	0.00	0.00	0.91	0.00	0.91	0.19	0.00	0.19	0.00
Mass Grading Off Road Diesel	14.31	143.81	57.86	0.00	0.00	6.60	6.60	0.00	6.07	6.07	18,242.82
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.09	1.57	0.00	0.01	0.01	0.01	0.00	0.00	0.01	186.59
Time Slice 2/24/2010-3/10/2010 Active Days: 11	7.27	61.74	29.44	0.00	0.01	3.24	3.25	0.00	2.98	2.98	6,297.41
Building 02/24/2010-03/21/2010	3.36	35.45	12.99	0.00	0.00	1.55	1.55	0.00	1.42	1.42	3,771.95
Building Off Road Diesel	3.34	35.25	12.68	0.00	0.00	1.54	1.54	0.00	1.42	1.42	3,716.31
Building Vendor Trips	0.02	0.20	0.14	0.00	0.00	0.01	0.01	0.00	0.01	0.01	34.74
Building Worker Trips	0.01	0.01	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.90
Trenching 02/24/2010-03/21/2010	3.91	26.29	16.44	0.00	0.01	1.69	1.70	0.00	1.56	1.56	2,525.46
Trenching Off Road Diesel	3.86	26.20	14.87	0.00	0.00	1.69	1.69	0.00	1.55	1.55	2,338.87
Trenching Worker Trips	0.05	0.09	1.57	0.00	0.01	0.01	0.01	0.00	0.00	0.01	186.59

1/20/2010 2:07:12 PM

Time Slice 3/11/2010-3/19/2010 Active Days: 7	9.32	73.86	38.30	0.00	0.02	4.28	4.30	0.01	3.93	3.94	7,509.54
Asphalt 03/11/2010-03/21/2010	2.04	12.11	8.86	0.00	0.01	1.04	1.05	0.00	0.95	0.96	1,212.13
Paving Off-Gas	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.95	11.89	6.98	0.00	0.00	1.03	1.03	0.00	0.94	0.94	979.23
Paving On Road Diesel	0.01	0.11	0.04	0.00	0.00	0.00	0.01	0.00	0.00	0.00	15.21
Paving Worker Trips	0.06	0.11	1.83	0.00	0.01	0.01	0.02	0.00	0.00	0.01	217.69
Building 02/24/2010-03/21/2010	3.36	35.45	12.99	0.00	0.00	1.55	1.55	0.00	1.42	1.42	3,771.95
Building Off Road Diesel	3.34	35.25	12.68	0.00	0.00	1.54	1.54	0.00	1.42	1.42	3,716.31
Building Vendor Trips	0.02	0.20	0.14	0.00	0.00	0.01	0.01	0.00	0.01	0.01	34.74
Building Worker Trips	0.01	0.01	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.90
Trenching 02/24/2010-03/21/2010	3.91	26.29	16.44	0.00	0.01	1.69	1.70	0.00	1.56	1.56	2,525.46
Trenching Off Road Diesel	3.86	26.20	14.87	0.00	0.00	1.69	1.69	0.00	1.55	1.55	2,338.87
Trenching Worker Trips	0.05	0.09	1.57	0.00	0.01	0.01	0.01	0.00	0.00	0.01	186.59

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 2/22/2010 - 2/23/2010 - Well pulling pipe

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

1/20/2010 2:07:03 PM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: G:\San Diego\10_Staff\Air Quality Staff\OWD_rancho del rey\Urbemis runs\Construction.urb924

Project Name: OWD Rancho del Rey

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2010 TOTALS (tons/year unmitigated)	0.15	1.32	0.64	0.00	0.03	0.07	0.11	0.01	0.07	0.07	145.42
2010 TOTALS (tons/year mitigated)	0.15	1.32	0.64	0.00	0.03	0.07	0.10	0.01	0.07	0.07	145.42
Percent Reduction	0.00	0.00	0.00	0.00	9.04	0.00	2.90	9.00	0.00	0.88	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2010	0.15	1.32	0.64	0.00	0.03	0.07	0.11	0.01	0.07	0.07	145.42

1/20/2010 2:07:03 PM

Mass Grading 02/01/2010-02/19/2010	0.07	0.58	0.29	0.00	0.03	0.03	0.06	0.01	0.03	0.04	66.07
Mass Grading Dust	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.01	0.00	0.01	0.00
Mass Grading Off Road Diesel	0.07	0.58	0.27	0.00	0.00	0.03	0.03	0.00	0.03	0.03	64.67
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40
Mass Grading 02/22/2010-02/23/2010	0.01	0.14	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	18.43
Mass Grading Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Off Road Diesel	0.01	0.14	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	18.24
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
Building 02/24/2010-03/21/2010	0.03	0.32	0.12	0.00	0.00	0.01	0.01	0.00	0.01	0.01	33.95
Building Off Road Diesel	0.03	0.32	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	33.45
Building Vendor Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31
Building Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
Trenching 02/24/2010-03/21/2010	0.04	0.24	0.15	0.00	0.00	0.02	0.02	0.00	0.01	0.01	22.73
Trenching Off Road Diesel	0.03	0.24	0.13	0.00	0.00	0.02	0.02	0.00	0.01	0.01	21.05
Trenching Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.68
Asphalt 03/11/2010-03/21/2010	0.01	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.24
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.01	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.43
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Paving Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76

1/20/2010 2:07:03 PM

Phase Assumptions

Phase: Mass Grading 2/1/2010 - 2/19/2010 - Well drilling

Total Acres Disturbed: 0

Maximum Daily Acreage Disturbed: 0.2

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Air Compressors (350 hp) operating at a 0.65 load factor for 12 hours per day

1 Bore/Drill Rigs (500 hp) operating at a 0.2 load factor for 12 hours per day

1 Generator Sets (325 hp) operating at a 0.62 load factor for 12 hours per day

1 Signal Boards (10 hp) operating at a 0.8 load factor for 12 hours per day

1 Skid Steer Loaders (500 hp) operating at a 0.7 load factor for 12 hours per day

1 Tractors/Loaders/Backhoes (85 hp) operating at a 0.88 load factor for 12 hours per day

Phase: Mass Grading 2/22/2010 - 2/23/2010 - Well pulling pipe

Total Acres Disturbed: 0

Maximum Daily Acreage Disturbed: 0.2

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Air Compressors (350 hp) operating at a 0.65 load factor for 24 hours per day

1 Bore/Drill Rigs (500 hp) operating at a 0.6 load factor for 24 hours per day

1 Generator Sets (325 hp) operating at a 0.62 load factor for 24 hours per day

1 Signal Boards (10 hp) operating at a 0.8 load factor for 24 hours per day

1 Skid Steer Loaders (500 hp) operating at a 0.7 load factor for 12 hours per day

1 Tractors/Loaders/Backhoes (85 hp) operating at a 0.88 load factor for 12 hours per day

1/20/2010 2:07:04 PM

Phase: Trenching 2/24/2010 - 3/21/2010 - Trenching for Utilities

Off-Road Equipment:

1 Crushing/Processing Equip (142 hp) operating at a 0.78 load factor for 8 hours per day

1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

1 Trenchers (63 hp) operating at a 0.75 load factor for 8 hours per day

1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Paving 3/11/2010 - 3/21/2010 - paving

Acres to be Paved: 0.07

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 2/24/2010 - 3/21/2010 - Building Construction

Off-Road Equipment:

1 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day

1 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day

1 Generator Sets (549 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

1/20/2010 2:07:04 PM

2010	0.15	1.32	0.64	0.00	0.03	0.07	0.10	0.01	0.07	0.07	145.42
Mass Grading 02/01/2010-02/19/2010	0.07	0.58	0.29	0.00	0.03	0.03	0.06	0.01	0.03	0.04	66.07
Mass Grading Dust	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.01	0.00	0.01	0.00
Mass Grading Off Road Diesel	0.07	0.58	0.27	0.00	0.00	0.03	0.03	0.00	0.03	0.03	64.67
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40
Mass Grading 02/22/2010-02/23/2010	0.01	0.14	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	18.43
Mass Grading Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Off Road Diesel	0.01	0.14	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	18.24
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
Building 02/24/2010-03/21/2010	0.03	0.32	0.12	0.00	0.00	0.01	0.01	0.00	0.01	0.01	33.95
Building Off Road Diesel	0.03	0.32	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	33.45
Building Vendor Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31
Building Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
Trenching 02/24/2010-03/21/2010	0.04	0.24	0.15	0.00	0.00	0.02	0.02	0.00	0.01	0.01	22.73
Trenching Off Road Diesel	0.03	0.24	0.13	0.00	0.00	0.02	0.02	0.00	0.01	0.01	21.05
Trenching Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.68
Asphalt 03/11/2010-03/21/2010	0.01	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.24
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.01	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.43
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Paving Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76

1/20/2010 2:07:04 PM

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 2/22/2010 - 2/23/2010 - Well pulling pipe

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

OWD Rancho del Rey Construction GHG Calculations

0.000453592

Construction Phase	CO2 lbs/day (from URBEMIS)		CO2 lbs total		CO2 MT/yr		days of construction
	Off Road Emissions	on-road emissions	Off Road Emissions	on-road emissions	Off Road Emissions	on-road emissions	
Well Drilling	8,622.6	186.6	129,338.6	2,798.9	58.7	1.3	15
Well Casing	18,242.8	186.6	36,485.6	373.2	16.5	0.2	2
Building Construction	3,716.3	55.6	66,893.6	1,001.5	30.3	0.5	18
Trenching for Utilities	2,338.9	186.6	42,099.7	3,358.6	19.1	1.5	18
Paving	979.2	232.9	6,854.6	1,630.3	3.1	0.7	7
total	*33,899.8*	*848.3*	*281,672.0*	*9,162.5*	*127.8*	*4.2*	

Input Emissions

Construction Phase	Off Road Emissions			On road Emissions and Worker Trips		
	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2 (metric tons/yr)	Other (metric tons/yr)	CO2e (metric tons/yr)
Well Drilling	58.7	0.003352	0.001503	1.3	0.066818	60.5
Well Casing	16.5	0.000946	0.000424	0.2	0.008909	16.9
Building Construction	30.3	0.001734	0.000777	0.5	0.023910	31.1
Trenching for Utilities	19.1	0.001091	0.000489	1.5	0.080181	20.9
Paving	3.1	0.000178	0.000080	0.7	0.038921	3.9
Total Construction Emissions	***127.8***	***0.007301***	***0.003273***	***4.2***	***0.218738***	***133.3***
						3.3

Sources: URBEMIS 2007; CCAR 2009.

Diesel Fuel	CO2	CH4	N2O	
kg CO2/gal diesel	10.15	0.00058	0.00026	
g/gal diesel construction equip		0.58	0.26	Table C.6, GRP
ratio	1	5.71429E-05	2.561986-05	

Source: CH4 and N2O from Construction

Gasoline Fuel	CO2	CH4	N2O	
kg CO2/gal diesel	8.81	0.0014	0.0001	Table C.9, GRP
ratio	1	0.00015891	1.13507E-05	

tons/metric ton	Percent other GHGs (on road)	GAS	CH4	N2O
0.90718474	5.00%	GWP	21	310

01/21/10
16:12:49

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

owd

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	AREA
EMISSION RATE (G/(S-M**2))	=	.709456E-05
SOURCE HEIGHT (M)	=	3.5000
LENGTH OF LARGER SIDE (M)	=	28.4500
LENGTH OF SMALLER SIDE (M)	=	28.4500
RECEPTOR HEIGHT (M)	=	.0000
URBAN/RURAL OPTION	=	URBAN

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = .000 M**4/S**3; MOM. FLUX = .000 M**4/S**2.

*** FULL METEOROLOGY ***

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	MAX DIR (DEG)
1.	9.129	1	1.0	1.0	320.0	3.50	45.
100.	16.20	5	1.0	1.0	10000.0	3.50	45.
200.	5.572	5	1.0	1.0	10000.0	3.50	43.
300.	2.803	5	1.0	1.0	10000.0	3.50	42.
400.	1.718	5	1.0	1.0	10000.0	3.50	44.
500.	1.180	5	1.0	1.0	10000.0	3.50	32.
600.	.8726	5	1.0	1.0	10000.0	3.50	39.
700.	.6792	5	1.0	1.0	10000.0	3.50	2.
800.	.5482	5	1.0	1.0	10000.0	3.50	4.
900.	.4549	5	1.0	1.0	10000.0	3.50	21.
1000.	.3859	5	1.0	1.0	10000.0	3.50	24.
1100.	.3333	5	1.0	1.0	10000.0	3.50	32.
1200.	.2920	5	1.0	1.0	10000.0	3.50	29.
1300.	.2589	5	1.0	1.0	10000.0	3.50	13.
1400.	.2319	5	1.0	1.0	10000.0	3.50	9.
1500.	.2096	5	1.0	1.0	10000.0	3.50	5.

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

47.	30.25	5	1.0	1.0	10000.0	3.50	45.

****
*** SCREEN DISCRETE DISTANCES ***
****

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	MAX DIR (DEG)
3.	10.64	1	1.0	1.0	320.0	3.50	44.
8.	13.94	3	1.0	1.0	320.0	3.50	45.
20.	22.43	3	1.0	1.0	320.0	3.50	45.
30.	28.30	4	1.0	1.0	320.0	3.50	45.
76.	22.45	5	1.0	1.0	10000.0	3.50	45.
152.	8.690	5	1.0	1.0	10000.0	3.50	45.

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	30.25	47.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

OWD Rancho del Rey Daycare HRA Heath Risk Inputs and Calculations

0.375 9 hrs/24 hrs

*assume all PM10 exhaust is DPM

*assumption is that emissions are constant over the acres disturbed

	Emission Calcs
0.02625	Urbemis PM tons/yr (x) children at site 9hrs/day
907184.7	grams/ton
3600	seconds/hour
24	hours/day
1.00	percent of day
48	days/yr
0.005742091	grams/second

	Area Calcs
0.2	Max area disturbed (acres)
4046.825	meters2/acre
809.365	meters2
28.44934094	meters x meters

Screen 3 assumptions
0m receptor height
3.5 m stack height
use discrete distances as well as array from 0 to 1500 m
urban setting

	SCREEN3 Emission Rate
7.09456E-06	grams/second*meter2

0.3048

ft	m	SCREEN3 Distances	
10	3.048	receptor 1	* middle of daycare facility/playground
25	7.62	receptor 2	* daycare parking area
65	19.812	receptor 3	* daycare doorstep
100	30.48	receptor 4	* daycare parking area
250	76.2	receptor 5	* daycare playground
500	152.4	receptor 6	* corner to corner playground
154.199	47	highest concentration	* residences

0.3048 **Daycare Center**

Highest Concentration (47 ft)

	HRA Calcs		
30.3	SCREEN3 1-hour concentration (micrograms/meter3)		
0.1	1-hour --> annual conversion	From June 2007 BAAQMD PERMIT MODELING GUIDANCE, pg. 4	
3.03E+00	SCREEN3 annual concentration (micrograms/meter3)		
8.46E-08	Calculated dose (mg/kg-day)		
0.1	Cancer risk (per million)		
0.61	Hazard Index	4.23E-07	
5	Chronic Inhallation REL (micrograms/meter3)		
48	days of construction		
0.375	hours at daycare center (% of day)		
18	Exposure frequency (EF)	days/year	*# of construction days*
0.131506849	Exposure duration (ED)	Years	*# of days/365*
25550	Averaging time (AT)	days	
302	Daily breathing rate (DBR)	L/kg body weight	
1	Inhalation absorption factor (A)	None	
1.00E-03	Micrograms to milligrams conversion	1 microgram	
1.00E-03	liters to cubic meters conversion	liters	
1.1	Cancer potency factor	mg/kg-day	
1.00E+06	risk per million people	None	

10 feet (3m)

	HRA Calcs	
10.7	SCREEN3 1-hour concentration (micrograms/meter3)	
0.1	1-hour --> annual conversion	From June 2007 BAAQMD PERMIT MODELING GUIDANCE, pg. 4
1.07E+00	SCREEN3 24-hour concentration (micrograms/meter3)	
2.99E-08	Calculated dose (mg/kg-day)	
0.03	Cancer risk (per million)	
0.2	Hazard Index	

25 feet (7.6m)

	HRA Calcs	
14.0	SCREEN3 1-hour concentration (micrograms/meter3)	
0.1	1-hour --> annual conversion	From June 2007 BAAQMD PERMIT MODELING GUIDANCE, pg. 4
1.40E+00	SCREEN3 24-hour concentration (micrograms/meter3)	
3.90E-08	Calculated dose (mg/kg-day)	
0.04	Cancer risk (per million)	
0.3	Hazard Index	

65 feet (19.8m)

	HRA Calcs	
22.4	SCREEN3 1-hour concentration (micrograms/meter3)	
0.1	1-hour --> annual conversion	From June 2007 BAAQMD PERMIT MODELING GUIDANCE, pg. 4
2.24E+00	SCREEN3 24-hour concentration (micrograms/meter3)	
6.28E-08	Calculated dose (mg/kg-day)	
0.1	Cancer risk (per million)	
0.4	Hazard Index	

100 feet (30.48m)

	HRA Calcs	
28.3	SCREEN3 1-hour concentration (micrograms/meter3)	
0.1	1-hour --> annual conversion	From June 2007 BAAQMD PERMIT MODELING GUIDANCE, pg. 4
2.83E+00	SCREEN3 24-hour concentration (micrograms/meter3)	
7.92E-08	Calculated dose (mg/kg-day)	
0.1	Cancer risk (per million)	
0.6	Hazard Index	

250 feet (76.2m)

	HRA Calcs	
22.5	SCREEN3 1-hour concentration (micrograms/meter3)	
0.1	1-hour --> annual conversion	From June 2007 BAAQMD PERMIT MODELING GUIDANCE, pg. 4
2.25E+00	SCREEN3 24-hour concentration (micrograms/meter3)	
6.28E-08	Calculated dose (mg/kg-day)	
0.1	Cancer risk (per million)	
0.4	Hazard Index	

500 feet (152.4m)

	HRA Calcs	
8.7	SCREEN3 1-hour concentration (micrograms/meter3)	
0.1	1-hour --> annual conversion	From June 2007 BAAQMD PERMIT MODELING GUIDANCE, pg. 4
8.69E-01	SCREEN3 24-hour concentration (micrograms/meter3)	
2.43E-08	Calculated dose (mg/kg-day)	
0.03	Cancer risk (per million)	
0.2	Hazard Index	

Appendix B

Geology and Soils Report

SOUTHERN CALIFORNIA SOIL & TESTING, INC.

