

**AGENDA
IRVINE RANCH WATER DISTRICT
BOARD OF DIRECTORS
REGULAR MEETING**

December 13, 2010

PLEDGE OF ALLEGIANCE

CALL TO ORDER 5:00 P.M., Board Room, District Office
15600 Sand Canyon Avenue, Irvine, California

ROLL CALL Directors LaMar, Matheis, Swan, Withers and President Reinhart

NOTICE

If you wish to address the Board on any item, including Consent Calendar items, please file your name with the Secretary. Forms are provided on the lobby table. Remarks are limited to five minutes per speaker on each subject. Consent Calendar items will be acted upon by one motion, without discussion, unless a request is made for specific items to be removed from the Calendar for separate action.

COMMUNICATIONS TO THE BOARD

1. A. Written:
- B. Oral: Mrs. Joan Irvine Smith relative to the Dyer Road Wellfield.

2. **ITEMS RECEIVED TOO LATE TO BE AGENDIZED**

Recommendation: Determine that the need to discuss and/or take immediate action on item(s) introduced come to the attention of the District subsequent to the agenda being posted.

PRESENTATION

3. **CALIFORNIA URBAN WATER CONSERVATION COUNCIL'S EXCELLENCE AWARD FOR 2010**

The District's Water Conservation Manager, Fiona Sanchez, has been presented the CUWCC's Excellence Award for 2010 as she has demonstrated innovation, commitment, dedication, integrity, creativity and outstanding service in the field of water resource efficiency.

CONSENT CALENDAR

Next Resolution No. 2010-45

Items 4-19

4. **MINUTES OF REGULAR BOARD MEETING**

Recommendation: That the minutes of the November 22, 2010 Regular Board Meeting be approved as presented.

CONSENT CALENDAR - Continued	Next Resolution No. 2010-45	Items 4-19
5. <u>RATIFY/APPROVE BOARD OF DIRECTORS' ATTENDANCE AT MEETINGS AND EVENTS</u>	Recommendation: That the Board ratify/approve the meetings and events for Steven LaMar, John Withers, Douglas Reinhart and Peer Swan.	Reso No. 2010-
6. <u>DYER ROAD WELLFIELD STATUS AND RESERVOIR DATA INFORMATION ITEMS</u>	Recommendation: Receive and file.	
7. <u>2010 GENERAL DISTRICT ELECTION RESULTS</u>	Recommendation: That the Board adopt a resolution declaring results of the November 2, 2010 General District Election.	
8. <u>ANNUAL BOARD OF DIRECTORS' FEES</u>	Recommendation: That the Board decline the 5% scheduled compensation increase for calendar year 2011.	
9. <u>2011 SELECTION OF STATE LOBBYIST/CONSULTANT</u>	Recommendation: That the Board approve a Professional Services Agreement for a term of six months with O'Haren Government Relations in the amount of \$6,500 per month retainer plus reimbursable direct expenses for a total not to exceed \$42,900.	
10. <u>PLANNING AREA 9B (STONEGATE) – RECYCLED WATER PIPELINES DESIGN CONSULTANT SELECTION</u>	Recommendation: That the Board approve the selection of Hunsaker & Associates as the design consultant of Planning Area 9B (Stonegate) 6-inch and 36-inch recycled water pipelines for a total amount of \$86,862.22, under the existing Supplemental Reimbursement Agreement with the Irvine Community Development Company for the design and construction of the Irvine Ranch Water District facilities for Planning Area 9B (Stonegate), project 30012.	
11. <u>EMERGENCY GENERATOR REPLACEMENT AT MICHELSON SEWER LIFT STATION EXPENDITURE AUTHORIZATION</u>	Recommendation: That the Board approve an Expenditure Authorization in the amount of \$117,700 for the emergency generator replacement at Michelson Sewer Lift Station, project 20846.	

CONSENT CALENDAR - Continued	Next Resolution No. 2010-45	Items 4-19
12. <u>FISCAL YEAR 2009/10 COMPREHENSIVE ANNUAL FINANCE REPORT</u>	Recommendation: Receive and file.	Reso No. 2010-
13. <u>QUITCLAIM OF REAL PROPERTY</u>	Recommendation: That the Board adopt a resolution approving execution of the Quitclaim Deed to Irvine Community Development Company LLC.	
14. <u>ADDENDUM NO. 1 TO THE SAN DIEGO CREEK WATERSHED NATURAL TREATMENT SYSTEM FINAL ENVIRONMENTAL IMPACT REPORT</u>	Recommendation: That the Board approve the proposed Addendum No. 1 to the Final Environmental Impact Reports for the San Diego Creek Watershed Natural Treatment System, including the determinations set forth in the addendum, and approve the proposed project.	
15. <u>ADDENDUM NO. 4 TO THE IRVINE DESALTER PROJECT FINAL ENVIRONMENTAL IMPACT REPORT</u>	Recommendation: That the Board approve the proposed Addendum No. 4 to the Final Environmental Impact Report for the Irvine Desalter project, including the determinations set forth in the addendum, and approve the project which consists of replacing Well 78.	
16. <u>NOVEMBER 2010 FINANCIAL REPORTS</u>	Recommendation: That the Board receive and file the Treasurer's Investment Summary Report and the Monthly Interest Rate Swap Summary for November 2010; approve the November 2010 Summary of Wire Transfers and ACH payments in the total amount of \$7,535,026.39; and approve the November 2010 Warrants Nos. 315530 through 316192, Workers' Compensation distributions and voided checks in the total amount of \$6,837,985.69.	
17. <u>FISCAL YEAR 2010/11 PLANNING RESERVE EXPENDITURE AUTHORIZATIONS</u>	Recommendation: That the Board approve additional Expenditure Authorizations for the Engineering/Planning Study Reserves in the amounts of \$71,500 for project 10565, \$58,300 for project 20565, and \$58,300 for project 30565.	

CONSENT CALENDAR - Continued	Next Resolution No. 2010-45	Items 4-19
<p>18. <u>SECTION 125 FLEXIBLE BENEFITS PLAN AMENDMENT AND CONTRACT RENEWAL</u></p> <p>Recommendation: That the Board approve the contract renewal with Employee Benefit Specialists, Inc. effective January 1, 2011 to administer the District's Flex Spending Program, authorize the General Manager to execute the necessary agreements on behalf of the District; and adopt a resolution authorizing execution of Section 125 Flexible Benefits Plan amendment with the Employee Benefit Specialists, Inc.</p> <p>19. <u>EXTENSION OF AGREEMENT BETWEEN THE CITY OF IRVINE AND IRVINE RANCH WATER DISTRICT FOR DEVELOPMENT OF CIENEGA FILTRATION PROJECT FIELD DEMONSTRATION</u></p> <p>Recommendation: That the Board approve the Amendment No. 1 to Agreement between the City of Irvine and Irvine Ranch Water District for development of Cienega Filtration Project Field Demonstration.</p>	Reso No. 2010-	
<u>ACTION CALENDAR</u>		
<p>20. <u>SANTA ANA WATERSHED PROJECT AUTHORITY (SAWPA) PROPOSITION 84 GRANT FUNDING</u></p> <p>Recommendation: That the Board adopt a resolution adopting the current Santa Ana Watershed Project Authority One Water, One Watershed Integrated Regional Water Management Plan as a mandatory condition of receiving grant funding under Proposition 84.</p> <p>21. <u>DEEP AQUIFER TREATMENT SYSTEM BUILDING UPGRADES AND REPAIRS CONSTRUCTION AWARD</u></p> <p>Recommendation: That the Board authorize a \$129,200 increase to the Fiscal Year 2010/11 Capital Budget for project 11287, from \$107,800 to \$237,000; approve an Expenditure Authorization in the amount of \$237,000 for project 11287; and authorize the General Manager to execute a construction contract with Commercial Roofing, Inc. in the amount of \$197,410 for project 11287.</p>	Reso No. 2010-	

ACTION CALENDAR - Continued

22. **PROPOSED 2011 INVESTMENT POLICY**

Recommendation: That the Board adopt a resolution approving investment policy and authorizing the Treasurer and Assistant Treasurer(s) to invest and reinvest funds of the District and of each of its Improvement Districts and to sell and exchange securities.

Reso No. 2010-

23. **LAKE FOREST WELL NO. 2 WELLHEAD DESIGN CONSULTANT SELECTION**

Recommendation: That the Board approve an Expenditure Authorization in the amount of \$309,800; and authorize the General Manager to execute a Professional Services Agreement in the amount of \$290,764 with Kennedy/Jenks Consultants for engineering services for the Lake Forest Well No. 2 Wellhead Design, project 11461.

24. **SOUTH ORANGE COUNTY WASTEWATER AUTHORITY LETTER OF INTENT TO PARTICIPATE IN THE MICHELSON WATER RECLAMATION PLANT (MWRP) BIOSOLIDS FACILITIES PROJECT**

Recommendation: That the Board approve the South Orange County Wastewater Authority's Letter of Intent to participate in the MWRP Biosolids Project subject to non-substantive changes.

25. **OPERATIONS CENTER FACILITIES EXPANSION PHASE 1 STORAGE BUILDING CONSTRUCTION AWARD**

Recommendation: That the Board adopt the Final Mitigated Negative Declaration for the Department 50 storage building and approve the project; direct staff to post and file a Notice of Determination; approve Expenditure Authorizations in the amount of \$352,400 each for projects 11422, 21422 and 31422; and authorize the General Manager to execute a construction contract with Philco Construction in the amount of \$619,380 for the Operations Center Facilities Expansion Phase I Storage Building, projects 11422, 21422 and 31422.

ACTION CALENDAR - Continued

26. **STOCKDALE WEST RANCH PROPERTY PURCHASE**

Recommendation: That the Board authorize the General Manager and the Treasurer to execute a Banked Water Agreement between Diamond Farming Company and Irvine Ranch Water District, in the form presented to this meeting, with such changes as the General Manager and Counsel may approve; find that all matters currently identified with regard to the condition of title, physical condition and suitability of the property for the uses contemplated are acceptable ; and authorize the General Manager and Treasurer and each other officer of the District, each acting singly, to execute and deliver any and all documents, certificates, instructions and instruments necessary or proper for carrying out and closing the real estate purchase transaction contemplated therein.

27. **ELECTION OF OFFICERS FOR 2011**

Recommendation: That an election be conducted of the President and Vice President of the Board of Directors of the Irvine Ranch Water District.

OTHER BUSINESS

Pursuant to Government Code Section 54954.2, members of the Board of Directors or staff may ask questions for clarification, make brief announcements, make brief reports on his/her own activities. The Board or a Board member may provide a reference to staff or other resources for factual information, request staff to report back at a subsequent meeting concerning any matter, or direct staff to place a matter of business on a future agenda. Such matters may be brought up under the General Manager's Report or Directors' Comments.

28. A. **General Manager's Report**

B. **Directors' Comments**

1)

2)

OTHER BUSINESS - Continued

28. B. Directors' Comments

3)

4)

5)

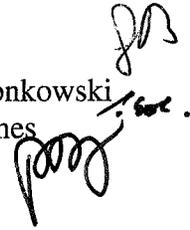
C. Adjourn

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Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the Irvine Ranch Water District Board of Directors in connection with a matter subject to discussion or consideration at an open meeting of the Board of Directors are available for public inspection in the District's office, 15600 Sand Canyon Avenue, Irvine, California ("District Office"). If such writings are distributed to members of the Board less than 72 hours prior to the meeting, they will be available from the District Secretary of the District Office at the same time as they are distributed to Board Members, except that if such writings are distributed one hour prior to, or during, the meeting, they will be available at the entrance to the Board of Directors Room of the District Office.

The Irvine Ranch Water District Board Room is wheelchair accessible. If you require any special disability-related accommodations (e.g., access to an amplified sound system, etc.), please contact the District Secretary at (949) 453-5300 during business hours at least seventy-two (72) hours prior to the scheduled meeting. This agenda can be obtained in alternative format upon written request to the District Secretary at least seventy-two (72) hours prior to the scheduled meeting.

December 13, 2010
Prepared and
Submitted by: L. Bonkowski
Approved by: P. Jones



CONSENT CALENDAR

MINUTES OF REGULAR BOARD MEETING

SUMMARY:

Provided are the minutes of the November 22, 2010 Regular Board Meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE REGULAR BOARD MEETING OF NOVEMBER 22, 2010
BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – November 22, 2010 Regular Board Meeting

EXHIBIT "A"

MINUTES OF REGULAR MEETING – NOVEMBER 22, 2010

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President Reinhart on November 22, 2010 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Matheis, LaMar, Swan, Withers, and Reinhart

Directors Absent: None

Also Present: General Manager Jones, Director of Planning/Water Resources Heiertz, Director of Engineering Burton, Director of Finance Cherney, Secretary Bonkowski, Legal Counsel Arneson, Treasurer Jacobson, Director of Public Affairs Beeman, Mr. Paul Weghorst, Ms. Kirsten McLaughlin, Mr. Jim Reed, and other members of the public and staff.

WRITTEN COMMUNICATIONS: None.

ORAL COMMUNICATION:

Mrs. Joan Irvine Smith addressed the Board of Directors with respect to the Dyer Road Wellfield. Mrs. Smith said it was her understanding that currently wells 5, 6, 7, C-8, C-9, 10, 15 and 17 will operate in accordance with the District's annual pumping plan. Wells 1, 2, 4, 12 and 13 will operate a portion of the week. Wells 1, 2, 4, 12, and 13 will be off. The District's currently planned pumping for November is 3,045 AF. This was confirmed by Mr. Jones, General Manager of the District. Mr. Jones said that in December all wells with the exception of C-8 and C-9 will be off to participate in a regional groundwater pumping exchange program intended to balance Metropolitan Water District's water purchases among Orange County water agencies.

With respect to the Orange County Basin Groundwater Conjunctive Use Program being coordinated by Municipal Water District of Orange County (MWDOC) and Orange County Water District (OCWD), a Notice of Completion was approved by the OCWD Board of Directors on March 19, 2009. Metropolitan Water District has given notice to OCWD to extract 22,000 acre feet in fiscal year 2009/10. The extraction is being performed by agencies that constructed conjunctive use wells under this program. IRWD is not a participant. This was confirmed by Mr. Jones.

With respect to the OCWD annexation of certain IRWD lands, on June 5, 2009, IRWD received a letter from OCWD noting that OCWD has completed the formal responses to comments they previously received on the draft program Environmental Impact Report. The letter further noted that with this task completed, OCWD has exercised its right to terminate the 2004 Memorandum of Understanding (MOU) regarding annexation. OCWD also indicated that due to the lack of progress on the annexation issue, the draft program Environmental Impact Report will not be completed. On June 8, 2009, the OCWD completed the Long-Term Facilities Plan which was received and filed by the OCWD Board in July 2009. Staff has been coordinating with the City of Anaheim (Anaheim) and Yorba Linda Water District (YLWD) on their most recent

annexation requests and has reinitiated the annexation process with OCWD. IRWD, YLWD and Anaheim have negotiated a joint MOU with OCWD to process and conduct environmental analysis of the annexation requests. The MOU was approved by the OCWD Board on July 21, 2010. This was confirmed by Mr. Jones.

With respect to the Groundwater Emergency Service Plan, IRWD has an agreement in place with various south Orange County water agencies, MWDOC and OCWD, to produce additional groundwater for use within IRWD and transfer imported water from IRWD to south Orange County in case of emergencies. IRWD has approved the operating agreement with certain south Orange County water agencies to fund the interconnection facilities needed to affect the emergency transfer of water. MWDOC and OCWD have also both approved the operating agreement. This was confirmed by Mr. Jones.

ITEMS TOO LATE TO BE AGENDIZED – None

PRESENTATION

DISCOVERY GARDEN PROJECT WATER CONSERVATION GARDENS AND WATER EDUCATION PAVILION DESIGN FEASIBILITY STUDY

General Manager Jones reported that the Discovery Science Center (DSC) has approached the Irvine Ranch Water District (IRWD) to explore a partnership to assist in the design and sponsorship of the Water Conservation Gardens and Water Education Pavilion area of Discovery Gardens. Mr. Jones said that to more fully develop initial installation concepts and cost estimates for the project, the first step is to complete a Design Feasibility Study. He said that the Design Feasibility Study does not commit IRWD to participate in the Discovery Garden project. He said that staff recommends that the Committee approve a contract for \$85,000 with DSC to complete a Design Feasibility Study for the Water Conservation Gardens and Education Pavilion.

Using a PowerPoint presentation, Mr. Joe Adams, President, and Ms. Janet Yamaguchi, Vice President of the Discovery Science Center provided an overview of the Discovery Garden Project including the proposed Water Conservation Gardens and Water Education Pavilion. Topics reviewed included the initial project concepts, project audiences, partnership benefits, creating the vision to a reality, the design feasibility study, costs, and project team members. Mr. Jones suggested that if the Board approved participation, he would like IRWD staff to participate on the project design. Vice President Swan said that he did not want to move forward with the partnership until additional conversations are held, and that it would be wise for DSC to bring a larger group of participants. Director Withers said that this is an exciting concept and he would like to have an additional conversation on the business plan for fundraising, governance, venue, and time constraints. Director Matheis reported that this item was reviewed by the Water Resources Policy and Communications Committee and that similar questions were asked during the meeting and it was recommended that this item also be reviewed by the Board due to the \$85,000 costs for the study. She further said that DSC had been a successful partner with the District in the past and the Committee recommended assisting them in this study. Director LaMar said that he agreed with Director Matheis and found this to be a unique opportunity. He suggested additional funding partners from all water agencies in the area. In response to President Reinhart's inquiry on the proposed interactive displays and if the partners would have the ability to update them periodically, Mr. Adams said that this matter can be worked out.

Director Withers said that the Board needs an in-depth discussion on this matter. Vice President Swan said he did not have a sense of the project, the business plan, and wanted to discuss the level of commitment from the other participants. Director Matheis recommended that this item be tabled for this evening and reviewed further at a Strategic Planning Workshop. Mr. Jones said that it was his understanding that items to be discussed include a business plan performance, infrastructure requirements, listing of participants, and funding targets. Additionally, a site visit was suggested to be held during the workshop.

PUBLIC HEARING

2010 GENERAL OBLIGATION BOND ISSUANCE

General Manager Jones reported that pursuant to the California Water Code, the IRWD Board is required to hold a public hearing and make findings pertaining to the issuance of Consolidated Improvement District (ID) bonds. Mr. Jones said that at its meeting on October 25, 2010, the IRWD Board adopted a resolution of intent to issue Consolidated Series Bonds for a maximum amount of \$300 million. A subsequent and companion item on today's agenda recommends that the Board take an action to adopt the Resolution of Issuance on \$175,000,000 of General Obligation Bonds which includes approval of the Indenture of Trust, the Preliminary Official Statement, and authorizing and ratifying certain related actions.

President Reinhart declared this to be the time and place for a hearing of the Board of Directors of the Irvine Ranch Water District regarding the proposed Resolution of Issuance of Consolidated Bonds for Improvement District Nos. 105, 112, 113, 121, 130, 161, 182, 184, 188, 212, 221, 230, 250, 261, 282, and 284 in an amount up to \$300 million, and declared the hearing open. He asked the District Secretary how the hearing was noticed.

Secretary Bonkowski said that Resolution No. 2010-39 declaring the Board's intention to issue bonds was published for two successive weeks in the Orange County Register on November 8, 2010 and November 15, 2010 and posted at the District office on November 8, 2010. She said that additionally on November 5, 2010, Resolution No. 2010-39 was posted in three public places within each Improvement District. She further presented the Proof of Publication and Affidavit of Posting to be received and filed. On MOTION by Swan, seconded and unanimously carried, **THE PROOF OF PUBLICATION AND AFFIDAVIT OF POSTING WAS RECEIVED AND FILED.**

President Reinhart asked Legal Counsel to describe the nature of the proceedings.

Legal Counsel Arneson said that the noticed public hearing provides for all persons interested, including all persons owning land in the included Improvement Districts or any persons otherwise interested in the bonds, an opportunity to be heard concerning any matters set forth in Resolution No. 2010-39 and the proposed Resolution of Issuance or any matters material thereto, including the question of whether the burden on the lands of any of the included Improvement Districts would be increased over the burden that would be borne by the included Improvement District were its bonds sold separately.

President Reinhart asked staff to provide a summary of the proposed bond issue and requested findings.

Director of Finance Cherney reviewed staff's recommendation that the Board find that: 1) the consolidated sale of the bonds will not increase the cost that any Improvement District will pay had its bonds been sold separately, and 2) the features utilized in the bond issuance will not increase the cost that any Improvement District will pay over the cost that it would have paid had the bonds been sold without those features. She also said that to assist the Board in making its findings, Goldman, Sachs & Company, has prepared a letter which outlines the advantages of a consolidated sale and the use of a negotiated transaction versus competitive bid sale of the bonds.

President Reinhart inquired of the Secretary whether there have been any written communications.

Secretary Bonkowski said that there had been no written communications.

President Reinhart inquired whether there is anyone present who wished to address the Board concerning the matter. There were none.

President Reinhart inquired whether there are any comments or questions from members of the Board. There were none.

President Reinhart stated that the hearing will be closed, and asked for a recommendation to close the hearing and to adopt the resolution.

On MOTION by Swan, seconded and unanimously carried, THE HEARING WAS CLOSED AND THE FOLLOWING RESOLUTION WAS ADOPTED BY TITLE:

RESOLUTION NO. 2010-41

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
IRVINE RANCH WATER DISTRICT MAKING FINDINGS
RELATIVE TO CONSOLIDATED BONDS
(SERIES 2010-A AND 2010-B)

2010 GENERAL OBLIGATION BOND ISSUANCE: DOCUMENT APPROVAL AND
MARKET UPDATE

Director of Finance Cherney reported that on October 25, 2010, the Board approved proceeding with the steps necessary to issue bonds for reimbursement and future capital needs in an amount up to \$300 million with a maturity term of up to 40 years. While the capital expenditures are estimated at \$290 million over the next three years, staff recommends a bond issuance in the amount of \$175 million due to the following factors: 1) historically only 75% to 80% percent of the IRWD capital budget has been expended each year. Staff applied a 30% (\$87 million) reduction to the three-year cash flow projections to avoid potential penalties for failure to expend the funds; and 2) some Improvement Districts have insufficient or no bond authorization remaining, resulting in a \$28 million reduction from the total three-year capital projections. Those IDs need to fund their capital from other sources. Ms. Cherney said that staff has focused its analysis on the timing of the projects and estimated cash flows to ensure that the bond proceeds will be expended in three years in order to avoid potential spending requirement penalties and potential loss of the 35% Build America Bond subsidy.

Ms. Cherney said that the ratings have been received from Moody's (Aa1) and are expected from Fitch Ratings and Standard and Poor's on or before November 23, 2010. The bond issuance is expected to price on or about December 9 and to close on December 16, 2010. Legal Counsel Arneson said that language had been added to the proposed resolution which had been placed before each Director. She said that this language would authorize certain changes to be made to the forms of the documents, and would allow additional flexibility to work with the rating agencies to obtain ratings on the bonds.

Using a PowerPoint presentation, Mr. Chris Higgins from Goldman Sachs & Co. provided an update on market conditions and rates.

Vice President Swan reported that the 2010 bond issuance was reviewed and approved by the Finance and Personnel Committee on October 5, 2010 and November 2, 2010 and by the Board on October 8, 2010, October 25, and November 8, 2010. Following discussion, on MOTION by Swan, seconded and unanimously carried, THE FOLLOWING REVISED RESOLUTION WAS ADOPTED BY TITLE:

RESOLUTION NO. 2010- 42

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE IRVINE RANCH WATER DISTRICT PROVIDING
FOR THE ISSUANCE OF CONSOLIDATED BONDS OF SAID
DISTRICT, APPROVING DOCUMENTS AND AUTHORIZING
AND RATIFYING CERTAIN ACTIONS (SERIES 2010-A AND 2010-B)

CONSENT CALENDAR

Vice President Swan asked that item No. 5, Minutes of the Board meeting, be moved to the Action Calendar. There being no objection, this item was moved to the Action Calendar for discussion. On MOTION by Withers, seconded and unanimously carried, CONSENT CALENDAR ITEMS 6 THROUGH 10 WERE APPROVED AS FOLLOWS:

6. RATIFY/APPROVE BOARD OF DIRECTORS' ATTENDANCE AT MEETINGS AND EVENTS

Recommendation: That the Board ratify/approve the meetings and events for Steven LaMar, Mary Aileen Matheis, Douglas Reinhart, Peer Swan, and John Withers.

7. STRATEGIC MEASURES DASHBOARDS

Recommendation: Receive and file the Strategic Measures Dashboards and information items.

8. 2010 STATE LEGISLATIVE PLANNING UPDATE

Recommendation: Receive and file.

CONSENT CALENDAR (CONTINUED)

9. OCTOBER 2010 FINANCIAL REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report and the Monthly Interest Rate Swap Summary for October 2010; approve the October 2010 Summary of Wire Transfers and ACH payments in the total amount of \$12,550,713.93 and approve the October 2010 Warrants Nos. 3147760 through 315529, Workers' Compensation distributions and voided checks in the total amount of \$5,475,199.74.

10. SUPPORT OF ACWA'S POLICY PRINCIPLES ON IMPLEMENTATION OF STATE AND FEDERAL ENDANGERED SPECIES ACT

Recommendation: That the Board adopt a resolution supporting the Association of California Water Agencies' policy principles on implementation of State and Federal Endangered Species Act.

RESOLUTION NO. 2010-43

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT SUPPORTING
THE ASSOCIATION OF CALIFORNIA WATER AGENCIES'
POLICY PRINCIPLES ON IMPLEMENTATION OF STATE
AND FEDERAL ENDANGERED SPECIES ACT

ACTION CALENDAR

MINUTES OF REGULAR BOARD MEETING

Vice President Swan asked staff to amend the minutes under the Syphon Reservoir Geotechnical and Engineering Feasibility Consultant Selection item to reflect that he requested staff conduct the feasibility work in a manner that prioritizes placing the largest capacity reservoir on the site that can be economically and safely constructed. On MOTION by Swan, seconded and unanimously carried, THE MINUTES OF THE NOVEMBER 8, 2010 MEETING WERE APPROVED AS AMENDED.

ORANGE PARK ACRES DOMESTIC WATER TRANSMISSION MAIN CONSTRUCTION PHASE SERVICES

The construction award for the Orange Park Acres Domestic Water Transmission Main was approved at the October 25, 2010 Board meeting. Staff is requesting various construction phase services for this project. On MOTION by Swan, seconded and unanimously carried, THE BOARD APPROVED A BUDGET REDUCTION IN THE AMOUNT OF \$3,078,600, FROM \$3,635,200 TO \$556,600, FOR PROJECT 11407; APPROVED EXPENDITURE AUTHORIZATIONS IN THE AMOUNTS OF \$22,000 FOR PROJECT 11407, \$855,700 FOR PROJECT 11408, \$42,000 FOR PROJECT 11409, AND \$111,600 FOR PROJECT 11410; AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES

AGREEMENT IN THE AMOUNT OF \$223,598 WITH STANTEC CONSULTING SERVICES, INC. FOR CONSTRUCTION PHASE ENGINEERING SERVICES; AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT IN THE AMOUNT OF \$72,542 WITH NMG GEOTECHNICAL, INC. FOR CONSTRUCTION PHASE GEOTECHNICAL SERVICES; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT IN THE AMOUNT OF \$110,288 WITH BUSH & ASSOCIATES, INC. FOR CONSTRUCTION PHASE SURVEYING SERVICES FOR THE ORANGE PARK ACRES DOMESTIC WATER TRANSMISSION MAIN, PROJECTS 11407, 11408, 11409, AND 11410.

LONG-TERM EXCHANGE PROGRAM AGREEMENT WITH BUENA VISTA WATER STORAGE DISTRICT

General Manager Jones reported that the District has entered into a Pilot Exchange Program (Pilot) with Buena Vista Water Storage District (BVWSD) that allows BVWSD to store a portion of its high-flow Kern River water at the Strand Ranch Integrated Banking Project (Strand Ranch Water Bank) in exchange for allocating half of the water to the District. Mr. Jones said that staff recommends the Board authorize the execution of the proposed Agreement for a negotiated term length of between 15 and 28 years.

Using a PowerPoint presentation, Manager of Water Resources Weghorst reviewed BVWSD's water rights and the pilot program; long-term agreement terms; cost of water to IRWD; storage and unbalanced exchanges, and recommendations.

Following discussion, on MOTION by Swan, seconded and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE THE LONG-TERM WATER EXCHANGE PROGRAM AGREEMENT WITH BUENA VISTA WATER STORAGE DISTRICT SUBJECT TO NON-SUBSTANTIVE CHANGES WITH A NEGOTIATED TERM LENGTH OF A MINIMUM OF 15 YEARS AND NOT TO EXCEED 28 YEARS.

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA LOCAL RESOURCES PROGRAM FUNDING AGREEMENT FOR THE WELLS 21 AND 22 DESALTER PROJECT

General Manager Jones reported that on October 22, 2009, the District submitted a proposal for the Wells 21 and 22 Desalter Project to Metropolitan Water District of Southern California (MWD) for funding under the Local Resources Program (LRP). Mr. Jones said that staff has been working with MWD on obtaining its recommendation for an LRP agreement for the Wells 21 and 22 Desalter Project. MWD staff has forwarded a draft LRP agreement for IRWD's review and Board approval. Staff will be negotiating with MWD on the final agreement terms. The agreement will be executed by MWD, Municipal Water District of Orange County (MWDOC), and IRWD. Mr. Jones said that IRWD is requesting funding of up to \$250 per acre-foot for up to 6,400 acre-feet per year of potable water from the Wells 21 and 22 Desalter Treatment Plant. On MOTION by Swan, seconded and unanimously carried, THE BOARD APPROVED AND AUTHORIZED EXECUTION OF THE LOCAL RESOURCES PROGRAM AGREEMENT WITH METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA AND MUNICIPAL WATER DISTRICT OF ORANGE COUNTY SUBJECT TO NON-SUBSTANTIVE CHANGES APPROVED BY THE GENERAL MANAGER AND LEGAL COUNSEL; AND ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2010- 44

RESOLUTION OF THE BOARD OF DIRECTORS OF IRVINE
RANCH WATER DISTRICT APPROVING AND AUTHORIZING
EXECUTION OF WELLS 21 AND 22 DESALTER PROJECT LOCAL
RESOURCES PROGRAM AGREEMENT AMONG
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA,
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY AND
IRVINE RANCH WATER DISTRICT

COORDINATED OPERATING, WATER STORAGE, EXCHANGE AND DELIVERY
AGREEMENT WITH METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

General Manager Jones reported that staff has completed negotiations with Metropolitan Water District of Southern California (Metropolitan) and Municipal Water District of Orange County (MWDOC) and prepared a Coordinated Operating, Water Storage, Exchange and Delivery Agreement (Agreement) that will accommodate the recharge, storage and recovery of State Water Project (SWP) at the District's Strand Ranch Integrated Banking Project (Water Bank) and the delivery by exchange of this water to the Irvine Ranch Water District (IRWD) service area.