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83-740 Citrus Avenue
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Indio, CA 92201-3438
www.scst.com

January 20, 2010

Project # 1011001
Report # 1

Lisa Coburn-Boyd
Otay Water District
2554 Sweetwater Springs Blvd.
Spring Valley, CA 91978-2004

Subject: REPORT
GEOLGOY AND SOILS INFORMATION
RANCHO DEL REY WELL SITE
CHULA VISTA, CALIFORNIA
OTAY WATER DISTRICT

Dear Ms. Lisa Coburn-Boyd:

INTRODUCTION

In accordance with your request, Southern California Soil & Testing developed geology and soils information for the new well and future small water treatment system at the existing Rancho Del Rey well site in Chula Vista, California. The site is located on the southeast corner of the intersection of Terra Nova Drive and Rancho Del Rey Parkway. The location is shown on Figure 1.

The scope of work consisted of:

- Notifying Underground Service Alert to locate underground utilities in the area.
- Drilling 1 exploratory test boring 20 feet deep at the location shown on Figure 1 to develop information on shallow soil conditions.
- Logging the boring and obtaining samples of the materials encountered for examination and laboratory testing. The log of the test boring is on Figure I-2.
- Performing laboratory tests to evaluate pertinent engineering properties. Results of a direct shear test on a relatively undisturbed sample are on Figure II-1. Representative grain size distributions are shown on Figure II-2.

- Reviewing available logs of the existing well to evaluate subsurface conditions at greater depths.
- Preparing a final letter report summarizing the results of the field and laboratory program.

SURFACE AND SUBSURFACE CONDITIONS

The surface of the site is relatively flat, with a few sparse weeds. Otay Formation is exposed on the ground surface and continued to the maximum depth explored, 19.5 feet. Formational materials consist of dense clayey sandstone in the upper 10 feet; hard claystone between a depth of 10 feet and a depth of 14 feet; and dense clayey sandstone below this depth. No groundwater was encountered in the test boring.

CONCLUSIONS

The site is underlain by dense and hard sandstone and claystone of the Otay Formation. The formational materials will provide good support for relatively light structures with foundations at shallow depths below the bottom of the structure. The formational materials also will provide good support for new fills. Settlements are expected to be small. Portions of the formational materials can be expansive and recommendations for minimizing the effects of expansive soils on structures are contained in the following section.

RECOMMENDATIONS

Earthwork

Existing vegetation and debris should be stripped and removed from the site. Near surface soils containing organic materials can be stockpiled for later use in landscaping. The depth of stripping is expected to be three to four inches.

Where structures will be supported at or near existing grades, the upper soils should be excavated to a depth of at least three feet below planned footing bottom grades. Existing materials should be excavated to a depth of at least two feet below subgrade beneath slabs-on-grade. The excavated materials and the surface exposed by excavation should be checked by the geotechnical engineer to evaluate their expansion potential and suitability for use as compacted fill.

The surface exposed by excavation should be scarified to a depth of 8 inches, moisture conditioned to approximately 2 to 4 percentage points above optimum moisture content and compacted to at least 90% relative compaction based on the ASTM D 1557 laboratory test method. All references to relative compaction and optimum moisture content in this report are based on this test method. The geotechnical engineer should observe materials exposed during earthwork and evaluate whether they are suitable based on the observed expansion potential.

Fill and Backfill Placement and Compaction

Generally, the excavated soil will be suitable for use as new compacted fill and backfill except for expansive materials as determined by the geotechnical engineer. Fill and backfill should be placed in lifts 8 inches or less in loose thickness, moisture conditioned to approximately 2 to 4 percentage points above optimum moisture content and compacted to at least 90% relative compaction.

Imported Soil

Imported fill should consist of predominately granular soils free of organic material and rocks greater than 6 inches in maximum dimension. Imported soils should have an Expansion Index of 20 or less. Imported soils should be inspected and, if appropriate, tested by SCS&T prior to transport to the site.

Surface Drainage

Final surface grades around the improvements should be designed to collect and direct surface water away from the structures and toward appropriate drainage facilities. The ground around the structures should be graded so that surface water flows rapidly away from the structures without ponding. In general, we recommend that the ground adjacent to the structures slope away at a gradient of at least 2%. Densely vegetated areas where runoff can be impaired should have a minimum gradient of at least 5% within the first 5 feet from the structure.

Drainage patterns established at the time of fine grading should be maintained throughout the life of the structures. Site irrigation should be limited to the minimum necessary to sustain landscape growth. Should excessive irrigation, impaired drainage, or unusually high rainfall occur, saturated zones of perched groundwater can develop.

Seismic Design

The site coefficients and adjusted maximum considered earthquake spectral response acceleration parameters in accordance with the 2007 California Building Code are presented below:

Site Coordinates: Latitude 32° 33' 43"
Longitude 117° 01' 58"
Site Class: D
Site Coefficient F_a = 1.078
Site Coefficient F_v = 1.622
Spectral Response Acceleration at Short Periods S_s = 1.055
Spectral Response Acceleration at 1-Second Period S_1 = 0.389
$S_{MS}=F_aS_s=1.137$

$S_{M1}=F_vS_1=0.631$
$S_{DS}=2/3^* S_{MS}=0.758$
$S_{D1}=2/3^* S_{M1}=0.421$

Structure Foundation Design

New structures can be supported on spread footings with bottom levels in the formational materials if the bottom level of the structure is more than 5 feet below the lowest adjacent outside final grade, or in new compacted fill. Footings should have bottom levels at a minimum depth of 18 inches below the lowest adjacent finished grade. A minimum width of 12 inches is recommended for continuous footings for single story structures and 15 inches for 2-story structures. Isolated footings should be at least 24 inches wide. A bearing capacity of 3000 pounds per square foot (psf) can be used. This value can be increased by ⅓ when considering the total of all loads, including wind or seismic forces.

Lateral loads will be resisted by friction between the bottoms of footings and passive pressure on the faces of footings and other structural elements below grade. A friction factor of 0.35 can be used. Passive pressure can be computed using a lateral pressure value of 350 psf per foot of depth below the ground surface. The upper 1 foot of soil should not be relied on for passive support unless the ground is covered with pavements or slabs.

Total footing settlements are expected to be less than ½ inch. Differential settlements between adjacent footings, and between the middle and ends of continuous footings, are expected to be less than ½ inch. Settlement should occur rapidly and be essentially complete shortly after construction is complete.

Concrete Slabs-on-Grade

Concrete slabs-on-grade should have a thickness of at least 5 inches and be reinforced with at least No. 4 reinforcing bars placed at 12 inches on-center each way. Slab reinforcement should be placed approximately at mid-height of the slab and extend at least 6 inches down into the footings.

Slabs-on-grade should be underlain by a 4-inch thick blanket of clean, poorly graded, coarse sand or crushed rock. A moisture vapor retarder/barrier should be placed beneath slabs where floor coverings will be installed. Typically, plastic is used as a vapor retardant. If plastic is used, a minimum 10-mil is recommended. The plastic should comply with ASTM E 1745. Plastic installation should comply with ASTM E 1643.

Current construction practice typically includes placement of a two-inch thick sand cushion between the bottom of the concrete slab and the moisture vapor retarder/barrier. This cushion can provide some protection to the vapor retarder/barrier during construction, and may assist in reducing the potential for edge curling in the slab during curing. However, the sand layer also provides a source of moisture vapor to the underside of the slab that can increase the

time required to reduce moisture vapor emissions to limits acceptable for the type of floor covering placed on top of the slab. The floor covering manufacturer should be contacted to determine the volume of moisture vapor allowable and any treatment needed to reduce moisture vapor emissions to acceptable limits for the particular type of floor covering installed.

Temporary Excavations

Temporary excavations should not be steeper than ¾:1 in the formational materials. Steeper slopes will require shoring. SCS&T can provide recommendations for temporary shoring if needed.

The contractor's Competent Person should inspect slopes twice daily while they are exposed. Any raveling, sloughing, or evidence for instability should be brought to the attention of the engineer. Personnel should not be allowed access in front of the slope until the observed condition is evaluated and mitigated if necessary.

Retaining Walls

Retaining wall foundations should be designed in accordance with the recommendations above for structure foundation design. The active soil pressure for the design of unrestrained earth retaining structures with level backfills can be taken as equivalent to the pressure of a fluid weighing 40 pounds per cubic foot (pcf). Walls that are restrained against movement at the top should be designed for at-rest pressures. The at-rest pressure can be taken as equivalent to the pressure of a fluid weighing 65 pcf.

A granular and drained backfill condition has been assumed. If any surcharge loads are anticipated, SCS&T should be contacted for the appropriate increase in lateral pressure. Retaining walls should be provided with backdrains. A typical wall backdrain detail is shown on Figure 2.

Seismic Earth Pressure

Seismic earth pressure can be computed using an inverted triangular distribution with a maximum pressure at the top equal to 18H pounds per square foot (with H being the height of the retained earth in feet). This pressure is in addition to the un-factored static design wall load. The allowable passive pressure and bearing capacity can be increased by ⅓ for determining the stability of the wall.

Backfill

All backfill soils should be compacted to at least 90% relative compaction at 2 to 4 percentage points above optimum. Expansive or clayey soils should not be used for backfill material. The wall should not be backfilled until the grout has reached an adequate strength.

CLOSURE

In the performance of our professional services, we comply with that level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions and in the same locality. Subsurface conditions can vary from those encountered at the boring locations, and our data, interpretations, and recommendations are based solely on the information obtained by us. We will be responsible for those data, interpretations, and recommendations, but will not be responsible for interpretations by others of the information developed. Our services consist of professional consultation and observation only, and no warranty of any kind whatsoever, express or implied, is made or intended in connection with the work performed or to be performed by us, or by our proposal for consulting or other services, or by our furnishing of oral or written reports or findings.

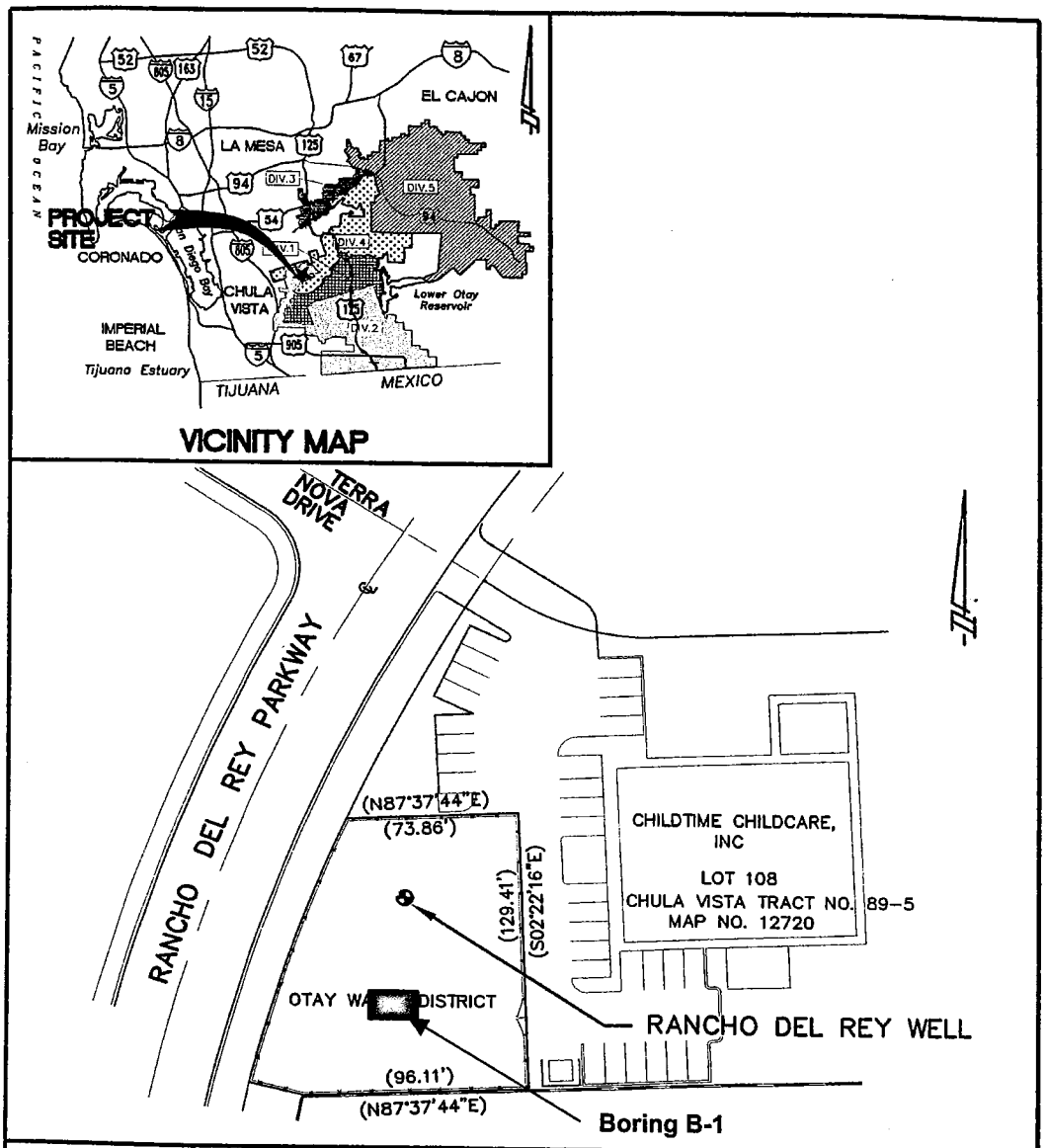
If you have any questions, please call me at (619) 280-4321.

Respectfully submitted,
SOUTHERN CALIFORNIA SOIL AND TESTING, INC.

James J. Stone, RGE 808
Principal Geotechnical Engineer

JJS:js
(1) Addressee

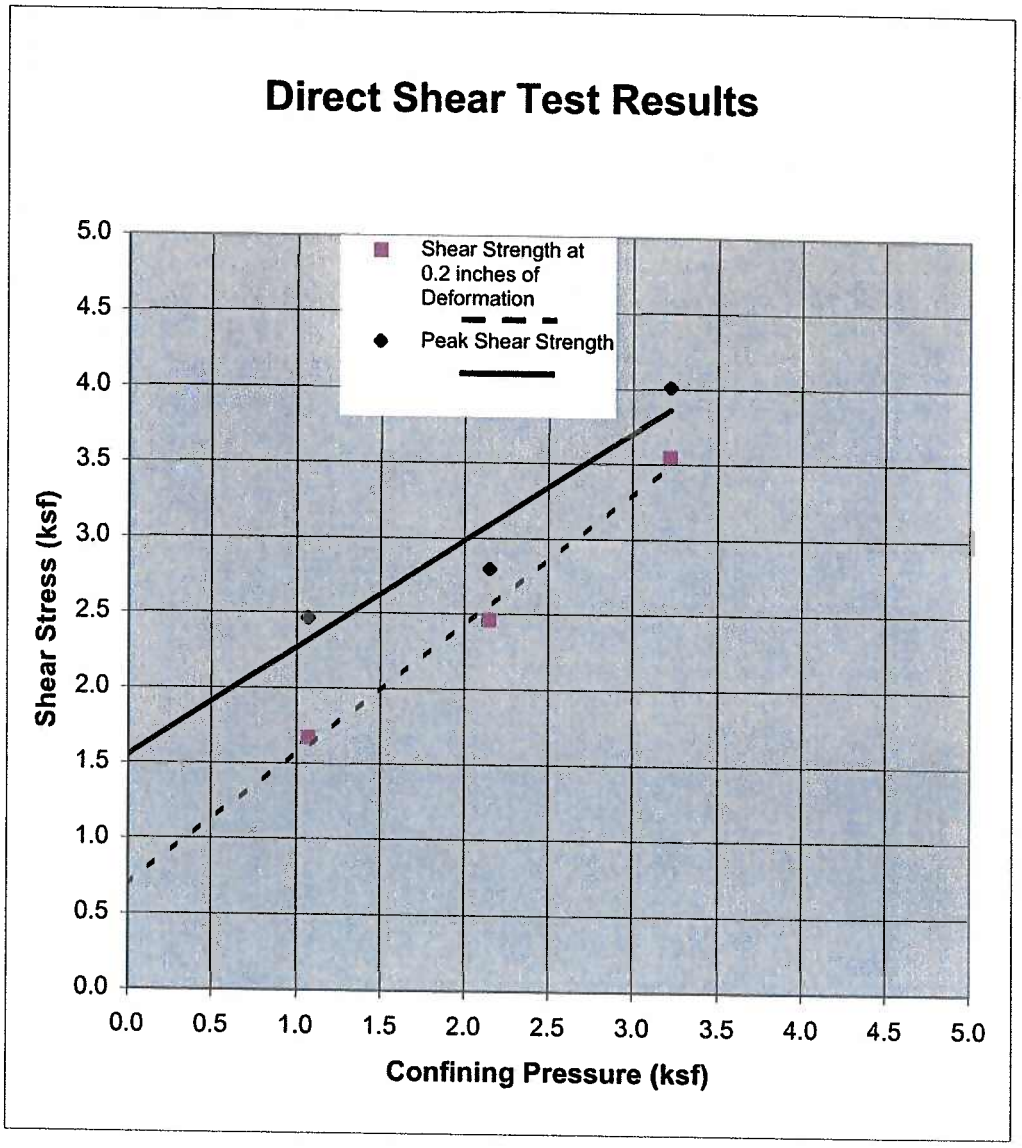
Attachments:
Figure 1 – Boring Location
Figure 2 – Backdrain
Figures I-1 and I-2: - Unified Soil Classification System and Boring Log
Figures II-1 and II-2 – Laboratory Test Results



OTAY WATER DISTRICT
RANCHO DEL WAY PARKWAY, CHULA VISTA, CA
RANCHO DEL REY GROUND WATER DEVELOPMENT
CIP P2434

EXHIBIT A

SOUTHERN CALIFORNIA SOIL & TESTING, INC.	RANCHO DEL REY WELL SITE	
	BY: JJS	DATE: 1/21/2010
	JOB NUMBER: 1011001-1	FIGURE: 1

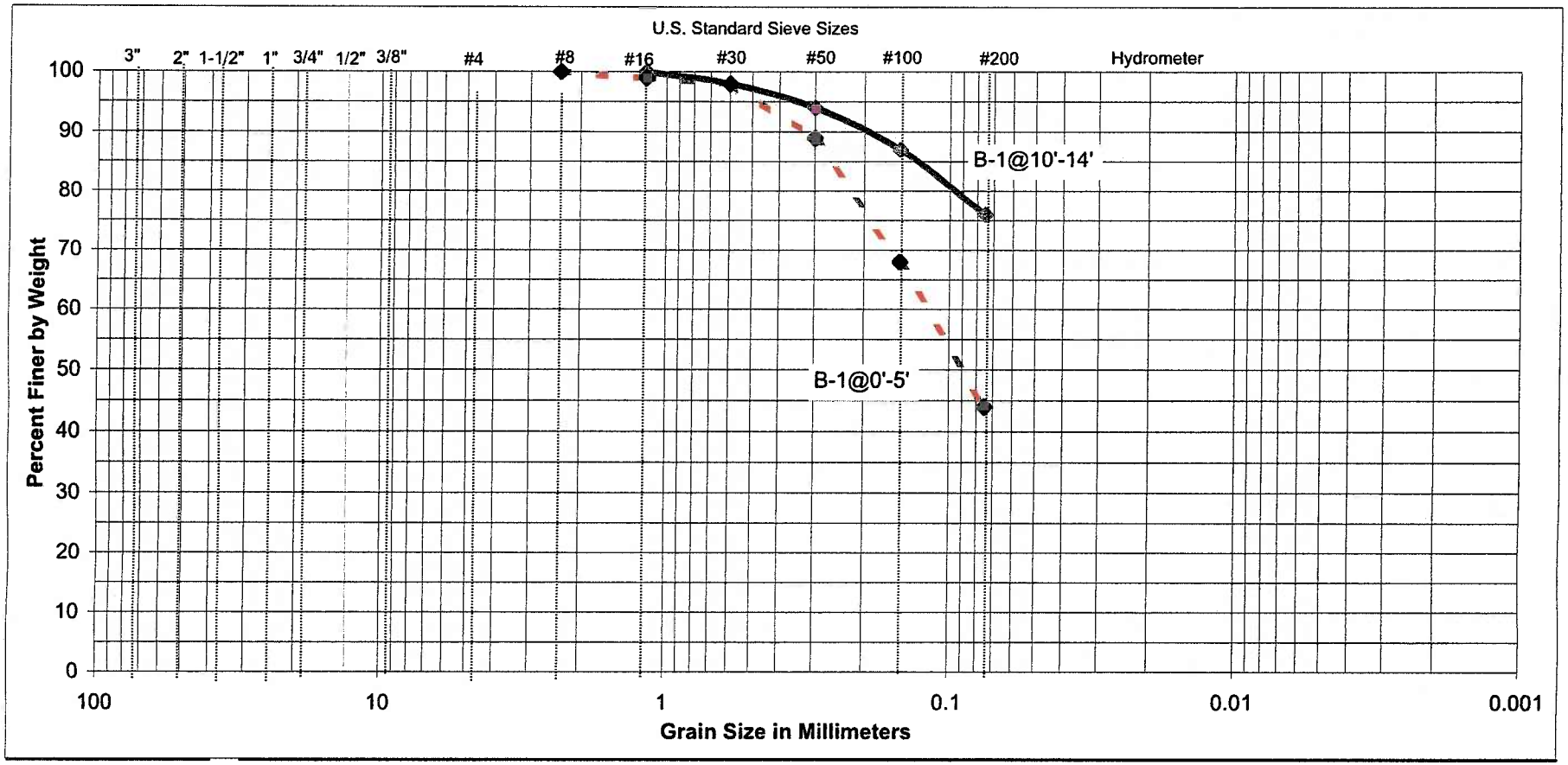


SAMPLE	DESCRIPTION	ANGLE OF INTERNAL FRICTION	COHESION INTERCEPT (PSF)
TP-2@8-10'	UNDISTURBED		
Peak		36	1550
Shear Strength at		41	690
0.2 inches of Deformation			

SOUTHERN CALIFORNIA SOIL & TESTING

RANCHO DEL REY WELL SITE

BY:	JJS	DATE:	1/21/2010
JOB NUMBER:	1011001-1	FIGURE II -	1



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE
TEST PIT NO.:
SAMPLE DEPTH:

DESCRIPTION:

SAND EQUIVALENT

SOUTHERN CALIFORNIA SOIL & TESTING, INC.

RANCHO DEL REY WELL SITE

BY:	JJS	DATE:	1/21/2010
JOB NUMBER:	1011001-1	FIGURE:	II-2

LOG OF EXPLORATORY BORING NUMBER B-1

Date Excavated: 1/13/2010
Equipment: 6" hollow stem auger
Surface Elevation (ft): N/A

Logged by: AKN
Project Manager: JS
Depth to Water (ft): N/A

DEPTH (ft)	USCS	SUMMARY OF SUBSURFACE CONDITIONS	SAMPLES: UNDISTURBED	SAMPLES: BULK	PENETRATION (blows/ ft. of drive)	MOISTURE (%)	DRY UNIT WT. (pcf)	LABORATORY TESTS
		OTAY FORMATION (To) - Light brownish gray, moist, dense to very dense, medium-grained, massive, CLAYEY SANDSTONE. Disturbed upper 18 inches.						
2								SA
4			CAL		50/5"	15.87	112	DS
6								
8								
10		Medium maroon gray, moist, hard, waxy, CLAYSTONE.	CAL		71			
12								SA
14	SC	Medium maroon gray, moist, dense to very dense, medium-grained, massive, CLAYEY SANDSTONE.	CAL		50/6"			
16								
18		Becomes light gray at 18 feet.						
20			CAL		50/5"			

SUBSURFACE EXPLORATION LEGEND

UNIFIED SOIL CLASSIFICATION CHART

SOIL DESCRIPTION		GROUP SYMBOL	TYPICAL NAMES
I. COARSE GRAINED, more than 50% of material is larger than No. 200 sieve size.			
GRAVELS More than half of coarse fraction is larger than No. 4 sieve size but smaller than 3".	CLEAN GRAVELS	GW	Well graded gravels, gravel-sand mixtures, little or no fines
		GP	Poorly graded gravels, gravel sand mixtures, little or no fines.
	GRAVELS WITH FINES (Appreciable amount of fines)	GM	Silty gravels, poorly graded gravel-sand-silt mixtures.
		GC	Clayey gravels, poorly graded gravel-sand-clay mixtures.
SANDS More than half of coarse fraction is smaller than No. 4 sieve size.	CLEAN SANDS	SW	Well graded sand, gravelly sands, little or no fines.
		SP	Poorly graded sands, gravelly sands, little or no fines.
	SANDS WITH FINES (Appreciable amount of fines)	SM	Silty sands, poorly graded sand and silty mixtures.
		SC	Clayey sands, poorly graded sand and clay mixtures.
II. FINE GRAINED, more than 50% of material is smaller than No. 200 sieve size.			
	SILTS AND CLAYS (Liquid Limit less than 50)	ML	Inorganic silts and very fine sands, rock flour, sandy silt or clayey-silt-sand mixtures with slight plasticity.
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
		OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS (Liquid Limit greater than 50)	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
		CH	Inorganic clays of high plasticity, fat clays.
		OH	Organic clays of medium to high plasticity.
III. HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils.

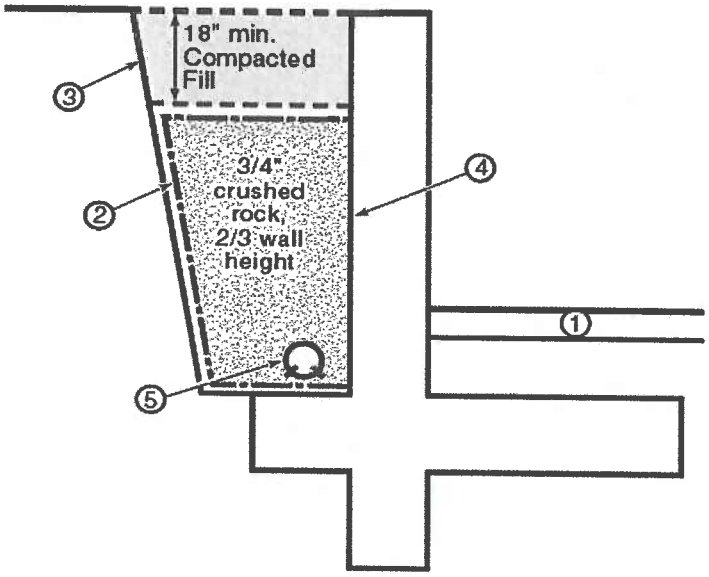
FIELD SAMPLE SYMBOLS

- ⊠ - Bulk Sample
- CAL - Modified California penetration test sampler
- CK - Undisturbed chunk sample
- MS - Maximum Size of Particle
- ∫∫ - Water seepage at time of excavation or as indicated
- SPT - Standard penetration test sampler
- ST - Shelby Tube
- ▽ - Water level at time of excavation or as indicated

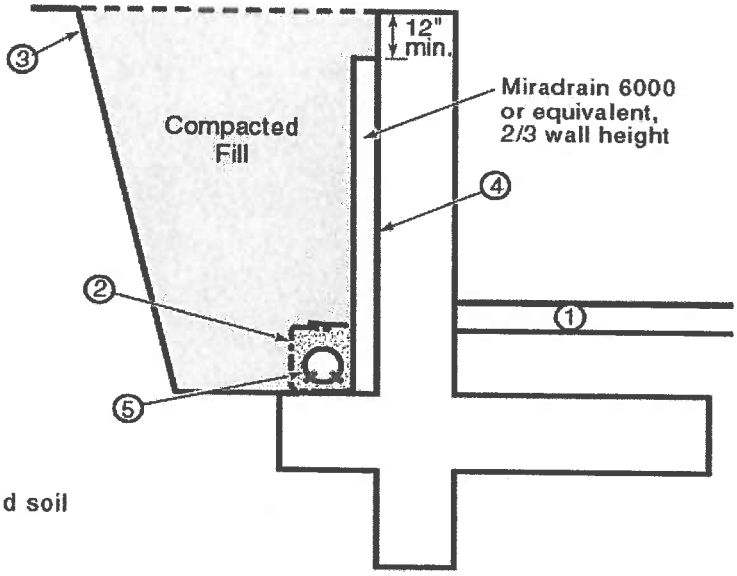
LABORATORY TEST SYMBOLS

- AL - Atterberg Limits
- CON - Consolidation
- COR - Corrosivity Test
  - Sulfate
  - Chloride
  - pH and Resistivity
- DS - Direct Shear
- EI - Expansion Index
- MAX - Maximum Density
- RV - R Value
- SA - Sieve Analysis
- UC - Unconfined Compression

SOUTHERN CALIFORNIA SOIL & TESTING, INC.	RANCHO DEL REY WELL SITE			
	By:	AKN	Date:	1/21/2010
	Job Number:	1011001P-1	Figure:	I-1



Typical Retaining Wall Backdrain Detail



① Floor Slab

② Filter Fabric between rock and soil

③ Backcut

④ Waterproof back of wall following architect's specifications

⑤ 4" minimum perforated pipe, SDR35 or equivalent, holes down, 1% fall to outlet, top of pipe below top of slab, encased in 3/4" crushed rock. Provide 3 cubic feet per linear foot crushed rock minimum. Crushed rock to be surrounded by filter fabric (Mirafi 140N or equivalent), with 6" minimum overlap.
Provide solid outlet pipe at suitable location.

SOUTHERN CALIFORNIA SOIL & TESTING, INC.	RANCHO DEL REY WELL SITE		
	BY: JJS	DATE:	1/21/2010
	JOB NUMBER: 1011001-1	PLATE NO.:	2

AGENDA ITEM 4

STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	March 3, 2010
SUBMITTED BY:	Daniel Kay Associate Civil Engineer Ron Ripperger Engineering Manager	PROJECT/ SUBPROJECT:	N/A DIV. NO. ALL
APPROVED BY: (Chief)	Rod Posada Chief, Engineering		
APPROVED BY: (Asst. GM):	Manny Magaña Assistant General Manager, Engineering and Operations		
SUBJECT:	Award of As-Needed Construction Management and Inspection Services Contract to Valley Construction Management for Fiscal Years 2010, 2011, and 2012		

GENERAL MANAGER'S RECOMMENDATION:

That the Otay Water District (District) Board of Directors (Board) awards a professional As-Needed Construction Management and Inspection Services contract to Valley Construction Management (Valley) and to authorize the General Manager to execute an agreement with Valley in an amount not-to-exceed $175,000.

COMMITTEE ACTION:

Please see Attachment A.

PURPOSE:

To obtain Board authorization for the General Manager to enter into a professional As-Needed Construction Management and Inspection Services agreement with Valley in an amount-not-exceed $175,000 for Fiscal Years 2010, 2011, and 2012. (The contract ends on June 30, 2012).

ANALYSIS:

The District will require professional construction management (CM) and inspection services from an engineering consultant on an as-needed basis to support the District's Capital Improvement Program

CIP). The As-Needed CM and inspection services contract will provide the District with the ability to obtain consulting services in a timely and efficient manner and on an as-needed basis. The District will require the expertise of an engineering consultant to augment Staff for CM and inspection of several projects that will begin construction in Fiscal Year 2010. Existing Staff will provide CM and inspection where possible, but will require additional expertise to inspect reservoir coating, welding, and other disciplines on a continuous basis.

The District incurs expenses in requesting, reviewing, and ranking proposals, checking references, and preparing staff reports for Committee and Board approval. Having consultants prepare proposals for several Requests for Proposals versus just one becomes expensive and these costs are passed on to the District. For this reason, the District began using similar contracts for as-needed environmental consulting services, as-needed geotechnical services, and as-needed design services to help eliminate the preparation costs.

The District will issue task orders to Valley for specific projects during the contract period. The Consultant will then prepare a detailed scope of work, schedule, and cost estimate for each task order assigned under the contract. Upon written task order authorization from the District, the Consultant shall then proceed with the project, as described in the Scope of Work.

The CIP projects that are estimated to require CM and inspection services for Fiscal Years 2010, 2011, and 2012 are listed below:

CIP	DESCRIPTION	ESTIMATED COST
P2488	Del Dio Road Helix & Otay Interconnection	$15,000
P2489	Gillespie Drive Helix & Otay Interconnection	$15,000
P2490	1296-1 Reservoir Int./Ext. Coating & Upgrades	$20,000
P2492	1296-2 Reservoir Int./Ext. Coating & Upgrades	$20,000
S2019	Avocado Blvd. 8-Inch Sewer Replacement	$40,000
S2020	Calavo Dr. 8-Inch Sewer Replacement	$25,000
S2021	Jamacha Rd. 8-Inch Sewer Replacement	$15,000
S2022	Hidden Mesa Dr. 8-Inch Sewer Replacement	$15,000
	TOTAL:	**$165,000**

The various scopes of work for the above projects, including CM and inspection, are estimated from preliminary information and past projects. Therefore, Staff believes that a $175,000 cap on the As-Needed CM and inspection services contract is adequate. The additional $10,000 budget will be used for other related miscellaneous inspection tasks and contingencies.

This As-Needed CM and inspection services contract does not commit the District to any expenditure until a task order is approved to perform work on a CIP Project. The District does not guarantee work to the consultant, nor does the District guarantee to the consultant that it will expend all of the funds authorized by the contract on professional services.

The District solicited As-Needed CM and inspection services from engineering consultant firms by placing an advertisement on the District's website and with various other publications including the San Diego Union Tribune and San Diego Daily Transcript.

Thirty (30) firms submitted a letter of interest and a statement of qualifications. The Request for Proposal (RFP) for As-Needed CM and inspection services was sent to all thirty (30) firms resulting in eleven (11) proposals received on January 8, 2010. They are as follows:

- PBS&J
- Valley CM
- Professional Service Industries (PSI)
- Parsons Brinkerhoff (PB)
- URS
- Dudek
- Malcom Pirnie
- Kaufman Consultation
- J.T. Kruer & Company
- Nolte Associates
- Richard Brady Associates

The nineteen (19) firms that chose not to propose are Red Zone; RBF; Southern California Soil & Testing; Christian Wheeler; Consolidated Building System Inc.; MTGL; Lee & Ro; KDG Development and Construction Consulting; JAS Consultants; Harris & Associates; Entech Consulting Group; G Force; Butier; Aecom; Gafcon Inc.; HDR; CPM Partners; R.W. Beck; and Ninyo and Moore.

In accordance with the District's Policy 21, Staff evaluated and scored all written proposals. Valley received the highest score for their services based on their experience, understanding of the scope, and their proposed method to accomplish the work. Valley was the most qualified consultant with the best overall proposal. A summary of the complete evaluation is shown in Attachment B.

The District has worked with Valley on the previous As-Needed Construction Management contract for Fiscal Years 2008-2009. Valley provided excellent service to the District and staff worked well with

Valley. Therefore, staff recommends Valley for the As-Needed Construction Management Services contract for Fiscal Years 2010, 2011, and 2012.

FISCAL IMPACT:

The funds for this contract will be expended from the following CIP projects: P2488, P2489, P2490, P2492, S2019, S2020, S2021, and S2022. The fees for professional services requested herein are available in the authorized CIP project budgets. This contract is for professional services based on the District's need and schedule, and expenditures will not be made until a task order is approved by the District for the consultant's professional services on a specific CIP project.

Based on a review of the financial budget, the Project Manager has determined that the budget will be sufficient to support the professional services required for the specific CIP projects previously noted.