Using a PowerPoint presentation, Water Resources Manager Weghorst reviewed "wheeling" of Non-SWP water; the agreement terms for SWP water; terms for MWD SWP principles; general terms; terms for IRWD's use of water; terms for MWD's borrowing of SWP water; IRWD financial terms for SWP water; MWD financial terms for SWP water; benefits of the agreement, and recommendations.

Mr. Jones reported that he had received comments from MWDOC on the proposed agreement. Following discussion on the comments received, Mr. Jones said that following a meeting with MWDOC, if there are substantial changes, this item will be resubmitted to the Board for ratification; however, if the changes are minor, he will communicate these changes via email. On MOTION by Swan, seconded and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE THE COORDINATED OPERATING, WATER STORAGE, EXCHANGE AND DELIVERY AGREEMENT BETWEEN IRVINE RANCH WATER DISTRICT, METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA AND MUNICIPAL WATER DISTRICT OF ORANGE COUNTY SUBJECT TO NON-SUBSTANTIVE CHANGES APPROVED BY THE GENERAL MANAGER AND LEGAL COUNSEL.

GENERAL MANAGER'S REPORT

General Manager Jones reported that the Department of Water Resources' allocation was at 25% which he said is a fairly optimistic forecast. He said that if the allocation reaches 50%, and reservoirs spill, Title 21 water may become available for the Jackson Ranch property.

Mr. Jones said that Mr. Larry McKenney has left the consulting firm of RBF and is now the general counsel for SAWPA.

DIRECTORS' COMMENTS

Director LaMar reported on his attendance at the MWDOC Board meeting. He said that he will be attending the MWDOC/OCWD Joint Planning meeting this week, and next week will be attending the ACWA conference in Indian Wells.

Director Withers reported on an OC Register article regarding IRWD's reserves. He asked staff to determine how to communicate the mischaracterization of this article. Mr. Jones said that as a baseline, staff will be placing information on IRWD's website. Mr. Withers further reported on a Business Week article relative to the Resnicks of Paramount Farms.

Director Matheis reported on her attendance at the City of Irvine's Veterans Day event. She further reminded the Board of the Exchange Club's Thanksgiving breakfast event which both Directors Reinhart and Withers will also attend. She thanked staff for hosting an Exchange Club of Irvine event this month at the Duck Club which she said the members enjoyed.

Director Matheis noted an article urging the Governor-elect to establish a Committee relative to climate change and water supply. It was noted that the Legal Action Committee reacted to the report of the Delta Committee looking for restructuring water rights for California's Regional Water Quality Control Board.

Director Swan reported on his attendance at the Orange County Business Council's Infrastructure Committee meeting where desalination was discussed; a dedication ceremony at West Basin's desalination facility; a meeting with Mr. Phil Isenberg; and an Association of California Water Agency Board meeting where a legal briefing noted a lawsuit in Kern County relative to a public goods' tax.

Mr. Swan reminded the Board to complete the Ethics class on-line or at the ACWA conference prior to the end of this year. Staff was asked to check if Director Withers needed to renew this year.

Director Reinhart reported on his attendance at a WateReuse and Desalination conference.

ADJOURNMENT

President Reinhart adjourned the meeting at 8:15 p.m.

APPROVED and SIGNED this 13th day of December, 2010.

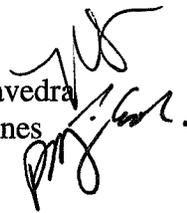
President
IRVINE RANCH WATER DISTRICT

Secretary
IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Legal Counsel - Bowie, Arneson, Wiles & Giannone

December 13, 2010
Prepared and
Submitted by: N. Savedra
Approved by: P. Jones



CONSENT CALENDAR

RATIFY/APPROVE BOARD OF DIRECTORS'
ATTENDANCE AT MEETINGS AND EVENTS

SUMMARY:

Pursuant to Resolution 2006-29 adopted on August 28, 2006, approval of attendance of the following events and meetings are required by the Board of Directors.

Events/Meetings

Steven LaMar

11/30/10 Southern California Water Committee Agricultural Roundtable Meeting
12/14/10 Orange County Business Council Infrastructure Committee Meeting

Doug Reinhart

12/13/10 Meeting with Boardmember Stephen Sheldon of OCWD
12/15-17/10 Colorado River Water Users Association Conference

Peer Swan

12/14/10 Orange County Business Council Infrastructure Committee Meeting
12/22/10 MWDOC/OCWD Joint Committee Meeting

John Withers

11/29/10 Meeting with Irvine Unified School District re: Cienega Project lease
12/07/10 Cienega project meeting with Irvine Unified School District

RECOMMENDATION:

RATIFY/APPROVE THE MEETINGS AND EVENTS FOR STEVEN LaMAR, DOUG REINHART, PEER SWAN AND JOHN WITHERS AS DELINEATED ABOVE.

LIST OF EXHIBITS:

None

December 13, 2010

Prepared and Submitted by: T. Roberts

Approved by: Paul Jones

[Handwritten signatures]

CONSENT CALENDAR

DYER ROAD WELLFIELD STATUS AND
RESERVOIR DATA INFORMATION ITEMS

SUMMARY:

Provided as Exhibits "A" and "B" are the Dyer Road Wellfield Status Report and Reservoir Data items for Board review. The Strategic Measures Dashboard items are not included in this report due to the timing of this Board meeting relative to the collection of the data required to develop the dashboard measures.

RECOMMENDED MOTION:

THAT THE BOARD RECEIVE AND FILE.

EXHIBITS:

Exhibit "A" – Dyer Road Wellfield Status

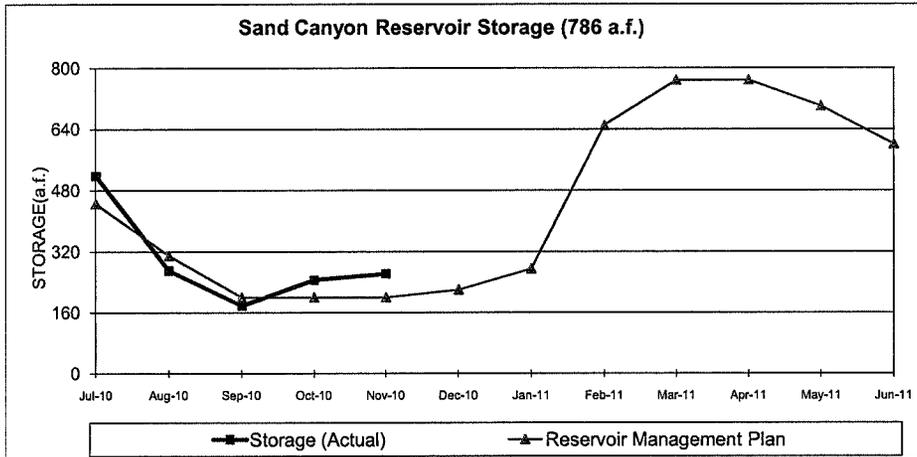
Exhibit "B" – Reservoir Data

EXHIBIT "A"

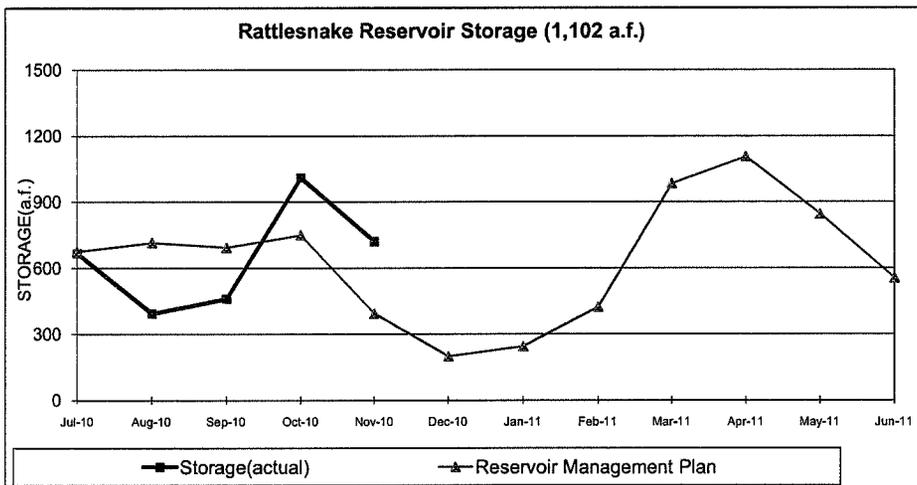
DYER ROAD WELL FIELD STATUS							Nov-2010
Well Number	Production Mo./YTD	Ref. Point Elevation	Depth to Water 10/30/2010	Water Level-MSL	Depth of Bowls	Bowl Setting-MSL	Feet of Water Above Intake
1	13.6 AF 285.8 AF	34	N/A	N/A	270	-236	N/A
				Static			
2	106.1 AF 585.0 AF	37	104	-68	270	-234	166
				Static			
3	0.0 AF 0.5 AF	55	111	-56	215	-160	104
				Static			
4	70.2 AF 628.6 AF	38	106	-68	216	-178	110
				Static			
5	59.1 AF 563.7 AF	48	113	-65	290	-242	177
				Static			
6	94.9 AF 175.7 AF	43	105	-62	250	-207	145
				Static			
7	47.4 AF 385.0 AF	40	114	-74	290	-250	176
				Static			
C-8 DATS	479.1 AF 1,720.1 AF	37	148	-111	305	-268	157
				Static			
C-9 DATS	364.9 AF 1,296.4 AF	23	146	-123	305	-282	159
				Static			
10	270.1 AF 1,264.5 AF	47	104	-57	250	-203	146
				Static			
11	47.4 AF 270.5 AF	40	109	-69	300	-260	191
				Static			
12	73.9 AF 633.1 AF	51	106	-55	300	-249	194
				Static			
13	26.5 AF 192.6 AF	40	102	-62	300	-260	198
				Static			
14	32.1 AF 369.9 AF	47	106	-59	311	-264	205
				Static			
15	226.7 AF 1,380.2 AF	44	105	-61	300	-256	195
				Static			
16	44.5 AF 278.6 AF	47	102	-55	280	-233	178
				Static			
17	205.9 AF 1,057.5 AF	52	105	-54	250	-199	145
				Static			
18	45.2 AF 569.7 AF	45	108	-63	300	-255	192
				Static			
Clear production:	1,363.6 AF for the month						
FYTD:	8,640.9 AF						
DATS production:	844.0 AF for the month						
FYTD:	3,016.5 AF						

EXHIBIT "B"

RESERVOIR DATA FY 10-11



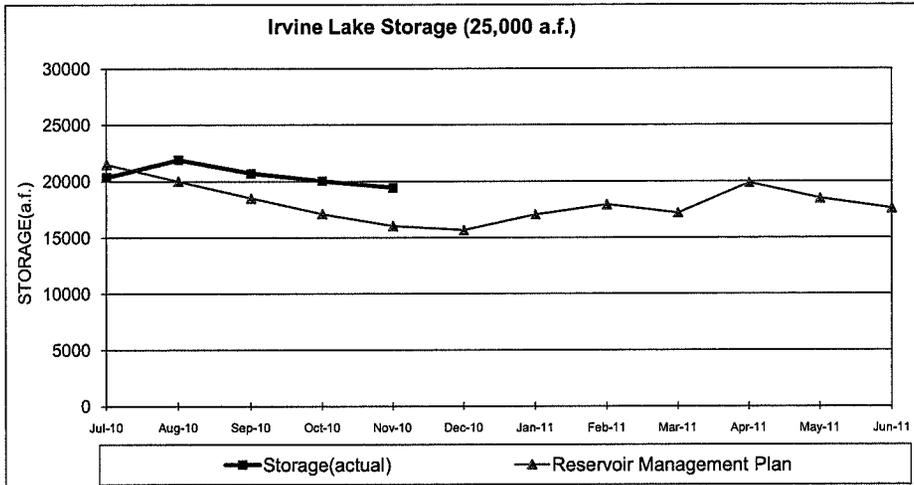
Storage will be under 200 AF by October 1 as required by Regional Board permit. MWRP began drafting down Sand Canyon July 15th.



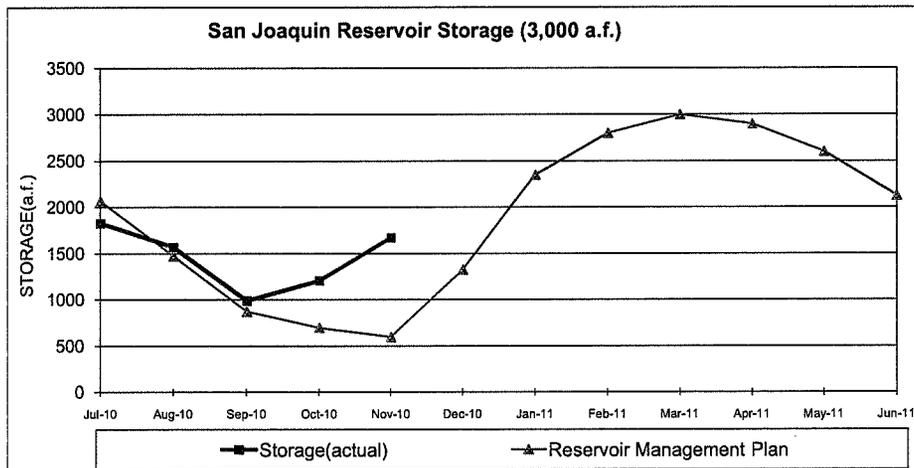
Rattlesnake will begin to draft down with GAP usage. Rattlesnake's storage was reduced due to the early rainfall events during the month of October.

EXHIBIT "B"

RESERVOIR DATA FY 10-11



On track as demands draw from Irvine Lake.



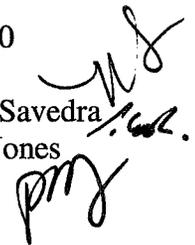
LAWRP plant to bypass all flow. Lake Forest reclaimed demand is being supplied from the East Irvine Zone B system. San Joaquin's draw down was less than planned due to early rainfall in October.

December 13, 2010

Prepared and

Submitted by: N. Savedra

Approved by: P. Jones



CONSENT CALENDAR

2010 GENERAL DISTRICT ELECTION RESULTS

SUMMARY:

At the November 2, 2010 General District Election, Steven E. LaMar, Douglas Reinhart and Peer A. Swan were reelected to four year terms of office ending November 2014. The election results have been certified by the County Registrar of Voters and a resolution is submitted for the Board's action, declaring the election results.

COMMITTEE STATUS:

Not applicable

ENVIRONMENTAL COMPLIANCE:

Not applicable

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2010-

RESOLUTION OF THE BOARD OF DIRECTORS OF IRVINE
RANCH WATER DISTRICT DECLARING RESULTS OF
NOVEMBER 2, 2010 GENERAL DISTRICT ELECTION

LIST OF EXHIBITS:

Exhibit "A" – Resolution

Exhibit "B" – Certified Election Results

EXHIBIT "A"

RESOLUTION NO. 2010-

RESOLUTION OF THE BOARD OF DIRECTORS OF IRVINE
RANCH WATER DISTRICT DECLARING RESULTS OF
NOVEMBER 2, 2010 GENERAL DISTRICT ELECTION

WHEREAS, on November 2, 2010, the Irvine Ranch Water District held its 2010 General District Election in accordance with the procedures set forth in Section 35175 et seq. of the Water Code for the purpose of electing three persons to three offices of Director of the Irvine Ranch Water District;

WHEREAS, the Register of Voters has delivered a Statement of the Vote to the Secretary of this District based upon the canvass of all votes cast at the General District Election held November 2, 2010.

NOW, THEREFORE, the Board of Directors of Irvine Ranch Water District DOES HEREBY RESOLVE, DETERMINE and ORDER as FOLLOWS:

Section 1. That the Registrar of Voters Statement of the vote at the General District Election held November 2, 2010 showing that Steven LaMar, Douglas Reinhart and Peer Swan have been elected Directors be received and filed.

Section 2. That the terms of office of each newly elected Director shall extend until the November 2014 General District Election and the qualification of their successors.

ADOPTED, SIGNED and APPROVED this 13th day of December, 2010.

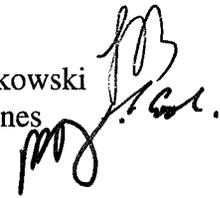
President, IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof

Secretary, IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof

APPROVED AS TO FORM:
BOWIE, ARNESON, WILES & GIANNONE
Legal Counsel - IRWD

By: _____

December 13, 2010
Prepared and
Submitted by: L. Bonkowski
Approved by: Paul Jones



CONSENT CALENDAR

ANNUAL BOARD OF DIRECTORS' FEES

SUMMARY:

Pursuant to Ordinance 1989-1, the Board's meeting compensation increases on January 1 of each year by 5%; however, the Committee annually reviews the fees to recommend to the Board to either accept or deny the increase.

BACKGROUND:

The current compensation for the Board of Directors is \$237.00 per meeting, not to exceed 10 meetings per month. Pursuant to Ordinance 1989-1, the Board's meeting compensation increases on January 1 of each year by 5%. If the Board accepts the increase, the resulting per meeting fee will be \$249 (rounded to the nearest dollar).

Provided as Exhibit "A" is a survey of the Director Fees for other local water districts.

FISCAL IMPACTS:

A 5% increase has a nominal impact on the operating budget if accepted by the Board.

ENVIRONMENTAL COMPLIANCE:

Not applicable

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on December 6, 2010, and the Committee recommended that the Board decline the scheduled 5% compensation increase.

RECOMMENDATION:

THAT THE BOARD DECLINE THE 5% SCHEDULED COMPENSATION INCREASE FOR CALENDAR YEAR 2011.

LIST OF EXHIBITS:

Exhibit "A" – Survey of Director Fees

EXHIBIT "A"

BOARD OF DIRECTORS PER DIEM SURVEY As of October, 2010

AGENCY	PER DIEM MEETING	EFFECTIVE DATE	MAXIMUM MEETINGS PER MONTH
El Toro Water District	\$198.00	December 2007	10
Irvine Ranch Water District	\$237.00	January 2010	10
Municipal Water of Orange County	\$221.62	January 2009	10
Orange County Water District	\$221.12	January 2008	10
Santa Margarita Water District	\$210.00	February 2010	10
South Coast Water District	\$190.00	January 2006	10
Moulton Niguel Water District	\$199.50	October 2007	10

December 13, 2010

Prepared by: Kirsten McLaughlin *KCM*

Submitted by: Beth Beeman *Beth Beeman*

Approved by: Paul Jones *Paul Jones*

mg

CONSENT CALENDAR

2011 SELECTION OF STATE LOBBYIST/CONSULTANT

SUMMARY:

The purpose of this item is to authorize a lobbyist/consultant Professional Services Agreement for the District on key state issues. Staff recommends approval of a six-month contract with O'Haren Government Relations for state lobbying services.

BACKGROUND:

Key state legislative issues continue to impact IRWD. The issues likely to be of priority in 2011 are addressed further in the attached contract proposal, included as Exhibit "A," from Maureen O'Haren and are summarized as follows:

- Reintroduction of IRWD-sponsored legislation to provide financial tools for sewer conversions and improvements.
- Water transfer legislation: protect the District's interests in legislation related to limiting long-term water transfers.
- Delta / Water package implementation: promote IRWD's interests on implementation legislation including potential water use fees.
- Water conservation, water recycling, water rights, and related legislative issues: advance IRWD interests on these policy issues.
- Special district governance: protect IRWD interests in any legislation establishing new requirements, restrictions, or other reform measures affecting special district governance, operations, contracting and transparency.
- State budget: minimize the impact on the District's property tax allocation, reserves and investment interests.
- Bond funding: ensure IRWD has opportunities for funding.
- Wetlands oversight: protect the Natural Treatment System.

O'Haren Government Relations will provide the District with a high level of service, knowledge, credibility and access in Sacramento. In addition, and most importantly, staff's recommended lobbyist/consultant selection will provide the best possible representation and source of information relative to impacts from the state's budget situation.

To serve IRWD's needs, staff is proposing that the District authorize a Professional Services Agreement for a six-month period with O'Haren Government Relations for a \$6,500 monthly retainer plus reimbursable expenses. The current contract with O'Haren Government Relations expires on December 31, 2010.

FISCAL IMPACTS:

The contract will be charged against the FY 2010-11 Operating Budget, under Department 12 expenses. The total requested contract authorization is \$42,900.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed at the Water Resources and Policy Communications Committee on December 6, 2010.

RECOMMENDATION:

THAT THE BOARD APPROVE A PROFESSIONAL SERVICES AGREEMENT FOR A TERM OF SIX MONTHS WITH O'HAREN GOVERNMENT RELATIONS IN THE AMOUNT OF \$6,500 PER MONTH RETAINER PLUS REIMBURSABLE DIRECT EXPENSES FOR A TOTAL NOT TO EXCEED \$42,900.

LIST OF EXHIBITS:

Exhibit "A" - O'Haren Government Relations Contract Proposal

EXHIBIT "A"

November 16, 2010

Beth Beeman
Director of Public Affairs
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

**RE: PROPOSAL FOR REPRESENTATION
January through June 2011**

Dear Ms. Beeman:

Thank you for your interest in renewing our contract to represent the Irvine Ranch Water District in Sacramento. I am honored to continue to represent you as O'Haren Government Relations. I've enjoyed working with you and representing you in Sacramento for a number of years, and have been thrilled to be a part of your success in the Legislature. I hope to continue helping to advance the District's innovative agenda.

Our top two priorities for the 2010 legislative session were our sponsored bills, SB 613 (Harman), which was signed, and AB 2182 (Huffman), which was vetoed. We hope to work hard again next year to provide options for our Orange Park Acres customers to finance the private improvements needed to convert to a sanitary sewer system. AB 2182 had broad support, including environmental and labor organizations, but the governor, in his veto message, indicated that he did not want to expand the PACE program into this area. A new Administration, however, opens up new opportunities for this discussion, and hopefully we can be successful in achieving a solution in 2011.

This year also saw the defeat AB 2583 (Hall), regarding chlorine gas transport, and AB 2049 (Arambula) on water transfers, and the passage of AB 1929 (Hall) on invasive species and SB 918 (Pavley) on direct and indirect potable use. SB 918 was a particularly hard-won victory and credit goes to many who worked on it.

In 2011, however, we may see some problematic measures return. But at the same time, the opportunity for more progressive legislation, particular on recycled water, is great. We look forward to working on these new issues with the new Administration. We will continue to look toward the 2012 election and in particular the vote on the \$11 billion water bond, \$1 billion of which is earmarked for recycled water projects.

IRWD continues to be seen as a leader in statewide policy on conservation and recycled water. The reputation that IRWD has established over the years will continue to earn the District more attention in Sacramento as we pursue new ideas.

The remainder of this letter reiterates our background and the scope of services we provide.

Background

From 1997 to the end of 2004, Phil Isenberg and Maureen O'Haren provided government relations services to a host of clients through Miller, Owen & Trost. Our clientele included trade associations, local governments, corporations and non-profit organizations in a variety of fields. On January 1, 2005, we opened the doors to our own firm, Isenberg/O'Haren.

In March of 2010, Phil Isenberg stepped down from the firm when he was appointed to the Delta Stewardship Council and subsequently named as full-time chair by his council colleagues. The firm name was changed to O'Haren Government Relations, and the firm continues to provide the District with the same dedicated service and belief in the District's mission.

General Scope of Services

We provide full-service lobbying and government relations services for our clients. The following is a general list of the services we provide.

- Strategic planning and consultation.
- Introduction to specific legislators and administration officials.
- Lobbying legislation and budget issues of concern or interest to the client.
- Bill tracking and monitoring.
- Regular communications and updates regarding priority issues.
- Staffing of sponsored legislation.
- Drafting of legislative language, including amendments.
- Testimony in committee hearings.
- Preparation of testimony for client representatives.
- Briefing of client representatives for meetings and hearings.
- Preparation of letters and other written materials for legislators and administration officials.
- Background research on issues.
- Creation of coalitions and staffing of coalitions.
- Coordination with coalition partners in lobbying, committee hearings and grassroots activities.
- Advocacy on regulatory matters, including meetings with officials and formal written or oral comment on proposed regulations.
- Advocacy on regulatory decisions specific to the client.
- Maintenance of relationships with legislators, administration officials and key staff.
- Representation of client at coalition meetings.
- Development of charitable activity strategies that support or complement government affairs goals.
- Development of local outreach and grass roots efforts to enhance relationships with local legislators.

Irvine Ranch Water District Proposal

Below we have developed a general outline of the areas of advocacy for the 2010 legislative session. We acknowledge that this outline may change based on the legislation introduced by the new Legislature and the Governor's January budget. All of these activities would be undertaken pursuant to IRWD direction.

ISSUE: **Water Conservation, Water Recycling, Water Rights and Other Legislative Issues**

GOAL: **Protect and advance District interests in policy issues.**

TASKS:

- Provide full lobbying services (as described above), consistent with strategic direction, on priority legislation identified by IRWD through IRWD monitoring of bills introduced and identified by industry groups, such as ACWA, the WaterReuse Association, CSDA and CMUA.
- Assist in development of position, strategy and amendments on priority legislation and assist in drafting of position letters and amendments.
- Attend negotiating sessions with authors' staff and strategy meetings of associations. Influence association positions so to be consistent with and supportive of IRWD positions.
- Testify as needed on legislation and report on results.
- Provide regular reports on priority legislation and reassess strategy and position as issues develop.
- Identify and notify the District of any specific legislation or developments that may have significant impact on IRWD.
- Monitor negotiations on relevant legislation.

ISSUE: **State Budget**

GOAL: **Minimize the impact on the District's property tax allocation, reserves and investment interests.**

TASKS:

- Gather and report budget intelligence.
- Maintain communications with key legislators on major budget efforts.
- Maintain communications with ACWA staff monitoring budget developments.
- Develop coalitions with common interests and coordinate with coalition partners.
- Schedule and attend lobbying meetings with legislators, key staff and administration officials in advance of hearings, as needed.
- Provide regular budget updates to the District as needed.
- Provide regular budget analyses and reviews of new budget proposals of concern.
- Advocate with key entities, including trade associations, coalitions and administrative agencies.
- Monitor budget committee hearings and activities when appropriate.
- Provide public testimony in budget hearings when appropriate and consistent with strategy.

- Draft budget language as needed.
- Develop and coordinate with potential legislative sponsors of District proposals or language.

ISSUE: Special District Oversight, Local Government Law
GOAL: Protect IRWD interests in any legislation establishing new requirements or other reform measures affecting special district governance, financing, operations, and transparency

TASKS:

- Review and assist in the development of policy goals.
- Analyze the legislation.
- Determine IRWD priorities and position. As part of this activity, it is essential to identify areas in which IRWD is different from other water districts. Unique characteristics of governance structure, financing or ethics policies may allow IRWD to achieve special recognition, or exclusion, from larger efforts in this area.
- Develop a legislative strategy, if needed, based on IRWD position and priorities.
- Meet with identified legislators, key staff and other key decision makers if necessary.
- Work with IRWD staff on language and position, and influence member associations such as ACWA, CSDA and others to ensure they support or promote our amendments.
- Determine whether testimony at committee hearings is appropriate.
- Prepare regular updates for IRWD Board of Directors.
- Lobby Administration officials on IRWD position if necessary.
- Watch for any and act on any problematic legislation.

ISSUE: Bond Funding and Financing
GOAL: Ensure IRWD Opportunities in these areas and protect IRWD flexibility

TASKS:

- Monitor all bond measures that may provide funds for water projects.
- Maintain communications with key staff.
- Monitor budget negotiations for funding opportunities.
- Maintain communications with key legislators involved in budget and bond funding and implementation.
- Review implementation language regarding consistency with IRWD projects.
- Ensure implementation of water bond measure reflects IRWD interests.

ISSUE: Wetlands Oversight
GOAL: Protect IRWD's Natural Treatment System

TASKS:

- Monitor intelligence on emerging policy relating to wetlands and the SWANCC gap.
- Attend relevant workgroup and board meetings dealing with wetlands regulation or legislation.
- Advocate for narrow oversight limited to the SWANCC gap only.

- Advocate the advantages of IRWD's Natural Treatment System.

Fee Proposal

We propose a monthly retainer of \$6,500. In addition, we request reimbursement for additional costs such as courier service, long-distance telephone calls, conference calls, facsimiles, printing, costs associated with business meetings and other similar costs, in addition to travel costs (including airfare, ground transportation, meals, hotel, etc). We would, consistent with the existing agreement, obtain prior approval for any travel. We also agree to a limitation of \$3,900 in costs over the six-month contract period.

We hope that this letter provides you with an adequate scope of services. Thank you again for your continued relationship. We enjoy working with you.

Regards,

MAUREEN O'HAREN

cc: Kirsten McLaughlin, Senior Government Affairs Specialist

APPROVED BY: _____ **DATE:** _____
Paul D. Jones, II, General Manager
Irvine Ranch Water District

December 13, 2010
Prepared by: M. Cortez
Submitted by: K. Burton
Approved by: Paul Jones

(Handwritten initials and signatures)

CONSENT CALENDAR

PLANNING AREA 9B (STONEGATE) – RECYCLED WATER PIPELINES DESIGN
CONSULTANT SELECTION

SUMMARY:

Staff recommends the Board approve the consultant selection of Hunsaker & Associates in the amount of \$86,862.22 for the design of recycled water pipelines within Planning Area 9B (Stonegate).

BACKGROUND:

Irvine Community Development Company (ICDC) is currently constructing IRWD capital recycled water improvements for Planning Area (PA) 9B (Stonegate) under a Supplemental Reimbursement Agreement. The existing Irvine Lake Pipeline (ILP) Syphon Lateral is in conflict with the planned development and street alignment; approximately 2,300 lineal feet of the existing 16-inch ILP Syphon Lateral will be replaced with a 36-inch diameter pipeline to accommodate the planned expansion of Syphon Reservoir. Additionally, a 6-inch recycled water pipeline will be constructed within the tract. The non-potable water system map is shown in Exhibit "A".

ICDC retained Hunsaker & Associates (Hunsaker) via sole source for the design of the IRWD capital pipelines since Hunsaker was in the process of designing the street, storm drain, non-capital domestic water and sewer improvements for the development. Hunsaker's total design cost for IRWD's capital pipelines is \$86,862.22. A breakdown of the costs is shown below:

6-inch RW and 24-inch ILP Syphon Lateral Pipeline	\$10,700.00
Utility Potholing for ILP Syphon Lateral	\$42,568.22
24-inch to 36-inch ILP Syphon Lateral Upsizing	\$25,800.00
Pipeline Terminus Revision for 36-inch ILP Syphon Lateral	<u>\$ 7,794.00</u>
	\$86,862.22

Staff worked closely with Hunsaker on the pipeline design and approved the plans in August 2010. A more detailed breakdown of Hunsaker's costs is included as Exhibit "B".

FISCAL IMPACTS:

Project 30012 is included in the FY 2010-11 Capital Budget; the project budget and existing Expenditure Authorization are sufficient for the design costs.

ENVIRONMENTAL COMPLIANCE:

The construction of the capital non-potable facilities for Planning Area 9B is subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, an Environmental Impact Report, SCH #2001051010, was certified by the City of Irvine, the lead agency for this project on March 25, 2002.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee on December 6, 2010.