STRATEGIC GOAL:

This project supports the District's Mission statement, "To provide safe, reliable water, recycled water, and wastewater services to our community in an innovative, cost efficient water wise and environmentally responsible manner," as well as the General Manager's vision, "…prepared for the future…" by guaranteeing that the District will always be able to meet future water supply obligations and plan, design, and construct new facilities.

LEGAL IMPACT:

None.

General Manager

P:\WORKING\As Needed Services\Construction Management\As Needed CM & Inspection Svcs FY10, FY11, FY12\Staff Report\BD 3-03-10, As-Needed Construction Management and Inspection Services.doc

DK/RR:jf

Attachments: Attachment A
Attachment B

QA/QC Approved:

NAME: Lisa Coburn-Boyd DATE: 2-5-10

ATTACHMENT A

SUBJECT/PROJECT:	Award of As-Needed Construction Management and Inspection Services Contract to Valley Construction Management for Fiscal Years 2010, 2011, and 2012
N/A	

COMMITTEE ACTION:

The Engineering, Operations, and Water Resources Committee reviewed this item at a meeting held on February 22, 2010. The Committee supported Staff's recommendation.

NOTE:

The "Committee Action" is written in anticipation of the Committee moving the item forward for Board approval. This report will be sent to the Board as a Committee approved item, or modified to reflect any discussion or changes as directed from the Committee prior to presentation to the full Board.

ATTACHMENT B

SUMMARY OF PROPOSAL RANKINGS BY PANEL MEMBERS

Professional As-Needed Construction Management and Inspection Services

		WRITTEN							
		Qualifications of Staff	Understanding of scope, schedule, resources	Soundness and Viability of Proposed Project Plan	Composite Hourly Rate[1]	Consultant's commitment to DBE	TOTAL SCORE	AVERAGE SCORE	References
SCORE		20	20	25	35	Y/N	100		Pass/Fail
PBS&J	*Rick Acuna*	19	18	22	35	Y	94	90	
	Bob Kennedy	17	17	21	35		90		
	Brandon DiPietro	15	10	12	35		72		
	Steve Dobrawa	20	20	21	35		96		
	Daniel Kay	19	19	23	35		96		
Valley CM	*Rick Acuna*	17	18	21	33	Y	89	93	PASS
	Bob Kennedy	19	19	24	33		95		
	Brandon DiPietro	16	19	23	33		91		
	Steve Dobrawa	20	20	23	33		96		
	Daniel Kay	19	19	24	33		95		
PSI	*Rick Acuna*	16	17	20	25	Y	78	74	
	Bob Kennedy	13	15	19	25		72		
	Brandon DiPietro	16	11	15	25		67		
	Steve Dobrawa	20	20	23	25		88		
	Daniel Kay	13	13	15	25		66		
Parsons Brinkerhoff	*Rick Acuna*	19	19	22	29	Y	89	86	
	Bob Kennedy	17	17	22	29		85		
	Brandon DiPietro	14	13	18	29		74		
	Steve Dobrawa	20	20	21	29		90		
	Daniel Kay	18	19	24	29		90		
URS	*Rick Acuna*	20	19	22	33	Y	94	87	
	Bob Kennedy	14	15	20	33		82		
	Brandon DiPietro	14	11	13	33		71		
	Steve Dobrawa	20	20	25	33		98		
	Daniel Kay	18	18	23	33		92		
Dudek	*Rick Acuna*	19	20	20	32	Y	91	89	
	Bob Kennedy	18	17	21	32		88		
	Brandon DiPietro	16	13	16	32		77		
	Steve Dobrawa	20	20	24	32		96		
	Daniel Kay	19	18	23	32		92		
Malcom Pirnie	*Rick Acuna*	18	17	22	31	Y	88	85	
	Bob Kennedy	15	17	21	31		84		
	Brandon DiPietro	13	12	13	31		69		
	Steve Dobrawa	20	20	22	31		93		
	Daniel Kay	19	18	23	31		91		
Kaufman Consultation	*Rick Acuna*	15	15	17	33	Y	80	81	
	Bob Kennedy	13	15	19	33		80		
	Brandon DiPietro	13	12	9	33		67		
	Steve Dobrawa	19	20	20	33		92		
	Daniel Kay	16	17	20	33		86		

		WRITTEN							References
		Qualifications of Staff	Understanding of scope, schedule, resources	Soundness and Viability of Proposed Project Plan	Composite Hourly Rate[1]	Consultant's commitment to DBE	TOTAL SCORE	AVERAGE SCORE	
SCORE		20	20	25	35	Y/N	100		Pass/Fail
J.T. Kruer & Company	*Rick Acuna*	16	16	20	33	Y	85	85	
	Bob Kennedy	14	15	20	33		82		
	Brandon DiPietro	15	13	13	33		74		
	Steve Dobrawa	19	20	21	33		93		
	Daniel Kay	17	18	24	33		92		
Nolte Associates	*Rick Acuna*	18	18	23	31	Y	90	88	
	Bob Kennedy	14	15	20	31		80		
	Brandon DiPietro	15	15	20	31		81		
	Steve Dobrawa	20	20	25	31		96		
	Daniel Kay	18	19	24	31		92		
Richard Brady Associates	*Rick Acuna*	18	19	23	25	Y	85	80	
	Bob Kennedy	14	15	20	25		74		
	Brandon DiPietro	15	13	16	25		69		
	Steve Dobrawa	20	20	23	25		88		
	Daniel Kay	17	18	23	25		83		

*1. Hourly Rate Calculation Formula = 35 - (Consultant Rate - Min. Rate)*10 / (Max. Rate - Min. Rate)*

PM Signature: _____

QC: _____

Engineering Manager: _____

ATTACHMENT B (Cont.)

Professional As-Needed Construction Management and Inspection Services Fee Evaluation

Design	PBS&J	Valley CM	PSI	Parsons Brinkerhoff	URS	Dudek	Malcom Pirnie	Kaufman Consultation	J.T. Kruer & Company	Nolte Associates	Richard Brady Associates
	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
Principal Construction Manager	$ 135.00	$ 145.00	$ 190.00	$ 171.81	$ 150.00	$ 150.00	$ 175.00	$ 160.00	$ 175.00	$ 160.00	$ 190.00
Project Construction Manager	$ 100.00	$ 145.00	$ 180.00	$ 146.81	$ 125.00	$ 130.00	$ 150.00	$ 115.00	$ 125.00	$ 150.00	$ 180.00
Field Inspector	$ 100.00	$ 110.00	$ 140.00	$ 111.04	$ 99.00	$ 100.00	$ 100.00	$ 95.00	$ 95.00	$ 130.00	$ 140.00
Speicalty Inspector	$ 75.00	$ 100.00	$ 140.00	$ 111.04	$ 97.00	$ 100.00	$ 125.00	$ 105.00	$ 95.00	$ 85.00	$ 140.00
Administrative/Clerical	$ 75.00	$ 45.00	$ 94.97	$ 94.97	$ 60.00	$ 75.00	$ 50.00	$ 60.00	$ 45.00	$ 72.00	$ 85.00
Total:	**$ 485.00**	**$ 545.00**	**$ 744.97**	**$ 635.67**	**$ 531.00**	**$ 555.00**	**$ 600.00**	**$ 535.00**	**$ 535.00**	**$ 597.00**	**$ 735.00**
Score:	**35.0**	**32.7**	**25.0**	**29.2**	**33.2**	**32.3**	**30.6**	**33.1**	**33.1**	**30.7**	**25.4**

Score = 35 - (Total Rate - Min Rate)*10
(Max Rate - Min Rate)

Notes:

1. The score for proposed fee is weighted between the minimum and maximum fees with a minimum of 17.5 points for the highest fee and a maximum of 35 points for the lowest fee.

PM Signature: _____

QC: _____

Engineering Manager: _____

AGENDA ITEM 5

STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	March 3, 2010
SUBMITTED BY:	Daniel Kay DK Associate Engineer Ron Ripperger Engineering Manager	PROJECT/ SUBPROJECT:	R2058-001103 DIV. NO. 1,2 R2077-001103 R2087-001103
APPROVED BY: (Chief)	Rod Posada Chief, Engineering		
APPROVED BY: (Asst. GM):	Manny Magaña Assistant General Manager, Engineering and Operations		
SUBJECT:	Award of a Construction Management Services Contract for the Otay Mesa Recycled Water Supply Link Project to RBF Consulting		

GENERAL MANAGER'S RECOMMENDATION:

That the Otay Water District (District) Board of Directors (Board) awards a professional services contract to RBF Consulting (RBF), for providing professional construction management services for the Otay Mesa Recycled Water Supply Link (Supply Link) project and to authorize the General Manager to execute an agreement with RBF in a not-to-exceed amount of $708,560 (see Exhibits A, B, and C for project locations).

COMMITTEE ACTION: _____

Please see Attachment A.

PURPOSE:

To obtain Board Authorization for the General Manager to enter into a Construction Management Agreement with RBF. The contract amount is not-to-exceed $708,560 for providing Construction Management Services for the Supply Link project.

ANALYSIS:

The Supply Link is primarily a transmission pipeline that will provide recycled water to the Otay Mesa area. The Supply Link consists of constructing approximately 3.5 miles of 24-inch steel pipe, 3 miles of 16-Inch PVC pipe, 900 linear feet of 8-Inch PVC pipe, and a pressure reducing station.

The Supply Link is currently being designed in-house by staff. The design is 60% complete and staff is currently working towards 90% design. The design is anticipated to be completed in March 2010 with construction award in May 2010. The Supply Link is critical, in providing recycled water to the Otay Mesa.

As part of the process to improve the design, staff's goal is to engage the services of a Construction Manager (CM) during the 90% design phase of the project. Utilizing the services of a CM during the design process will allow fresh input regarding constructability and provide an opportunity for the design staff to include these new ideas into the final design. Consistent with the District's practice, a CM firm is used on larger projects that have a variety of complex construction activities. The CM augments District staff and provides the fulltime inspection and monitoring that is required.

In accordance with Board Policy No. 21, staff solicited professional construction management services from engineering consulting firms by placing an advertisement on the District's website and with various publications including the Union Tribune and San Diego Daily Transcript.

The Pre-Proposal Meeting for the project was held on December 16, 2009. Thirty-five (35) people from various consulting groups attended the meeting. Twenty-nine (29) firms submitted a letter of interest and a statement of qualifications. The Request for Proposal was sent to all twenty-nine (29) construction management and engineering firms resulting in the following eleven (11) proposals received on January 8, 2010:

- Civiltec
- Butier
- Parsons Brinkerhoff
- RBF
- URS
- MWH Constructors
- Harris & Associates
- Dudek

- J.T. Kruer & Company
- Vanir Construction Management
- Richard Brady & Associates

The remaining eighteen (18) firms that chose not to propose are Red Zone, Valley CM, Southern California Soils & Testing, Christian Wheeler, MTGL, PBS&J, Lee & Ro, KDG Development and Construction Consulting, JAS Consultants, G-Force, Aecom, HDR, Pacifica Services, Kaufman Consultation, R.W. Beck, Professional Service Industries, Malcom Pirnie, and Ninyo and Moore.

A District review panel evaluated the written proposals and selected the following firms for a formal interview:

CONSULTING FIRMS	PROPOSED FEE
Civiltec	$327,057
URS	$406,518
RBF	$708,560
Harris & Associates	$772,076
MWH	$831,693

The Engineer's Estimate is $750,000.

The interview selection panel was comprised of four (4) staff members and one (1) outside member from the City of Coronado (Scott Huth). The oral interviews were conducted on January 26, 2010. After conducting the interviews, the panel completed the consultant ranking process and concluded that RBF was the most qualified consultant and provided the best overall value. A summary of the complete evaluation is shown in Attachment B.

The range in the proposed fees was due primarily to the approach presented by each consultant. Their proposed method to accomplish the work was a direct reflection on their approach to the major scope items presented in the RFP. The major scope items were constructability review, inspection, construction management, and public outreach. Each discipline is clearly identified in the RFP, however some consultants chose to consolidate these disciplines. This consolidation approach resulted in lower fees. The interview panel discussed this approach and determined that it could overload an individual and create inefficiencies within the project delivery. These inefficiencies would result in extra costs throughout the project. The engineer's estimate was determined based on an approach where one or two individuals are assigned a specific discipline. The consultants who presented this approach were within the engineer's estimate. The higher fees were generally due to higher hourly rates,

a higher number of hours for upper level positions, and higher overhead expenses.

RBF's proposal and interview demonstrated that they will provide the proper resources needed to complete each discipline in the scope of work. After a fee negotiation meeting was held with RBF on January 28, 2010, staff was satisfied with their proposed fee and no changes were made.

This project is very similar to the 30-Inch Recycled Pipeline project and the 36-Inch Jamacha Road Pipeline project in which RBF was the CM for both projects. The 30-Inch Recycled Pipeline project was very successful while the 36-Inch Jamacha Road project is on-going and progressing well. RBF was also the CM on the District's 640 Reservoir project which was a very successful project as well. Additional reference checks also verified that RBF is a highly rated consultant.

FISCAL IMPACT:

Funding for the overall project comes from three CIP projects, R2058-Airway Road, R2077-Alta Road, and R2087-Wueste Road.

The total budget for CIP R2058, as approved in the FY 2010 budget is $3,000,000. Total expenditures, plus outstanding commitments and forecast is $1,081,235. See Attachment C for budget detail.

The total budget for CIP R2077, as approved in the FY 2010 budget is $4,100,000. Total expenditures, plus outstanding commitments and forecast, is $878,844. See Attachment D for budget detail.

The total budget for CIP R2087, as approved in the FY 2010 budget is $4,500,000. Total expenditures, plus outstanding commitments and forecast, is $902,657. See Attachment E for budget detail.

Based on a review of the financial budgets, the Project Manager has determined that each budget is sufficient to support the project.

For the three CIPs, the Finance Department has determined that 100% of the funding is available from the Expansion Fund.

STRATEGIC GOAL:

This project supports the District's Mission statement, "To provide the best quality of water and wastewater services to the customers of Otay Water District, in a professional, effective, efficient, and sensitive manner..." This project fulfills the District's Strategic

Goals No. 1 - Community and Governance, and No. 5 - Potable Water, by maintaining proactive and productive relationships with the project stakeholders and by guaranteeing that the District will provide for current and future water needs.

LEGAL IMPACT:

None.

General Manager

P:\WORKING\CIP R2087\Staff Reports\Construction Management\BD 03-03-10, Recycled Supply Link CM Award, (DK-RR)v2.doc

DK/RR:jf

Attachments
- Attachment A
- Attachment B
- Attachment C
- Attachment D
- Attachment E
- Exhibit A
- Exhibit B
- Exhibit C

QA/QC Approved: NAME: Lisa Coburn-Boyd DATE: 2/11/10

ATTACHMENT A

SUBJECT/PROJECT:	
R2058-001103 R2077-001103 R2087-001103	Award of a Construction Management Services Contract for the Otay Mesa Recycled Water Supply Link Project to RBF Consulting

COMMITTEE ACTION:

The Engineering, Operations, and Water Resources Committee reviewed this item at a meeting held on February 22, 2010. The Committee supported Staff's recommendation.

NOTE:

The "Committee Action" is written in anticipation of the Committee moving the item forward for Board approval. This report will be sent to the Board as a Committee approved item, or modified to reflect any discussion or changes as directed from the Committee prior to presentation to the full Board.

ATTACHMENT B

SUMMARY OF PROPOSAL RANKINGS BY PANEL MEMBERS

		WRITTEN							ORAL*						
		Qualifications of Staff	Understanding of scope, schedule, resources	Soundness and Viability of Proposed Project Plan	Proposed Fee	Consultant's commitment to DBE	SUBTOTAL	AVERAGE SUBTOTAL SCORE	Additional creativity, insight to issues	Strength of project manager	Presentation, communication skills	Quality of response to questions	TOTAL SCORE	AVERAGE SCORE	References
SCORE		20	20	25	35	Y/N	100		15	15	10	10	150 *		Pass/Fail
Civiltec	Ron Ripperger	14	14	15	35	Y	78	79	8	8	7	7	108	108	
	Scott Huth	15	16	16	35		82		8	8	3	5	106		
	Jake Vaclavek	13	13	12	35		73		10	8	7	8	106		
	David Charles	16	15	20	35		86		9	8	7	6	116		
	Daniel Kay	12	12	16	35		75		10	10	5	5	105		
Butier	Ron Ripperger	16	18	16	25	Y	75	71					75	71	
	Scott Huth	15	16	16	25		72						72		
	Jake Vaclavek	15	12	12	25		64						64		
	David Charles	16	15	19	25		75						75		
	Daniel Kay	15	15	16	25		71						71		
Parsons Brinkerhoff	Ron Ripperger	16	16	16	14	Y	62	65					62	65	
	Scott Huth	17	18	22	14		71						71		
	Jake Vaclavek	16	13	16	14		59						59		
	David Charles	17	16	20	14		67						67		
	Daniel Kay	17	17	20	14		68						68		
RBF	Ron Ripperger	19	19	18	23	Y	79	80	13	14	9	9	124	125	Pass
	Scott Huth	19	18	22	23		82		13	14	9	10	128		
	Jake Vaclavek	17	17	17	23		74		15	15	9	9	122		
	David Charles	18	18	22	23		81		12	13	9	8	123		
	Daniel Kay	19	19	22	23		83		14	14	9	9	129		
URS	Ron Ripperger	13	15	15	32	Y	75	75	12	12	7	7	113	113	
	Scott Huth	16	16	15	32		79		11	12	7	8	117		
	Jake Vaclavek	13	12	12	32		69		13	12	6	8	111		
	David Charles	16	15	19	32		82		8	10	6	5	111		
	Daniel Kay	13	12	15	32		72		12	13	8	8	113		
MWH	Ron Ripperger	19	19	18	19	Y	75	75	12	13	8	8	116	117	
	Scott Huth	17	18	21	19		75		12	12	6	8	113		
	Jake Vaclavek	17	17	18	19		71		14	13	9	8	115		
	David Charles	17	17	22	19		75		12	12	8	8	115		
	Daniel Kay	19	19	23	19		80		13	14	9	9	125		
Harris & Associates	Ron Ripperger	16	18	16	21	Y	71	74	12	8	8	7	106	108	
	Scott Huth	17	18	22	21		78		10	10	6	6	110		
	Jake Vaclavek	15	16	16	21		68		12	9	5	7	101		
	David Charles	17	17	20	21		75		10	10	7	6	108		
	Daniel Kay	17	18	21	21		77		12	11	8	8	116		
Dudek**	Ron Ripperger	15	15	15	-	Y	45	46					45	46	
	Scott Huth	16	16	17	-		49						49		
	Jake Vaclavek	17	13	12	-		42						42		
	David Charles	16	16	19	-		51						51		
	Daniel Kay	15	13	14	-		42						42		
J.T.Kruer & Company	Ron Ripperger	16	14	14	27	Y	71	70					71	70	
	Scott Huth	12	12	13	27		64						64		
	Jake Vaclavek	12	12	12	27		63						63		
	David Charles	17	17	19	27		80						80		
	Daniel Kay	15	15	15	27		72						72		
Vanir Construction Management	Ron Ripperger	16	16	16	16	Y	64	62					64	62	
	Scott Huth	12	12	14	16		54						54		
	Jake Vaclavek	13	13	15	16		57						57		
	David Charles	17	16	19	16		68						68		
	Daniel Kay	17	16	18	16		67						67		
Richard Brady & Associates	Ron Ripperger	15	16	16	17	Y	64	61					64	61	
	Scott Huth	13	12	13	17		55						55		
	Jake Vaclavek	12	12	12	17		53						53		
	David Charles	17	17	20	17		71						71		
	Daniel Kay	16	12	15	17		60						60		

*Oral Interviews are for projects over $200,000.

** Dudek did not submit a fee, therefore their score is zero (0)

See Next Sheet for Fee Evaluation

PM Signature: _____

QC: _____

Engineering Manager: Ron Ripperger

ATTACHMENT B (CONT.)

FEE EVALUATION

Firm	Civiltec	Butier	Parsons Brinkerhoff	RBF	URS	MWH	Harris & Associates	Dudek**	J.T.Kruer & Company	Vanir Construction Management	Richard Brady & Associates
Proposed Fee	$327,057	$645,961	$1,027,021	$708,560	$406,518	$831,693	$772,076	?	$586,911	$949,849	$905,319
Score	**35**	**25**	**14**	**23**	**32**	**19**	**21**	**0**	**27**	**16**	**17**

*Dudek Scored Zero (0) because they did not submit a fee

Proposed Fee Scoring Chart		
% Higher	**Score**	**Amount**
Lowest Fee	35	$327,057
0-10%	34	$ 359,762.15
11-20%	33	$ 392,467.80
21-30%	32	$ 425,173.45
31-40%	31	$ 457,879.10
41-50%	30	$ 490,584.75
51-60%	29	$ 523,290.40
61-70%	28	$ 555,996.05
71-80%	27	$ 588,701.70
81-90%	26	$ 621,407.35
91-100%	25	$ 654,113.00
101-110%	24	$ 686,818.65
111-120%	23	$ 719,524.30
121-130%	22	$ 752,229.95
131-140%	21	$ 784,935.60
141-150%	20	$ 817,641.25
151-160%	19	$ 850,346.90
161-170%	18	$ 883,052.55
171-180%	17	$ 915,758.20
151-160%	16	$ 981,169.50
161-170%	15	$ 1,013,875.15
171-180%	14	$ 1,046,580.80

PM Signature: _____

QC: _____

Engineering Manager: Ron Tippergn

ATTACHMENT C

SUBJECT/PROJECT:	
R2058-001103 R2077-001103 R2087-001103	Award of a Construction Management Services Contract for the Otay Mesa Recycled Water Supply Link Project to RBF Consulting

Otay Water District
R2058-RecPL - 16-Inch, 860 Zone, Airway Road - Otay Mesa/Alta

Date Updated: February 1, 2010

Budget 3,000,000	*Committed*	*Expenditures*	*Outstanding Commitment & Forecast*	*Projected Final Cost*	*Vendor/Comments*
WO 30088					
Reimbursement	123,911	123,911		123,911	ORIX OTAY LLC
Total WO 30088	123,911	123,911	-	123,911	
Planning					
Addl subprojects					
Labor	57,825	57,825	-	57,825	
Business Meetings	17	17	-	17	PETTY CASH CUSTODIAN
Professional Legal Fees	343	343	-	343	GARCIA CALDERON & RUIZ LLP
Consultant Contracts	111,645	44,491	67,154	111,645	JONES & STOKES ASSOCIATES
	10,127	10,127	-	10,127	LEE & RO INC
Total Planning	179,957	112,803	67,154	179,957	
Design					
Labor	300,000	155,515	144,485	300,000	
Consultant Contracts	30,450	30,450	-	30,450	HDR ENGINEERING INC
	10,500	10,500	-	10,500	SAN-LO AERIAL SURVEYS
	11,842	11,842	-	11,842	SOUTHERN CALIFORNIA SOIL
	350	350	-	350	MWH CONSTRUCTORS INC
Service Contracts	2,000	2,000	-	2,000	FIRST AMERICAN TITLE INS CO
	14,790	3,100	11,690	14,790	SAN-LO AERIAL SURVEYS
	138	138	-	138	UNION TRIBUNE PUBLISHING CO
Office Supplies	32	32	-	32	US BANK CORPORATE PAYMENT
Total Design	370,102	213,927	156,175	370,102	
Construction					
Labor	736	736		736	
Consultant Contracts	193,173	193,173	-	193,173	J GARY BURKE CORPORATION
Construction Management	203,357	-	203,357	203,357	RBF CONSULTING
Acceptance/Closeout	10,000	-	10,000	10,000	
Total Construction	407,266	193,909	203,357	397,266	
Grand Total	**1,081,235**	**644,550**	**436,686**	**1,081,235**	

QA/QC Approved:

Name: Lisa Cohrn-Boyd Date: 2-5-10

ATTACHMENT D

SUBJECT/PROJECT:	
R2058-001103 R2077-001103 R2087-001103	Award of a Construction Management Services Contract for the Otay Mesa Recycled Water Supply Link Project to RBF Consulting

Otay Water District
R2077-RecPL-24-Inch, 860 Zone, Alta Road - Alta Gate/Airway

Date Updated: February 1, 2010

Budget 4,100,000	*Committed*	*Expenditures*	*Outstanding Commitment & Forecast*	*Projected Final Cost*	*Vendor/Comments*
WO 30017					
Closed to Fixed Assets	20,651	20,651		20,651	
Total WO 30088	20,651	20,651	-	20,651	
Planning					
Labor	48,776	48,776	-	48,776	
Professional Legal Fees	697	697	-	697	GARCIA CALDERON & RUIZ LLP
Consultant Contracts	55,956	23,560	32,396	55,956	JONES & STOKES ASSOCIATES
	38,003	38,003	-	38,003	LEE & RO INC
Total Planning	143,432	111,036	32,396	143,432	
Design					
Labor	400,000	212,744	187,256	400,000	
Mileage Reimbursement	21	21	-	21	PETTY CASH CUSTODIAN
Other Agency Fees	6	6	-	6	PETTY CASH CUSTODIAN
Consultant Contracts	8,925	8,925	-	8,925	HDR ENGINEERING INC
	8,000	8,000	-	8,000	SAN-LO AERIAL SURVEYS
	640	640	-	640	SWINERTON MANAGEMENT
	20,002	20,002	-	20,002	SOUTHERN CALIFORNIA SOIL
Service Contracts	1,800	1,800	-	1,800	SAN-LO AERIAL SURVEYS
	138	138	-	138	UNION TRIBUNE PUBLISHING CO
Office Supplies	64	64	-	64	PETTY CASH CUSTODIAN
Total Design	439,596	252,340	187,256	439,596	
Construction					
Labor	1,726	1,726	-	1,726	
Consultant Contracts	21,808	21,808	-	21,808	JC HEDEN AND ASSOCIATES INC
	700	700	-	700	HDR ENGINEERING INC
Service Contracts	21	21	-	21	SAN DIEGO DAILY TRANSCRIPT
Construction Management	240,910	-	240,910	240,910	RBF CONSULTING
Acceptance/Closeout	10,000	-	10,000	10,000	
Total Construction	275,165	24,255	250,910	275,165	
Grand Total	**878,844**	**408,282**	**470,563**	**878,844**	

QA/QC Approved:

Name: Lisa Colvin-Baya Date: 2-5-10

ATTACHMENT E

SUBJECT/PROJECT:	
R2058-001103 R2077-001103 R2087-001103	Award of a Construction Management Services Contract for the Otay Mesa Recycled Water Supply Link Project to RBF Consulting

Otay Water District

R2087-RecPL - 20-Inch 944 Zone, Wueste Road - Olympic/Otay WTP

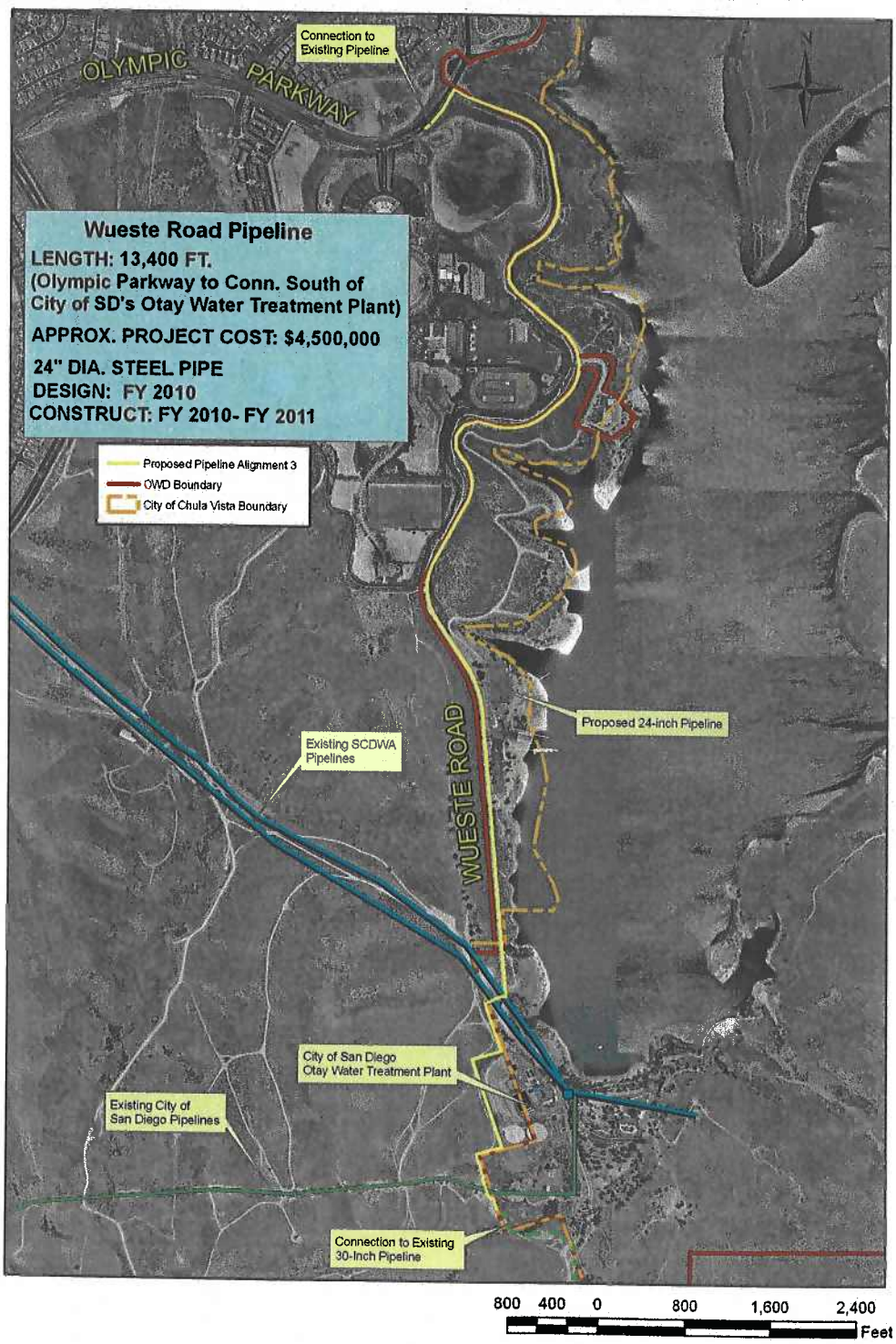
Date Updated: February 1, 2010

Budget 4,500,000	*Committed*	*Expenditures*	*Outstanding Commitment & Forecast*	*Projected Final Cost*	*Vendor/Comments*
Planning					
Labor	43,103	43,103		43,103	
Consultant Contracts	60,970	41,163	19,807	60,970	JONES & STOKES ASSOCIATES
	11,100	11,100	-	11,100	HARRIS & ASSOCIATES INC
	47,846	47,846	-	47,846	LEE & RO INC
Service Contracts	234	234	-	234	UNION TRIBUNE PUBLISHING CO
	60	60	-	60	SAN DIEGO DAILY TRANSCRIPT
Total Planning	163,312	143,506	19,807	163,312	
Design					
Labor	400,000	240,006	159,994	400,000	
Business Meetings	205	205	-	205	US BANK CORPORATE PAYMENT
Other Agency Fees	4	4	-	4	PETTY CASH CUSTODIAN
Consultant Contracts	5,000	-	5,000	5,000	CPM PARTNERS INC
	7,870	7,870	-	7,870	MORENO AERIAL PHOTO
	5,000	2,581	2,419	5,000	WRA & ASSOCIATES INC
	11,842	11,842	-	11,842	SOUTHERN CALIFORNIA SOIL
	525	525	-	525	MWH CONSTRUCTORS INC
Service Contracts	2,750	2,750	-	2,750	FIRST AMERICAN TITLE INS CO
	13,750	-	13,750	13,750	KEAGY REAL ESTATE
	138	138	-	138	UNION TRIBUNE PUBLISHING CO
	12	12	-	12	US BANK CORPORATE PAYMENT
	1,600	1,100	500	1,600	CABLE PIPE & LEAK DETECTION
For Ops Only - Contracted Services	5,118	5,118	-	5,118	KIRK PAVING INC
Cameras, Survey Equipment	96	96	-	96	LEWIS & LEWIS ENTERPRISES
Total Design	453,910	272,247	181,663	453,910	
Construction					
Labor	6,078	6,078	-	6,078	
Consultant Contracts	4,960	-	4,960	4,960	RBF CONSULTING
Service Contracts	103	103	-	103	SAN DIEGO DAILY TRANSCRIPT
Accpt/close-out	10,000	-	10,000	10,000	
Construction Management	264,293	103	264,190	264,293	RBF CONSULTING
Total Construction	285,434	6,284	279,150	285,434	
Grand Total	**902,657**	**422,037**	**480,620**	**902,657**	

QA/QC Approved:

Name: Lisa Coburn-Boyd Date: 2-5-10

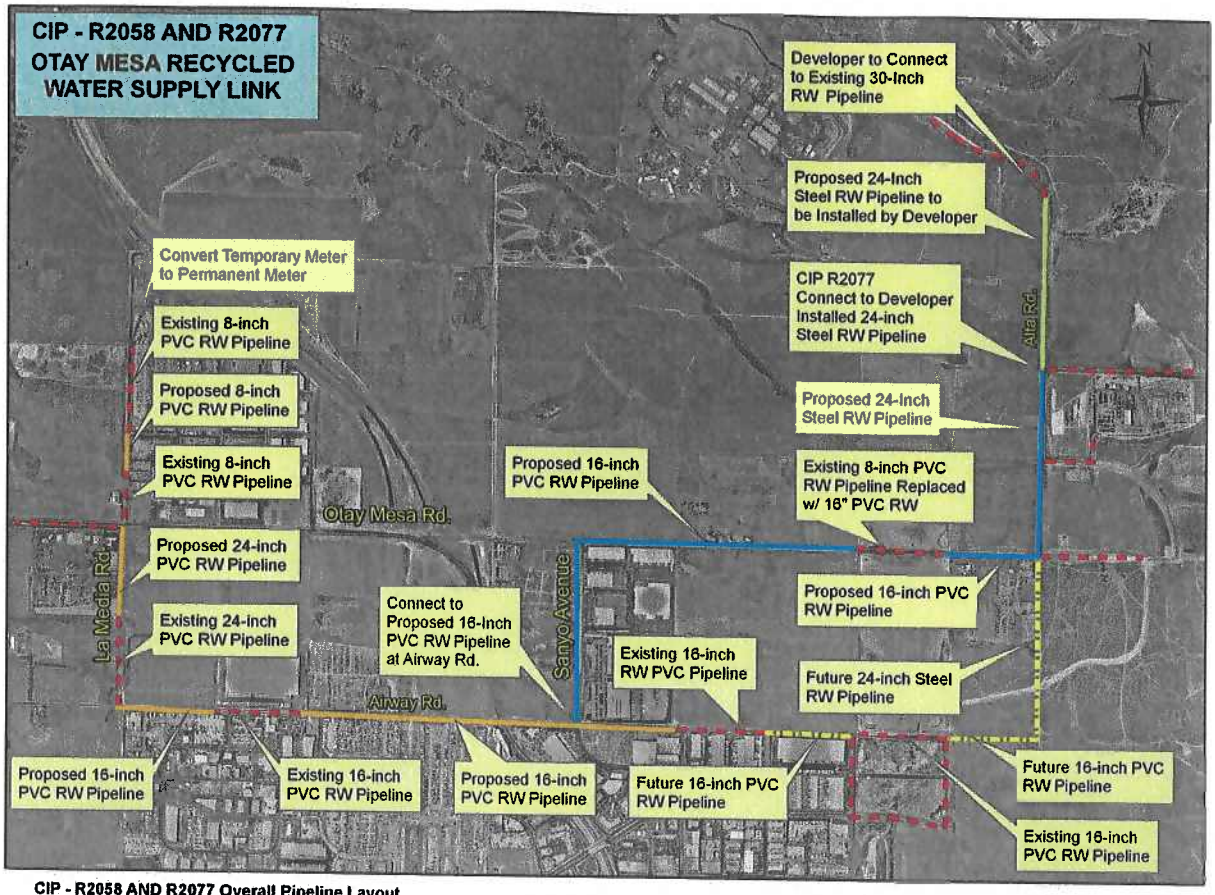
WUESTE ROAD 24" TRANSMISSION MAIN PROJECT