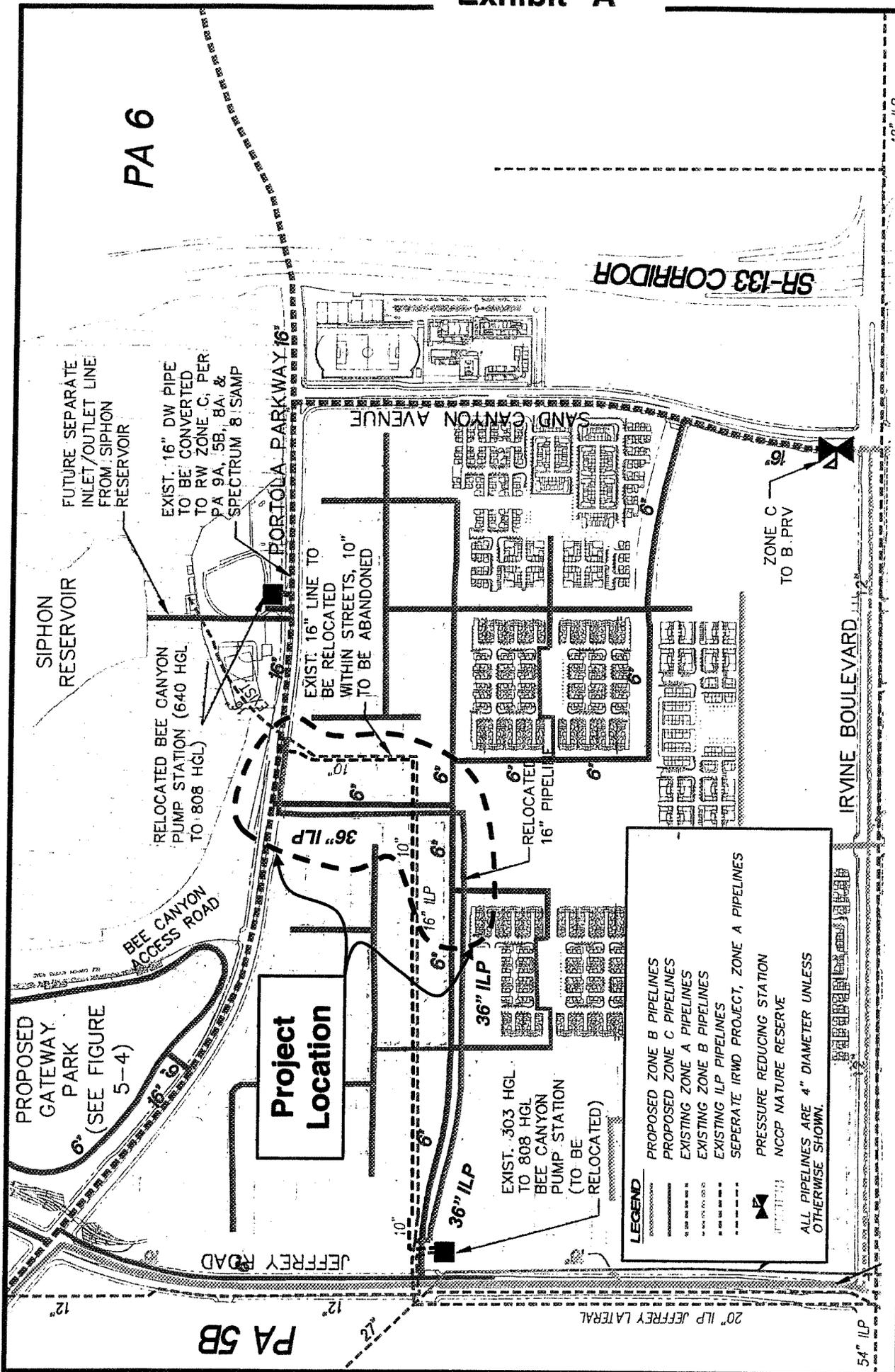
RECOMMENDATION:

THAT THE BOARD APPROVE THE SELECTION OF HUNSAKER & ASSOCIATES AS THE DESIGN CONSULTANT OF PLANNING AREA 9B (STONEGATE) 6-INCH AND 36-INCH RECYCLED WATER PIPELINES FOR A TOTAL AMOUNT OF \$86,862.22, UNDER THE EXISTING SUPPLEMENTAL REIMBURSEMENT AGREEMENT WITH THE IRVINE COMMUNITY DEVELOPMENT COMPANY FOR THE DESIGN AND CONSTRUCTION OF THE IRVINE RANCH WATER DISTRICT FACILITIES FOR PLANNING AREA 9B (STONEGATE), PROJECT 30012.

LIST OF EXHIBITS:

Exhibit "A" – Capital Non-Potable Water System Map

Exhibit "B" – Hunsaker & Association Costs



PA 6

SR-133 CORRIDOR

PORTOLA PARKWAY 16"

SAND CANYON AVENUE

ZONE C TO B.PRV

IRVINE BOULEVARD 12"

Project Location

LEGEND

- PROPOSED ZONE B PIPELINES
- PROPOSED ZONE C PIPELINES
- EXISTING ZONE A PIPELINES
- EXISTING ZONE B PIPELINES
- EXISTING ILP PIPELINES
- SEPARATE IRWD PROJECT, ZONE A PIPELINES
- ▲ PRESSURE REDUCING STATION
- NCCP NATURE RESERVE

ALL PIPELINES ARE 4" DIAMETER UNLESS OTHERWISE SHOWN.

**EXHIBIT A PLANNING AREA 9B
NON-POTABLE WATER**



PREPARED FOR:

Exhibit "B"

April 2, 2010

Mr. Malcolm Cortez
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92619-7000

Subject: REQUEST FOR APPROVAL OF PROFESSIONAL ENGINEERING SERVICES IRWD CAPITAL IMPROVEMENTS, PA 9B, STONEGATE, BACKBONE IMPROVEMENTS

Dear Malcolm:

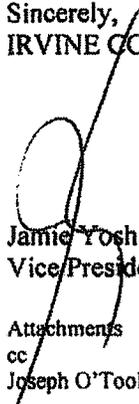
The purpose of this letter is to obtain your approval to proceed with Hunsaker & Associates (HA) to provide design services for the IRWD Capital Improvements in Planning Area 9B, Stonegate (PA 9B). We are requesting the sole source selection of HA based upon their experience with PA 9B, and a design proposal that is comprehensive and within the industry fee standards. Enclosed is a copy of the proposal dated January 4, 2010 for your review. The fee for the proposed work is \$10,700.

HA has supported all of the planning for PA 9B. In addition they are under separate contract to prepare the grading and improvements for PA 9B phase 1. In our opinion, HA is the most qualified to complete the work because of the other work they have completed in the area.

Based upon ICDC's experience with these type of projects, we believe that HA is the most qualified to complete this project. Therefore, I request your concurrence with our consultant selection recommendation by signing the acknowledgement below and returning a copy of this letter to me. If you have any questions or need to discuss this further, please contact me at 720-2702. Thank you for your consideration on this matter.

Total Cost: \$10,700.00
Contract/PO Number: 4500039502
Consultant: Hunsaker & Associates

Sincerely,
IRVINE COMMUNITY DEVELOPMENT COMPANY, LLC


Jamie Yoshida
Vice President, Engineering

Attachments
cc
Joseph O'Toole

Concurrence:

Date

Malcolm Cortez, IRWD



June 30, 2010

Mr. Malcolm Cortez
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92619-7000

**Subject: REQUEST FOR APPROVAL OF POTHOLING, PA 9B, STONEGATE,
IRWD CAPITAL IMPROVEMENTS**

Dear Malcolm:

The purpose of this letter is to obtain your approval to proceed with the potholing of 17 locations within Encore, Paragon and Portola Parkway (6-23 of "Utility Pothole Exhibit" provided by Hunsaker & Associates). Hunsaker identified these potential conflicts during the design of the IRWD Capital Improvements. A.D. Wilson has provided quality potholing work for ICDC at competitive prices. Enclosed is a copy of the proposal and respective Utility Pothole Exhibit. The fee for the proposed work is \$42,568.22.

Based upon ICDC's experience with these types of projects, we believe that A.D Wilson is the most qualified and has provided a competitive price to complete the aforementioned work. Therefore, I request your concurrence with our selection recommendation by signing the acknowledgement below and returning a copy of this letter to me. If you have any questions or need to discuss this further, please contact me at 720-2702. Thank you for your consideration on this matter.

Total Cost: \$42,568.22
Contract/PO Number:
Contractor: A.D. Wilson

Sincerely,
IRVINE COMMUNITY DEVELOPMENT COMPANY, LLC


Jamie Yoshida
Vice President, Engineering

Concurrence: _____ Date _____

Malcolm Cortez, IRWD

Attachments
cc
Joseph O'Toole



HUNSAKER & ASSOCIATES

IRVINE, INC.

August 6, 2010

PLANNING
ENGINEERING
SURVEYING
GOVERNMENT RELATIONS

IRVINE
LOS ANGELES
RIVERSIDE
SAN DIEGO

Mr. Jamie Yoshida
Vice President, Engineering
IRVINE COMPANY COMMUNITY DEVELOPMENT
550 Newport Center Drive
Newport Beach, CA 92660

Subject: **Stonegate, Planning Area 9B, IRWD Capital
Work Beyond the Scope of Contract No. 4500029502**

Dear Jamie:

Hunsaker & Associates Irvine, Inc. respectfully requests additional authorization for the above referenced project for additional items of work prepared during June and July as described below.

Scope of Services:

FOUNDING PARTNERS:
RICHARD HUNSAKER
TOM R. MCGANNON
JOHN A. MICHLER
DOUGLAS G. SNYDER

PRINCIPALS:
DAVID FRATTONE
FRED GRAYLEE
BRADLEY HAY
PAUL HUDDLESTON
KAMAL H. KARAM
DOUGLAS L. STALEY
KRIS WEBER
JOSEPH E. WIGHTMAN

1. Prepare plans for Encore to remove existing 24" Siphon line and reinstall as 36" water line, extend 36" line across Portola beyond previously designed limits to behind existing curb, and address additional comments due to the additional items.	\$ 6,600
2. Traffic engineering provided by Pirzadeh and Associates. This item includes a multistage traffic control plan for the proposed water improvements along Encore and Portola. This item does not include City processing	\$ 9,500
3. Processing traffic control plans through approval with the City of Irvine provided by Hunsaker & Associates.....	\$ 1,680
4. Prepare a pothole plan for all existing utilities along Encore and Portola Parkway.	\$ 2,800
5. Provide field survey for 21 locations prior to potholing and after each utility was exposed by the Contractor on following dates: 7/1, 7/2, 7/6, 7/7, 7/9, 7/12, 7/13, 8/6	\$ 4,380
6. Additional coordination and meetings with IRWD, pothole Contractor and ICDC due to the above items.	<u>\$ 840</u>
Total	\$ 25,800

Should you have any questions, please do not hesitate to call me at (949) 458-5416.

We appreciate the opportunity to be of service.

Sincerely,

HUNSAKER & ASSOCIATES IRVINE, INC.

Afshin Shahidi
Project Manager

W.O. 949-421

Three Hughes
Irvine, California
92618-2021
(949) 583-1010 PH
(949) 583-0759 FX
www.hunsaker.com



HUNSAKER & ASSOCIATES
IRVINE, INC.

PLANNING
ENGINEERING
SURVEYING
GOVERNMENT RELATIONS

IRVINE
LOS ANGELES
RIVERSIDE
SAN DIEGO

November 12, 2010

Mr. Jamie Yoshida
Vice President, Engineering
IRVINE COMPANY COMMUNITY DEVELOPMENT
550 Newport Center Drive
Newport Beach, CA 92660

Subject: **Stonegate, Planning Area 9B, 36" Syphon IRWD Capital Work Beyond the Scope of Contract No. 4500029502**

Dear Jamie:

Hunsaker & Associates Irvine, Inc. respectfully requests additional authorization for the above referenced project for additional items of work prepared during September and October as described below.

FOUNDING PARTNERS:

RICHARD HUNSAKER
TOM R. MCGANNON
JOHN A. MICHLER
DOUGLAS G. SNYDER

PRINCIPALS:

DAVID FRATTONE
FRED GRAYLEE
BRADLEY HAY
PAUL HUDDLESTON
KAMAL H. KARAM
DOUGLAS L. STALEY
KRIS WEBER
JOSEPH E. WIGHTMAN

Scope of Services:

1. Prepare Delta one plan and profile revisions for the pipe terminus along Portola Parkway and Encore.....	\$	5,286
2. Meetings with IRWD regarding delta 1 revisions	\$	450
3. Provide field survey prior to potholing and after utility was exposed for the SCE trench at Encore and Honors. Provide field topo north of Portola after the Contractor identified existing pipe location via camera broadcasting.....	\$	1,608
4. Additional coordination due to above items.	\$	450
	Total	\$ 7,794

Should you have any questions, please do not hesitate to call me at (949) 458-5416.

We appreciate the opportunity to be of service.

Sincerely,

HUNSAKER & ASSOCIATES IRVINE, INC.

Afshin Shahidi
Project Manager

W.O. 949-421

Three Hughes
Irvine, California
92618-2021
(949) 583-1010 PH
(949) 583-0759 FX
www.hunsaker.com

December 13, 2010

Prepared by: J. Smyth/M. Cortez

Submitted by: K. Burton

Approved by: Paul Jones

CONSENT CALENDAR

EMERGENCY GENERATOR REPLACEMENT AT MICHELSON SEWER LIFT STATION EXPENDITURE AUTHORIZATION

SUMMARY:

This project will replace the existing 150-kilowatt emergency generator at the Michelson Sewer Lift Station that is out of permitting compliance. Staff recommends the Board approve an Expenditure Authorization in the amount of \$117,700 for Project 20846 to replace the existing generator.

BACKGROUND:

The existing emergency generator at the Michelson Sewer Lift Station has reached the end of its useful life and no longer complies with South Coast Air Quality Management District (SCAQMD) requirements. The generator has been taken out of service and a temporary generator has been installed to provide interim emergency power. The District retained H₂O Engineering Resources to design the improvements required to install a new permanent generator at the site. The new generator has been pre-purchased and the Permit to Operate from SCAQMD has been received. The expected generator delivery date is February 15, 2011. The project's construction duration is 105 days with completion anticipated in March 2011. A Location Map is provided as Exhibit "A".

Construction Award:

The installation project was advertised to a select list of seven contractors on October 26: Gateway Pacific Contractors, J.R. Filanc Construction Co., Watson Mechanical, Schuler Engineering, F.T Ziebarth, SS Mechanical and Pacific Hydrotech. The bid opening was held on November 16 with bids received from F.T. Ziebarth, Pacific Hydrotech, Schuler Engineering and SS Mechanical. Three of the bids were closely grouped, ranging from \$61,000 to \$70,000; Pacific Hydrotech is the apparent low bidder with a bid of \$61,343.50. The engineer's estimate was \$120,000. A Bid Summary is provided as Exhibit "B". Pacific Hydrotech has performed well on previous IRWD projects, and staff recommends awarding the construction contract to Pacific Hydrotech. Since the construction amount is less than \$100,000, this construction contract will be executed under the authority of the General Manager.

FISCAL IMPACTS:

Project 20846 is included in the FY 2010-11 Capital Budget. Staff requests approval of an Expenditure Authorization to fund the construction project as shown in the table below and in Exhibit "C".

Consent Calendar: Emergency Generator Replacement at Michelson Sewer Lift Station
Expenditure Authorization
December 13, 2010
Page 2

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
20846	\$299,200	\$-0-	\$299,200	\$59,000	\$117,700	\$176,700

ENVIRONMENTAL COMPLIANCE:

This activity is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15302 (c) which provides exclusion for replacement of existing systems and minor repair of public facilities. Additionally, this activity is exempt from CEQA as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 (i), which provides exclusion for the demolition and removal of individual small structures.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee on December 6, 2010.

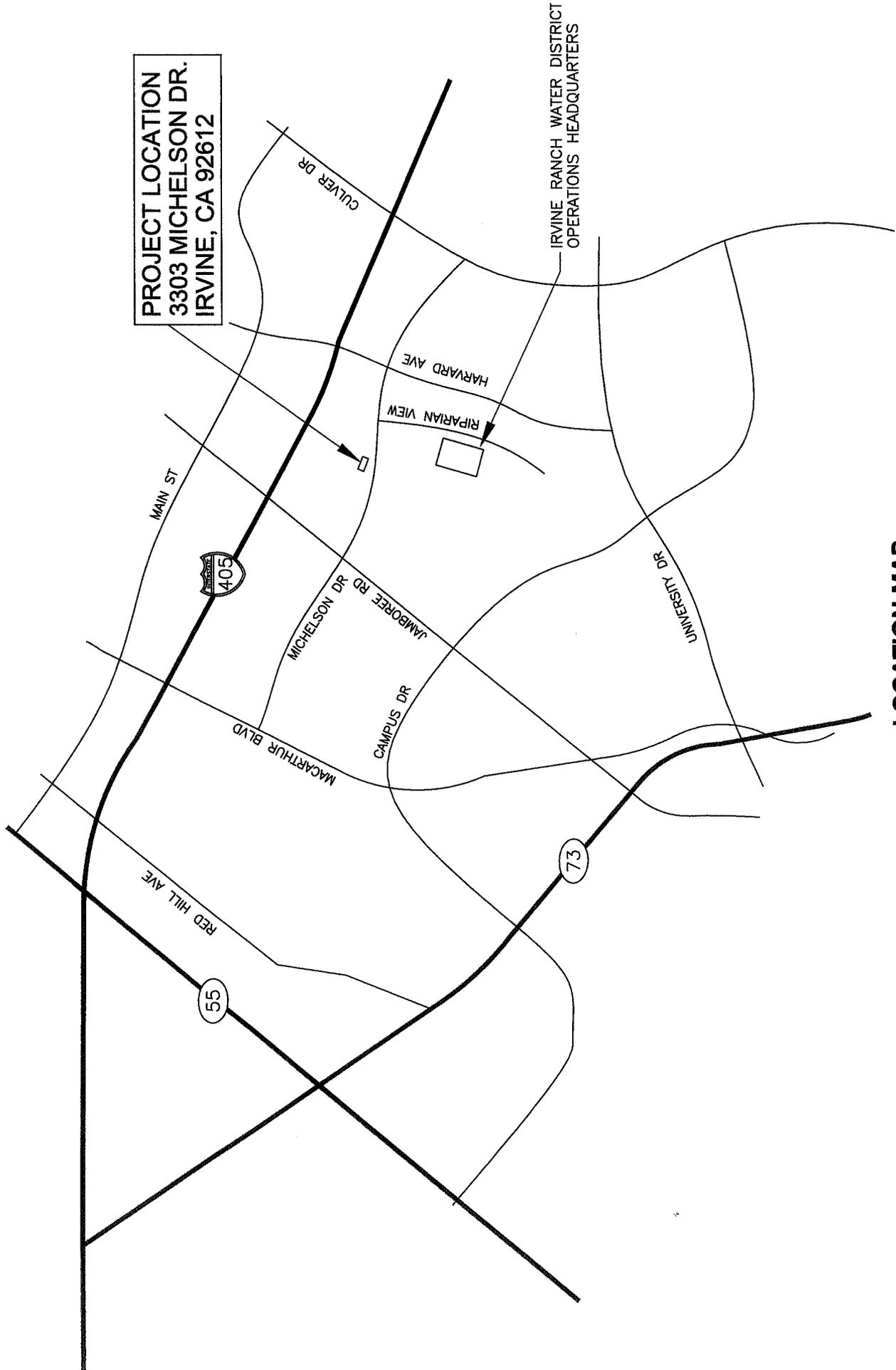
RECOMMENDATION:

THAT THE BOARD APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$117,700 FOR THE EMERGENCY GENERATOR REPLACEMENT AT MICHELSON SEWER LIFT STATION, PROJECT 20846.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Bid Summary
- Exhibit "C" – Expenditure Authorization

Exhibit "A"



LOCATION MAP

N.T.S.

EXHIBIT "B"

Bid Opening: Tuesday, Nov. 16, 2010 at 3:00 P.M.

Irvine Ranch Water District Bid Summary For
Emergency Generator Replacement @ Michelson Sewer Lift Station
PR 20846

Entered By: J.K. Irey

Item No.	Description	Qty	Unit	Engineer's Estimate			1 Pacific Hydrotech Perris, CA			2 Schuler Engineering Corona, CA			3 S.S. Mechanical Corp. Huntington Beach, CA			4 F.T. Ziebarth Co. Fullerton, CA		
				Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	
1	Mobilization/Demobilization	1	LS	\$10,000.00	\$10,000.00	\$10,300.00	\$10,300.00	\$3,000.00	\$3,000.00	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$3,000.00	\$3,000.00			
2	Disconnect and remove generator, diesel fuel day tank, battery charger and stand, silencer, transition duct, exhaust louver and all related piping and appurtenances complete	1	LS	\$7,500.00	\$7,500.00	\$1,000.00	\$1,000.00	\$8,000.00	\$8,000.00	\$8,500.00	\$8,500.00	\$8,500.00	\$8,500.00	\$10,000.00	\$10,000.00			
3	Remove generator base and section of wall under exhaust louver and resurface	1	LS	\$5,000.00	\$5,000.00	\$9,600.00	\$9,600.00	\$8,000.00	\$8,000.00	\$6,000.00	\$6,000.00	\$6,000.00	\$6,000.00	\$10,000.00	\$10,000.00			
4	Installation of new generator with sub-base fuel tank, silencer, transition duct, thermal wrapping, exhaust louver and all related piping and appurtenances complete	1	LS	\$65,000.00	\$65,000.00	\$27,000.00	\$27,000.00	\$19,000.00	\$19,000.00	\$33,580.50	\$33,580.50	\$33,580.50	\$33,580.50	\$43,000.00	\$43,000.00			
5	Electrical and controls demolition and installation	1	LS	\$2,500.00	\$2,500.00	\$12,200.00	\$12,200.00	\$17,000.00	\$17,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$19,000.00	\$19,000.00			
6	Permit Fees	1	LS	\$2,500.00	\$2,500.00	\$143.50	\$143.50	\$143.50	\$143.50	\$143.50	\$143.50	\$143.50	\$143.50	\$143.50	\$143.50			
7	Safety Measures	1	LS	\$5,000.00	\$5,000.00	\$100.00	\$100.00	\$2,500.00	\$2,500.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$556.50	\$556.50			
8	Startup, testing, commissioning	1	LS	\$2,500.00	\$2,500.00	\$900.00	\$900.00	\$5,000.00	\$5,000.00	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$3,000.00	\$3,000.00			
9	Record Drawings	1	LS	\$0.00	\$0.00	\$100.00	\$100.00	\$3,100.00	\$3,100.00	\$500.00	\$500.00	\$500.00	\$500.00	\$1,000.00	\$1,000.00			
	Subtotal Base Bid Items 1 thru 9				\$100,000.00	\$61,343.50	\$61,343.50	\$65,743.50	\$65,743.50	\$69,724.00	\$69,724.00	\$69,724.00	\$69,724.00	\$89,700.00	\$89,700.00			
A-1	Alternative Item: 20% Contingencies				\$20,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
	Sub-Total, Bid Items 1 thru 19 + A1				\$120,000.00	\$61,343.50	\$61,343.50	\$65,743.50	\$65,743.50	\$69,724.00	\$69,724.00	\$69,724.00	\$69,724.00	\$89,700.00	\$89,700.00			
	Adjustment (+ or -)				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
	Total Amount of Bid				\$120,000.00	\$61,343.50	\$61,343.50	\$65,743.50	\$65,743.50	\$69,724.00	\$69,724.00	\$69,724.00	\$69,724.00	\$89,700.00	\$89,700.00			
						Exhaust Piping: 20 days	Item Delivery Dates:	Louvers: 15 days	Item Delivery Dates:	Louvers: 105 days	Item Delivery Dates:	Louvers: 105 days	Item Delivery Dates:	None Listed	Item Delivery Dates:			
						Louvers: 42 days	Item Delivery Dates:	Ducting: 7 days	Item Delivery Dates:		Item Delivery Dates:		Item Delivery Dates:					
							Manufacturers:	Louvers: L&G Louvers	Manufacturers:	Louvers: Greenbeck	Manufacturers:	Louvers: Greenbeck	Manufacturers:	None Listed	Manufacturers:			
							Subcontractors:	Schultz Electric	Subcontractors:	Schultz Electric	Subcontractors:	Schultz Electric	Subcontractors:	Electric: West & Sylvester	Subcontractors:			
							Electrical: David Richards Electric	Coastline Roofing	Electrical: Schultz Electric	Roof: Applied Roof Eng.	Electrical: Schultz Electric	Roof: Applied Roof Eng.	Electrical: Schultz Electric	Electric: West & Sylvester	Subcontractors:			
								OC Demo		Paint/Coating: Western Jalco								
								T.E.P.										

IRVINE RANCH WATER DISTRICT

Exhibit "C"

Expenditure Authorization

Project Name: EMERGENCY GENERATOR REPLACEMENT AT MICHELSON SLS
 Project No: 20846 EA No: 3
 Project Manager: CORTEZ, MALCOLM
 Project Engineer: SMYTH, JEFFREY
 Request Date: November 19, 2010

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
210	100.0	REPLACEMENT FUND**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$59,000
This Request:	\$117,700
Total EA Requests:	\$176,700
Previously Approved Budget:	\$299,200
Budget Adjustment Requested this EA:	\$0
Updated Budget:	\$299,200
Budget Remaining After This EA	\$122,500

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING OUTSIDE	0	0	0	0	0	0	11/10	6/12
ENGINEERING DESIGN - IRWD	0	10,000	10,000	0	10,000	10,000	7/10	6/11
ENGINEERING DESIGN - OUTSIDE	0	25,000	25,000	0	25,000	25,000	7/10	6/11
DESIGN STAFF FIELD SUPPORT	0	5,000	5,000	0	5,000	5,000	7/10	6/11
ENGINEERING - CA&I IRWD	10,000	0	10,000	0	10,000	10,000	8/10	6/12
ENGINEERING - CA&I OUTSIDE	10,000	0	10,000	0	15,000	15,000	8/10	6/12
CONSTRUCTION FIELD SUPPORT	5,000	0	5,000	0	5,000	5,000	8/10	6/12
CONSTRUCTION	80,000	13,600	93,600	0	200,000	200,000	8/10	6/12
LEGAL	2,000	0	2,000	0	2,000	2,000	8/10	6/12
Contingency - 10.00% Subtotal	\$10,700	\$5,400	\$16,100	\$0	\$27,200	\$27,200		
Subtotal (Direct Costs)	\$117,700	\$59,000	\$176,700	\$0	\$299,200	\$299,200		
Estimated G/A - 195.00% of direct labor*	\$29,300	\$29,300	\$58,600	\$0	\$58,600	\$58,600		
Total	\$147,000	\$88,300	\$235,300	\$0	\$357,800	\$357,800		
Direct Labor	\$15,000	\$15,000	\$30,000	\$0	\$30,000	\$30,000		

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator: Jeffrey Smyth 11/23/10
 Department Director: Kevin L. Burton 11/22/10
 Finance: _____
 Board/General Manager: _____

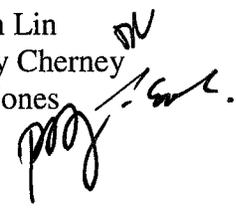
** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$365,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

December 13, 2010

Prepared by: Eileen Lin

Submitted by: Debby Cherney

Approved by: Paul Jones

Handwritten signatures and initials in black ink, including a large signature that appears to be 'Paul Jones' and several smaller initials.

CONSENT CALENDAR

FISCAL YEAR 2009-10 COMPREHENSIVE ANNUAL FINANCIAL REPORT

SUMMARY:

The District's auditor, Mayer Hoffman McCann, P.C. ("MHM"), has completed its annual audit of the District's financial statements for the Fiscal Year (FY) ended June 30, 2010. As stated in its report, MHM concluded that in all material aspects, the statements fairly present the District's financial position as of June 30, 2010 and conform with generally accepted accounting principles. During FY 2009-10, the District implemented two new accounting standards related to accounting for intangible assets and accounting for hedging instruments.

BACKGROUND:

The Comprehensive Annual Financial Report (CAFR), including audited financial statements, accompanying auditor's report, and management's discussion and analysis of significant changes in transaction amounts and account balances is attached as Exhibit "A".

MHM also presented its required auditor communication pursuant to Statement on Auditing Standards 114 *The Auditor's Communication with Those Charged with Governance*. This letter, attached as Exhibit "B", reflects the auditor's understanding of key management assumptions and practices, corrections made during the audit process, and notes that there were no disagreements with management during the scope of the audit.

The FY 2009-10 CAFR is the seventh one prepared by the District. All of the District's CAFRs have won awards from the Government Finance Officers Association (GFOA) which encourages state and local governments to prepare and publish expanded financial reports in conformity with generally accepted accounting principles (GAAP), and provides awards to recognize contributions to the practice of government finance that exemplifies outstanding financial management. The awards stress practical, documented work that offers leadership to the profession and promotes improved public finance.

The CAFR is being presented to the Board to receive and file. In recent years, the document has been distributed electronically. Staff will produce an enhanced electronic version exclusively with key references hyperlinked throughout the document. The CAFR will be available on the District's website.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act (CEQA), Code of Regulations, Title 14, Chapter 3, Section 15378.

COMMITTEE STATUS:

This item was reviewed at the Finance and Personnel Committee on November 2, 2010.

RECOMMENDATION:

RECEIVE AND FILE.

LIST OF EXHIBITS:

Exhibit “A” – FY 2009-10 Comprehensive Annual Financial Report

Exhibit “B” – SAS 114 Auditor’s Communication with Those Charge with Governance from
Mayer Hoffman McCann

A copy of Exhibit
“A” can be obtained
from the District
Secretary.

Exhibit "B"

Finance and Personnel Committee
Irvine Ranch Water District
Irvine, California

We have audited the financial statements of the Irvine Ranch Water District ("District") for the year ended June 30, 2010, and have issued our report thereon dated ~~October XX, 2010~~. Professional standards require that we provide you with the following information related to our audit.

Our Responsibilities under U.S. Generally Accepted Auditing Standards And Government Auditing Standards

Our responsibility, as described by professional standards, is to express opinions about whether the financial statements prepared by management with your oversight are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles. Our audit of the financial statements does not relieve you or management of your responsibilities. Our responsibility is to plan and perform the audit to obtain reasonable, but no absolute, assurance that the financial statements are free of material misstatement.

As part of our audit, we considered the internal control of the District. Such considerations were solely for the purpose of determining our audit procedures and not to provide any assurance concerning such internal control. We are responsible for communicating significant matters related to the audit that are, in our professional judgment, relevant to your responsibilities in overseeing the financial reporting process. However, we are not required to design procedures specifically to identify such matters.

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we performed tests of the District's compliance with certain provisions of laws, regulations, contracts, and grants. However, the objective of our tests was not to provide an opinion on compliance with such provisions.

Planned Scope and Timing of the Audit

We performed the audit according to the planned scope and timing previously communicated to you in our letter about planning matters dated April 19, 2010.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. We will advise management about the appropriateness of accounting policies and their application.