P:\Working\CIP 2087\Graphics\Exhibits-Figures\Wueste Exhibit

Scale: 1"=800'

EXHIBIT A



CIP - R2058 AND R2077 Overall Pipeline Layout
(Revised July 2009)

EXHIBIT 'B'

EXHIBIT B

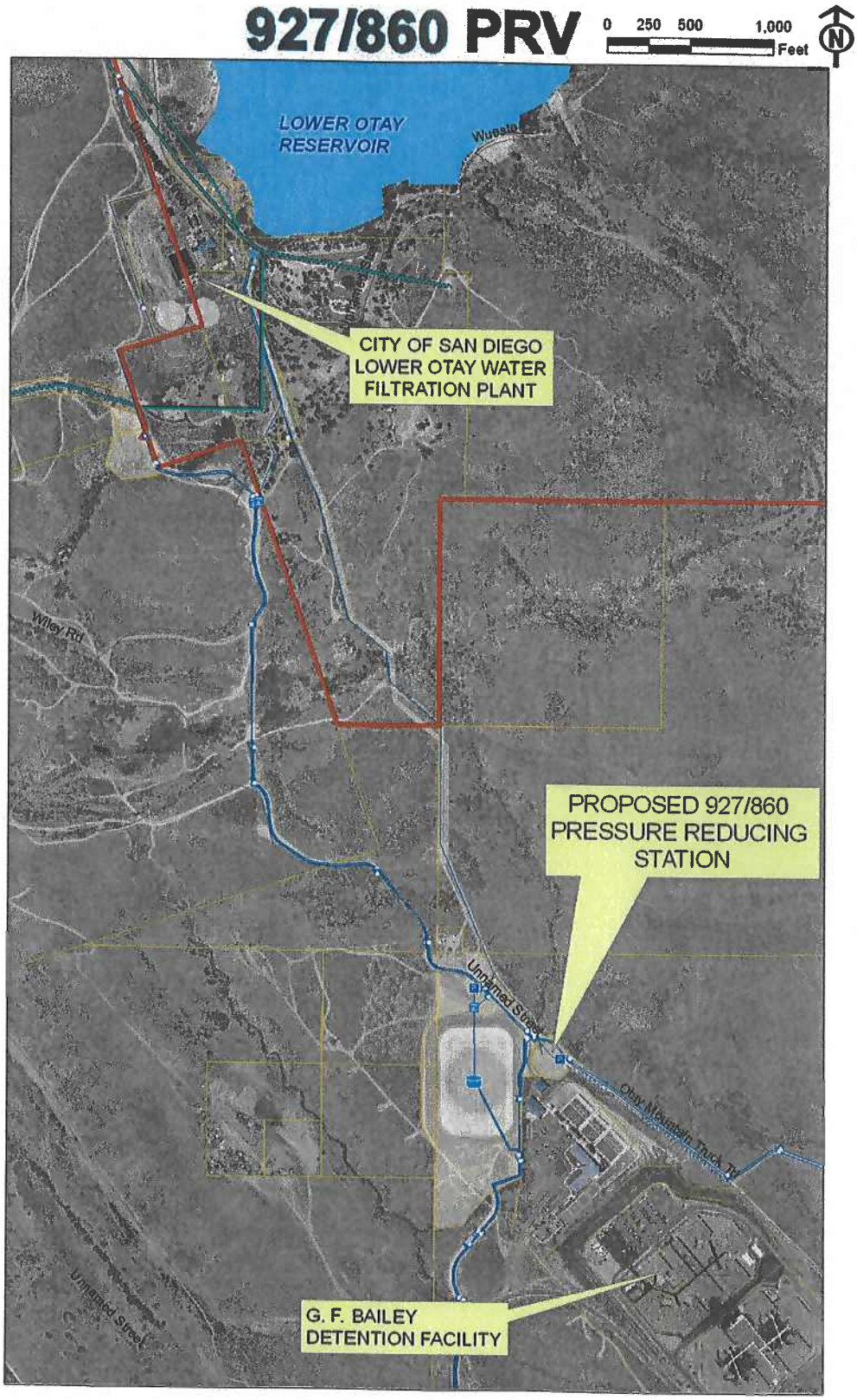

927/860 PRV
0 250 500 1,000
Feet
N
LOWER OTAY RESERVOIR
Wuesta
CITY OF SAN DIEGO LOWER OTAY WATER FILTRATION PLANT
Wiley Rd
PROPOSED 927/860 PRESSURE REDUCING STATION
Unnamed Street
Otay Mountain Truck Tr
Unnamed Street
G. F. BAILEY DETENTION FACILITY

EXHIBIT C

AGENDA ITEM 6

STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	March 3, 2010
SUBMITTED BY:	Ron Ripperger Engineering Manager	PROJECT:	Various DIV. NO. ALL
APPROVED BY: (Chief)	Rod Posada Chief, Engineering		
APPROVED BY: (Asst GM)	Manny Magaña Assistant General Manager, Engineering and Operations		
SUBJECT:	Informational Item - Second Quarter Fiscal Year 2010 Capital Improvement Program Report		

GENERAL MANAGER'S RECOMMENDATION:

That the Otay Water District (District) Board of Directors (Board) accepts the Second Quarter Fiscal Year 2010 Capital Improvement Program (CIP) Report for review and receives a summary via PowerPoint presentation.

COMMITTEE ACTION:

Please see Attachment A.

PURPOSE:

To update the Board about the status of all CIP project expenditure highlights, significant issues, progress, and milestones on major projects.

ANALYSIS:

To keep up with growth and to meet our ratepayers' expectations to adequately deliver safe, reliable, cost-effective, and quality water, each year the District Staff prepares a six-year CIP Plan that identifies the District infrastructure needs. The CIP is comprised of four categories consisting of backbone capital facilities, replacement/renewal projects, developer's reimbursement projects, and capital purchases.

The Second Quarter Fiscal Year 2010 update is intended to provide a detailed analysis of progress in completing these projects within the allotted time and budget. Expenditures through the Second Quarter totaled approximately $12.1 million. Approximately 32% of the Fiscal Year 2010 expenditure budget was spent.

FISCAL IMPACT:

None.

STRATEGIC GOAL:

The CIP supports the District's Mission statement, "To provide the best quality of water and wastewater service to the customers of the Otay Water District, in a professional, effective, and efficient manner," and the District's Strategic Goal, in planning for infrastructure and supply to meet current and future potable water demands.

LEGAL IMPACT:

None.

General Manager

P:\CIP\CIP Quarterly Reports\2010\Q2 FY2010\Staff Reports\BD 03-03-10, Second Quarter FY 2010 CIP Report, (RR-RP).doc

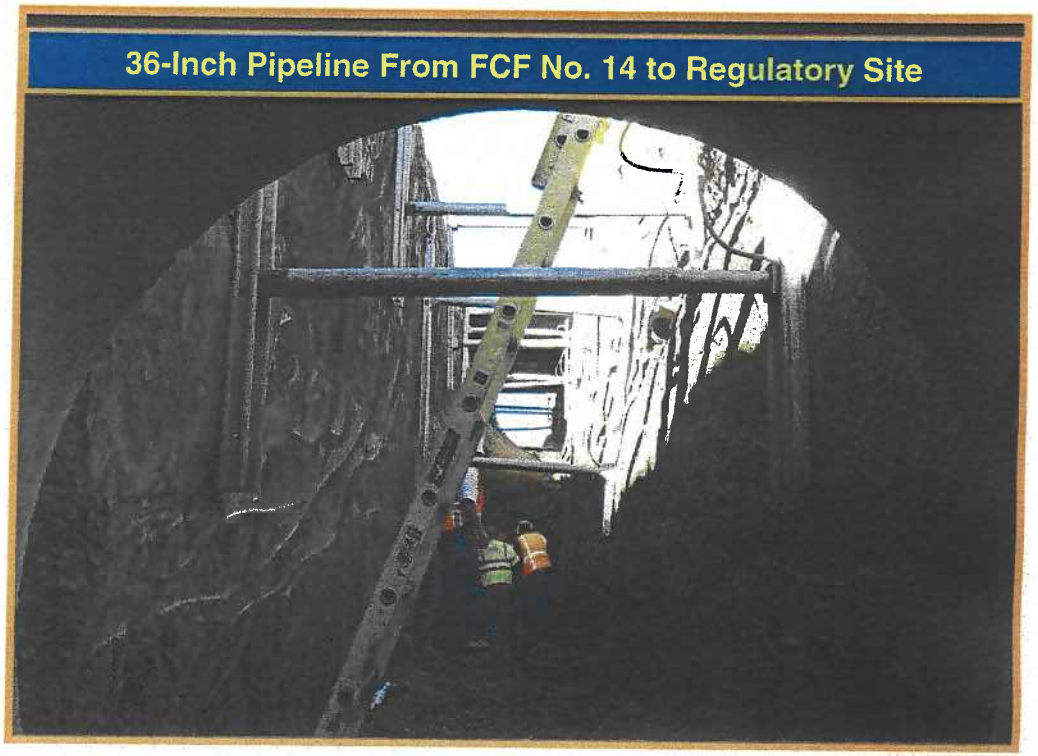
RR/RP:jf

Attachments: Attachment A
Presentation

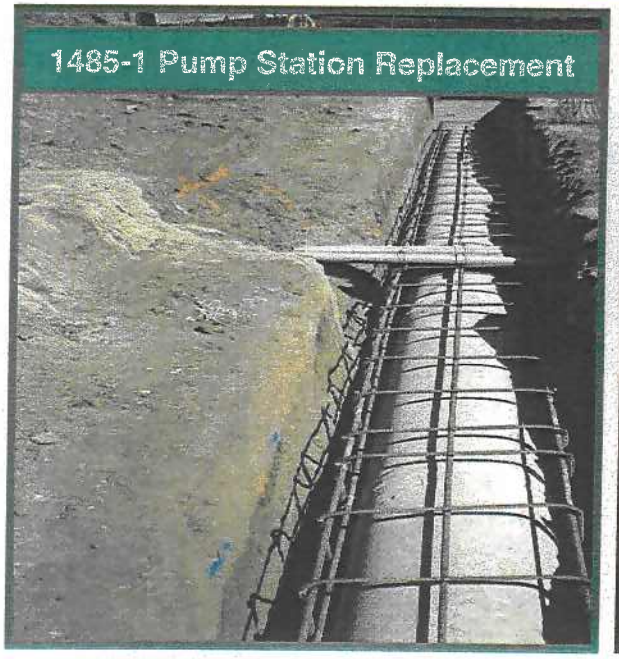
QA/QC Approved:

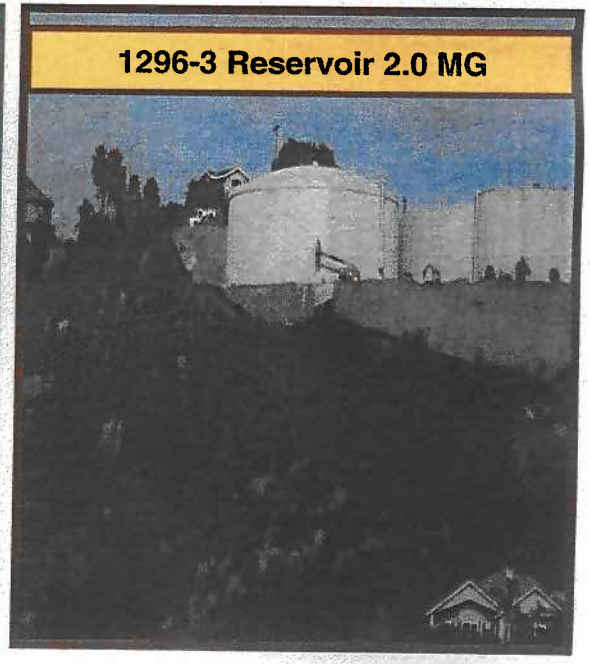
Name: Lisa Colburn-Boyd Date: 2-5-10

CAPITAL IMPROVEMENT PROGRAM



ESTABLISHED 1956 OTAY WATER DISTRICT





Second Quarter

Fiscal Year 2010

(through December 31, 2009)

Background

The approved CIP budget for Fiscal Year 2010 consists of 87 projects that total $37.3 million. These projects are broken down into four categories:

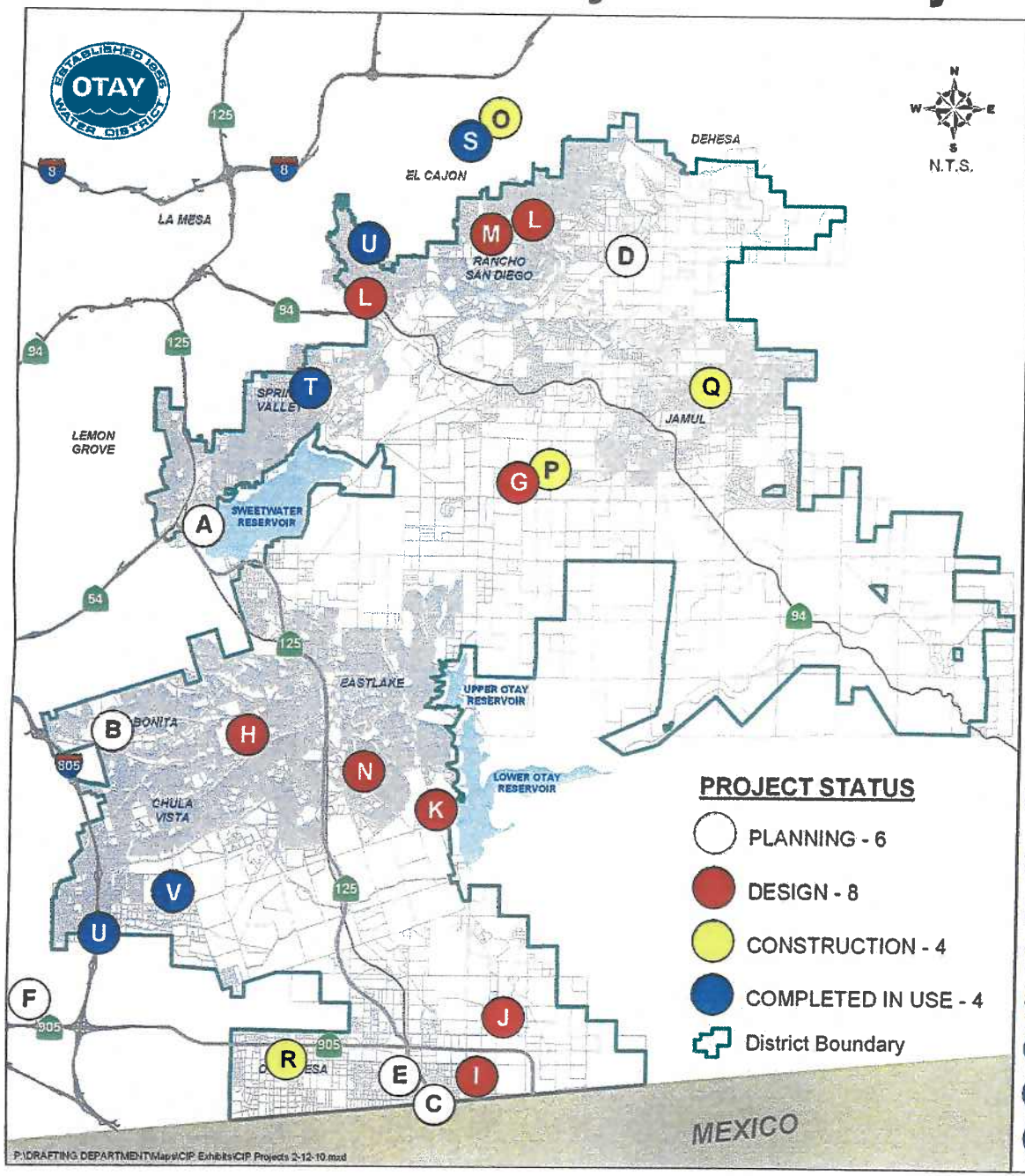
1.	Capital Facilities:	$ 28.73 million
2.	Replacement/Renewal:	$ 6.72 million
3.	Capital Purchases:	$ 1.83 million
4.	Developer Reimbursement:	$ 0.00 million

Overall expenditures through the Second Quarter Fiscal Year 2010 totaled $12.1 million which is 32% of the Fiscal Year 2010 budget.

Fiscal Year 2009 Report
(through December 31, 2009)

CIP CAT	Description	FY 2010 Budget	FY 2010 Expenditures	% FY 2010 Budget Spent	Total Life-to-Date Budget	Total Life-to-Date Expenditures	% Life-to-Date Budget Spent
1	**Capital Facilities**	**$28,728,000**	**$9,384,000**	**33%**	$181,692,000	$55,606,000	31%
2	**Replacement/ Renewal**	**$6,716,000**	**$2,076,000**	**31%**	$37,203,000	$14,451,000	39%
3	**Capital Purchases**	**$1,827,000**	**$617,000**	**34%**	$11,726,000	$5,808,000	50%
4	**Developer Reimbursement**	**$1,000**	**$0**	**0%**	$50,000	$0	0%
	Total:	**$37,272,000**	**$12,077,000**	**32%**	$230,671,000	$75,866,000	33%

Major CIP Projects



MAJOR CIP PROJECTS

- (A) P2010 & P2391 Purdue Water Treatment Plant Pump Station and 36" Pipeline
- (B) P2434 Rancho Del Rey Groundwater Well
- (C) P2451 Rosarito Desalination Facility Conveyance System
- (D) P2481 Middle Sweetwater River Basin Groundwater Well
- (E) P2482 Otay Mesa Lot 7 Groundwater Well
- (F) R2093 MBR City of Chula Vista
- (G) P2490 & P2492 1296-1 & 2 Reservoir Coating
- (H) P2496 Otay Lakes Road Utility Relocations
- (I) R2058 Airway Rd Recycled Water Pipeline
- (J) R2077 Alta Rd Recycled Water Pipeline
- (K) R2087 Wueste Rd Recycled Water Pipeline
- (L) S2019, S2020, S2022 Sewer Main Rehabilitation
- (M) S2021 Jamacha Rd Sewer Main Replacement
- (N) R2091 944-1 Recycled Water PS Upgrade
- (O) P2009 PL-36" SDCWA Otay FCF No. 14 to OWD Regulatory Site
- (P) P2143 Res - 1296-3 Reservoir 2.0 MG
- (Q) P2172 1485-1 Pump Station Replacement
- (R) P2440 SR905 Utility Relocations
- (S) P2009 Otay FCF No. 14 Temporary Connection
- (T) P2191 Res - 850-4 Reservoir 2.2 MG
- (U) P2487 Agency Inter-Connections
- (V) R2092 450-1 Reservoir Disinfection Facility

Flagship CIP Project in Construction

36-Inch Pipeline from FCF No. 14 to Regulatory Site (P2009)

This project was awarded to CCL Contracting in June 2009.
This project consists of construction of approximately 27,300 feet of 36-inch pipeline to upgrade FCF No. 14 to a capacity of 16 million gallons per day.