The significant accounting policies used by the District are described in Note 1 to the financial statements. During the year ended June 30, 2010, the District changed the manner in which it accounts for derivative instruments as a result of the implementation of GASB Statement No. 53. The District also changed the way it accounts for intangible assets as a result of the implementation of GASB Statement No. 51. We noted no transactions entered into by the District during the year for which there is a lack of authoritative guidance or consensus. There are no significant transactions that have been recognized in the financial statements in a different period than when the transaction occurred.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected.

Examples of significant judgments and estimates reflected in the District's financial statements include:

- Judgments involving the useful lives and depreciation methodology to use for capital assets.
- Judgments concerning which capital project expenditures should be capitalized and depreciated versus expensed in the financial statements and judgments concerning which projects should be placed in service.
- Judgments regarding the fair market valuation of derivative instruments.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management. There were no material misstatements detected as part of the audit process. The following immaterial misstatements detected as a result of audit procedures were not corrected by management:

- Adjustment to record customer receivable balances in the amount of \$4 million that were earned but not billed by June 30, 2010.
- Adjustment to write-off of certain capital assets totaling \$6 million as a prior period adjustment rather than recording the write-off during the fiscal year ended June 30, 2010.

Disagreements with Management

For purposes of this letter, professional standards define a disagreement with management as a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated ~~October XX, 2010~~.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the District's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the governmental unit's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

This information is intended solely for the use of the Finance and Personnel Committee and management of the District and is not intended to be and should not be used by anyone other than these specified parties.

Irvine, California
~~October XX, 2010~~

December 13, 2010

Prepared by: R. Thatcher/M. Hoolihan

Submitted by: G.P. Heiertz

Approved by: Paul Jones

CONSENT CALENDAR

QUITCLAIM OF REAL PROPERTY

SUMMARY:

Irvine Community Development Company ("ICDC") is re-subdividing a portion of its property within the development of Woodbury into Tract Nos. 17362 and 17363. Hunsaker and Associates has requested on behalf of ICDC that the District quitclaim an existing easement for sewer and water pipeline purposes dedicated to the District on the map of Tract No. 16653 that lies within the boundaries of said Tract Nos. 17362 and 17363. Staff has reviewed the request and determined that the quitclaim can proceed. A new easement for sewer and water pipeline purposes will be dedicated to the District by ICDC on each tract map. The Resolution authorizing said quitclaim is attached as Exhibit "A", the Quitclaim Deed is attached as Exhibit "B", and a map showing the location of the proposed tracts and quitclaim area is shown on Exhibit "C".

FISCAL IMPACT:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable. Not a project as defined under CEQA.

RECOMMENDED MOTION:

ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2010 - _____

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT
APPROVING EXECUTION OF THE QUITCLAIM DEED TO
IRVINE COMMUNITY DEVELOPMENT COMPANY LLC

LIST OF EXHIBITS:

- Exhibit "A" – Resolution
- Exhibit "B" – Quitclaim Deed
- Exhibit "C" – Location Map

EXHIBIT "A"

RESOLUTION NO. 2010 - _____

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT
APPROVING EXECUTION OF THE QUITCLAIM DEEDS TO
IRVINE COMMUNITY DEVELOPMENT COMPANY LLC

WHEREAS, Hunsaker and Associates, on behalf of Irvine Community Development Company LLC (ICDC), has requested that the Irvine Ranch Water District (IRWD) Board approve the quitclaim the easement for sewer and water pipeline purposes that was dedicated to IRWD on the map of Tract No. 16653, filed in Book 877, Pages 1 through 8 of Miscellaneous Maps, Records of Orange County, CA that lies within proposed Tract Nos. 17362 and 17363; and

WHEREAS, the purpose of the quitclaim is to clear title to the property. The property located in the development of Woodbury, is being re-subdivided. ICDC will be dedicating a new easement for sewer and water pipeline purposes on the maps of Tract Nos. 17362 and 17363. Staff has reviewed and confirmed that the easement can be quitclaimed; and

WHEREAS, the proposed Quitclaim has been presented to this Board of Directors, copy of which is attached hereto as Exhibit "B".

NOW, THEREFORE, BE IT RESOLVED, the Quitclaim Deed attached hereto as Exhibit "B" to Irvine Community Development Company LLC, a Delaware limited liability company, herein described and hereby is approved and execution by the District's officers is authorized.

ADOPTED, SIGNED and APPROVED this 13th day of December, 2010.

President, IRVINE RANCH WATER
DISTRICT and of the Board of Directors
thereof

Secretary, IRVINE RANCH WATER
DISTRICT and of the Board of Directors
thereof

APPROVED AS TO FORM:
BOWIE, ARNESON, WILES & GIANNONE
IRWD Legal Counsel

By _____

EXHIBIT "B"

RECORDING REQUESTED BY AND
WHEN RECORDED RETURN TO:

The Irvine Company
550 Newport Center Drive
Newport Beach, CA 92660
Attn: Brigid McMahon

ASSESSOR PARCEL NO(S):
551-331-45 & 46, 551-384-40, 42 & 46
551-339-46, 49 & 50

(Space Above This Line For Recorder's Use)

IRWD Doc. No. E _____
IRWD Res. No. _____

DOCUMENTARY TRANSFER TAX \$ consideration less than \$100
_____ Computed on the consideration or value of property conveyed; OR
_____ Computed on the consideration or value less liens or encumbrances
remaining at time of sale.

Signature or Declarant or Agent determining tax – Firm Name

EASEMENT QUITCLAIM DEED

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, IRVINE RANCH WATER DISTRICT, a California Water District organized under and existing pursuant to Section 34000 *et seq.* of the California Water Code, does hereby REMISE, RELEASE, AND FOREVER QUITCLAIM to IRVINE COMMUNITY DEVELOPMENT COMPANY LLC, a Delaware limited liability company, or the current owner of record,

all RIGHT, TITLE and INTEREST in the real property located in the City of Irvine, County of Orange, State of California, as more particularly described on Exhibit "A", attached hereto and made a part hereof.

The rights hereby quitclaimed are not necessary or useful in the performance of the duties of said Irvine Ranch Water District.

Dated: _____, 2010

IRVINE RANCH WATER DISTRICT,
a California Water District

By: _____
Name: Douglas J. Reinhart
Title: President

By: _____
Name: Leslie Bonkowski
Title: District Secretary

MAIL TAX STATEMENTS TO THE ABOVE ADDRESS

STATE OF CALIFORNIA)
)
COUNTY OF ORANGE)

On _____, 2010, before me, _____, a Notary Public in and for said State, personally appeared Douglas J. Reinhart and Leslie Bonkowski, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (SEAL)
Notary Public in and for said State

EXHIBIT "A"

QUITCLAIM OF EASEMENT
TO IRVINE COMMUNITY DEVELOPMENT COMPANY LLC

LEGAL DESCRIPTION

In the City of Irvine, County of Orange, State of California being those certain separate easements for sewer line purposes and water line purposes lying within Lots H, PP, SS, VV, YY, EEE, FFF, and GGG of Tract No. 16653, as shown and dedicated on a map thereof filed in Book 877, Pages 1 through 8 of Miscellaneous Maps in the Office of the County Recorder of said.

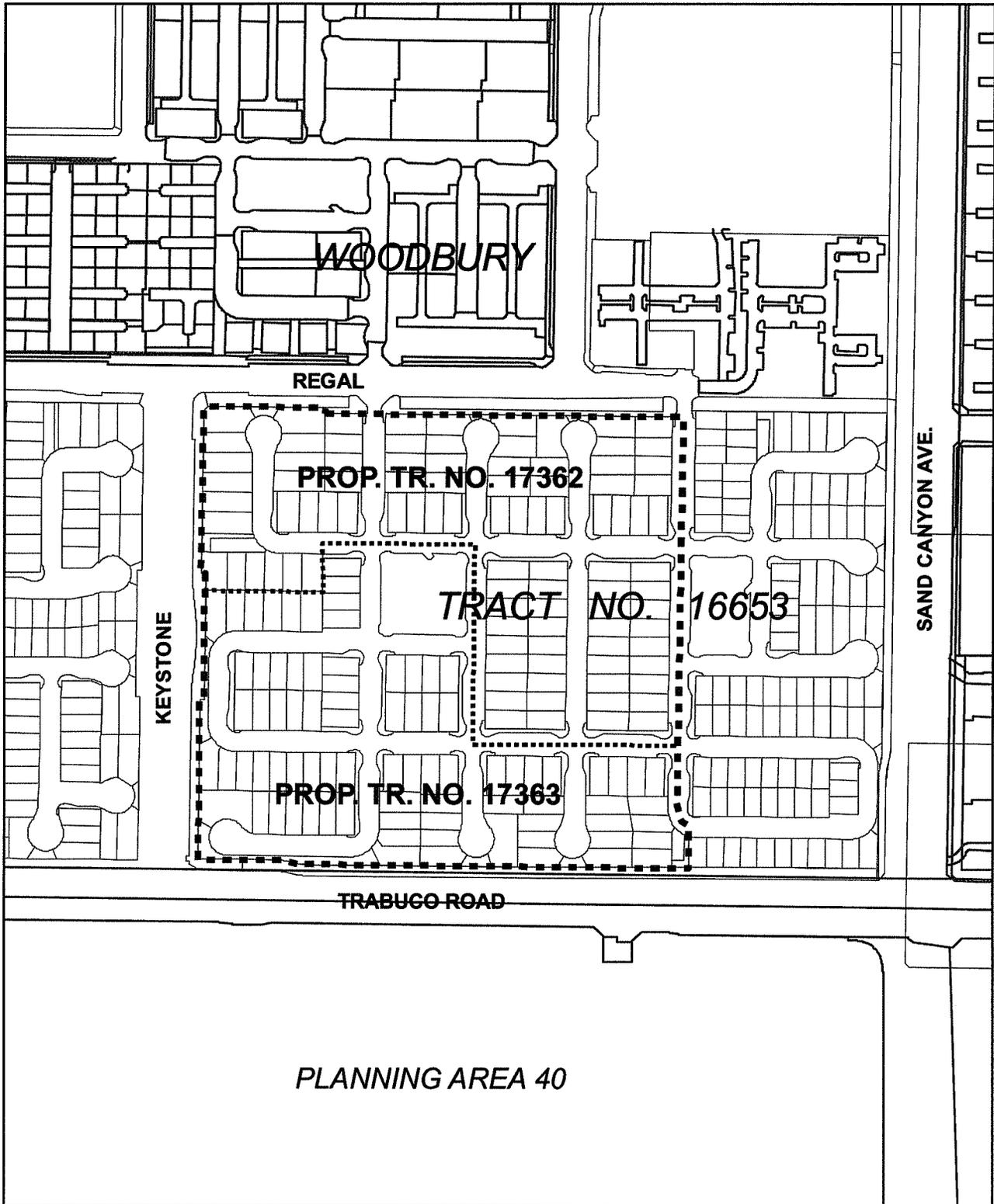
Prepared by me or under my direction:

Dated: November 23, 2010



Gregory P. Heiertz, R.C.E. 33084
License expires June 30, 2012

EXHIBIT "C"
LOCATION MAP



QUITCLAIM OF SEWER AND WATER EASEMENT TO
IRVINE COMMUNITY DEVELOPMENT COMPANY LLC



December 13, 2010
Prepared by: C. Kessler/P. Weghorst
Submitted by: G. Heiertz
Approved by: Paul Jones

CONSENT CALENDAR

ADDENDUM NO. 1 TO THE SAN DIEGO CREEK WATERSHED
NATURAL TREATMENT SYSTEM FINAL ENVIRONMENTAL IMPACT REPORT

SUMMARY:

Irvine Ranch Water District (IRWD) has revised the design of the Natural Treatment System (NTS) Site 67 Selenium and Nitrogen Removal Project (Site 67 Project). Environmental review has been completed for the proposed design. Staff recommends that the Board approve Addendum No. 1 to the San Diego Creek Watershed NTS Final Environmental Impact Report (FEIR).

BACKGROUND:

The NTS plan consists of improvements that assist in managing the quality of surface runoff within the San Diego Creek Watershed in central Orange County and includes the Site 67 Project for removing selenium and nitrogen from natural streamflows in the watershed. The Site 67 Project was envisioned as a subsurface natural flow wetland to be constructed over approximately 15 acres. The objective of the facility design was to pass water through organically rich and perpetually wet soils, which would trap the selenium under anoxic (oxygen-deficient) conditions.

In April of 2004, IRWD certified the FEIR for the NTS which evaluated the construction and operation of the NTS facilities including the Site 67 Project. In June of 2005, IRWD approved the NTS plan. Subsequent to these actions IRWD identified modifications to the proposed design of the Site 67 Project. The modified design calls for the proposed facility to be installed in the same location identified in the FEIR as shown in Exhibit "A", but would require installation of additional facilities and equipment that were not included in the original design. The objectives of the treatment system are unchanged. The modified design would include the following components:

- An eight cfs pump station for the transfer of water from Peters Canyon Wash to the selenium and nitrogen removal facilities;
- Four Advanced Biological Metal Removal (ABMet) Bioreactors (with the potential for eighteen), odor control equipment, a nutrient feed system, a backwash system and a discharge sewer system;
- A reoxygenation system, effluent wetwell and a discharge structure to return treated effluent back to Peters Canyon Wash;
- An ultraviolet (UV) or ozone system to reduce the concentration of all selenium species and bacteria to levels below baselines found in Peter Canyon Wash;
- An equipment building, associated driveway, and parking facilities; and

- A restroom building for the use by the Irvine Unified School District.

Environmental Review has been completed for the Site 67 Project and Addendum No. 1 to the FEIR has been prepared to address construction and operation impacts of the modified project. A copy of Addendum No. 1 is attached as Exhibit "B". Staff recommends that the Board approve Addendum No. 1 and approve the project.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Section 15164 of the State CEQA Guidelines provides for the preparation of addendum to a previously certified EIR by lead agency or a responsible agency if some changes or additions to the project are necessary but none of the conditions described in CEQA calling for preparation of a subsequent EIR have occurred. Based on the information and analysis in the proposed Addendum No. 1, the concluding section of the Addendum sets forth the proposed determinations by the District that none of such conditions have occurred.

COMMITTEE STATUS:

Addendums to a Final Environmental Impact Report are not typically taken to Committee prior to submittal for Board approval.

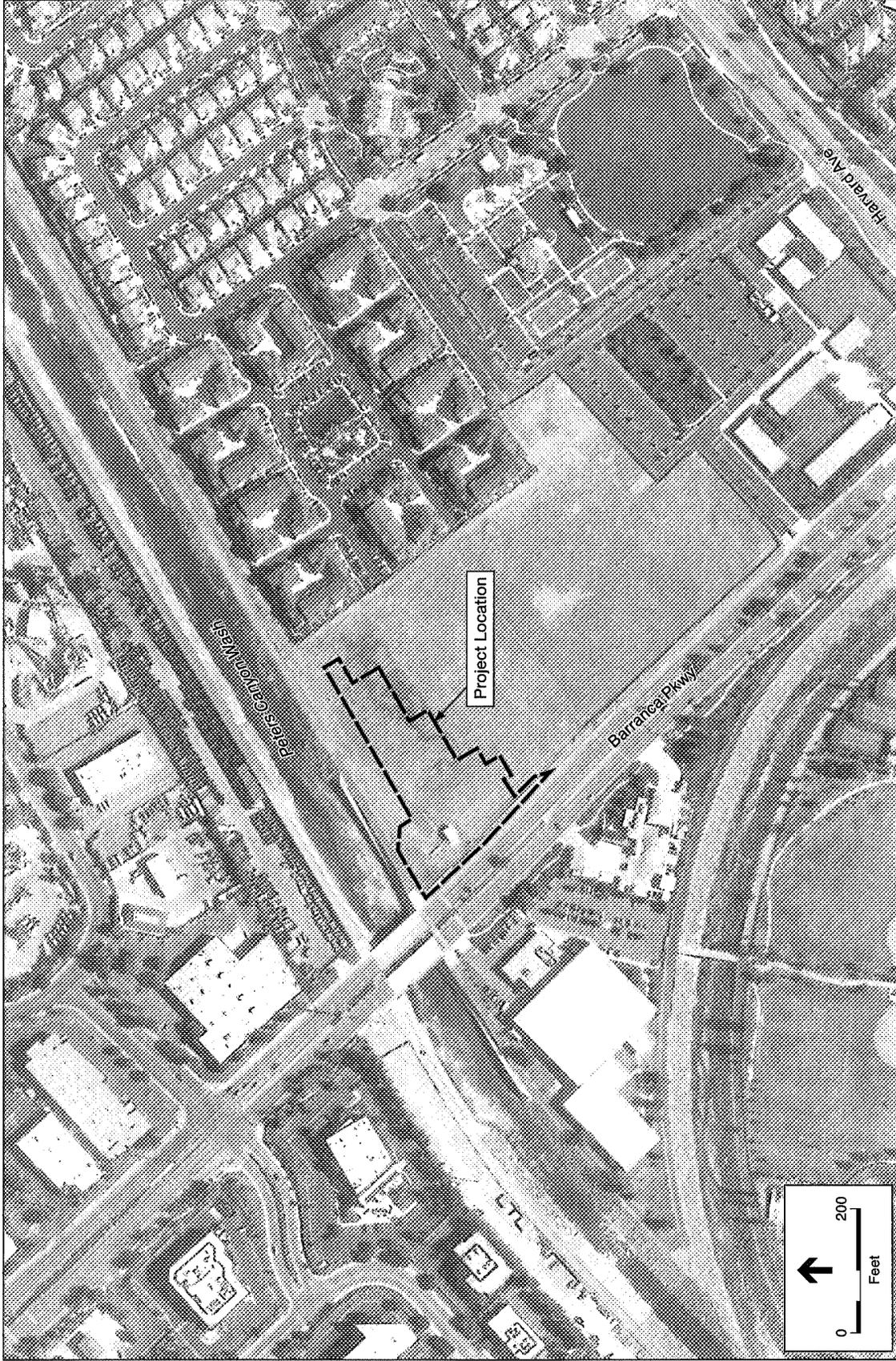
RECOMMENDATION:

THAT THE BOARD APPROVE THE PROPOSED ADDENDUM NO. 1 TO THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE SAN DIEGO CREEK WATERSHED NATURAL TREATMENT SYSTEM, INCLUDING THE DETERMINATIONS SET FORTH IN THE ADDENDUM, AND APPROVE THE PROPOSED PROJECT.

LIST OF EXHIBITS:

Exhibit "A" – Location Map
Exhibit "B" – Addendum No. 1 to the San Diego Creek Watershed Natural Treatment System
FEIR

Exhibit "A"



NTS Site 67 Addendum - 209247.03

SOURCE: HDR Engineering, Inc., 2010.

Project Location

Exhibit “B”

**ADDENDUM NO. 1 TO THE
SAN DIEGO CREEK WATERSHED NATURAL TREATMENT SYSTEM
ENVIRONMENTAL IMPACT REPORT (State Clearinghouse No. 20052021120)**

Prepared for:

**Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92618-3102
Contact: Christian Kessler (949) 453-5441**

Prepared by:

**ESA
626 Wilshire Boulevard, Suite 1100
Los Angeles, CA 90017
Contact: Tom Barnes (213-599-4333)**

December 2010

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ADDENDUM NO 1 TO THE SAN DIEGO CREEK WATERSHED NATURAL TREATMENT SYSTEM FINAL ENVIRONMENTAL IMPACT REPORT

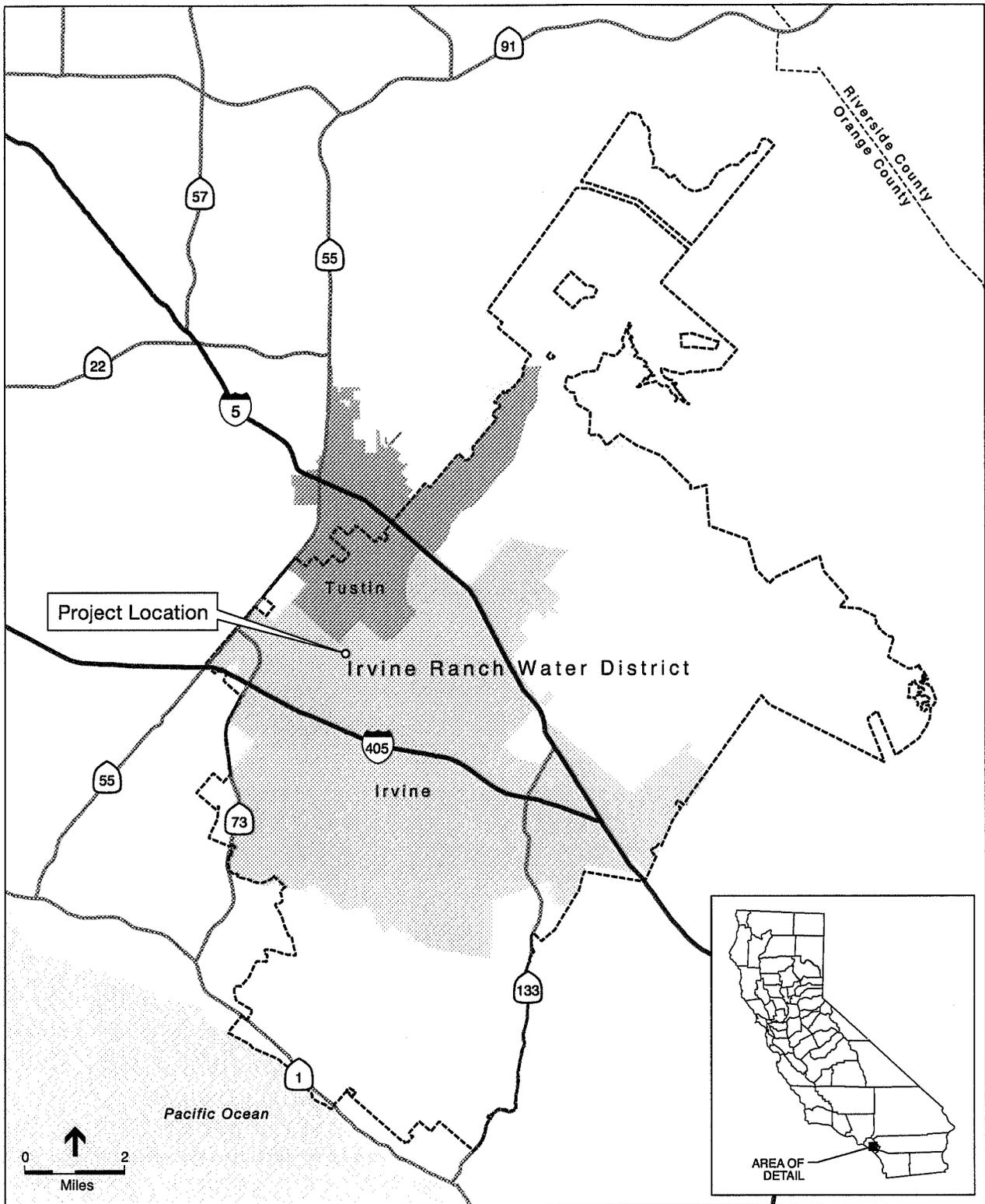
1.0 Introduction

This document is Addendum No. 1 to the Final Environmental Impact Report (EIR) prepared by Irvine Ranch Water District (IRWD) for the San Diego Creek Watershed Natural Treatment System (April 26, 2004). The Natural Treatment System (NTS) Plan consists of proposed improvements to assist in managing the quality of surface runoff within the San Diego Creek Watershed in central Orange County (**Figure 1**). The proposed NTS Plan is one of the key initiatives that would assist in meeting total maximum daily load (TMDL) requirements established for San Diego Creek. The strategy of the NTS Plan is to establish a network of created water quality treatment wetlands to be located throughout the San Diego Creek Watershed. The NTS Plan would install permanent shallow runoff detention ponds throughout the watershed that would support the growth of emergent wetland plants that would provide nutrient removal for detained runoff.

In addition to the nutrient removal wetlands, the Plan included a selenium treatment facility (Site 67). Selenium is identified as one of the toxic pollutants that exceeds the TMDL thresholds and is a target pollutant for the NTS Plan. Selenium is found naturally within the San Diego Creek Watershed as a result of groundwater seepage in areas of shallow groundwater tables, specifically within a region of lower Peters Canyon Wash and within natural flows from the upstream foothills. The proposed selenium treatment facility envisioned in the Plan was a “subsurface flow wetland,” different in design from the “surface flow wetlands.” The objective of this facility design was to pass water through organically rich and perpetually wet soils, which would trap the selenium under anoxic (oxygen-deficient) conditions.

The Final EIR evaluated environmental effects of implementing numerous projects within the watershed aimed at water quality improvement, including Site 67. The Final EIR was certified and approved on April 26, 2004.

Since the approval of the San Diego Creek Watershed NTS Plan and certification of the Final EIR, IRWD has identified modifications to the proposed design of the Site 67 Selenium Treatment Facility. The proposed facility would be installed in the same location identified in the Final EIR, but would require installation of an above-ground treatment system that would include a structure to house chemicals and treatment media needed in the treatment process. The objective of the treatment system and the location of the facility are unchanged.



SOURCE: GlobeXplorer, 2009; RBF Consulting, 2009.

NTS Site 67 Addendum . 209247.03

Figure 1
Project Vicinity / Service Area

IRWD has prepared this Addendum pursuant to the CEQA Guidelines Section 15164, to describe the modifications to the project and to evaluate whether the modifications present any new significant impacts not identified in the previously certified Final EIR that would require preparation of a subsequent EIR.

1.1 Purpose of Addendum

Under CEQA, the lead agency or a responsible agency shall prepare an addendum to a previously-certified EIR if some changes or additions are necessary to the prior EIR, but none of the conditions calling for preparation of a subsequent or supplemental EIR have occurred (*CEQA Guidelines* §15164). Once an EIR has been certified, a subsequent EIR is only required when the lead agency or responsible agency determines that one of the following conditions has been met:

- (1) Substantial changes are proposed in the project, or substantial changes occur with respect to the circumstances under which the project is undertaken, which require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects (*CEQA Guidelines* §15162(a)(1), (2));
- (2) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
 - a. The project will have one or more significant effects not discussed in the previous EIR;
 - b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative (*CEQA Guidelines* §15162(a)(3)).

If one or more of the conditions described above for a subsequent EIR exist, but only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation, then the lead agency may prepare a supplement to an EIR, rather than a subsequent EIR (*CEQA Guidelines* §15163(a)).

CEQA recommends that a brief explanation of the decision to prepare an addendum rather than a subsequent or supplemental EIR be included in the record (*CEQA Guidelines* §15164(e)). This Addendum has been prepared because the proposed modifications to the San Diego Creek Watershed Natural Treatment System do not meet the conditions for a subsequent or supplemental EIR. This Addendum explains why the proposed modifications would not result in new significant environmental effects or result in a substantial increase in the severity of previously-identified significant effects. There is no new information that would show that the proposed modifications would have new effects or more severe effects on the environment. This

Addendum provides new information to show that the proposed modifications would not have any adverse environmental effects and would not change the conclusions of the previously-certified Final EIR.

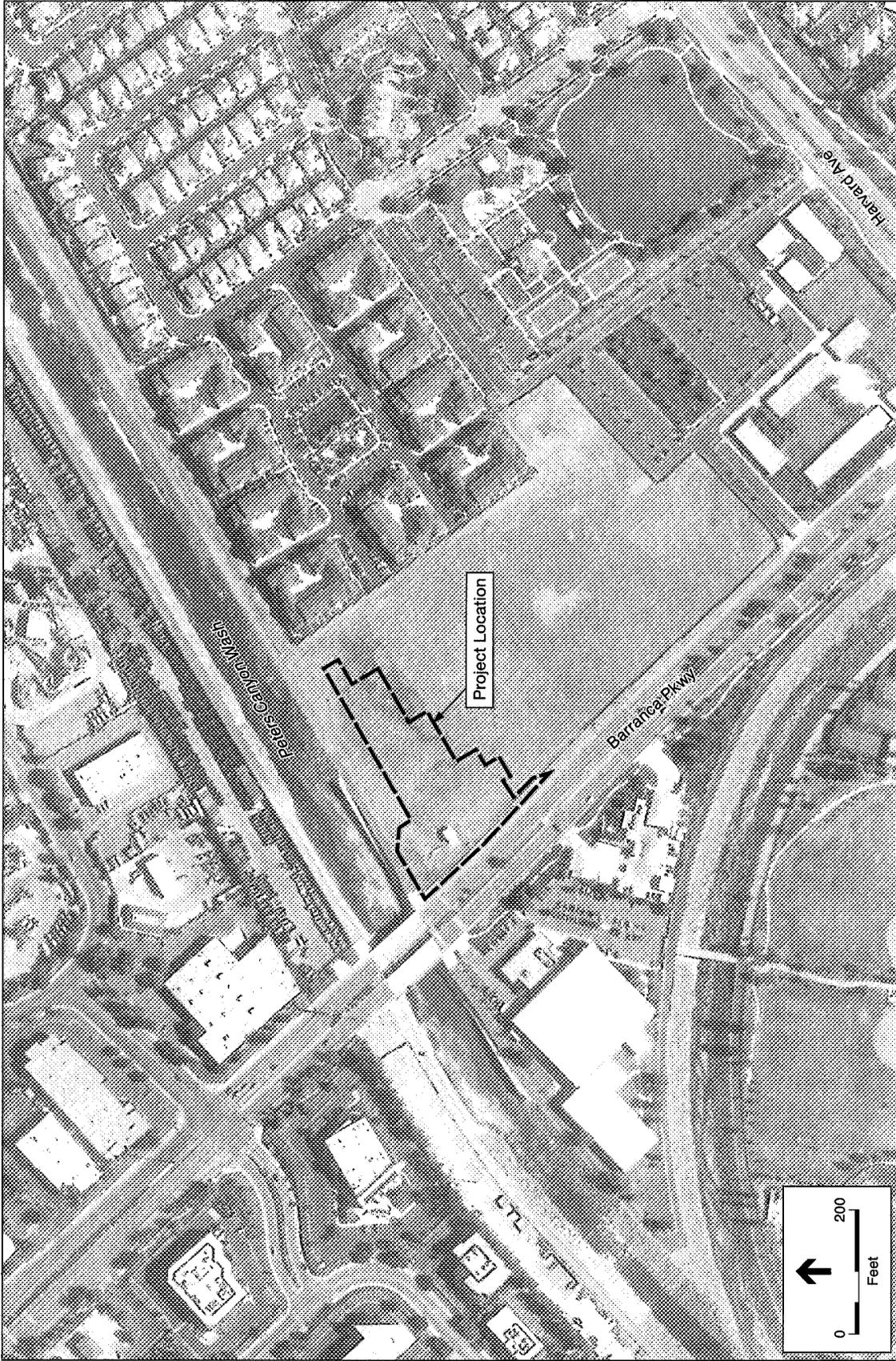
An addendum does not need to be circulated for public review, but rather can be attached to the final EIR (*CEQA Guidelines* §15164(c)). Prior to initiating the modified Project, the IRWD Board of Directors will consider this Addendum together with the Final EIR and make a decision regarding the modified Project (*CEQA Guidelines* §15164(d)).

To comply with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000 et seq.) and *State CEQA Guidelines* (California Code of Regulations Sections 15000 et seq., hereinafter referred to as *Guidelines*), this Addendum has been prepared to evaluate the potential environmental impacts associated with the proposed minor modifications.

1.2 Modification Description

The original NTS Plan identified Site 67 as a subsurface natural flow wetland to be constructed over approximately 15 acres. The modified system described in this Addendum is an above-ground facility over approximately 2.25 acres. The proposed site for Site 67 would be in the same location as described in the Final EIR (**Figure 2**). The modified system would include the following components:

- An eight cubic feet per second (cfs) Influent Pump Station for the transfer of water from Peters Canyon Wash to the selenium treatment facility at full buildout.
- Four Advanced Biological Metal Removal (ABMet) Bioreactor Tanks (with the potential for eighteen) for capturing dissolved selenium. (three cfs would require at least four bioreactors and eight cfs would require an additional 14 reactors for a total of 18 reactors).
- Reoxygenation System and Effluent Wetwell to replenish the dissolved oxygen in the treated water prior to discharging the water back into Peters Canyon Wash.
- Backwash System to keep the bioreactor medium clean.
- Discharge Sewer System for the disposal of the wastewater collected from the backwash processes and restrooms.
- Nutrient Feed System to supply a food source to the microbes in the bioreactors.
- Odor Control System to reduce the odors produced during the selenium removal process.
- An ultraviolet (UV) or ozone system to reduce the concentration of all selenium species and bacteria to levels below baselines found in Peter Canyon Wash.
- Equipment Building would house electrical and control room, equipment storage room, the nutrient and chemical storage area, the ABMet bioreactors, and a piping gallery. and,
- Restroom Building would be a free standing building for public use.
- Discharge Structure to return treated effluent back to Peters Canyon Wash.
- Parking lot providing eight parking stalls and two access driveways.



NTS Site 67 Addendum . 209247.03

Figure 2

Project Location

SOURCE: HDR Engineering, Inc., 2010.

These components are described in more detail below. **Figure 3** shows the location of each of the components.

Infiltration Gallery

The infiltration gallery would capture water from Peters Canyon Wash and convey it to the influent pump station. The proposed size of the gallery would be approximately 36,000 square feet.

Influent Pump Station

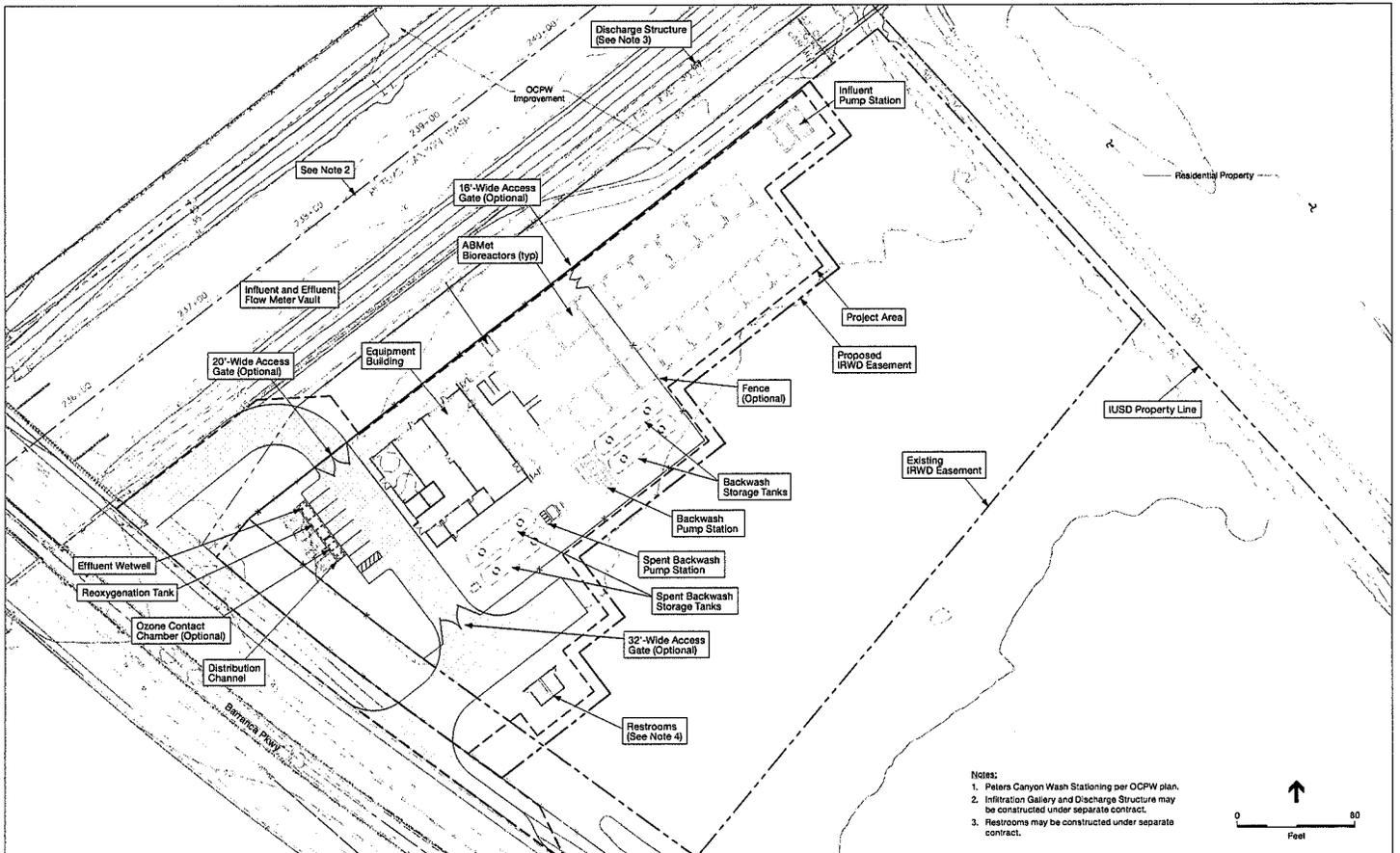
The influent pump station would transfer the water from Peters Canyon Wash to the selenium treatment facility. The pump station would be located approximately 25 feet away from the school property line. The proposed size of the influent pump station would be approximately 10 feet by 18 feet and approximately 26 feet deep. The structure would be encased in concrete and located underground.

ABMet Bioreactor Tanks

Diverted flow from the influent pump station is conveyed to the ABMet bioreactor tanks where selenium is removed. The system uses a proprietary molasses-based nutrient as the carbon source for the microbes in the bioreactors. Water enters the bioreactor tanks from the top and passes through the media, and exits at the bottom of the bioreactor. The dissolved selenium and other contaminants in the biomass are removed from the tanks as backwash. The backwash is conveyed to the sanitary sewer. The proposed project would initially require four tanks (for 3 cfs flow) with an inside dimension of 22-feet long by 21-feet wide by 19-feet deep. However, if the project is upsized to 8 cfs then an additional 14 tanks would be needed for total of 18 ABMet bioreactor tanks. The tanks would be installed six feet below grade with the top of the tanks 11 feet above grade. The top of the tanks for a 3 cfs system would be housed in a 5,500 square-foot building and for an 8 cfs system the building would be approximately 22,500 square-feet. The building would be approximately 15 feet high. However, during final design it may be determined that the entire structure may be installed underground. A fence would be constructed around the building to control access to the facility. A horseshoe shaped parking area with eight parking stalls would be included in the facility design. A decomposed granite path would be provided as an access connection between the parking lot, restroom, and proposed athletic fields.

Reoxygenation System and Effluent Wetwell

Due to the anoxic nature of the ABMet reactors, the bioreactor effluent needs to be replenished with dissolved oxygen (DO) to the natural DO level in Peters Canyon Wash before its discharge. Reoxygenation of the effluent would be accomplished by distributing air supplied by a blower through fine bubble diffusers on the reoxygenation tank floor. The reoxygenation system, effluent wetwell, and effluent dry vault would consist of a concrete structure located below grade. The blower would be located in the above-ground equipment building, and the air would be routed to the tank bottom.



SOURCE: HDR Engineering, Inc., 2010.

NTS Site 67 Addendum - 209247.03

Figure 3
Site Plan

back of Figure 3 (11x17)

Backwash System

The backwash system would keep the bioreactor medium clean, which allows the system to operate more efficiently. The backwash provides a flush of water upwards through the carbon media in the bioreactor tanks. This reverse flush of water is designed to remove solids trapped in the carbon medium. The backwash system requires that a large volume of water be pumped through the bioreactors over a short period of time and temporarily stored until it can be discharged to the sewer. The backwash system includes two 40,000-gallon backwash supply tanks and two 40,000-gallon spent backwash tanks. Both the two tanks would be prefabricated fiberglass tanks and located underground.

Discharge Sewer System

The wastewater would be discharged to the sanitary sewer system. The proposed project would pump the spent backwash to an existing sewer manhole located on Construction Circle north of Barranca Parkway. The discharge sewer system would include a 4-inch line and two discharge sewer pumps. One discharge sewer pump would be active, and the other would be standby in the event of pump failure.

Nutrient Feed System

The nutrient feed system would supply a food source for the microbes in the bioreactors. Nutrient storage would be designed to provide 30 days of capacity. Two 8,800-gallon vented tanks of molasses would be stored in a containment area. This containment area would be designed to capture the full nutrient storage tank volume during a spillage or leakage event. The nutrient storage area would be designed to prevent water from entering into this area.

Odor Control

The facility would be equipped with a centralized odor-scrubbing system that would capture hydrogen sulfide (H₂S) odors. The system uses 25 percent sodium hydroxide (NaOH) and 12.5 percent sodium hypochlorite (NaOCL) solution to absorb and oxidize the hydrogen sulfide odors and other odorous compounds. Each chemical would be stored in a separate 540-gallon tank sufficient for one month of operations within the equipment room.

Post Treatment Alternatives

The facility would be equipped with either a UV or ozone system to reduce the concentration of all selenium species and bacteria to levels below baselines found in Peter Canyon Wash. The type of system selected, UV or ozone, will be determined by conducting a design verification test that uses hydraulic loading rates and empty bed contact times in which the system is designed to operate. Ozone would be generated on site using ambient air as the in-put gas. If the UV system is selected it would be located in an expanded effluent wetwell housed within the equipment building. If the ozone system is selected it would be located in a separate room within the equipment building.

Equipment Building

A 6,000 square-foot equipment building would be installed that would house the nutrient storage area, chemical storage area, electrical and control room, electrical room, ozone generation room, and equipment storage room. The finished floor level of the equipment building would be approximately 6 inches above grade to prevent rain water from getting into the building.

The overall height of the building would be approximately 21-feet above grade. The building would include single, double, and roll up access doors and roof access hatches would be provided to install larger pieces of equipment such as the nutrient storage tanks and ABMet tank covers. The building would also include a chain-link fence around the perimeter of the site to prevent the public from accessing the facility. However, during final design it may be determined that the entire equipment building may be installed underground.

Discharge Structure

A discharge structure will be constructed to return treated effluent back to Peters Canyon Wash. The system will be designed to prevent scour, provide erosion protection and slope stabilization and minimize the potential for downstream erosion by reducing the velocity and energy of the facilities return flow. The system will contain a 24 inch pipe capable of discharging the facilities build out capacity of 8 cfs.

Restrooms

A separate 225 square-foot restrooms building would be constructed on site that would be made available to the school's proposed athletic fields. The restroom may be located within the project site boundary if requested by Irvine Unified School District. The structure would house two restrooms and would require an accompanying lift station below grade. The restroom building would provide restroom facilities for both genders. Natural day lighting and ventilation would be provided.

Site Access

The proposed project would have two asphalt concrete pavement access points off Barranca Parkway. The two access points would be on the southern side of the equipment building, which is where the parking stalls would be located. The parking lot design would provide eight parking stalls. There would be direct access to the equipment building from the parking lot. A decomposed granite path would be provided as an access connection between the parking lot, restroom, and proposed athletic fields.

1.3 Construction Methods

IRWD would demolish all of the existing structures associated with the Cienega demonstration project except the infiltration gallery, intake wetwell, and discharge structure. These remaining facilities would be removed by Orange County Public Works (OCPW) as part of a separate project. The site would require grading, trenching and excavation for the piping and underground tanks. The site preparation, demolition, project construction and finishing work would last for approximately 265 days.

2.0 Incorporation by Reference

Consistent with Section 15150 of the *State Guidelines*, the following documents were used in the preparation of this Addendum and are incorporated herein by reference:

San Diego Creek Watershed Natural Treatment System Final Environmental Impact Report.
April 26, 2004.

Irvine Ranch Water District 10% Design Cienega Selenium Treatment Facility Preliminary
Design Report, July 2010.

Final Environmental Impact Statement (FEIS)/Environmental Impact Report (FEIR) for the
Disposal and Reuse of Marine Corp Air Station (MCAS), December 1999.

The certified Final EIR is also incorporated by reference for background information purposes.
This document is available for review during regular business hours at IRWD located at 15600
Sand Canyon Avenue, Irvine, California 92618-3102.

3.0 Environmental Setting and Analysis

3.1 Aesthetics

The Final EIR concluded that potential impacts to the aesthetics of the area would be less than significant. This section provides an analysis of the potential aesthetics impacts associated with the construction of the modified Site 67 Selenium Treatment Facility.

3.1.1 Setting

The project area is generally disturbed and currently includes the selenium removal demonstration project known as the Cienega Demonstration Facility. The site is surrounded with multiple land uses including the Peters Canyon Wash Channel, residential homes, business commercial uses and some undeveloped land. The proposed facility would be constructed within a disturbed but vacant parcel bound by Barranca Parkway to the south, Peters Canyon Wash Channel to the northwest, commercial development to the north and Creekside Education Center to the east.

3.1.2 Significance Threshold Criteria

The following CEQA significance thresholds were used to evaluate the aesthetic impacts associated with the proposed modifications:

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

3.1.3 Summary of Potential Impact

The proposed project would include the construction of an approximately 11,500 square-foot 3 cfs treatment facility building or a 28,500 square-foot 8 cfs treatment facility building if the system is upsized and a 225 square-foot restroom facility. A demonstration project is currently located at the project site and would be removed prior to the construction of the proposed project. The proposed facility would be located on the southwest corner of the Irvine Unified School District (IUSD) property adjacent to Barranca Parkway and Peters Canyon Wash. The land immediately to the east of the property is set aside for future development by IUSD. Since the facility would be constructed on IUSD property, the project would require design approval by the California Division of the State Architect, Los Angeles Basin region.

The equipment building would be designed to have minimal impact on the surrounding community and for aesthetic integration with the adjacent school. The equipment room and ABMet bioreactor tanks are two separate structures that would be located side by side to appear as one unified structure. This building would be constructed to reflect two elevations. The height of the ABMet bioreactors building would be approximately 16.5 feet above grade, and the equipment room would be approximately 20.5 feet above grade. The size of the equipment room would be approximately 6,000 square feet. The ABMet bioreactor tanks, pipe gallery and trench would be approximately 7,500 square feet for the 3 cfs system. If the system is upsized to 8 cfs then the ABMet bioreactor tanks building would be approximately 22,500 square feet.

The proposed project design of the facility would reflect the scale, color, materials, and aesthetic appearance of the nearby school and the final design would require the approval of IUSD. The

building design would include a horizontal flat roof with overhangs, a modular cementitious flat panel wall system with aluminum composite panel accents and a similar beige color palette as the school. Windows would be installed under the roof overhangs to provide natural daylight into the facility. The cast-in-place concrete bioreactor tanks and the restrooms would be designed through the use of similar detailing that reflects the scale, form, and massing of the equipment building. **Figures 4 and 5** depict the architectural renderings of the buildings from Barranca Parkway. The structures would resemble utility service buildings typically observed in public parks. The proposed structures would replace existing demonstration facilities and would improve the site character from the existing conditions. If it is decided during final design of the facility to underground the ABMet bioreactor tanks building and equipment building the only visible structure would be the restroom building. The visual character would include the parking lot, hardscape over the buildings site, perimeter fencing and the restroom building. As a result, the proposed new buildings would not substantially degrade the existing visual character or quality of the site or its surroundings.

3.1.4 Conclusion

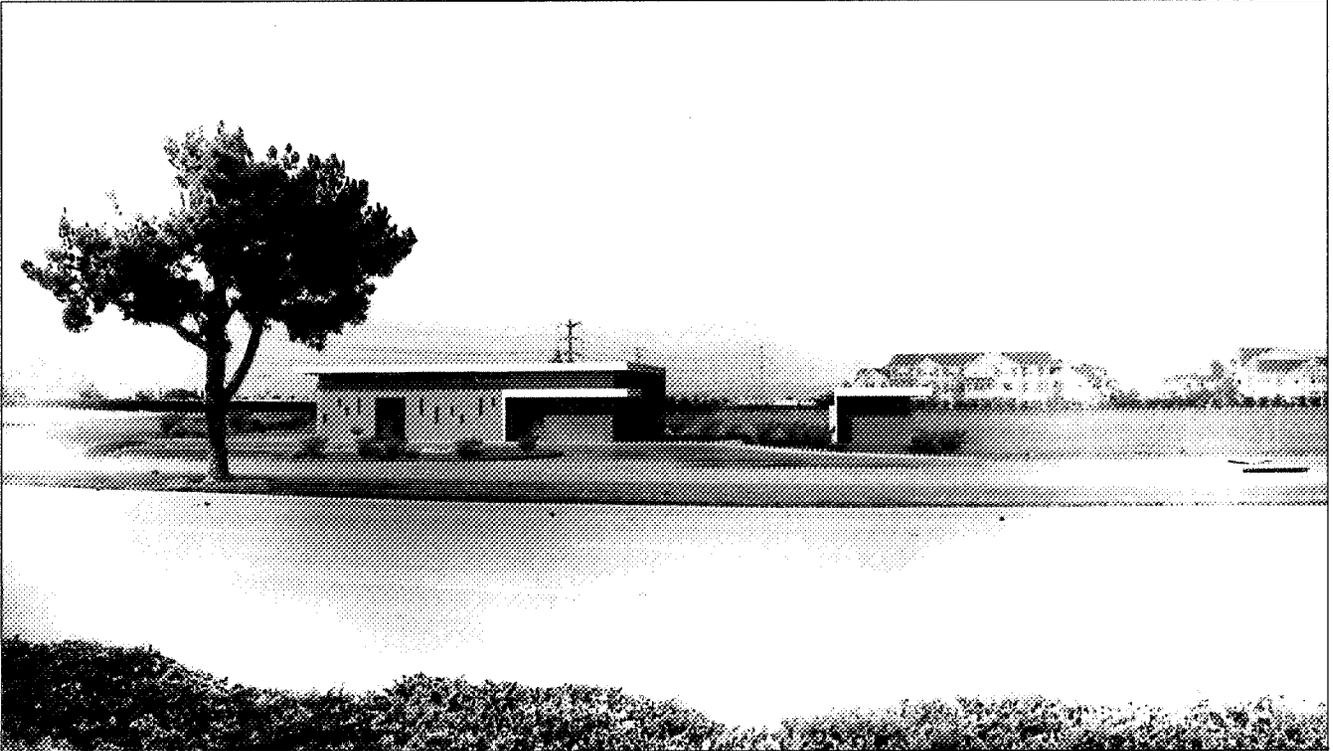
The project would not result in a new significant impact not previously identified in the Final EIR, nor would it substantially increase the severity of an impact identified in the Final EIR. No mitigation is required beyond the existing commitments contained within the Mitigation Monitoring and Reporting Program (MMRP). Therefore, impacts to Aesthetics would be less than significant and no mitigation is required.

3.2 Air Quality

The Final EIR assessed potential impacts of the project to air quality and concluded that construction and operation of the proposed project would not have a significant impact with the implementation of mitigation measures. This section provides an analysis of the potential air quality impacts associated with the construction and operation of the proposed modified project. The proposed modified project would be subject to the same mitigation identified in the Final EIR.

3.2.1 Setting

As described in the Final EIR, the Site 67 Selenium Treatment Facility site is located in the South Coast Air Basin (SCAB). Air quality in the SCAB is regulated by the South Coast Air Quality Management District (SCAQMD), which is responsible for administering standards and developing rules and regulations governing air emissions in the SCAB. Policies and guidelines governing air quality in the state of California are developed and implemented by the California Air Resources Board (CARB). The EPA is the federal regulatory agency with authority to regulate air quality. The SCAQMD has developed an Air Quality Management Plan (AQMP) that identifies strategies to achieve attainment of the federal and state ambient air quality standards through the implementation of emission control measures and long-term strategies designed to improve air quality throughout the region.



Rendering View of Southwest Side of the Proposed CSTF from Barranca Parkway

SOURCE: HDR Engineering, Inc., 2010.

NTS Site 67 Addendum . 209247.03

Figure 4
Rendering



Rendering View of West Side of the Proposed CSTF from Barranca Parkway

SOURCE: HDR Engineering, Inc., 2010.

NTS Site 67 Addendum . 209247.03

Figure 5
Rendering

3.2.2 Significance Criteria

The following CEQA thresholds were used to evaluate the air quality impacts associated with the operation and construction of the proposed project:

- Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

3.2.3 Summary of Potential Impact

Construction

Construction emissions were estimated using the URBEMIS 2007 9.2.4 model. Maximum daily construction-related regional emissions for the proposed 3cfs project and potential upsize to 8 cfs are presented in **Table 3.2-1 and 3.2-2**, respectively. As shown below, the maximum regional emissions would not exceed the SCAQMD daily significance thresholds for reactive organic compounds (ROC), nitrogen oxides (NOX), carbon monoxide (CO), Particulate Matter (PM) 2.5 and PM10. Since construction emissions would not exceed the SCAQMD thresholds, the regional construction impact would be less than significant.

**TABLE 3.2-1
EMISSIONS FROM PROJECT CONSTRUCTION FOR A 3 CFS FACILITY (pounds per day)**

Phase	Estimated Emissions (lbs/day)					
	ROG	NOX	CO	PM10	PM2.5	CO ₂ ^a
2011-2012	17	75	40	9	5	8,396
SCAQMD Thresholds	75	100	550	150	55	NA
Significant Impact (Yes or No)	No	No	No	No	No	NA

NOTE: Project operation emissions estimates for off-road equipment were made using URBEMIS2007, version 9.2.4. See AQ appendix.

^a CO₂ is discussed further in Greenhouse Gases

SOURCE: ESA, 2010.

**TABLE 3.2-2
EMISSIONS FROM PROJECT CONSTRUCTION FOR A 8 CFS FACILITY (pounds per day)**

Phase	Estimated Emissions (lbs/day)					
	ROG	NOX	CO	PM10	PM2.5	CO ₂ ^a
2011-2012	41	93	46	18	4	11,076
SCAQMD Thresholds	75	100	550	150	55	NA
Significant Impact (Yes or No)	No	No	No	No	No	NA

NOTE: Project operation emissions estimates for off-road equipment were made using URBEMIS2007, version 9.2.4. See AQ appendix.

^a CO₂ is discussed further in Greenhouse Gases

SOURCE: ESA, 2010.

Construction of the Site 67 facility was considered in the Final EIR. The proposed modified project emissions estimates would be below SCAQMD significance thresholds and would not result in a substantial increase in the severity of previously analyzed emissions identified in the Final EIR. No additional mitigation measures would be needed beyond those identified in the Final EIR MMRP.

Operational Emissions

Mobile emissions for operation of the proposed modified project would be generated primarily from vehicular traffic. An increase of less than one trip per day would be generated by the project that would include chemical deliveries and maintenance visits. This number is minimal and would not result in significant emissions.

The project would utilize energy in pumping water from the creek and through the system. Approximately 865,000 kwh/year would be used to operate the project. Energy would be provided from the grid. No new infrastructure would be needed to accommodate the project. Air emissions produced with this increase in energy use would be generated off site and subject to emissions permits for those facilities.

The project may generate ozone on site using the ambient air as the input gas. This process generates low levels of nitrogen oxides (generally <1 percent). The small quantities of ozone to be generated for the treatment process would not result in NOX emissions greater than SCAQMD thresholds of significance.

Odor

The demonstration project currently located on the proposed site has experienced some H₂S emissions from the anoxic treatment process that have created noxious odors similar to odors that emanate from mud in a creek. As a result of the demonstration project's findings, the new system design would include an odor control system. Air escaping from the treatment tanks would be conveyed through an air scrubber system to minimize odor emissions. The proposed equipment building would be located approximately 700 feet from the nearest residences and has the potential to be impacted by odors. However, with implementation of the odor control system, which would capture and treat odors, the proposed project would not emit significant odors that would create a nuisance conditions at neighboring land uses. No additional mitigation measures would be needed.

Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, similar to a greenhouse. The accumulation of GHGs has been implicated as a driving force for Global Climate Change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the earth's climate caused by natural fluctuations and the impact of human activities that alter the composition of the global atmosphere. Both natural processes and human activities emit GHGs. Global Climate Change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation and temperature. Although there is disagreement as to the speed of global warming and the extent of the impacts attributable to human activities, the vast majority of

the scientific community now agrees that there is a direct link between increased emission of GHGs and long term global temperature. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. GHG impacts are considered to be exclusively cumulative impacts; there are no non-cumulative greenhouse gas emission impacts from a climate change perspective (CAPCOA, 2008). The City of Irvine is presently working on creating a Climate Action Plan, but does not currently have a plan implemented for the reduction of GHG emissions.

On April 13, 2009, Office of Planning Research (OPR) submitted to the Secretary for Natural Resources its proposed amendments to the state *CEQA Guidelines* for GHG emissions, as required by Public Resources Code section 21083.05 (Senate Bill 97) (OPR, 2009). These *CEQA Guideline* amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents. The Natural Resources Agency adopted the CEQA Guidelines Amendments with minor, non-substantial changes on December 31, 2009 and transmitted the Adopted Amendments and the entire rulemaking file to the Office of Administrative Law (OAL). The adopted guidelines became effective on March 18, 2010.

On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is the lead agency. The interim threshold consists of five tiers of standards that could result in a finding of less than significant impact. The tiers include CEQA exemptions, consistency with regional GHG budgets, less than significant screening levels for industrial projects (10,000 metric tons/year CO₂ equivalent (CO₂e)) and commercial/residential projects (3,000 metric tons/year CO₂e), performance standards (i.e., 30 percent less than Business As Usual [BAU]), and carbon offsets.

The industrial screening level of 10,000 metric tons/year CO₂e was used as the quantitative threshold for the proposed project GHG emissions. For the proposed project, the worst-case annual emissions associated with construction (approximately 6 metric tons per year CO₂e after amortization over 30 years per SCAQMD methodology) and indirect operational emissions, (256 metric tons per year CO₂e) would be approximately 262 metric tons CO₂e per year for the proposed project. The proposed project would not exceed the SCAQMD draft screening threshold for industrial sources (10,000 metric tons/year CO₂e) and would be less than significant without mitigation.

3.2.4 Conclusion

In summary, the modified project would require construction similar to the original project described in the Final EIR. These temporary construction emissions would be below SCAQMD significance thresholds and would not result in a substantial increase in the severity of previously emissions. The Final EIR concluded that the overall construction, operational emissions and potential odors impacts would result in a less than significant impact to air quality with the incorporation of mitigation measures. As a result, the construction and operations of the proposed project would not result in a new impact or substantially increase the severity of the previously identified impact to air quality.

3.3 Cultural Resources

The Final EIR assessed potential impacts to the vicinity of the project site to cultural resources and concluded that construction of the proposed project would have a less than significant impact with incorporation of mitigation. The following discussion addresses potential impacts from the proposed project.

3.3.1 Setting

The project area is generally disturbed and currently includes the Cienega demonstration project. The site is surrounded with multiple land uses including the Peters Canyon Wash Channel, residential uses, business commercial uses and some undeveloped land. The proposed facility would be constructed within a disturbed but vacant parcel bound by Barranca Parkway to the south, Peters Canyon Wash Channel to the northwest, commercial development to the north and Creekside Education Center to the east.

3.3.2 Significance Criteria

The following CEQA thresholds were used to evaluate the cultural resource impacts associated with the operation and construction of the proposed project:

- Cause a substantial adverse change in the significance of an archaeological or paleontological resource?

3.3.3 Summary of Potential Impact

The proposed project site was part of the MCAS Tustin Reuse Area that was surveyed for cultural resources as part of the MCAS Tustin Reuse Final EIR/EIS. Only one cultural resource site (CA-ORA- 381) was documented on the MCAS Tustin Reuse Area; but this resource is not located near the proposed project site. However, the MCAS Tustin Final EIS/EIR indicates that the potential for unidentified buried archaeological resources may exist at the proposed project site. Currently the area around the proposed project site has been previously disturbed as part of the surrounding development and the potential for encountering cultural resources is considered low. However, as with all ground disturbing activities, there is the potential for unidentified buried cultural resources. With implementation of mitigation measures identified in the Final EIR MMRP, the potential construction impacts to cultural resources would be mitigated to less than significant.

3.3.4 Conclusion

Similar to the original project, the modified project would include excavation activities that would have the potential to unearth unknown cultural resources. However, with implementation of the mitigation measures identified in the MMRP for the Final EIR the potential impacts to cultural resources would be reduced to below a level of significance. Therefore, the proposed project would not result in a new significant impact or substantially increase the severity of a previously identified significant impact.

3.4 Human Health and Public Safety

The Final EIR assessed potential impacts of the proposed project to human health and public safety and concluded that construction and operation of the proposed project would have a less than significant impact with incorporation of mitigation. The following discussion addresses potential impacts from the proposed project.

3.4.1 Setting

The project area is generally disturbed and currently includes the Cienega demonstration project. The site is surrounded with multiple land uses including Peters Canyon Wash Channel, residential uses, business commercial uses and some undeveloped land. The proposed facility would be constructed within a disturbed but vacant parcel bound by Barranca Parkway to the south, Peters Canyon Wash Channel to the northwest, commercial development to the north and Creekside Education Center to the east.

3.4.2 Significance Criteria

The following CEQA thresholds were used to evaluate the human health and public safety impacts associated with the operation and construction of the proposed project:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

3.4.3 Summary of Potential Impact

The new treatment facility would require the use of NaOH and NaOCl. Ozone would be generated on site in quantities needed for the treatment process. None of these chemicals would pose hazards to public health and safety if spilled. All chemicals required by the proposed project would be stored in aboveground tanks with secondary containment areas to confine accidental spills and prevent exposure to the environment. Operation of the facility would require delivery of chemicals periodically. The transport of hazardous materials is regulated by Caltrans and EPA. The proposed project would conform to the hazardous materials transportation and handling regulations.

The California Hazardous Materials Release Response Plans and Inventory Program (CCR Title 19, Division 2, Chapter 4) requires facilities that store hazardous materials to prepare a Hazardous Materials Business Plan (HMBP) and an Emergency Response Plan (ERP). Compliance with hazardous materials reporting and handling regulations would minimize risk of injury to the public or environment due to hazard material transport or use.