Flagship CIP Project in Construction

- ***36-Inch Pipeline From FCF No. 14 to Regulatory Site Project:***

Key Component: Approximately 5 miles of 36-inch pipeline for potable water from Otay's FCF No. 14 to the Regulatory Site.

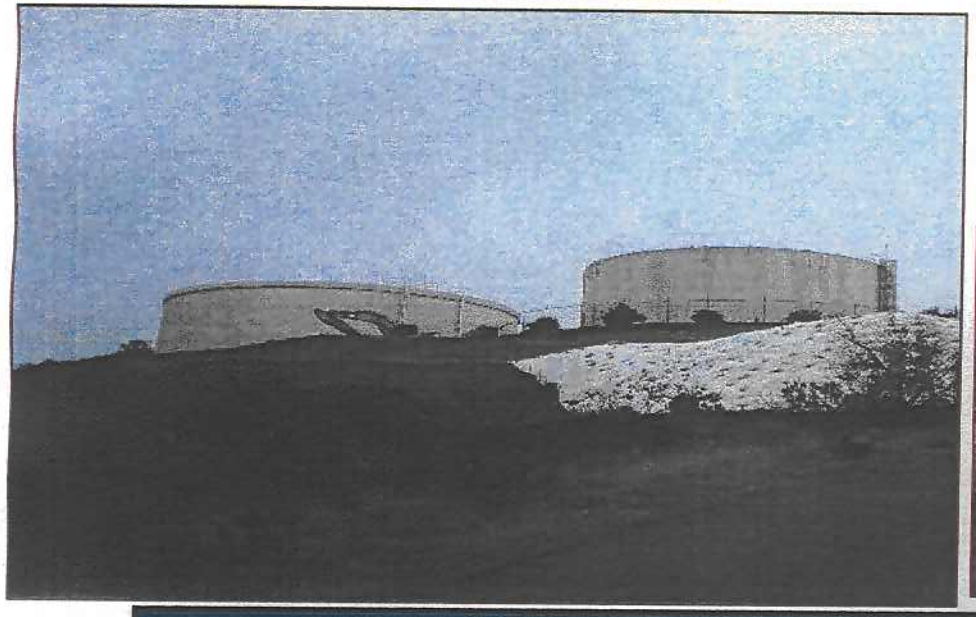
Schedule: A construction contract was awarded to CCL Contracting (CCL) on June 3, 2009. Project completion is anticipated for August 2010.

Cost: The FY 2010 project budget is $15.0 million, of which $4.9 million, or 32% has been spent. The life-to-date project budget is $22.2 million, of which $8.6 million, or 39%, has been spent.

Significant Issues: None.

Highlights: The bore and jack operation within the college property has begun and is progressing well. CCL continues to install 36-inch pipe within Jamacha Road. Tie-ins for the new 8-inch and 12-inch are scheduled for April/May timeframe.

Flagship CIP Project in Construction



1296-3 Reservoir 2.0 MG (P2143)

This project was awarded to Natgun Corporation in February 2009.
This project will provide additional storage in the 1296 Pressure Zone.

Flagship CIP Project in Construction

- ***1296-3 Reservoir 2.0 MG***

Key Component: A new 2.0 MG Concrete Reservoir will provide additional storage in the 1296 Pressure Zone.

Schedule: Notice to Proceed was issued to Natgun Corporation on February 10, 2009. Project is on schedule and is expected to be substantially complete in March 2010.

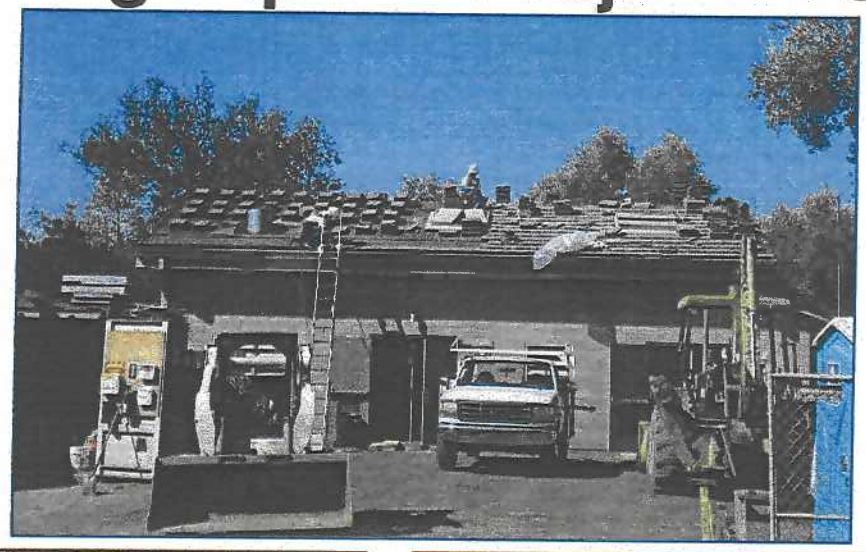
Cost: The FY 2010 project budget is $2.0 million, of which $1.2 million, or 57% has been spent. The life-to-date project budget is $3.6 million, of which $2.9 million, or 78%, has been spent.

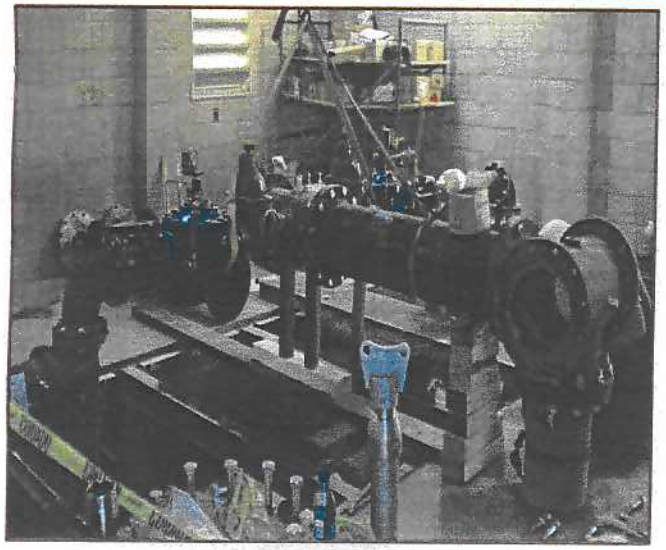
Significant Issues: None.

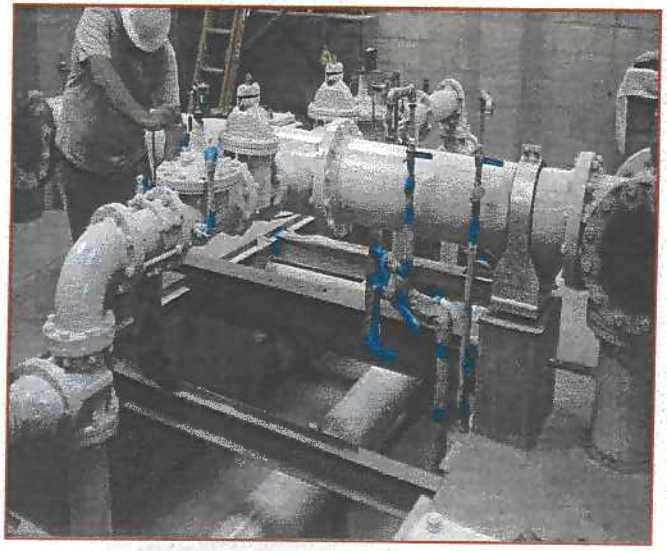
Highlights: The design of this reservoir is a Type III concrete reservoir. The lifecycle cost of building a concrete reservoir is lower than a welded steel reservoir.

A solar power generating system was added to this project which includes a 75 square-foot photovoltaic panel for generating power, which is tied to the SDG&E power grid.

Flagship CIP Project in Construction







1485-1 Pump Station Replacement (P2172)

This project was awarded to SCW Contracting and was started in January 2009.
This project consists of construction of a new pump station to replace the existing pump station and to expand capacity as projected within the Water Resources Master Plan.

Flagship CIP Project in Construction

- ***1485-1 Pump Station Replacement***

Key Component: The existing pump station is near capacity and has reached the end of its useful life. The improved pump station systems and additional capacity are required to meet projected demands of the 1485 and higher pressure zones as projected within the Water Resources Master Plan.

Schedule: Notice to Proceed was issued to SCW Contracting on January 5, 2009. Construction started in January 2009. Project is approximately 72% complete. The project is scheduled for completion in March 2010.

Cost: The FY 2010 project budget is $1.6 million, of which $0.9 million, or 56%, has been spent. The life-to-date project budget is $2.5 million, of which $2.1 million, or 83%, has been spent.

Significant Issues: None.

Highlights: The new pump station will include SCADA equipment and will protect the existing equipment from the elements.

Consultant Contract Status

(through December 31, 2009)

Purchase Order Number	Consultant	CIP No.	Project Title	Original Contract Amount	Total Change Orders	Revised Contract Amount	Approved Payment To Date	% Change Orders	% Expenditures to Date	Date of Signed Contract	End Date of Contract
	PLANNING										
709962	J C HEDEN AND ASSOCIATES INC	Varies	TEMPORARY LABOR SERVICES	$ 150,000.00	$ -	$ 150,000.00	$ 111,118.00	0.0%	74.1%	1/1/2009	7/27/2009 (COMPLETE)
711553	MWH AMERICAS INC.	P2010	NORTH-SOUTH SERVICES AREA INTERTIE STUDY	$ 119,505.00	$ -	$ 119,505.00	$ 28,870.75	0.0%	24.2%	10/22/2009	6/30/2010
707070	PBS&J	P1210	2009 MASTER PLAN UPDATE	$ 499,748.00	$ 46,222.00	$ 545,970.00	$ 544,917.94	9.2%	99.8%	8/7/2007	2/28/2010
	DESIGN										
705134	ENGINEERING PARTNERS INC, THE	P2172	1485-1 PUMP STATION REPLACEMENT	$ 24,120.00	$ -	$ 24,120.00	$ 18,542.50	0.0%	76.9%	11/3/2006	12/31/2009 (COMPLETE)
706951, 711714	ENGINEERING PARTNERS INC, THE	Varies	ELECTRICAL SERVICES	$ 100,000.00	$ -	$ 100,000.00	$ 70,795.00	0.0%	70.8%	3/19/2007	6/30/2011
711649	ENGINEERING PARTNERS INC, THE	Varies	AS-NEEDED ELECTRICAL DESIGN SERVICES	$ 100,000.00	$ -	$ 100,000.00	$ -	0.0%	0.0%	10/7/2009	6/30/2011
711324	HDR	Varies	TEMPORARY LABOR SERVICES	$ 150,000.00	$ -	$ 150,000.00	$ 61,775.00	0.0%	41.2%	8/14/2009	6/30/2010
706174	LEE & RO INC	Varies	AS-NEEDED ENG DESIGN SVCS	$ 175,000.00	$ 15,000.00	$ 190,000.00	$ 190,000.00	8.6%	100.0%	3/29/2007	12/31/2009 (COMPLETE)
709237	LEE & RO INC	P2009	DESIGN OF 36-INCH PIPELINE	$ 580,183.00	$ 61,629.00	$ 641,812.00	$ 600,013.79	10.6%	93.5%	9/11/2008	12/31/2010
711650	LEE & RO INC	Varies	AS-NEEDED ENGINEERING DESIGN SERVICES	$ 175,000.00	$ 24,000.00	$ 199,000.00	$ 59,018.65	13.7%	29.7%	10/8/2009	6/30/2011
711676	MWH AMERICAS INC.	R2096, R2095, S2018	RWCWRF UPGRADE PROJECT	$ 458,813.00	$ -	$ 458,813.00	$ 15,416.31	0.0%	3.4%	10/14/2009	10/14/2011
711657	PBS&J	Varies	HYDRAULIC MODELING SERVICES	$ 45,000.00	$ -	$ 45,000.00	$ 2,706.50	0.0%	6.0%	11/20/2009	6/30/2011
	SAN-LO AERIAL	R2077	20-Inch RecPl - ALTA/OTAY MESA/SANYO	$ 8,000.00	$ -	$ 8,000.00	$ 8,000.00	0.0%	100.0%	6/24/2009	8/5/2009 (COMPLETE)
	SAN-LO AERIAL	R2058	20-Inch RecPl - AIRWAY/LA MEDIA	$ 3,100.00	$ -	$ 3,100.00	$ 3,100.00	0.0%	100.0%	8/17/2009	9/9/2009 (COMPLETE)
711680	SCHIFF & ASSOCIATES	Varies	PROFESSIONAL CORROSION SERVICES	$ 250,000.00	$ -	$ 250,000.00	$ -	0.0%	0.0%	11/20/2009	6/30/2011
705883, 706619	SOUTHERN CALIFORNIA SOIL	Varies	ON-CALL GEOTECHNICAL SERVICES	$ 150,000.00	$ -	$ 150,000.00	$ 144,721.37	0.0%	96.5%	12/6/2006	1/31/2011
711655	SOUTHERN CALIFORNIA SOIL	Varies	AS-NEEDED GEOTECHNICAL SERVICES	$ 175,000.00	$ -	$ 175,000.00	$ 4,101.57	0.0%	2.3%	10/7/2009	6/30/2011
	CONSTRUCTION SERVICES										
710093	MWH CONSTRUCTORS INC	Varies	TEMPORARY LABOR SERVICES	$ 150,000.00	$ 130,000.00	$ 280,000.00	$ 148,225.00	86.7%	52.9%	1/1/2009	6/30/2010
707935	RBF CONSULTING	P2009	36-INCH PIPELINE	$ 1,088,785.00	$ -	$ 1,088,785.00	$ 656,578.75	0.0%	60.3%	1/28/2008	3/1/2010
708005, 711043	VALLEY CONSTRUCTION MANAGEMENT	Varies	AS-NEEDED CONSTRUCTION MANAGEMENT SVCS	$ 175,000.00	$ 23,897.50	$ 198,897.50	$ 168,187.50	13.7%	84.6%	1/16/2008	6/30/2010
	ENVIRONMENTAL										
703828, 708897	BRG CONSULTING INC	P2143	1296-3 RESERVOIR ENV SVCS	$ 125,000.00	$ -	$ 125,000.00	$ 108,380.29	0.0%	86.7%	4/11/2006	6/30/2010
707071, 709114, 710920	JONES & STOKES ASSOCIATES	Varies	PROFESSIONAL ON-CALL ENVIRONMENTAL SVCS	$ 300,000.00	$ 25,000.00	$ 325,000.00	$ 275,924.63	8.3%	84.9%	7/13/2007	6/30/2010
709963	JONES & STOKES ASSOCIATES	P1253	SAN MIGUEL HABITAT MANAGEMENT AREA	$ 987,807.00	$ -	$ 987,807.00	$ 227,400.83	0.0%	23.0%	2/3/2009	12/31/2011
710733	JONES & STOKES ASSOCIATES	R2058/ R2077/ R2087	OTAY MESA RECYCLED WATER SUPPLY LINK PIPELINES	$ 213,087.00	$ -	$ 213,087.00	$ 71,239.98	0.0%	33.4%	5/1/2009	6/30/2010
708348	RECON	P1253	PREPARATION OF THE SUBAREA PLAN	$ 270,853.00	$ -	$ 270,853.00	$ 50,310.11	0.0%	18.6%	3/28/2008	3/28/2011
	WATER RESOURCES										
710906	AECOM	P2481	MIDDLE SWEETWATER RIVER BASIN GROUNDWATER WELL PILOT PROJECT	$ 1,065,037.00	$ -	$ 1,065,037.00	$ 82,941.63	0.0%	7.8%	5/21/2009	5/31/2011
708381	CAMP DRESSER & McKEE INC	P2451	BI-NATIONAL DESALINATION FEASIBILITY STUDY	$ 94,552.00	$ 18,005.00	$ 112,557.00	$ 92,548.34	19.0%	82.2%	3/19/2008	6/30/2010
710471	MICHAEL R. WELCH	P2481	ENGINEERING PLANNING SVCS.	$ 40,000.00	$ -	$ 40,000.00	$ 11,340.00	0.0%	28.4%	3/25/2009	3/25/2010
707939	WESTIN ENGINEERING INC	P1210	ASSET MANAGEMENT PLAN	$ 194,280.00	$ 140,000.00	$ 334,280.00	$ 201,365.01	72.1%	60.2%	1/29/2008	6/30/2010
	PUBLIC SERVICES										
707178, 710211	AECOM USA INC	P1438	PLAN CHECKS & INSPECTION SERVICE	$ 300,000.00	$ -	$ 300,000.00	$ 217,108.81	0.0%	72.4%	9/4/2007	3/7/2010
707604, 711287	AECOM USA INC	P1438	AS-NEEDED PLAN CHECK SERVICES	$ 150,000.00	$ -	$ 150,000.00	$ 43,829.64	0.0%	29.2%	11/13/2007	9/30/2010
			Totals:	$ 8,317,870.00	$ 483,753.50	$ 8,801,623.50	$ 4,218,477.90	5.8%			

QA/QC Approved:

Name: Bl Wy

Date: 2/16/'10

Construction Contract Status

(through December 31, 2009)

CIP NO.	PROJECT TITLE	CONSTRUCTION CONTRACTOR	ORIGINAL CONTRACT AMOUNT	TOTAL CHANGE ORDERS	REVISED CONTRACT AMOUNT	TOTAL EARNED TO DATE	% OF CHANGE ORDERS *	% PROJECT COMPLETE	EST. COMP. DATE
P2191	850-4 Reservoir	Spiess Const Co	$2,566,300	($250,778)	$2,315,522	$2,315,513	-9.77%	100%	Complete
R2081	20-Inch Lane Avenue Conversion	ARB	$660,256	$79,907	$740,163	$740,163	12.10%	100%	Complete
P2422	Interagency Water Meter Connection	Jose Pereira Eng	$129,542	$32,753	$162,295	$162,295	25.28%	100%	Complete
R2092	450-1 Reservoir Disinfection Facility	NEWest Const	$342,865	$59,483	$402,348	$402,348	17.35%	100%	Complete
P2143	1296-3 Reservoir 2.0 MG Water Storage Facility	Natgun Corp	$2,373,220	$5,373	$2,378,593	$1,818,706	0.23%	76%	March 2010
P2172	1485-1 Pump Station Replacement	SCW	$1,530,000	$26,690	$1,556,690	$526,325	1.74%	34%	March 2010
P2009/ P2038	Jamacha Rd. 36-Inch Pipeline & 12-Inch Pipeline Replacement	CCL Contracting	$16,189,243	$0	$16,189,243	$0	0.00%	0%	August 2010
P2009	Otay FCF No. 14 Temporary Reconnection	TC Construction	$14,000	$0	$14,000	$0	0.00%	0%	Complete
	TOTALS:		*$23,805,426*	*($46,572)*	*$23,758,854*	*$5,965,350*	-0.20%		

QA/QC Approved:

NAME: [signature]

DATE: 2/16/'10

Expenditures

(through December 31, 2009)

($000)

CIP No.	Description	Project Manager	FISCAL YEAR-TO-DATE, 12/31/09 FY 2010 Budget	Expenses	Expense to Budget %	LIFE-TO-DATE Budget	Balance	Comments
	CAPITAL FACILITY PROJECTS							
P2009	PL - 36-Inch, SDCWA Otay FCF No. 14 to Regulatory Site	Ripperger	$ 15,000	$ 4,859	32%	$ 22,200	$ 13,576	Project under construction.
P2010	PL - 24-Inch, Sweetwater Authority Perdue WTP to 36-Inch Main	Peasley	135	59	44%	4,000	3,917	Staff received a proposal from MWH Americas to accomplish the scope of work for development alternatives and to prepare cost estimates for South District to North District connection and potential supply from the SWA Perdue WTP. The Board approved of a professional services agreement in October 2009.
P2038	PL - 12-Inch, 978 Zone, Jamacha, Hidden Mesa, and Chase Upsize and Replacements	Kay	1,100	912	83%	2,500	384	Project under construction
P2040	Res - 1655-1 Reservoir 0.5 MG	Ripperger	1	-	0%	2,055	1,577	Project completed.
P2143	Res - 1296-3 Reservoir 2 MG	Kay	2,000	1,148	57%	3,640	790	Project under construction
P2172	PS - 1485-1 Pump Station Replacement	Kay	1,550	861	56%	2,475	411	Project under construction
P2181	PL - 30-Inch, 1296 Zone, Proctor Valley Road - Proctor Valley PS/Millar Ranch	Peasley	100	-	0%	4,200	4,200	This CIP project is a part of the scope of work being accomplished under CIP Project No. P2010.
P2185	Res - 640-1 Reservoir 20.0 MG	Ripperger	550	15	3%	28,750	635	Pump station modifications to begin after P2009 is complete.
P2191	Res - 850-4 Reservoir 2.2 MG	Kay	435	196	45%	3,435	97	Project complete
P2203	PL - 36-Inch, 1296 Zone, Proctor Valley Road - Millar Ranch/Pioneer	Peasley	120	-	0%	1,500	1,500	This CIP project is a part of the scope of work being accomplished under CIP Project No. P2010.
P2204	PL - 24-Inch, 1296 Zone, Pioneer Way - Proctor Valley/1296 Reservoirs	Peasley	100	-	0%	2,000	2,000	This CIP project is a part of the scope of work being accomplished under CIP Project No. P2010.
P2318	PL - 20-Inch, 657 Zone, Summit Cross-Tie and 36-Inch Main Connections	Kennedy	1	-	0%	600	530	Project to start design next FY.
P2387	PL - 12-Inch, 832 Zone, Steele Canyon Road - Via Caliente/Campo	Kay	15	1	7%	440	8	Project complete
P2391	PS - Perdue WTP Pump Station (5 MGD)	Peasley	200	9	5%	5,200	5,191	This CIP project is a part of the scope of work being accomplished under CIP Project No. P2010.
P2430	PL - 30-Inch, 980 Zone, Proctor Valley Road - PB Bndy/Proctor Valley PS	Peasley	150	-	0%	5,200	5,200	This CIP project is a part of the scope of work being accomplished under CIP Project No. P2010.
P2434	Rancho Del Rey Groundwater Well Development	Peasley	1,450	59	4%	3,650	2,488	Staff received three proposals from consultants to accomplish the scope of work for development of a groundwater well at the Rancho del Rey Well site. Staff plans to request Board approval of a professional services agreement in January 2010.
P2450	Otay River Groundwater Well Demineralization Project	Peasley	20	2	10%	11,030	11,023	Pending the outcome of the joint SWA/Otay study (CIP Number P2467) and environmental review, the planning work may begin to occur in about 2 to 3 years.

Expenditures
(Continued)

CIP No.	Description	Project Manager	FISCAL YEAR-TO-DATE, 12/31/09 FY 2010 Budget	Expenses	Expense to Budget %	LIFE-TO-DATE Budget	Balance	Comments
	CAPITAL FACILITY PROJECTS							
P2451	Rosarito Desalination Facility Conveyance System	Peasley	500	75	15%	30,000	29,753	CDM completed the revision of the feasibility study which includes three technical memorandums on the Rosarito Desal concept. A final draft scope of work for a request for proposal for a preliminary design report and environmental documentation has been prepared.
P2465	Regulatory Site Material Storage Bins	Kay	10	2	20%	310	11	Project complete
P2466	Regional Training Facility	Coburn-Boyd	90	35	39%	252	60	Environmental compliance in progress, project will be completed in FY10.
P2467	San Diego Formation Groundwater Feasibility Study	Peasley	600	1	0%	1,800	1,189	This project is jointly funded by SWA and Otay. The SDCWA awarded a LISA grant to SWA to fund up to 50% of the cost of the effort. Monitoring wells in the Otay River have been completed by USGS. Data gathering on well information within the San Diego Formation continues. Otay River participation agreement between SWA and Otay has been approved.
P2471	850/657 PRS at La Presa Pump Station	Kennedy	80	16	20%	310	265	Project design is at 90&
P2472	Water Supply Feasibility Studies	Peasley	150	-	0%	175	153	This project is for water supply feasibility study efforts. MWH completed the preparation of a brief study including cost estimates for supply from the SWA Perdue WTP and the North District to South District Interconnection.
P2473	PS - 711-1 Pump Station Improvement	Kennedy	325	-	0%	425	422	Project to start design next FY
P2474	Fuel Storage Covers and Containment	Kennedy	100	1	1%	125	109	PDR complete.
P2475	Pump Station Fire Hydrant Installations	Kennedy	40	3	8%	50	40	PDR complete.
P2481	Middle Sweetwater River Basin Groundwater Well System	Peasley	1,000	104	10%	8,000	7,818	Groundwater development planning efforts continue on the Middle Sweetwater River Basin Groundwater Well Pilot Project including preparation of a draft community outreach plan and analysis of imported water supplied into the basin. Meetings with SWA are planned to come to an agreement on the quantity of imported water contributed to the groundwater supply.
P2482	Otay Mesa Lot 7 Groundwater Well System	Peasley	150	-	0%	3,200	3,200	Groundwater development planning efforts continue on the Otay Mesa Lot 7 Well with preparation of CEQA documentation.

Expenditures
(Continued)

CIP No.	Description	Project Manager	FISCAL YEAR-TO-DATE, 12/31/09 FY 2010 Budget	Expenses	Expense to Budget %	LIFE-TO-DATE Budget	Balance	Comments
	CAPITAL FACILITY PROJECTS							
P2487	Sir Francis Helix and Otay Valley Cal American Agency Interconnections	Kay	200	110	55%	250	1	Project complete
P2488	Del Rio Road Helix and Otay Agency Interconnection	Kay	25	13	52%	150	137	Project in design
P2489	Gillespie Drive Helix and Otay Agency Interconnection	Kay	25	4	16%	150	146	Project in design
P2497	Solar Power Feasibility Study	Kennedy	50	1	2%	150	128	PDR complete
P2498	Brine Disposal Pipeline Otay River Demineralization Plant to South Bay Outfall	Peasley	5	-	0%	5,600	5,600	The City of Chula Vista and Otay WD have developed a final scope of work, RFP, and a participation agreement to focus on the treatment facility and related requirements. The brine line is a part of that study effort (CIP Number R2093).
R2048	RecPL - Otay Mesa Distribution Pipelines and Conversions	Ripperger	150	6	4%	2,000	1,985	In planning.
R2053	RWCWRF - R.O. Building Remodel and Office Furniture	Kay	15	-	0%	590	21	Project complete
R2058	RecPL - 16-Inch, 860 Zone, Airway Road - Otay Mesa/Alta	Kennedy	350	182	52%	3,000	2,415	Project in design
R2077	RecPL - 24-Inch, 860 Zone, Alta Road - Alta Gate/Airway	Kennedy	295	178	60%	4,100	3,726	Project in design
R2081	RecPL - 20-Inch, 944 Zone, Lane Avenue - Proctor Valley/Pond No. 1	Kay	70	-	0%	1,210	52	Project complete
R2087	RecPL - 20-Inch, 944 Zone, Wueste Road - Olympic/Otay WTP	Kennedy	350	210	60%	4,500	4,118	Project in design
R2088	RecPL - 20-Inch, 860 Zone, County Jail - Roll Reservoir/860-1 Reservoir	Kennedy	5	-	0%	3,500	3,444	Project is in planning stage. Design to start in FY 2011.
R2089	North District Recycled Water Regulatory Compliance	Coburn-Boyd	20	-	0%	220	20	Project is complete, will not use additional budgeted amount this FY.
R2091	RecPS - 944-1 Pump Station Upgrade	Kennedy	500	71	14%	550	424	PDR complete.
R2092	Dis - 450-1 Reservoir Disinfection Facility	Kay	70	131	187%	830	114	Project under construction
R2093	MBR City of Chula Vista	Peasley	50	21	42%	5,000	4,971	The City of Chula Vista City counsel and the Otay WD Board of Directors have approved the MBR participation agreement to focus on the treatment facility and related requirements. The City of Chula Vista and Otay WD staff have interviewed and selected RMC to accomplish the scope of work which should start early in 2010.
R2094	Potable Irrigation Meters to Recycled Water Conversions	Kennedy	500	72	14%	2,000	1,928	Project to start design next FY.
R2097	RWCWRF - Salt Creek Live Stream Discharge	Coburn-Boyd	26	-	0%	320	287	Project will start in second half of FY.
S2018	RWCWRF - Secondary Process Automation	Coburn-Boyd	50	27	54%	50	23	Cost increase due to change in scope of work after budget approval; budget will be adjusted next fiscal year to cover increased scope.
	Total Capital Facility Projects	Total:	28,728	9,384	33%	181,692	126,086	

Expenditures
(Continued)

CIP No.	Description	Project Manager	FISCAL YEAR-TO-DATE, 12/31/09 FY 2010 Budget	Expenses	Expense to Budget %	LIFE-TO-DATE Budget	Balance	Comments
	REPLACEMENT/RENEWAL PROJECTS							
P2356	PL - 12-Inch, 803 Zone, Jamul Drive Permastran Pipeline Replacement	Kay	15	3	20%	765	12	Project complete
P2366	APCD Engine Replacements and Retrofits	Rahders	180	2	1%	2,834	1,185	Anticipating 100% expenditure pending CARB approval of current device being tested for use in on-road fleet.
P2382	Safety and Security Improvements	Munoz	70	87	124%	1,539	308	This CIP was under budgeted for the scope of work that was needed for this fiscal year.
P2416	SR-125 Utility Relocations	Kennedy	40	45	113%	900	(11)	Reimbursement is in pre-litigation.
P2440	I-905 Utility Relocations	Ripperger	200	65	33%	3,016	1,554	Caltrans driven.
P2453	SR-11 Utility Relocations	Kennedy	75	-	0%	500	497	Caltrans is in the preliminary design and will not select an option until later this year.
P2456	Air and Vacuum Valve Upgrades	Acuna	500	258	52%	2,624	856	We will use forecasted budget.
P2458	AMR Manual Meter Replacement	Keeran	1,400	1,125	80%	10,447	6,626	This project is on track.
P2477	Res - 624-1 Reservoir Cover Replacement	Kennedy	325	20	6%	450	423	Expect $50K to be spent this FY to repair the existing cover. Testing completed this year indicates the full replacement can be delayed a couple years.
P2483	PS - 870-1Pump Motor and Switch Gear Replacement	Anderson	130	2	2%	130	128	Has not begun yet.
P2484	Large Water Meter Replacement Program	Keeran	135	27	20%	535	508	Activity starting, expenses to follow soon.
P2485	SCADA Communication System and Software Replacement	Stalker	265	67	25%	915	848	Project ongoing.
P2486	Asset Management Plan Condition Assessment and Data Acquisition	Stevens	300	28	9%	800	772	Staff is continuing to meet.
P2490	1296-1 Reservoir Interior/Exterior Coating and Upgrades	Kay	340	22	6%	350	328	Project in design
P2491	850-3 Reservoir Exterior Coating	Kay	290	-	0%	300	300	Delayed for P2490/P2492
P2492	1296-2 Reservoir Interior/Exterior Coating and Upgrades	Kay	30	13	43%	600	587	Project in design
P2493	624-2 Reservoir Interior Coating and Upgrades	Kay	30	-	0%	950	950	Delayed for P2490/P2492
P2494	Multiple Species Conservation Plan	Coburn-Boyd	141	53	38%	226	173	Project ongoing.
P2495	San Miguel Habitat Management/Mitigation Area	Coburn-Boyd	225	75	33%	1,000	925	Project ongoing.
P2496	Otay Lakes Road Utility Relocations	Ripperger	75	15	20%	100	85	Project in design
R2086	RWCWRF Force Main AirVac Replacements and Road Improvements	Kay	40	3	8%	1,325	23	Project complete
R2095	RWCWRF - Filter Storage Reservoir Cover Replacement	Ripperger	75	1	1%	75	74	Consultant contract awarded to MWH.
R2096	RWCWRF - Blower System Rehabilitation/Replacement	Kennedy	800	33	4%	1,000	967	Consultant contract awarded to MWH.
S2012	SVSD Outfall and RSD Replacement and OM Reimbursement	Peasley	300	1	0%	3,030	2,532	The expenditures are typically billed by SVSD and paid within the fourth quarter of the fiscal year.
S2015	Calavo Lift Station Replacement	Kay	10	-	0%	560	1	Project complete
S2019	Avocado Boulevard 8-Inch Sewer Main Improvement	Kay	600	85	14%	1,632	1,547	Project in design
S2020	Calavo Drive 8-Inch Sewer Main Replacement	Kay	40	15	38%	350	335	Project in design
S2021	Jamacha Road 8-Inch Sewer Main Replacement	Kay	30	17	57%	150	133	Project in design

Expenditures
(Continued)

CIP No.	Description	Project Manager	FISCAL YEAR-TO-DATE, 12/31/09 FY 2010 Budget	Expenses	Expense to Budget %	LIFE-TO-DATE Budget	Balance	Comments
	REPLACEMENT/RENEWAL PROJECTS							
S2022	Hidden Mesa Drive 8-Inch Sewer Main Rehabilitation	Kay	5	8	160%	50	42	Project in design
S2023	Calavo Drive Sewer Main Utility Relocation	Kay	50	6	12%	50	44	Project in design
	Total Replacement/Renewal Projects	Total:	6,716	2,076	31%	37,203	22,752	
	CAPITAL PURCHASE PROJECTS							
P2282	Vehicle Capital Purchases	Rahders	484	1	0%	4,311	2,504	Staff anticipates $410K to be used for Vehicle Replacements in FY10.
P2285	Office Equipment and Furniture Capital Purchases	Dobrawa	40	-	0%	532	121	Purchase of 2 copiers is expected this qrt. $40,000
P2286	Field Equipment Capital Purchases	Rahders	183	4	2%	1,075	410	Staff anticipates $83K to be used for equipment replacements in FY10.
P2443	Information Technology Mobile Services	Jenkins	150	158	105%	1,352	532	Expect to spend 100%
P2461	Records Management System Upgrade	Jenkins	100	-	0%	256	100	Expect to spend 100%
P2469	Information Technology Network and Hardware	Jenkins	300	180	60%	1,900	1,342	Expect to spend 100%
P2470	Application Systems Development and Integration	Jenkins	430	161	37%	1,810	1,269	Expect to spend $510K in FY10
P2478	Administration Building Engine/Generator Set	Anderson	120	108	90%	120	4	Genset installed.
P2479	Operations Yard Property Acquisition	Dobrawa	20	5	25%	370	-	No additional expenses are anticipated during this fiscal year.
	Total Capital Purchase Projects	Total:	1,827	617	34%	11,726	6,282	
	DEVELOPER REIMBURSEMENT PROJECTS							
P2325	PL - 10" to 12" Oversize, 1296 Zone, PB Road - Rolling Hills Hydro PS/PB Bndy	Charles	1	-	0%	50	50	
	Total Developer Reimbursement Projects	Total:	1	-	0%	50	50	
	GRAND TOTAL		$ 37,272	$ 12,077	32%	$ 230,671	$ 155,170	

QA/QC Approved:

Name: Bud Ward **Date:** 2/16/'10