Further, the revised Final EIR states that the proposed project vicinity was not listed on any of the government databases; as a result, no hazardous materials have been generated, used, disposed of, or transported to or from the proposed project site. With the implementation of the mitigation measures identified in the MMRP to the Final EIR, impacts would be less than significant.

3.4.4 Conclusion

The proposed project would not result in a new significant impact or substantially increase the severity of a previously identified significant impact.

3.5 Hydrology and Water Quality

The Final EIR assessed potential impacts of the project to water quality and concluded that construction of the proposed project would have a less than significant impact with incorporation of mitigation. The following discussion addresses potential impacts to water quality from the modified project.

3.5.1 Setting

The project would be located adjacent to the Peters Canyon Wash Channel. Currently, storm water runs off the site into the channel. The Final EIR assessed Site 67 as subsurface selenium vegetated treatment field. However, the design for the site has changed to a surface treatment facility rather than a subsurface treatment field. As a result, the following analysis assesses the water quality impacts associated with the implementation of a treatment facility.

3.5.2 Significance Criteria

The following CEQA thresholds were used to evaluate the hydrology and water quality impacts associated with the proposed modifications:

- Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site?
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
- Otherwise substantially degrade water quality?

3.5.3 Summary of Potential Impact

The proposed project would be designed to remove naturally occurring selenium from the Peters Canyon Wash. The project would result in a beneficial water quality impact consistent with the original design of the project. The water quality of the effluent re-entering the creek would be better than when diverted. As a result, the modified project would result in beneficial water quality impacts.

The proposed project would require earthwork activities such as site preparation, grading, stockpiling of soils and excavation. These construction activities would encompass an area greater than an acre; therefore project construction would be subject to the General Construction Permit under the National Pollutant Discharge Elimination System (NPDES) permit program of the federal Clean Water Act. Construction of the project would be similar to the original project. The newly designed project would slightly alter the drainage, but would not substantially increase storm water runoff. The site would be subject to surface drainage design requirements imposed by the City.

3.5.4 Conclusion

The proposed project would not result in a new significant impact or substantially increase the severity of a previously identified significant impact. The proposed project would result in a beneficial water quality impact.

3.6 Land Use

The Final EIR assessed potential impacts land use and concluded that construction and operation of the proposed project would have a less than significant impact with incorporation of mitigation. The following discussion addresses potential impacts from the proposed modified project.

3.6.1 Setting

The project area is generally disturbed and currently includes the Cienega demonstration project. The site is surrounded with multiple land uses including Peters Canyon Wash Channel, residential uses, business commercial uses and some undeveloped land. The proposed facility would be constructed within a disturbed but vacant parcel bound by Barranca Parkway to the south, Peters Canyon Wash Channel to the northwest, commercial development to the north and Creekside Education Center to the east. The sites land use designation is Military and the zoning is 1.2 Development Reserve.

3.6.2 Significance Criteria

The following CEQA thresholds were used to evaluate the land use impacts associated with the operation and construction of the proposed project:

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

3.6.3 Summary of Potential Impact

The proposed modification would be a surface treatment facility rather than a subsurface treatment field as identified in the Final EIR. The purpose of the proposed project would still be to treat selenium in the Peter Canyon Wash. The proposed modification would require a smaller footprint than the treatment field; however the proposed modification would require an above ground building to house the equipment and bioreactors. As previously analyzed in the Final EIR the proposed project modification would be consistent with current zoning and land use designations and would not require an update to the General Plan. Therefore, no impacts would occur and no further analysis is warranted.

3.6.4 Conclusion

The proposed project would not result in a new significant impact or substantially increase the severity of a previously identified significant impact.

3.7 Noise

3.7.1 Setting

The project would be located adjacent to the Peters Canyon Wash Channel. The closest residences are approximately 200 feet east of the influent pump station. Currently the project site is undeveloped.

3.7.2 Significance Criteria

The following CEQA thresholds were used to evaluate the noise impacts associated with the proposed modifications:

- Would the project expose persons to, or generate noise levels, in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

3.7.3 Summary of Potential Impact

Construction

Construction activities would create a temporary increase in ambient noise levels in the immediate vicinity similar to the originally proposed project. The demolition and construction of the proposed project would generate noise due to construction equipment. The construction activities are anticipated to last for approximately 262 days. As a result, the demolition, grading, excavation and construction activity of the proposed facilities would have the potential for a short term noise impact to the surrounding land uses. Construction activities are exempted from the City of Irvine's Noise Ordinance provided they occur between 7:00 a.m. and 7:00 p.m. Mondays through Fridays, and between 9:00 a.m. and 6:00 p.m. on Saturdays. As a result, the proposed project would comply with the construction hours of the City of Irvine's noise ordinance; therefore, impacts would be less than significant.

Operation

None of the equipment would be exposed to the outside or surrounding area and would be placed in enclosed structures. The proposed pumps would be housed with reinforced concrete pump wells or pre-cast reinforced concrete box vaults. Documented noise measurements from pumps with similar designs (size, horsepower, housing, etc.) indicate that noise levels, even if the pumps run continuously for an hour, would be below the thresholds of significance (BonTerra Consulting, 2003). Furthermore, the equipment building is not in close proximity to residences that could be affected by nighttime noise. Therefore, the impact of the noise from the pump stations is not significant.

3.7.4 Conclusion

The Final EIR assessed potential impacts of construction and operation noise and concluded that construction and operation of the NTS sites would have a less than significant impact. The proposed modified project would not result in a new significant impact or substantially increase the severity of a previously identified significant impact.

4.0 Summary of Environmental Effects

As discussed above in this Addendum, the proposed modifications would not change the conclusions of the certified Final EIR. The construction and operation of the proposed modified treatment facility would meet the same objective of treating and removing selenium from Peter Canyon Wash as envisioned in the Final EIR. The proposed modification would be consistent with objectives of the Final EIR. As analyzed above in Section 3.0, no new potentially significant impacts would occur, and the project would not increase the severity of previously identified significant impacts. The proposed modifications to the previously-approved project do not meet any of the conditions that would require the preparation of a subsequent EIR or negative declaration set forth in Section 15162 of the *State Guidelines* or any of the conditions set forth in Section 15163 of the *State Guidelines*.

5.0 List of Preparers

The Irvine Ranch Water District

- Christian Kessler, Engineering Technician
- Ray Bennett PE, Water Resource and Energy Planner

ESA Consultants

- Tom Barnes, Project Director
- Kevin Smith, Project Manager

6.0 References

BonTerra Consulting, Environmental Noise Study for the Proposed San Diego Creek Watershed NTS in Orange County, February 2003

Final Environmental Impact Statement (FEIS)/Environmental Impact Report (FEIR) for the Disposal and Reuse of Marine Corp Air Station (MCAS), December 1999
<http://www.tustinlegacy.com/article.cfm?id=50>

Irvine Ranch Water District 30% Design Cienega Selenium Treatment Facility Preliminary Design Report, November 2010

San Diego Creek Watershed Natural Treatment System Final Environmental Impact Report. April 26, 2004

Southern California Air Quality Management District, CEQA Air Quality Handbook, 1993

7.0 Determination

According to Section 15164(a) of the *Guidelines*, the lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred. Section 15162 of the *Guidelines* lists the conditions that would require the preparation of a subsequent EIR rather than an addendum. These include the following:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time of the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
 - (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The IRWD has evaluated the environmental impacts of the proposed modified project, which are described in Section 1.2 of this Addendum, in light of the requirements defined under CEQA and the *State Guidelines*. As noted in Section 1.1 of this Addendum, IRWD, acting as the Lead Agency, has determined that none of the above conditions apply and Addendum No. 1 to the certified Final EIR is the appropriate environmental documentation for the proposed modifications and fully complies with CEQA and the *State Guidelines*.

Irvine Ranch Water District

Signature

Date

Printed Name

Title

APPENDIX A

Air Emissions Calculations

Urbemis 2007 Version 9.2.4

Summary Report for Summer Emissions (Pounds/Day)

File Name: C:\Documents and Settings\cmp\Application Data\Urbemis\Version9a\Projects\OM Building.urb924

Project Name: OM Building

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

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011 TOTALS (lbs/day unmitigated)	8.64	75.45	39.53	0.02	5.68	3.66	9.34	1.20	3.36	4.56	8,395.57
2012 TOTALS (lbs/day unmitigated)	16.76	8.85	6.15	0.00	0.01	0.53	0.54	0.00	0.48	0.49	1,219.66

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.25	0.83	2.23	0.00	0.01	0.01	969.25

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.41	0.51	4.50	0.01	0.90	0.18	536.08

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SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.66	1.34	6.73	0.01	0.91	0.19	1,505.33

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\cmp\Application Data\Urbemis\Version9a\Projects\OM Building.urb924

Project Name: OM Building

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

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011 TOTALS (tons/year unmitigated)	0.15	1.20	0.71	0.00	0.05	0.07	0.11	0.01	0.06	0.07	145.49
2012 TOTALS (tons/year unmitigated)	0.14	0.12	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	16.65

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.04	0.15	0.40	0.00	0.00	0.00	176.89

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.07	0.10	0.81	0.00	0.16	0.03	94.73

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.11	0.25	1.21	0.00	0.16	0.03	271.62

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011	0.15	1.20	0.71	0.00	0.05	0.07	0.11	0.01	0.06	0.07	145.49

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Mass Grading 05/18/2011-06/21/2011	0.05	0.44	0.22	0.00	0.04	0.02	0.06	0.01	0.02	0.03	52.31
Mass Grading Dust	0.00	0.00	0.00	0.00	0.04	0.00	0.04	0.01	0.00	0.01	0.00
Mass Grading Off Road Diesel	0.04	0.29	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01	28.09
Mass Grading On Road Diesel	0.01	0.15	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	22.66
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55
Fine Grading 06/14/2011-06/21/2011	0.01	0.07	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.01	7.12
Fine Grading Dust	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
Fine Grading Off Road Diesel	0.01	0.07	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.74
Fine 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
Fine Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37
Trenching 06/21/2011-06/28/2011	0.01	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.52
Trenching Off Road Diesel	0.01	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.14
Trenching Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37
Asphalt 07/01/2011-07/07/2011	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.10
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	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.45
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
Paving Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54
Building 07/07/2011-02/07/2012	0.08	0.61	0.41	0.00	0.00	0.04	0.04	0.00	0.03	0.03	77.45
Building Off Road Diesel	0.07	0.54	0.30	0.00	0.00	0.03	0.03	0.00	0.03	0.03	56.73
Building Vendor Trips	0.01	0.07	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.94
Building Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.78

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2012	0.14	0.12	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	16.65
Building 07/07/2011-02/07/2012	0.02	0.12	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	16.47
Building Off Road Diesel	0.01	0.11	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	12.06
Building Vendor Trips	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.75
Building Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.65
Coating 02/08/2012-02/28/2012	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18
Architectural Coating	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18

Phase Assumptions

Phase: Fine Grading 6/14/2011 - 6/21/2011 - Default Fine Site Grading/Excavation Description

Total Acres Disturbed: 0.54

Maximum Daily Acreage Disturbed: 0.14

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

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

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 5/18/2011 - 6/21/2011 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 0.54

Maximum Daily Acreage Disturbed: 0.14

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 427.8

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Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 6/21/2011 - 6/28/2011 - Default Trenching Description

Off-Road Equipment:

- 2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Other General Industrial Equipment (238 hp) operating at a 0.51 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

Phase: Paving 7/1/2011 - 7/7/2011 - Default Paving Description

Acres to be Paved: 0.14

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 7/7/2011 - 2/7/2012 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 2/8/2012 - 2/28/2012 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100

Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50

Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250

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Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.01	0.15	0.12	0.00	0.00	0.00	176.38
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.02	0.00	0.28	0.00	0.00	0.00	0.51
Consumer Products	0.00						
Architectural Coatings	0.01						
TOTALS (tons/year, unmitigated)	0.04	0.15	0.40	0.00	0.00	0.00	176.89

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
Warehouse	0.07	0.10	0.81	0.00	0.16	0.03	94.73
TOTALS (tons/year, unmitigated)	0.07	0.10	0.81	0.00	0.16	0.03	94.73

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Warehouse		4.96	1000 sq ft	11.73	58.18	522.06
					58.18	522.06

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.5	0.6	99.2	0.2
Light Truck < 3750 lbs	7.3	1.4	95.9	2.7
Light Truck 3751-5750 lbs	23.0	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.7	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.8	60.7	39.3	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Warehouse				2.0	1.0	97.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\cmp\Application Data\Urbemis\Version9a\Projects\OM Building.urb924

Project Name: OM Building

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

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011 TOTALS (lbs/day unmitigated)	10.03	93.18	46.35	0.05	13.37	4.37	17.74	2.81	4.02	6.83	11,075.93
2012 TOTALS (lbs/day unmitigated)	41.04	10.27	8.45	0.01	0.03	0.59	0.62	0.01	0.54	0.55	1,692.52

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.35	0.83	2.23	0.00	0.01	0.01	969.25

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1.00	1.24	11.03	0.01	2.21	0.43	1,313.00

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1.35	2.07	13.26	0.01	2.22	0.44	2,282.25

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 5/18/2011-6/13/2011	5.19	53.21	24.36	0.04	6.76	2.37	9.12	1.43	2.18	3.61	6,865.24
Active Days: 19											
Mass Grading 05/18/2011-06/21/2011	5.19	53.21	24.36	0.04	6.76	2.37	9.12	1.43	2.18	3.61	6,865.24
Mass Grading Dust	0.00	0.00	0.00	0.00	6.60	0.00	6.60	1.38	0.00	1.38	0.00
Mass Grading Off Road Diesel	2.83	23.44	11.96	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,247.32
Mass Grading On Road Diesel	2.33	29.71	11.43	0.04	0.15	1.19	1.34	0.05	1.10	1.15	4,493.55
Mass Grading Worker Trips	0.03	0.06	0.98	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.37
Time Slice 6/14/2011-6/20/2011	8.05	76.70	37.30	0.04	13.36	3.54	16.91	2.81	3.26	6.07	9,236.92
Active Days: 5											
Fine Grading 06/14/2011-06/21/2011	2.86	23.49	12.93	0.00	6.61	1.18	7.78	1.38	1.08	2.46	2,371.69
Fine Grading Dust	0.00	0.00	0.00	0.00	6.60	0.00	6.60	1.38	0.00	1.38	0.00
Fine Grading Off Road Diesel	2.83	23.44	11.96	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,247.32
Fine 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
Fine Grading Worker Trips	0.03	0.06	0.98	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.37
Mass Grading 05/18/2011-06/21/2011	5.19	53.21	24.36	0.04	6.76	2.37	9.12	1.43	2.18	3.61	6,865.24
Mass Grading Dust	0.00	0.00	0.00	0.00	6.60	0.00	6.60	1.38	0.00	1.38	0.00
Mass Grading Off Road Diesel	2.83	23.44	11.96	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,247.32
Mass Grading On Road Diesel	2.33	29.71	11.43	0.04	0.15	1.19	1.34	0.05	1.10	1.15	4,493.55
Mass Grading Worker Trips	0.03	0.06	0.98	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.37

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Time Slice 6/21/2011-6/21/2011	<u>10.03</u>	<u>93.18</u>	<u>46.35</u>	<u>0.05</u>	<u>13.37</u>	<u>4.37</u>	<u>17.74</u>	<u>2.81</u>	<u>4.02</u>	<u>6.83</u>	<u>11,075.93</u>
Active Days: 1											
Fine Grading 06/14/2011-06/21/2011	2.86	23.49	12.93	0.00	6.61	1.18	7.78	1.38	1.08	2.46	2,371.69
Fine Grading Dust	0.00	0.00	0.00	0.00	6.60	0.00	6.60	1.38	0.00	1.38	0.00
Fine Grading Off Road Diesel	2.83	23.44	11.96	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,247.32
Fine 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
Fine Grading Worker Trips	0.03	0.06	0.98	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.37
Mass Grading 05/18/2011-06/21/2011	5.19	53.21	24.36	0.04	6.76	2.37	9.12	1.43	2.18	3.61	6,865.24
Mass Grading Dust	0.00	0.00	0.00	0.00	6.60	0.00	6.60	1.38	0.00	1.38	0.00
Mass Grading Off Road Diesel	2.83	23.44	11.96	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,247.32
Mass Grading On Road Diesel	2.33	29.71	11.43	0.04	0.15	1.19	1.34	0.05	1.10	1.15	4,493.55
Mass Grading Worker Trips	0.03	0.06	0.98	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.37
Trenching 06/21/2011-06/28/2011	1.98	16.48	9.05	0.00	0.01	0.82	0.83	0.00	0.76	0.76	1,839.01
Trenching Off Road Diesel	1.95	16.42	8.07	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,714.64
Trenching Worker Trips	0.03	0.06	0.98	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.37
Time Slice 6/22/2011-6/28/2011	1.98	16.48	9.05	0.00	0.01	0.82	0.83	0.00	0.76	0.76	1,839.01
Active Days: 5											
Trenching 06/21/2011-06/28/2011	1.98	16.48	9.05	0.00	0.01	0.82	0.83	0.00	0.76	0.76	1,839.01
Trenching Off Road Diesel	1.95	16.42	8.07	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,714.64
Trenching Worker Trips	0.03	0.06	0.98	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.37

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Time Slice 7/1/2011-7/6/2011 Active Days: 4	2.10	12.02	8.87	0.00	0.01	1.01	1.02	0.00	0.93	0.93	1,297.28
Asphalt 07/01/2011-07/07/2011	2.10	12.02	8.87	0.00	0.01	1.01	1.02	0.00	0.93	0.93	1,297.28
Paving Off-Gas	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.83	11.26	6.91	0.00	0.00	0.98	0.98	0.00	0.90	0.90	979.23
Paving On Road Diesel	0.05	0.66	0.26	0.00	0.00	0.03	0.03	0.00	0.02	0.03	100.42
Paving Worker Trips	0.05	0.10	1.71	0.00	0.01	0.01	0.02	0.00	0.00	0.01	217.64
Time Slice 7/7/2011-7/7/2011 Active Days: 1	3.51	23.20	17.74	0.01	0.05	1.66	1.71	0.02	1.53	1.55	2,989.86
Asphalt 07/01/2011-07/07/2011	2.10	12.02	8.87	0.00	0.01	1.01	1.02	0.00	0.93	0.93	1,297.28
Paving Off-Gas	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.83	11.26	6.91	0.00	0.00	0.98	0.98	0.00	0.90	0.90	979.23
Paving On Road Diesel	0.05	0.66	0.26	0.00	0.00	0.03	0.03	0.00	0.02	0.03	100.42
Paving Worker Trips	0.05	0.10	1.71	0.00	0.01	0.01	0.02	0.00	0.00	0.01	217.64
Building 07/07/2011-02/07/2012	1.41	11.19	8.87	0.01	0.03	0.66	0.69	0.01	0.60	0.61	1,692.57
Building Off Road Diesel	1.11	8.51	4.68	0.00	0.00	0.54	0.54	0.00	0.50	0.50	893.39
Building Vendor Trips	0.22	2.54	1.84	0.00	0.02	0.10	0.12	0.01	0.10	0.10	499.04
Building Worker Trips	0.07	0.14	2.35	0.00	0.01	0.01	0.02	0.01	0.01	0.01	300.14
Time Slice 7/8/2011-12/30/2011 Active Days: 126	1.41	11.19	8.87	0.01	0.03	0.66	0.69	0.01	0.60	0.61	1,692.57
Building 07/07/2011-02/07/2012	1.41	11.19	8.87	0.01	0.03	0.66	0.69	0.01	0.60	0.61	1,692.57
Building Off Road Diesel	1.11	8.51	4.68	0.00	0.00	0.54	0.54	0.00	0.50	0.50	893.39
Building Vendor Trips	0.22	2.54	1.84	0.00	0.02	0.10	0.12	0.01	0.10	0.10	499.04
Building Worker Trips	0.07	0.14	2.35	0.00	0.01	0.01	0.02	0.01	0.01	0.01	300.14

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Time Slice 1/2/2012-2/7/2012 Active Days: 27	1.30	<u>10.27</u>	<u>8.45</u>	<u>0.01</u>	<u>0.03</u>	<u>0.59</u>	<u>0.62</u>	<u>0.01</u>	<u>0.54</u>	<u>0.55</u>	<u>1,692.52</u>
Building 07/07/2011-02/07/2012	1.30	10.27	8.45	0.01	0.03	0.59	0.62	0.01	0.54	0.55	1,692.52
Building Off Road Diesel	1.03	7.87	4.56	0.00	0.00	0.49	0.49	0.00	0.45	0.45	893.39
Building Vendor Trips	0.20	2.27	1.70	0.00	0.02	0.09	0.11	0.01	0.08	0.09	499.05
Building Worker Trips	0.07	0.13	2.19	0.00	0.01	0.01	0.02	0.01	0.01	0.01	300.09
Time Slice 2/8/2012-2/28/2012 Active Days: 15	<u>41.04</u>	0.02	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	59.54
Coating 02/08/2012-02/28/2012	41.04	0.02	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	59.54
Architectural Coating	41.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	59.54

Phase Assumptions

Phase: Fine Grading 6/14/2011 - 6/21/2011 - Default Fine Site Grading/Excavation Description

Total Acres Disturbed: 1.32

Maximum Daily Acreage Disturbed: 0.33

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

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

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 5/18/2011 - 6/21/2011 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 1.32

Maximum Daily Acreage Disturbed: 0.33

Fugitive Dust Level of Detail: Default

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20 lbs per acre-day

On Road Truck Travel (VMT): 1060.2

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 6/21/2011 - 6/28/2011 - Default Trenching Description

Off-Road Equipment:

- 2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Other General Industrial Equipment (238 hp) operating at a 0.51 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

Phase: Paving 7/1/2011 - 7/7/2011 - Default Paving Description

Acres to be Paved: 0.33

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 7/7/2011 - 2/7/2012 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 2/8/2012 - 2/28/2012 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100

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Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50

Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.06	0.81	0.68	0.00	0.00	0.00	966.44
Hearth - No Summer Emissions							
Landscape	0.12	0.02	1.55	0.00	0.01	0.01	2.81
Consumer Products	0.00						
Architectural Coatings	0.17						
TOTALS (lbs/day, unmitigated)	0.35	0.83	2.23	0.00	0.01	0.01	969.25

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
Warehouse	1.00	1.24	11.03	0.01	2.21	0.43	1,313.00
TOTALS (lbs/day, unmitigated)	1.00	1.24	11.03	0.01	2.21	0.43	1,313.00

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Warehouse		4.96	1000 sq ft	28.73	142.50	1,278.66
					142.50	1,278.66

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.5	0.6	99.2	0.2
Light Truck < 3750 lbs	7.3	1.4	95.9	2.7
Light Truck 3751-5750 lbs	23.0	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.7	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.8	60.7	39.3	0.0
School Bus	0.1	0.0	0.0	100.0

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Warehouse				2.0	1.0	97.0

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\cmp\Application Data\Urbemis\Version9a\Projects\OM Building.urb924

Project Name: OM Building

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

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011 TOTALS (tons/year unmitigated)	0.17	1.53	0.96	0.00	0.11	0.08	0.19	0.02	0.07	0.10	209.17
2012 TOTALS (tons/year unmitigated)	0.33	0.14	0.12	0.00	0.00	0.01	0.01	0.00	0.01	0.01	23.30

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.06	0.15	0.40	0.00	0.00	0.00	176.89

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.18	0.24	1.99	0.00	0.40	0.08	232.02

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.24	0.39	2.39	0.00	0.40	0.08	408.91

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011	0.17	1.53	0.96	0.00	0.11	0.08	0.19	0.02	0.07	0.10	209.17

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Mass Grading 05/18/2011-06/21/2011	0.06	0.67	0.30	0.00	0.08	0.03	0.11	0.02	0.03	0.05	85.82
Mass Grading Dust	0.00	0.00	0.00	0.00	0.08	0.00	0.08	0.02	0.00	0.02	0.00
Mass Grading Off Road Diesel	0.04	0.29	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01	28.09
Mass Grading On Road Diesel	0.03	0.37	0.14	0.00	0.00	0.01	0.02	0.00	0.01	0.01	56.17
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55
Fine Grading 06/14/2011-06/21/2011	0.01	0.07	0.04	0.00	0.02	0.00	0.02	0.00	0.00	0.01	7.12
Fine Grading Dust	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00
Fine Grading Off Road Diesel	0.01	0.07	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.74
Fine 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
Fine Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37
Trenching 06/21/2011-06/28/2011	0.01	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.52
Trenching Off Road Diesel	0.01	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.14
Trenching Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37
Asphalt 07/01/2011-07/07/2011	0.01	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.24
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	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.45
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Paving Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54
Building 07/07/2011-02/07/2012	0.09	0.71	0.56	0.00	0.00	0.04	0.04	0.00	0.04	0.04	107.48
Building Off Road Diesel	0.07	0.54	0.30	0.00	0.00	0.03	0.03	0.00	0.03	0.03	56.73
Building Vendor Trips	0.01	0.16	0.12	0.00	0.00	0.01	0.01	0.00	0.01	0.01	31.69
Building Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.06

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2012	0.33	0.14	0.12	0.00	0.00	0.01	0.01	0.00	0.01	0.01	23.30
Building 07/07/2011-02/07/2012	0.02	0.14	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	22.85
Building Off Road Diesel	0.01	0.11	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	12.06
Building Vendor Trips	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.74
Building Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.05
Coating 02/08/2012-02/28/2012	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45
Architectural Coating	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45

Phase Assumptions

Phase: Fine Grading 6/14/2011 - 6/21/2011 - Default Fine Site Grading/Excavation Description

Total Acres Disturbed: 1.32

Maximum Daily Acreage Disturbed: 0.33

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

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

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 5/18/2011 - 6/21/2011 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 1.32

Maximum Daily Acreage Disturbed: 0.33

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 1060.2

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Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 6/21/2011 - 6/28/2011 - Default Trenching Description

Off-Road Equipment:

- 2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Other General Industrial Equipment (238 hp) operating at a 0.51 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

Phase: Paving 7/1/2011 - 7/7/2011 - Default Paving Description

Acres to be Paved: 0.33

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 7/7/2011 - 2/7/2012 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 2/8/2012 - 2/28/2012 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100

Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50

Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250

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Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.01	0.15	0.12	0.00	0.00	0.00	176.38
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.02	0.00	0.28	0.00	0.00	0.00	0.51
Consumer Products	0.00						
Architectural Coatings	0.03						
TOTALS (tons/year, unmitigated)	0.06	0.15	0.40	0.00	0.00	0.00	176.89

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
Warehouse	0.18	0.24	1.99	0.00	0.40	0.08	232.02
TOTALS (tons/year, unmitigated)	0.18	0.24	1.99	0.00	0.40	0.08	232.02

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Warehouse		4.96	1000 sq ft	28.73	142.50	1,278.66
					142.50	1,278.66

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.5	0.6	99.2	0.2
Light Truck < 3750 lbs	7.3	1.4	95.9	2.7
Light Truck 3751-5750 lbs	23.0	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.7	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.8	60.7	39.3	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Warehouse				2.0	1.0	97.0

Greenhouse Gas (GHG) Emissions Calculations

Project Name: IRWD NTS Addendum

Indirect Greenhouse Gas (GHG) Emissions from Project use of Electricity (Power Plant Emissions)

Estimated Project Annual Electrical Use: 865,000 kWh (kilowatt hours)/year
865 mWh (megawatt hours)/year

Indirect GHG gases	Emission Factor lb/mWh	Annual		CO2 Equivalent Factor	Annual
		Project Electricity mWh	GHGs metric tons		CO2 Equivalent Emissions (metric to
Carbon Dioxide (CO2)	650	865	255	1	255
Nitrous Oxide (N2O)	0.0037	865	0.0	296	0
Methane (CH4)	0.0067	865	0.0	23	0
Total Indirect GHG Emissions from Project Electricity Use=					256

Total Annual Greenhouse Gas (GHG) Emission from Project Operations -- All Sources (CO2 equivalent Metric Tons)

Electrical Use 256
Total= 256

Notes and References:

Total Emissions from Indirect Electricity Use

Formula and Emission Factor from The California Climate Action Registry Report Protocol 2006

Pg. 32 (CCARRP) gives Equations

Southern California Edison gives CO2 output emission rate (lbs/mWh)
650 lbs/mWh

Pg. 85 (CCARRP) gives CO2 equivalency factors

Pg. 87 (CCARRP) gives Methane and Nitrous Oxide electricity emission factors (lbs/mWh)

Methane - 0.0067 (lbs/mWh)

Nitrous Oxide - 0.0037 (lbs/mWh)

lbs/metric ton = 2204.62

Percentage of 25,000 1.0%
Percentage of 427 Milli 0.0001%
percentage of 10,000 3%

	Tons from URBEMIS	Metric Tons
Construction	183	166

Amortized over 30 years
6 metric tons/yr

Annual kWh Calculations for Project

Project Name: IRWD NTS addendum

Annual Electrical Use: 865,000 kwh/yr

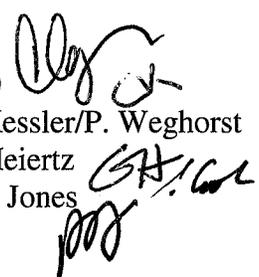
provided by applicant

December 13, 2010

Prepared by: C. Kessler/P. Weghorst

Submitted by: G. Heiertz

Approved by: Paul Jones

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CONSENT CALENDAR

ADDENDUM NO. 4 TO THE IRVINE DESALTER PROJECT FINAL ENVIRONMENTAL IMPACT REPORT

SUMMARY:

Irvine Ranch Water District (IRWD) proposes to replace Well 78 that is part of the Irvine Desalter Project (IDP). Environmental review has been completed for the replacement of Well 78 and IRWD has prepared Addendum No. 4 to the Final Environmental Impact Report (FEIR) for the IDP pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines. Staff recommends that the Board approve Addendum No. 4 to the FEIR.

BACKGROUND:

The IDP is a joint groundwater quality restoration project of Orange County Water District (OCWD) and IRWD. The United States Department of Navy (DON) is a financial participant in the project. One of the purposes of the IDP is to clean up volatile organic compounds (VOCs) from groundwater in the vicinity of the former Marine Corps Air Station (MCAS) El Toro Base. Well 78 is one of three wells associated with the project that are located off of the MCAS that prevent a VOC plume from migrating into domestic water supplies. This well is located at the west corner of Warner Avenue and Culver Drive as shown on the location map provided as Exhibit "A". The concentrations of VOCs in water extracted from Well 78 are currently below Maximum Contaminant Levels and this water is delivered directly into IRWD's Zone A non-potable distribution system.

An IDP related settlement agreement requires that Well 78 needs to pump a minimum of 600 gallons per minute. Well 78 has been rehabilitated several times and is nearing the end of its useful life. The existing well needs to be replaced with a well that meets the minimum pumping requirements. The process of replacement will require that the existing well be destroyed and a new well drilled and constructed in the same location. Environmental review has been completed for the replacement of Well 78 and Addendum No. 4 has been prepared to the FEIR. A copy of Addendum No. 4 is attached as Exhibit "B". Following is a brief summary of the history related to the FEIR and related addendums that been prepared in the past.

Final Environmental Impact Report:

The OCWD Board of Directors certified the Final Environmental Impact Report for the Irvine Desalter Project on May 16, 1990. The FEIR examined the impacts of the project, which included the extraction of groundwater containing high concentrations of salts, nitrates, selenium and VOCs and the treatment of the groundwater at a central treatment plant. The FEIR also examined the conveyance of the treated water to the local potable water system and the disposal of the facility's brine waste product in the regional sanitary sewer system. The OCWD Board adopted a Statement of Overriding Considerations and a Mitigated Monitoring Plan and filed a Notice of Determination for the project.

Addendum No. 1:

On May 19, 1993, the OCWD Board approved Addendum No. 1 to the FEIR. Addendum No. 1 considered relocating the central treatment plant to a site that was not included in the original set of five alternatives considered in the FEIR. The new site was located adjacent to the IRWD headquarters on Waterworks Way.

Addendum No. 2:

Addendum No. 2 was approved by the OCWD Board on June 6, 2001. Addendum No. 2 examined impacts associated with minor alterations to reconfigure the project into two separate production and treatment systems for non-potable and potable water. Water pumped from the wells in the area of the VOC plume would be treated separately and used for non-potable purposes. Groundwater from areas outside of the VOC plume would be separately treated and delivered to the potable system. The revised design called for the separate treatment systems to be housed at one site. The addendum also covered alternative well sites.

Addendum No. 3:

On September 15, 2004, the OCWD Board approved Addendum No. 3 to the FEIR. Addendum No. 3 examined impacts associated with several proposed cost-saving modifications to the IDP that were associated with the separate potable and non-potable systems. Modifications consisted of relocating the site for the potable treatment plant, additional potable wells, new locations of potable well sites, construction of new pipelines, reuse of existing pipelines, construction of a new brine line, and other appurtenant changes as they related to those modifications. Modifications to the nonpotable system consisted of construction of two treatment facilities, an additional injection well, relocation of one well site location, construction of pipelines, and appurtenant changes as they related to these modifications. Rehabilitation of Well 78 was addressed as part of this evaluation.

Proposed Addendum No. 4:

Addendum No.4 to the FEIR has been prepared to address the replacement of Well 78 at the same location. The project will include the destruction and replacement of the existing well, wellhead, vault and all electrical, instrumentation and ancillary equipment. The capacity of the replacement well will be similar to the original capacity of the existing well and will not result in an expansion of existing capacity or use as identified in the FEIR. Staff recommends that the Board approve Addendum No. 4 and approve the replacement of Well 78.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Section 15164 of the State CEQA Guidelines provides for the preparation of addendum to a previously certified EIR by a lead agency or a responsible agency if some changes or additions to the project are necessary but none of the conditions described in CEQA calling for preparation of a subsequent EIR have occurred. Based on the information and analysis in the proposed Addendum No. 4, the concluding section of the Addendum sets forth the proposed determinations by the District that none of such conditions have occurred.

COMMITTEE STATUS:

Addendums to a Final Environmental Impact Report are not typically taken to Committee prior to submittal for Board approval.

RECOMMENDATION:

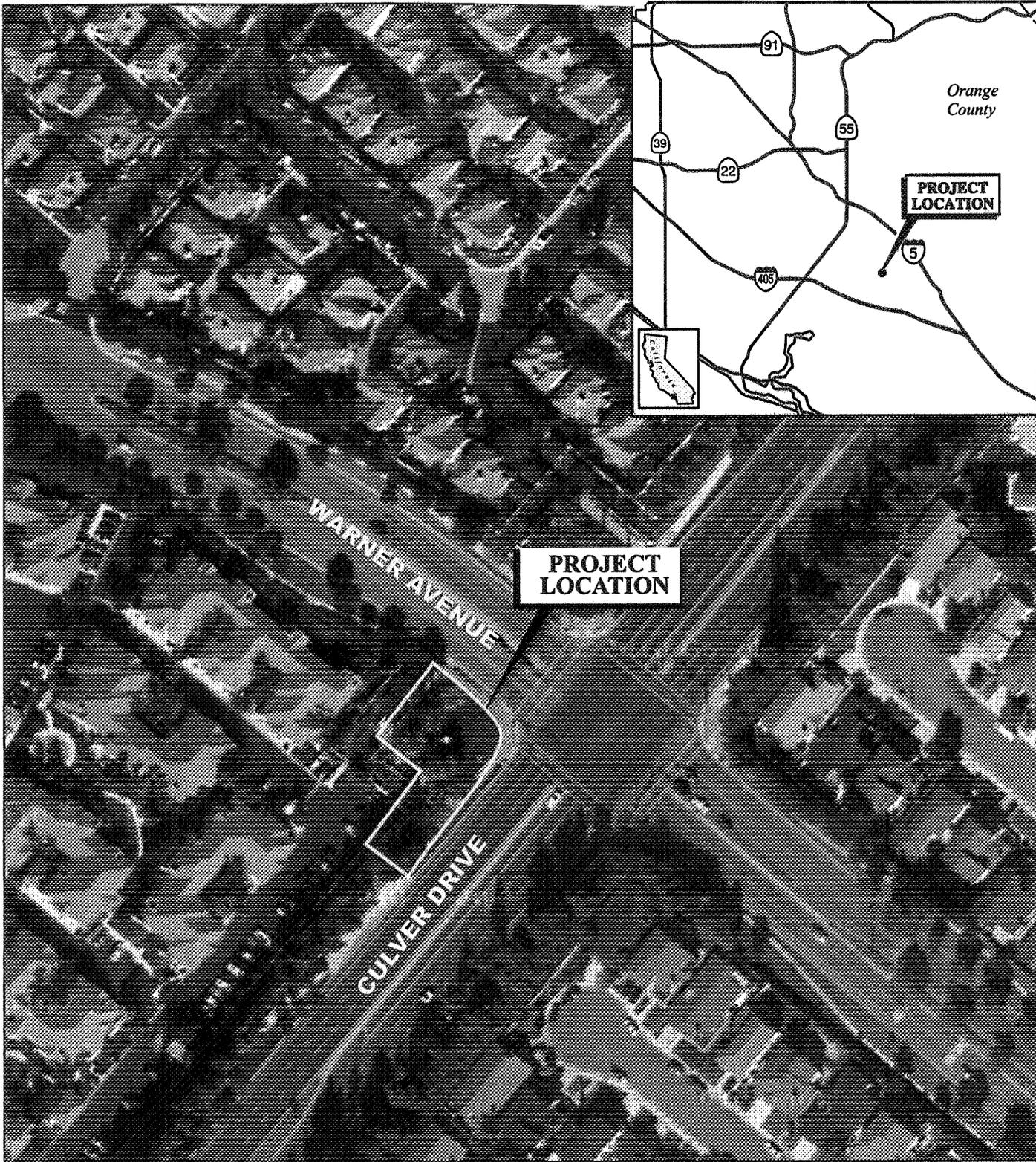
THAT THE BOARD APPROVE THE PROPOSED ADDENDUM NO. 4 TO THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE IRVINE DESALTER PROJECT, INCLUDING THE DETERMINATIONS SET FORTH IN THE ADDENDUM, AND APPROVE THE PROJECT WHICH CONSISTS OF REPLACING WELL 78.

LIST OF EXHIBITS:

Exhibit "A" – Location Map

Exhibit "B" – Addendum No. 4 to the Irvine Desalter Project FEIR

Exhibit "A"



LSA



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FEET

SOURCE: Google Maps

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Irvine Desalter Project-Addendum 4
Project Location Map

Exhibit "B"

ADDENDUM NO. 4 TO THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE IRVINE DESALTER PROJECT

Submitted to:

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LSA

December 2010

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1.0 INTRODUCTION

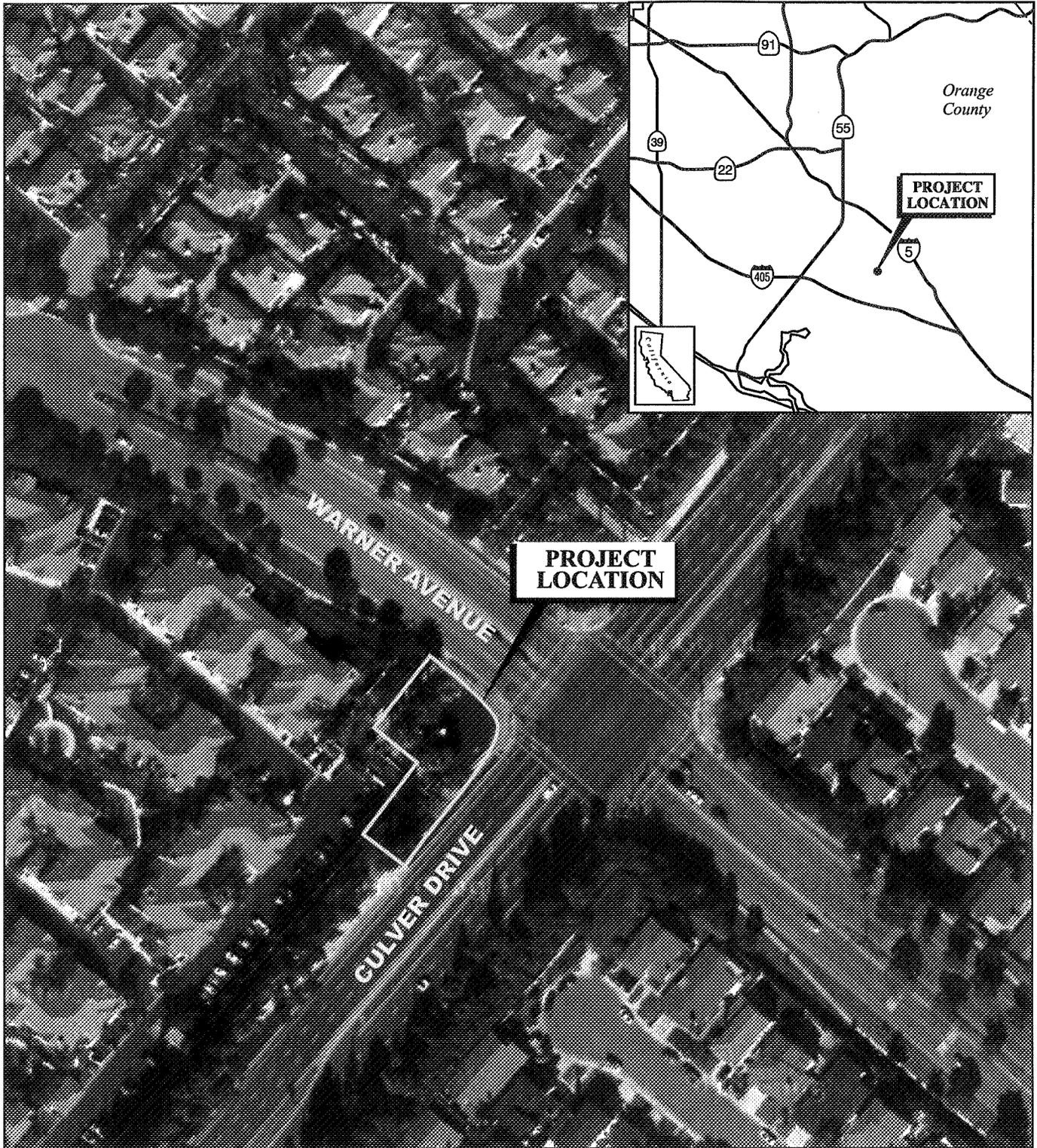
The Irvine Ranch Water District (IRWD) has prepared this Addendum No. 4 to the Environmental Impact Report (EIR) for the Irvine Desalter Project (IDP; hereafter also referred to as the project), pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines. This Addendum addresses the replacement of existing Well 78.

1.1 BACKGROUND

The IDP is a joint groundwater quality restoration project by the IRWD and OCWD, with financial participation by the United States Department of the Navy (DON), to clean up the groundwater in the vicinity of the former Marine Corps Air Station (MCAS) El Toro base. The natural geology and past agricultural drainage have resulted in undesirable levels of total dissolved solids (TDS)—or salts—and nitrates in the local groundwaters. Separately, past chemical disposal and waste handling practices at the former MCAS have caused seepage of volatile organic compounds (VOCs) such as trichloroethylene (TCE) into both the shallow and principal aquifers on and adjacent to the former MCAS. The shallow groundwater VOC contamination, referred to as the shallow groundwater unit (SGU) Site 24, is primarily limited to the base property itself, which currently remains under DON ownership. However, a VOC plume in the principal aquifer, also referred to as Site 18, extends northwest to a distance of approximately 3 miles (mi) from the base.

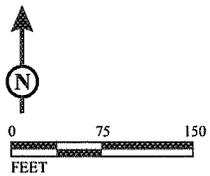
In 2002, in an effort to remediate the groundwater at the Former El Toro Marine Corps Air Station, a Record of Decision (ROD) was prepared in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA). Cleanup activities at the Former El Toro Marine Corps Air Station are being conducted in accordance with the June 2001 settlement agreement between the U.S. Department of Justice, on behalf of the Marine Corps and the Navy, and the Orange County Water District and the Irvine Ranch Water District (IRWD), and the Record of Decision (ROD) that was finalized in 2002 which documents regulatory agency concurrence for groundwater cleanup. As part of the accompanying Settlement Agreement (June 2001), there are three off-station principal aquifer extraction wells that are utilized to prevent the trichloroethene (TCE) plume from migrating into domestic water supplies. The three extraction wells include El Toro 1 (ET-1), El Toro 2 (ET-2), and Well 78. In order to meet the terms of the DON Settlement Agreement, Well 78 needs to pump a minimum of 600 gallons per minute (gpm). Well 78 is located at the west corner of Warner Avenue and Culver Drive in the City of Irvine (Figure 1).

Groundwater extracted from Well ET-1 is treated at the Principal Aquifer Treatment Plant (PTP) and distributed into IRWD's non-potable system. The PTP is located on the northeast corner of Irvine Center Drive and Jeffrey Road. Treatment consists of treating the water using air stripping and treating the off gas from the air stripper using granular activated carbon (GAC). The product water is discharged into IRWD's Zone A nonpotable system. When nonpotable water demands are low, the nonpotable product water can be discharged to IRWD's seasonal storage reservoir, the San Joaquin Reservoir, via existing pipelines.



LSA

FIGURE 1



Irvine Desalter Project-Addendum 4
Project Location Map

SOURCE: Google Maps
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Extracted groundwater from Wells 78 and ET-2 is connected directly to the IRWD's Zone A nonpotable system. However, if VOC concentrations at these wells exceed the Maximum Contaminant Levels (MCLs), the extracted groundwater will be conveyed to the PTP for VOC removal. Well 78 does not currently go to the PTP for treatment because the VOCs levels are below the MCLs. The existing Well 78 is now nearing the end of its useful life and needs to be destroyed and redrilled in order to meet the minimum pumping requirement per the DON Settlement Agreement.

1.2 PREVIOUS ENVIRONMENTAL DOCUMENTATION

The following environmental documents have been prepared in support of the IDP and subsequent modifications.

Final Environmental Impact Report (1990)

The 1990 Final EIR (FEIR) examined the impacts of the project, which included the extraction of groundwater containing high concentrations of salts, nitrates, selenium, and VOCs; treatment of the groundwater at a central treatment plant; conveyance of the treated water to the local potable water system; and disposal of the facility's brine waste product in the regional sanitary sewer system. The EIR was certified by the OCWD Board of Directors on May 16, 1990 (Resolution No. 90-5-120). As required by CEQA, the Board adopted a Statement of Overriding Considerations and a Mitigation Monitoring Plan and filed the Notice of Determination with the Governor's Office of Planning and Research (OPR) and County Clerk.

Addendum 1 to the EIR (1993)

On May 19, 1993, the OCWD Board approved an Addendum to the FEIR (Resolution No. 93-5-85). The Addendum considered relocating the PTP to a site that was not included in the original set of five alternatives considered in the FEIR. The new site was located adjacent to the IRWD headquarters on Waterworks Way.

Addendum 2 to the EIR (2001)

Subsequent to the First Addendum, IRWD organized several focus groups consisting of the general public, informed IRWD customers, and local community leaders to address public and local concerns. After numerous workshop meetings, it was found that customers supported the project but were concerned with treated water previously contaminated from the VOC plume entering the potable water system.

In response to these concerns, the OCWD and IRWD proposed minor alterations to reconfigure the project into two separate production and treatment systems: nonpotable and potable. Water pumped from the wells in the area of the VOC plume would be treated separately and used for nonpotable purposes, such as irrigation and industrial uses, and/or reinjected. Groundwater from areas outside of the VOC plume would be separately treated and delivered to the potable system.

The reconfigured systems were designed to be separate treatment systems housed at one site. In addition, the need for several alternative well sites was identified. On June 6, 2001, the OCWD Board approved an Addendum to the FEIR to cover these project modifications (Resolution No. 01-6-83).

Addendum 3 to the EIR (2004)

Subsequent to the Second Addendum, the OCWD and IRWD proposed several cost-saving modifications to the IDP that were associated with the separate systems (nonpotable and potable). Modifications to the potable system consisted of a relocated site for the Potable Treatment Plant (PTP), additional potable wells, new locations of potable well sites, construction of new and reuse of existing pipelines, new brine line, and other appurtenant changes as they related to those modifications. Modifications to the nonpotable system consisted of construction of two treatment facilities (the SGU treatment facility adjacent to the former MCAS and the PTP on the Well ET-1 site), an additional injection well, relocation of one well site location, construction of pipelines, and appurtenant changes as they relate to these modifications. Rehabilitation of Well 78 was addressed as part of this evaluation.

On September 15, 2004, the OCWD Board approved Addendum No. 3 to the FEIR to cover these project modifications (Resolution No. 04-9-124).

1.3 PURPOSE OF ADDENDUM NO. 4

The IRWD is proposing replacement of Well 78 in the IDP. Addendum No. 4 to the 1990 FEIR has been prepared to address the replacement of Well 78. The Lead Agency for Addendum No. 4 will be the IRWD, as defined by CEQA. IRWD will be replacing existing Well 78 at the west corner of Warner Avenue and Culver Drive (Figure 1). The project will include the destruction and replacement of the existing well, wellhead, and vault; pipeline; electrical; instrumentation; and ancillary equipment. The replacement well will have a production rate that will be similar to the original capacity of the existing well, which will not result in an expansion of existing capacity or use as identified in the 1990 FEIR.

When a proposed project is changed or there are changes in the environmental setting, a determination must be made by the Lead Agency as to whether an Addendum or Subsequent FEIR is prepared. Criteria, as set forth in CEQA Guidelines Section 15162, are used to assess which environmental document is appropriate. The criteria for determining whether an Addendum or Subsequent FEIR is prepared are outlined below. If the criteria below apply, an Addendum is the appropriate document:

- No new significant impacts will result from the project or from new mitigation measures.
- No substantial changes have occurred with respect to the circumstances under which the project was originally proposed and the FEIR was certified; therefore it will not require major revisions to the FEIR since no new significant environmental effects and no substantial increase in the severity of previously identified impacts will occur.
- No substantial increase in the severity of environmental impact will occur.

- No new feasible alternatives or mitigation measures that would reduce impacts previously found not to be feasible have, in fact, been found to be feasible.

The IRWD reviewed information regarding the facility changes under consideration and determined that none of the conditions requiring preparation of a subsequent or supplemental EIR applied. Based upon the information provided in Sections 2.0 and 3.0 of this document, the proposed well replacement will not result in new significant impacts or substantially increase the severity of impacts previously identified in the FEIR, and there are no previously infeasible alternatives or mitigation measures that are now feasible. Therefore, an Addendum is appropriate, and Addendum No. 4 has been prepared to address the environmental effects of the well replacement.

1.4 DETERMINATION

Addendum No. 4 addresses the environmental effects associated only with the replacement of Well 78. The conclusions of the analysis in this Addendum are not substantially different from those made in the FEIR. No new significant impacts will result, and no substantial increase in severity of impacts will result from those previously identified in the FEIR. Based on the information and analysis in this Addendum No. 4, and pursuant to Section 15162 of the State CEQA Guidelines, the IRWD has determined that:

1. There are no substantial changes to the project that would require major revisions to either FEIR due to new, significant environmental effects, or a substantial increase in the severity of impacts identified in the FEIRs;
2. Substantial changes have not occurred in the circumstances under which the project is being undertaken that would require major revisions to either FEIR to disclose new, significant environmental effects, or a substantial increase in the severity of the impacts identified in the FEIRs; and
3. There is no new information of substantial importance not known at the time either FEIR was certified that shows that the project would have any new significant effects not discussed in either certified FEIR, or a substantial increase in the severity of the impacts identified in either FEIR, or that mitigation measures or alternatives previously found not feasible, or that are considerably different from those analyzed in either FEIR, would substantially reduce one or more significant effects.

2.0 PROJECT CHANGES

2.1 WELL 78 REPLACEMENT

As identified in the FEIR, existing Well No 78 is located at the intersection of Warner Avenue and Culver Drive and functions as a nonpotable well owned and operated by IRWD. IRWD has an easement for this existing wellsite.

The estimated capacity in accordance with the settlement agreement is approximately 2,900 gallons per minute (gpm) from Wells ET-1, ET-2, and 78. Table A provides the estimated extraction rates for the nonpotable wells. Raw water extracted by the nonpotable Wells ET-1, ET-2, and 78 is estimated to contain an average of approximately 750 milligrams per liter (mg/L) of TDS and 9 micrograms per liter (µg/L) of TCE.

Table A: Irvine Desalter Well Flows/Water Quality, Nonpotable Wells (ET)

Well	Flow (gpm) (Estimated)	Quality		
		TDS (mg/L)	Nitrates (mg/L)	TCE (µg/L)
ET-1	1,000	950	11	11
ET-2 (113)	1,300	680	10	11
78	600	570	3	2
Totals/Average	2,900	750	9	9

Source: LSA Associates, Inc. September 2004. *Addendum No. 3 to the Environmental Impact Report for the Irvine Desalter Project*. Irvine, California.

gpm = gallons per minute
mg/L = milligrams per liter
TDS = total dissolved solids
µg/L = micrograms per liter
TCE = trichloroethylene

IRWD has not been able to meet its contractual pumping obligation, primarily due to lost production in Well 78. A well evaluation report by IRWD's geohydrologist, completed in April 2010, recommended replacement of the well. Recent video surveys of the interior of the casing shows enlarged perforations, substantial sanding, and extensive bacterial fouling. Further rehabilitation efforts have resulted in little to no improvement in production rates.

The project will include the destruction and replacement of the existing well, wellhead, and vault; pipeline; electrical; instrumentation; and ancillary equipment. The replacement well will be relocated approximately 20 feet (ft) to the south, generally under the existing Westpark entry sign. The replacement well will have a production rate that will be similar to the original capacity of the existing well, which will not result in an expansion of existing capacity or use.

During construction, the mature palm trees will be removed from the project site, temporarily stored off site, and replanted (or replaced as needed) at the completion of construction. In addition, some of the decorative walls, lights, and the Westpark entry sign will be temporarily removed during construction. The walls, lights, and entry sign would be replaced at the completion of construction of the replacement well.

Construction activities are anticipated to last 1 year and are scheduled to begin in the spring of 2011.

3.0 ENVIRONMENTAL EFFECTS OF WELL 78 REPLACEMENT

3.1 INTRODUCTION

This chapter evaluates the potential environmental impacts of the proposed well replacement identified in Chapter 2.0. This section also identifies any environmental impacts and changes to the environmental setting that may differ from the impacts and setting originally identified in the FEIR.

There have been no substantial changes to the circumstances under which the proposed project is being undertaken. Development of agricultural land to residential, commercial, and industrial uses has occurred within the project vicinity since certification of the FEIR in 1990. These developments reflect the type and intensity of uses identified in the City General Plan and do not represent a substantial change to the environmental baseline condition.

There has been a change in the regulatory environment identified in the FEIR since its certification. Senate Bill 97 (Chapter 185, 2007) required the OPR to develop recommended amendments to the State CEQA Guidelines for addressing greenhouse gas (GHG) emissions. OPR then prepared, developed, and transmitted the recommended amendments to the Natural Resources Agency on April 13, 2009. Those recommended amendments were developed to provide guidance to public agencies regarding the analysis and mitigation of GHG emissions and the effects of GHG emissions in draft CEQA documents. On February 16, 2010, the Office of Administrative Law approved the Amendments and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010. This Addendum addresses the amendments to the CEQA checklist and provides an analysis of GHGs consistent with the adopted CEQA thresholds.

Any mitigation measures referenced are the same measures identified in the FEIR. As discussed below, the modifications to the project will not result in substantial new impacts or new mitigation measures.

3.2 IMPACTS

3.2.1 Aesthetics

The project site is the landscaped edge of the Westpark residential community and functions as a designated entry point into the community. The area is generally developed with ornamental landscaping and some hardscape (sign, decorative walls, and sidewalks). The location of the replaced well would remain in the general vicinity of the existing well addressed in the FEIR and Addendums. The existing well is not currently visible to local residents, motorists, and pedestrians traveling in the vicinity of the well site, as the facility is located underground beneath a manicured lawn. Replacement of the well will not change the current visual appearance of the surrounding area except during construction activities. A construction fence will be installed around the construction area and will shield views of construction equipment and activities. As stated in Section 2.0, the mature palm trees on site will be temporarily removed during construction and replanted (or replaced as needed) at

the completion of construction. As stated in Section 2.0, the decorative walls, lights, and the Westpark entry sign will be temporarily destroyed during construction and would be replaced at the completion of construction of the replacement well. With replacement of the trees, decorative walls, lights, and the Westpark entry sign, the replacement well would not result in substantial changes to the existing view.

No additional aesthetic impacts beyond those identified in the FEIR would occur as a result of the Well 78 replacement.

3.2.2 Agricultural Resources

The FEIR identified significant farmland impacts stemming from the proposed project wells and pipelines. However, according to the most recent City General Plan, many of the agricultural areas identified in the previous FEIR have been entitled for or constructed with urban uses such as residential, commercial, and industrial. IRWD Well No. 78 is located on an easement for the parkway/landscaped lot of a residential development. The land use designation and current zoning of the surrounding area is Medium Density Residential and will not affect agricultural resources.

The well replacement will not result in additional agricultural resource impacts beyond those identified in the FEIR.

3.2.3 Air Quality

As discussed in the FEIR, the primary air quality impacts that would be associated with the proposed project are construction-related airborne dust and equipment-related emissions. The FEIR concluded that potential construction air quality impacts are less than significant with implementation of the dust palliative procedures outlined in the mitigation measures on page 5-8 of the FEIR. With implementation of these same measures, no new air quality impacts would occur as a result of the well replacement.

The proposed project would have operational impacts similar to but less than existing conditions. The operational air quality impacts are anticipated to be less than existing conditions, as the new well would be replaced with more energy-efficient equipment, resulting in fewer emissions.

No additional air quality impacts beyond those identified in the FEIR would occur as a result of the Well 78 replacement.

3.2.4 Biological Resources

The surrounding area of the well site is a heavily urbanized area. The project site is the landscaped edge of the Westpark residential community. The area is generally developed with ornamental landscaping and some hardscape (sign, decorative walls, and sidewalks) and therefore does not contain significant wildlife or vegetation species. No new biological resource impacts would occur as a result of the well replacement.

3.2.5 Cultural Resources

Implementation of the replacement well would result in no new impacts on cultural resources than those previously identified in the FEIR. The new well would be located in the same general location as the existing well. This well is located underground beneath a manicured lawn. Therefore, the area surrounding Well 78 has already been previously disturbed and excavated. As such, there will be no new impacts to known cultural resources. Potential impacts to unknown cultural resources at the well site are unlikely but would be addressed through implementation of the Cultural Resources Mitigation Measures outlined on page 5-29 of the IDP FEIR. No new cultural resources impacts are anticipated as a result of the well replacement.

3.2.6 Geology and Soils

The geologic and seismic conditions for the proposed well replacement are similar to those identified in the FEIR. In addition, the potential impacts associated with the well replacement would be similar to those addressed in the FEIR. Construction of the modified well facility would be implemented according to the requirements of the Uniform Building Code for Seismic Zone 4, and the project will incorporate all required local, State, and federal seismic safety standards. No new geological or soils impacts would occur as a result of the well replacement.

3.2.7 Hydrology and Water Quality

The hydrology and water quality conditions for the proposed well replacement are similar to the conditions described in the FEIR. High concentrations of salts, nitrates, and VOCs from historical agricultural, urban, industrial, and military activities occur in the shallow and principal aquifers in the vicinity of Well 78. The well replacement will have a beneficial effect on water quality by extracting local groundwaters primarily impaired by past VOC contamination. The quantity of water to be pumped and treated would be approximately the same as the amounts estimated in the FEIR and the DON pumping agreement.

The potential impacts of construction activities on water quality focus primarily on sediments, turbidity, and pollutants that might be associated with sediments (e.g., phosphorus and legacy pesticides). Construction-related activities that are primarily responsible for sediment releases are related to exposing soils to potential mobilization by rainfall/runoff and wind. Such activities include removal of vegetation and paving/hardscape from the site; excavating the site; and construction of the new well, associated infrastructure, and landscaped areas. Nonsediment-related pollutants that are also of concern during construction include waste construction materials; chemicals, liquid products, and petroleum products used in construction or the maintenance of heavy equipment; and concrete-related waste streams. The project site is less than 1 acre in size and is therefore not subject to the Construction General Permit.

The well replacement will not result in additional hydrology and water quality impacts beyond those identified in the FEIR.

3.2.8 Land Use Planning

IRWD Well No. 78 is located within a parkway/landscaped lot of the Westpark residential community within an existing easement. The land use designation and current zoning of the surrounding area is Medium Density Residential.

Construction of the replacement well will not alter existing land uses or require a modification to existing land use designations. Impacts associated with construction and operation of the well would be similar to impacts addressed in the FEIR. The construction of the replacement well will result in temporary right-lane closures on Culver Drive and Warner Avenue near the construction area. In addition, pedestrians will be detoured around the construction area on Warner Avenue and Culver Drive to maintain pedestrian mobility during construction. Construction activities will require an encroachment permit and a working hour variance from the City of Irvine. A construction hour variance is requested to allow certain construction activities to take place 24 hours a day, 7 days a week. Certain drilling activities (such as drilling the well hole, placing the well casing and gravel pack, zone isolation testing, and well development) require 24 hour construction periods. Performing 24/7 well drilling operations for certain sustained periods is required to maintain well stability during drill extraction. These 24/7 activities will occur intermittently during the 3-month construction period, with the longest 24/7 activity estimated to be approximately 2-3 weeks. As discussed in the FEIR, due to the short-term duration of construction impacts and limited traffic disruption, impacts are considered less than significant. Once operational, the well would result in conditions similar to what currently exists.

No new land use impacts would occur as a result of the well replacement.

3.2.9 Noise

As discussed in the FEIR, construction activities related to the project would temporarily increase noise levels in the immediate vicinity of the project. Noise would be generated by heavy equipment and other machinery typical of construction projects. Construction activities associated with heavy equipment and other machinery for well drilling would result in temporary increases in noise levels that may adversely affect nearby receptors. A construction hour variance is requested to allow certain construction activities to take place 24 hours a day, 7 days a week. Certain drilling activities (such as drilling the well hole, placing the well casing and gravel pack, zone isolation testing, and well development) require 24 hour construction periods. Performing 24/7 well drilling operations for certain sustained periods is required to maintain well stability during drill extraction. These 24/7 activities will occur intermittently during the 3-month construction period, with the longest 24/7 activity estimated to be approximately 2-3 weeks. These noise impacts would be temporary, and construction activities will comply with the City standards for noise. In addition, a construction fence will be installed around the project construction area, and sound panels will be used during the well drilling to reduce noise impacts. These impacts would be similar to those identified in the FEIR, which were determined to be less than significant due to the temporary nature of construction activities.

Operational noise will be generated by the replacement of Well 78. As identified in the Noise mitigation measures on page 5-27 of the FEIR, operational noise associated with pumping facilities will be addressed with the use of sound baffling and enclosures to insulate neighbor residences from

pump noise. The replacement well would be housed in a structure located underground similar to existing conditions. In addition, the proposed project would be consistent with City of Irvine Noise Ordinance requirements. The housing structures will be designed to meet the City Noise Ordinance, consistent with the Noise mitigation measure described on page 5-27 of the FEIR.

No new noise impacts would occur as a result of the well replacement.

3.2.10 Transportation/Traffic

The well replacement would result in impacts similar to those identified in the FEIR. Temporary traffic disruptions may occur during well replacement construction activities. Minor and temporary increases in traffic volume may occur due to construction equipment involvement. Construction of the replacement well will result in temporary right-lane closures on Culver Drive and Warner Avenue near the construction area. In addition, pedestrians will be detoured around the construction area on Warner Avenue and Culver Drive to maintain pedestrian mobility during construction. The FEIR identified mitigation measures to reduce impacts on traffic during construction. These mitigation measures will be implemented for the well replacement. These impacts were determined to be less than significant in the FEIR and would not substantially change as a result of well replacement.

The traffic mitigation measures identified on page 5-26 of the FEIR, which requires the use of flagmen and warning devices to direct traffic flow safely, will reduce potential impacts resulting from construction of the proposed project. Once operational, maintenance of the well would not involve any disruption to traffic flow and is not expected to result in new traffic-related impacts apart from those impacts discussed in the FEIR.

3.2.11 Utilities

Operation of the well would neither require a substantial demand for, nor require relocation of, existing utility services beyond the impacts identified in the FEIR since it is the replacement of an existing well. There are utility facilities within the project vicinity, but these utilities will generally not be impacted. There is a proposed 8-inch well discharge line that will connect to an existing 10-inch DIP reclaimed water line. An existing 6-inch DIP reclaimed water line will be abandoned. There is a proposed 8-inch drain that will connect to an existing 8-inch DIP drain. No new utility impacts beyond those identified in the FEIR would occur as a result of the well replacement.

3.2.12 Greenhouse Gases

CEQA Guidelines Section 15064(b) provides that the “determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data,” and further states that an “ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting.” However, despite this, currently neither the CEQA statutes, OPR guidelines, nor the CEQA Guidelines prescribe thresholds of significance or a particular methodology for performing an impact analysis.

The proposed project is deemed to have a potentially significant impact related to GHG if implementation would result in any of the following:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

It is not possible for the project to generate enough GHG emissions to influence global climate change (GCC) on its own. The project participates in potential GCC by its incremental contribution (positive or negative) of GHG emissions that, when combined with the cumulative increase of all other natural and anthropogenic sources of GHGs, impact GCC. Therefore, GCC is a type of cumulative impact, and the proposed development's participation in this cumulative impact is through its incremental contribution of GHG emissions. In Section 15064(h)(1) of the CEQA Guidelines, "cumulatively considerable" is defined to mean "that the incremental effects of an individual 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." The CEQA Guidelines advise that an individual project would normally be judged to produce a significant or potentially significant effect on the environment if the project were to result in a cumulatively considerable net increase of an air pollutant creating the impact. In this case, the air pollutants under consideration are GHG emissions, which are creating cumulative GCC independent of the proposed project.

Because the proposed project is replacement of an existing deteriorating well, the proposed project is anticipated to have a positive impact on GHGs, as the replacement equipment will be more energy-efficient compared to the existing deteriorated well. As such, the replacement well will generate less GHG emissions than the current operating well. Less than significant impacts related to this issue are anticipated; therefore, no mitigation is required.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Implementation of the project would not result in GHG emission levels that would substantially conflict with implementation of the GHG reduction goals under Assembly Bill (AB) 32 or other State regulations, fail to achieve energy efficiency, or increase consumption of fuels that contribute to GHG emissions when they are consumed. While the direct output of GHG from the proposed project can theoretically be estimated based on methodologies available to date, the GHG emissions associated with implementation of any one development project would not likely result in any directly correlative and measurable global or local effects. Any potential impact of a project on climate change would be considered cumulative because the project is making an incremental contribution to an overall change in the environment. Impacts related to this issue are therefore considered less than significant, and no mitigation is required.

4.0 REFERENCES

Jones & Stokes Associates, Inc. May 8, 1990. *Irvine Desalter Project, Final Environmental Impact Report, SCH No. 89010086.* (JSA 89-227). Irvine, California.

Jones & Stokes Associates, Inc. May 19, 1993. *Addendum to the Environmental Impact Report for the Irvine Desalter Project.* Irvine, California.

Jones & Stokes. June 2001. *Second Addendum to the Environmental Impact Report for the Irvine Desalter Project.* Irvine, California.

LSA Associates, Inc. September 2004. *Addendum No. 3 to the Environmental Impact Report for the Irvine Desalter Project.* Irvine, California.

Tetra Tech. November 2010. Project Plans, IRWD Well 78 Replacement - Well Drilling and Well Equipping Project #30351.

June 2001, Settlement Agreement between the U.S. Department of Justice, on behalf of the Marine Corps and the Navy, and the Orange County Water District and the Irvine Ranch Water District (IRWD).

5.0 LIST OF PREPARERS

5.1 LSA ASSOCIATES, INC.

Deborah Pracilio, Principal
Blake Selna, On-Call Contract Manager
Laura Rocha, Environmental Task Manager
Debera Cooper, Graphics

5.2 IRVINE RANCH WATER DISTRICT

Christian Kessler, Engineering Technician II
Jacob Moeder, P.E., Associate Engineer

December 13, 2010

Prepared by: Fournier/Jacobson

Submitted by: Debby Cherney *DC*

Approved by: Paul Jones *PMJ*

CONSENT CALENDAR

NOVEMBER 2010 FINANCIAL REPORTS

SUMMARY:

The following is submitted for the Board's information and approval:

- A. The Investment Summary Report for November 2010. This Investment Summary Report is in conformity with the 2010 Investment Policy and provides sufficient liquidity to meet estimated expenditures during the next six months, as outlined in Exhibit "A".
- B. The Monthly Interest Rate Swap Summary as of November 30, 2010, as outlined in Exhibit "B".
- C. The Summary of Wire Transfers and ACH payments in the total amount of \$7,535,026.39, as outlined in Exhibit "C".
- D. The November 2010 tabulation of Warrant Nos. 315530 through 316192, Workers' Compensation distributions, and voided checks in the total amount of \$6,837,985.69, as outlined in Exhibit "D".

FISCAL IMPACTS:

As of November 30, 2010, the book value of the investment portfolio was \$268,109,504 with a 0.48% rate of return and a market value of \$268,335,135. Based on the District's September 30, 2010 real estate investment rate of return of 9.56%, the District's weighted average return for the fixed income and real estate investments is 2.21%.

As of November 30, 2010, the total notional amount of the interest rate swap portfolio was \$130 million of fixed payer swaps. Cash flow in November from all swaps was a negative \$636,587 and a negative \$3,064,054 fiscal year to date. The mark-to-market value of all swaps was approximately \$92.5 million at month-end.

Wire transfers, ACH payments, and checks issued for debt service, accounts payable, payroll and water purchases for November totaled \$14,373,012.

ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act Code of Regulations, Title 14, Chapter 3 Section 15378.

COMMITTEE STATUS:

This item was not submitted to a Committee; however, the investment and interest rate swap reports are submitted to the Finance and Personnel Committee on a monthly basis.

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE TREASURER'S INVESTMENT SUMMARY REPORT AND THE MONTHLY INTEREST RATE SWAP SUMMARY FOR NOVEMBER 2010; APPROVE THE NOVEMBER 2010 SUMMARY OF WIRE TRANSFERS AND ACH PAYMENTS IN THE TOTAL AMOUNT OF \$7,535,026.39; AND APPROVE THE NOVEMBER 2010 WARRANTS NOS. 315530 THROUGH 316192, WORKERS' COMPENSATION DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$6,837,985.69.

LIST OF EXHIBITS:

Exhibit "A" - Investment Summary Report

Exhibit "B" - Monthly Interest Rate Swap Summary

Exhibit "C" - Monthly Summary of Wire and ACH Transfers

Exhibit "D" - Tabulation of Warrants

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

Exhibit "A"

11/30/10

SETTLEMENT PERIOD	INTEREST PERIOD		NEXT RESET	Call Date	Maturity Date	Rating	INVESTMENT TYPE	ISSUER	PAR Amount	COUPON	YIELD	YTC	ORIGINAL COST	CARRY VALUE	MARKET VALUE	UNREALIZED GAIN/(LOSS)(2)														
	FROM	THROUGH																												
11/23/10	11/30/10	12/01/10	12/01/10		12/01/10		LAIF	State of California Tsy.	\$39,100,000.00	0.470%	0.470%		\$39,100,000.00	\$39,174,870.64	74,870.63															
11/23/10	12/01/10	12/01/10	12/01/10		12/01/10		LAIF-JPA	State of California Tsy.	46,000,000.00	0.470%	0.470%		\$46,000,000.00	46,088,083.10	88,083.10															
10/15/10	12/08/10	12/08/10	12/08/10		12/08/10		LAIF-2009A	State of California Tsy.	15,132,867.34	0.470%	0.470%		\$15,132,867.34	15,161,844.51	28,977.17															
10/15/10	12/08/10	12/08/10	12/08/10		12/08/10		LAIF-2009B	State of California Tsy.	15,132,867.34	0.470%	0.470%		\$15,132,867.34	15,161,844.51	28,977.17															
11/30/10	11/30/10	12/01/10	12/01/10		12/01/10		B of A Tsy. Reserves	Bank of America	978,975.68	0.009%	0.009%		978,975.68	978,975.68																
06/08/09	04/21/10	12/01/10	12/01/10		12/01/10		FAMCA - Note	Fed Agricultural Mortgage Corp	9,900,000.00	4.875%	1.570%		10,414,800.00	9,955,687.50	16,967.50															
06/15/10	09/22/10	12/01/10	12/01/10		12/01/10		FNMA - Note	Fed Natl Mortgage Assoc	5,000,000.00	1.000%	0.841%		5,012,500.00	5,007,711.45	18,851.05															
09/22/10	09/21/10	12/01/10	12/01/10		12/01/10		FNMA - Note	Fed Natl Mortgage Assoc	4,005,840.00	1.150%	1.070%	0.868%	4,004,384.51	4,001,250.00	(3,134.51)															
09/17/10	09/17/10	12/01/10	12/01/10		12/01/10		FFCB - Note	Fed Farm Credit Bank	5,000,000.00	0.640%	0.640%		5,000,000.00	5,000,000.00																
10/25/10	11/04/10	12/01/10	12/01/10		12/01/10		FFCB - Note	Fed Farm Credit Bank	5,000,000.00	0.550%	0.550%		5,000,000.00	5,000,000.00																
11/04/10	11/09/10	12/01/10	12/01/10		12/01/10		FFCB - Note	Fed Farm Credit Bank	8,000,000.00	0.700%	0.700%		8,000,000.00	8,007,500.00	7,500.00															
11/09/10	11/09/10	12/01/10	12/01/10		12/01/10		FHLLB - Note	Fed Home Loan Bank	5,000,000.00	0.550%	0.575%		4,997,500.00	4,997,626.54	(11,689.04)															
11/09/10	11/09/10	12/01/10	12/01/10		12/01/10		FFCB - Note	Fed Farm Credit Bank	5,000,000.00	0.490%	0.515%		4,997,500.00	4,989,062.50	(8,437.50)															
11/23/10	11/23/10	12/01/10	12/01/10		12/01/10		FFCB - Note	Fed Farm Credit Bank	5,000,000.00	0.500%	0.500%		5,000,000.00	4,981,250.00	(18,750.00)															
11/23/10	11/23/10	12/01/10	12/01/10		12/01/10		CA ST-RANS-A2	State of California	10,000,000.00	3.000%	1.751%		10,073,500.00	10,076,800.00	3,300.00															
09/18/08	11/24/10	11/30/10	12/01/10		12/01/10		(4) Aa1/AAA/NR	East Bay MUD	9,800,000.00	0.320%	0.320%		9,800,000.00	9,800,000.00																
08/09/10	11/24/10	11/30/10	12/01/10		12/01/10		(4) Aa1/AAA/NR	Chino Basin Fin	11,620,000.00	0.300%	0.300%		11,620,000.00	11,620,000.00																
10/09/08	11/25/10	12/01/10	12/02/10		12/02/10		(4) Aa3/AAA/WD	Ca Water Series C	2,000,000.00	0.310%	0.310%		2,000,000.00	2,000,000.00																
09/01/10	11/24/10	11/30/10	12/01/10		12/01/10		(4) Aa3/A/NR	Rancho California WrD	6,700,000.00	0.320%	0.320%		6,700,000.00	6,700,000.00																
08/20/09	11/24/10	11/30/10	12/01/10		12/01/10		(4) A3/AAA/AAA	Rancho California WrD	3,000,000.00	0.290%	0.290%		3,000,000.00	3,000,000.00																
07/20/10	11/25/10	12/01/10	12/02/10		12/02/10		(4) Aa1/AAA/AAA	Metropolitan Water	10,000,000.00	0.330%	0.330%		10,000,000.00	10,000,000.00																
08/16/10	11/24/10	11/30/10	12/01/10		12/01/10		(4) Aa1/AAA/NR	Sacramento WTR	10,000,000.00	0.270%	0.270%		10,000,000.00	10,000,000.00																
08/27/10	11/25/10	12/01/10	12/02/10		12/02/10		(4) AAA/NR/NR	Metropolitan Water	5,000,000.00	0.300%	0.300%		5,000,000.00	5,000,000.00																
08/30/10	11/25/10	12/01/10	12/02/10		12/02/10		(4) AAA/NR/NR	Orange Cty Wtr	5,800,000.00	0.300%	0.300%		5,800,000.00	5,800,116.00	116.00															
10/27/10	11/24/10	11/30/10	12/01/10		12/01/10		(4) Aa1/AAA/AAA	Orange Cty Wtr	5,000,000.00	0.250%	0.250%		5,000,000.00	5,000,000.00																
11/18/10	11/25/10	12/01/10	12/02/10		12/02/10		(4) Aa1/AAA/AAA	LA Waste Wtr	5,000,000.00	0.270%	0.270%		5,000,000.00	5,000,000.00																
SUB-TOTAL																														
<table border="0"> <tr> <td>\$252,164,710</td> <td>\$252,766,400.36</td> <td>\$252,284,152.86</td> <td>\$252,509,784.44</td> <td>\$225,631.58</td> </tr> </table>																\$252,164,710	\$252,766,400.36	\$252,284,152.86	\$252,509,784.44	\$225,631.58										
\$252,164,710	\$252,766,400.36	\$252,284,152.86	\$252,509,784.44	\$225,631.58																										
RESTRICTED CASH (Sweep Collateral Deposits)																														
11/01/10	11/01/10	11/30/10	11/30/10		11/30/10		Collateral Deposit	Citi-Group	\$11,485,351.00	0.194%	0.194%		\$11,485,351.00	\$11,485,351.00																
08/30/10	11/01/10	11/30/10	11/30/10		11/30/10		Collateral Deposit	Merrill Lynch	\$4,340,000.00				\$4,340,000.00	\$4,340,000.00																
SUB-TOTAL																														
<table border="0"> <tr> <td>\$15,825,351.00</td> <td>\$15,825,351.00</td> <td>\$15,825,351.00</td> <td>\$15,825,351.00</td> <td>\$15,825,351.00</td> </tr> </table>																\$15,825,351.00	\$15,825,351.00	\$15,825,351.00	\$15,825,351.00	\$15,825,351.00										
\$15,825,351.00	\$15,825,351.00	\$15,825,351.00	\$15,825,351.00	\$15,825,351.00																										
TOTAL INVESTMENTS																														
<table border="0"> <tr> <td>\$268,591,751.36</td> <td>\$268,109,503.86</td> <td>\$268,335,135.44</td> <td>\$268,335,135.44</td> <td>\$268,335,135.44</td> </tr> </table>																\$268,591,751.36	\$268,109,503.86	\$268,335,135.44	\$268,335,135.44	\$268,335,135.44										
\$268,591,751.36	\$268,109,503.86	\$268,335,135.44	\$268,335,135.44	\$268,335,135.44																										
<table border="0"> <tr> <td>3,300.00</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(544,434.54)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>\$268,050,616.82</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>																3,300.00					(544,434.54)					\$268,050,616.82				
3,300.00																														
(544,434.54)																														
\$268,050,616.82																														

Outstanding Variable Rate Debt	Investment	Real Estate Portfolio (3)	Weighted Avg. Return
\$391,655,000	\$268,335,135.44	9.56%	2.21%
\$261,655,000	\$268,335,135.44	9.56%	2.22%
\$268,050,617	\$268,335,135.44	9.56%	2.22%
102%			
114			

Investment to Variable Rate Debt Ratio: 0.48%
November

Investment to Variable Rate Debt Ratio: 0.50%
October

Portfolio - Average Number of Days To Maturity: -0.02%
Change

Outstanding Variable Rate Debt
Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps)
Investment Balance:
Investment to Variable Rate Debt Ratio:
Portfolio - Average Number of Days To Maturity

IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT
INVESTMENT ACTIVITY
Nov-10

MATURITIES/SALES

PURCHASES

DATE	SECURITY TYPE	PAR	YIELD	DATE	SECURITY TYPE	PAR	YIELD
11/1/2010	VRDO - BATA Due 11/1/10	\$10,375,000	0.23%	11/1/2010	FHLB Note Due 11/02/10	\$9,000,000	0.13%
11/2/2010	FHLB Note Due 11/02/10	\$9,000,000	0.13%	11/2/2010	FHLB Note Due 11/03/10	\$9,000,000	0.12%
11/3/2010	FHLB Note Due 11/03/10	\$9,000,000	0.12%	11/3/2010	FHLB Note Due 11/04/10	\$11,500,000	0.12%
11/4/2010	FHLB Note Due 11/04/10	\$11,500,000	0.12%	11/4/2010	FFCB Note Due 10/26/12	\$5,000,000	0.52%
11/9/2010	FHLB Note Due 11/09/10	\$7,500,000	0.11%	11/4/2010	FHLB Note Due 11/09/10	\$7,500,000	0.11%
11/17/2010	FHLB Note Due 11/17/10	\$2,500,000	1.25%	11/9/2010	FFCB Note Due 11/09/12	\$5,000,000	0.50%
11/23/2010	FNMA Note Due 11/23/10	\$5,000,000	0.84%	11/18/2010	VRDO - LA Waste Wtr 6/01/28	\$5,000,000	0.25%
				11/23/2010	California RAN's	\$10,000,000	1.75%

LAIF ACTIVITY

11/01/10	LAIF	\$1,000,000
11/08/10	LAIF	(\$800,000)
11/09/10	LAIF	\$800,000
11/22/10	LAIF	(\$1,600,000)
11/23/10	LAIF	(\$9,000,000)
11/23/10	LAIF - JPA	(\$4,000,000)
11/24/10	LAIF	(\$300,000)
	Increase/(Decrease)	<u>(\$13,900,000)</u>

COLLATERALIZED DEPOSIT ACTIVITY

Balance Forward	\$17,119,019
CITIGROUP	(\$1,293,668)
MERRILL LYNCH	<u>\$0</u>
Balance at 11/30	<u>\$15,825,351</u>

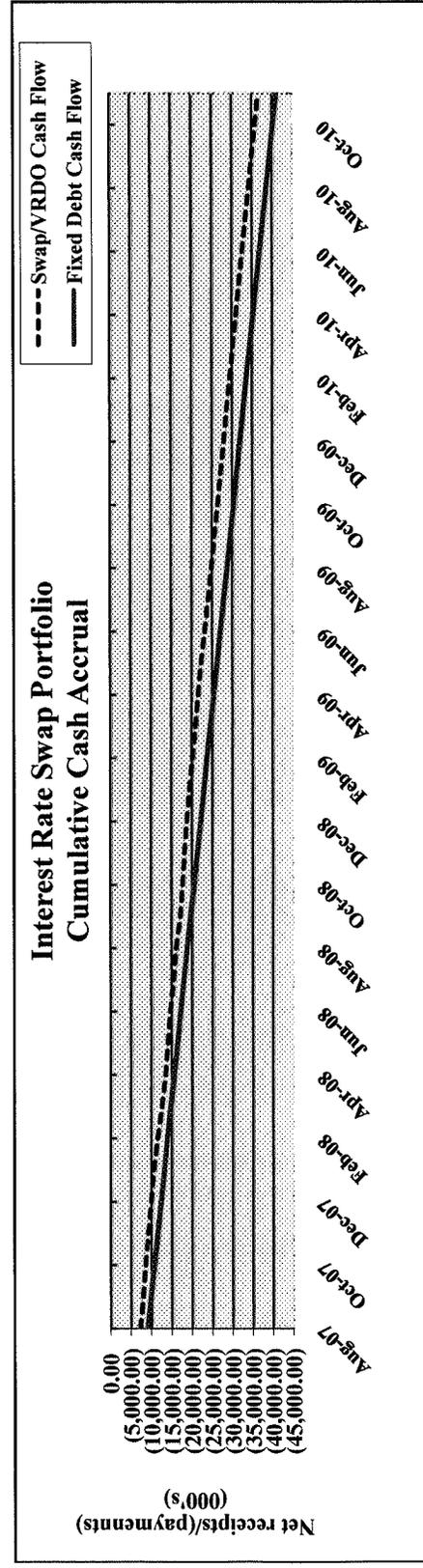
IRVINE RANCH WATER DISTRICT
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL
November 30, 2010

Exhibit "B"

Effective Date	Maturity Date	Years to Maturity	Counter Party	Notional Amt	Type	Base Index	Fixed Rate	LIBOR Avg %			Cumulative Cash Flow (Since 6/06)	Mark to Market Current Market	Unrealized Gain/(Loss)	Ttl Rtn to Dt Net Gain/(Loss)
								Prior Month	Current Month	Fiscal YTD				
Fixed Payer Swaps - By Effective Date														
6/4/2006	6/4/2019	8.5	MIL	\$ 20,000,000	FXP	LIBOR	6.200%	\$ (95,757)	\$ (102,258)	\$ (492,311)	\$ (3,156,883)	\$ 14,404,314	\$ (5,595,686)	\$ (8,752,569)
6/4/2006	6/4/2019	8.5	CG	\$ 20,000,000	FXP	LIBOR	6.200%	\$ (95,757)	\$ (102,258)	\$ (492,311)	\$ (3,156,883)	\$ 14,407,698	\$ (5,592,302)	\$ (8,749,185)
6/17/2006	6/17/2019	8.5	CG	\$ 30,000,000	FXP	LIBOR	6.140%	\$ (142,176)	\$ (151,815)	\$ (730,926)	\$ (4,665,961)	\$ 21,738,018	\$ (6,261,982)	\$ (12,927,943)
3/10/2007	3/10/2029	18.3	MIL	\$ 30,000,000	FXP	LIBOR	5.687%	\$ (131,234)	\$ (140,128)	\$ (674,253)	\$ (3,967,949)	\$ 20,981,148	\$ (9,018,852)	\$ (12,986,801)
3/10/2007	3/10/2029	18.3	CG	\$ 30,000,000	FXP	LIBOR	5.687%	\$ (131,234)	\$ (140,128)	\$ (674,253)	\$ (3,967,949)	\$ 21,005,372	\$ (8,994,628)	\$ (12,962,577)
Totals/Weighted Aves		13.0		\$ 130,000,000			5.949%	\$ (596,158)	\$ (636,587)	\$ (3,064,054)	\$ (18,915,626)	\$ 92,536,550	\$ (37,463,450)	\$ (56,379,076)
Total Current Year Active Swaps				\$ 130,000,000				\$ (596,158)	\$ (636,587)	\$ (3,064,054)	\$ (18,915,626)	\$ 92,536,550	\$ (37,463,450)	\$ (56,379,076)

Effective Date	Maturity Date	Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Cash Flow			Mark to Market Current Market	Unrealized Gain/(Loss)	Ttl Rtn to Dt Net Gain/(Loss)
							Prior Month	Current Month	Fiscal YTD			
Current Fiscal Year Terminated Swaps												
							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Current Year Terminated Swaps												
							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Effective Date	Maturity Date	Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Cash Flow			Mark to Market Current Market	Unrealized Gain/(Loss)	Ttl Rtn to Dt Net Gain/(Loss)
							Prior Month	Current Month	Fiscal YTD			
Current Fiscal Year - Total Swaps												
							\$ (596,158)	\$ (636,587)	\$ (3,064,054)	\$ 92,536,550	\$ (37,463,450)	\$ (56,379,076)
Total Current Year Active & Terminated Swaps			\$ 130,000,000				\$ (596,158)	\$ (636,587)	\$ (3,064,054)	\$ 92,536,550	\$ (37,463,450)	\$ (56,379,076)



Cash Flow Comparison
Synthetic Fixed vs. Fixed Rate Debt
Cash Flow to Date
Synthetic Fixed = \$36,711,379
Fixed Rate = \$41,107,919
Assumptions:
- Fixed rate debt issued at 5.10% in Jun-06, and 4.93% in Mar-07 (estimated TE rates - Bloomberg)
- Synthetic includes swap cash flow + interest + fees to date

Exhibit "C"

MONTHLY SUMMARY OF WIRE TRANSFERS AND ACH PAYMENTS

**NOVEMBER
2010**

DATE	AMOUNT	VENDOR	PURPOSE
11/1/2010	14,116.44	BANK OF AMERICA	DEBT SERVICE
11/1/2010	13,027.40	US BANK	DEBT SERVICE
11/3/2010	250.00	US BANK	LOC FEES
11/5/2010	34,386.22	LBBW	DEBT SERVICE
11/5/2010	969.86	HELABA	DEBT SERVICE
11/5/2010	3,782.47	STATE STREET	DEBT SERVICE
11/5/2010	10,976.61	BANK OF AMERICA	DEBT SERVICE
11/8/2010	718,583.01	BANK OF AMERICA	PAYROLL 11/8/10
11/8/2010	152,187.32	BANK OF AMERICA	FEDERAL TAX LIABILITY
11/8/2010	55,285.01	BANK OF AMERICA	STATE TAX LIABILITY
11/8/2010	30,432.55	OCFTCU	PAYROLL DEDUCTION
11/8/2010	865.00	OCCU	PAYROLL DEDUCTION
11/8/2010	298,857.18	CalPERS	HEALTH INSURANCE PREMIUM
11/9/2010	118,035.38	GREAT WEST	DEFERRED COMP A/O 11/8/10
11/9/2010	295.00	BANK OF AMERICA	LOC FEES
11/15/2010	210,150.85	CalPERS	RETIREMENT
11/15/2010	1,145,631.52	MWDOC	WATER PURCHASE
11/15/2010	1,300,092.96	HELABA	DEBT SERVICE
11/22/2010	2,103,663.46	JR FILANC CONSTRUCTION	MWRP EXPANSION
11/23/2010	726,721.03	BANK OF AMERICA	PAYROLL 11/23/10
11/23/2010	163,082.30	BANK OF AMERICA	FEDERAL TAX LIABILITY
11/23/2010	58,238.85	BANK OF AMERICA	STATE TAX LIABILITY
11/23/2010	30,282.55	OCFTCU	PAYROLL DEDUCTION
11/23/2010	865.00	OCCU	PAYROLL DEDUCTION
11/23/2010	9,509.58	NAT'L BOND & TRUST	SAVINGS BONDS
11/24/2010	121,784.40	GREAT WEST	DEFERRED COMP A/O 11/23/10
11/30/2010	212,954.44	CalPERS	RETIREMENT
	<u>7,535,026.39</u>		

Exhibit "D"

11/30/2010
13:08:48

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/05 Ended 11/30/2010

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Vendor Name	Issued	Voided	Check#	Check Amount
SOUTHERN CALIFORNIA EDISON	11/01/10		315530	64.64
ACWA	11/04/10		315531	25,822.50
ADA TECHNOLOGY PARK ASSN	11/04/10		315532	1,157.58
ALAN E. AND LAURA E. IRWIN	11/04/10		315533	2,250.00
BROWNDORF MATTHEW	11/04/10		315534	54.14
CHOI YUN	11/04/10		315535	58.82
CITY OF IRVINE	11/04/10		315536	29.07
CITY OF IRVINE	11/04/10		315537	3,854.08
CITY OF IRVINE	11/04/10		315538	164.22
CITY OF IRVINE	11/04/10		315539	399.78
CITY OF IRVINE	11/04/10		315540	88.59
CITY OF IRVINE	11/04/10		315541	20.01
FIDELITY INVESTMENTS	11/04/10		315542	415.00
FRANCHISE TAX BOARD	11/04/10		315543	175.00
GILOFF JONATHAN	11/04/10		315544	27.79
GOMI TAKESHI	11/04/10		315545	12.95
GRACIAN ENRIQUE	11/04/10		315546	24.74
HAINES LISA	11/04/10		315547	15.13
INDUSTRIAL METAL SUPPLY CO	11/04/10		315548	400.02
KANA PIPELINE, INC	11/04/10		315549	1,418.39
LAROCHE TEAM	11/04/10		315550	10.56
MCKNAMEE COLLEEN	11/04/10		315551	14.06
NORTHWOOD PLACE APTS	11/04/10		315552	2,865.78
ORANGE, COUNTY OF	11/04/10		315553	1,485.00
PACIFIC WESTERN CONSTRUCTORS	11/04/10		315554	1,000.00
PERS LONG TERM CARE	11/04/10		315555	1,826.79
RANCHO TIERRA APTS	11/04/10		315556	10.95
SAN MARCO APTS	11/04/10		315557	7.95
SAN MATEO APTS	11/04/10		315558	3,347.37
SEVERSON NATHAN	11/04/10		315559	57.08
TEREK MARIAN	11/04/10		315560	11.92
TESORO HOA	11/04/10		315561	1,123.00
TOPOL KAREN	11/04/10		315562	16.52
UNITED STATES POST OFFICE	11/04/10		315563	30,000.00
ACWA HEALTH BENEFITS AUTHORITY	11/04/10		315564	28,710.07
AIRGAS-WEST, INC.	11/04/10		315565	11.09
AMERICAN MESSAGING SERVICES	11/04/10		315566	297.69
APPLIED INDUSTRIAL	11/04/10		315567	178.65
AQUA-METRIC SALES COMPANY	11/04/10		315568	3,801.90
ASSOCIATED POWER INC	11/04/10		315569	4,443.94
AT&T	11/04/10		315570	48.22
AT&T	11/04/10		315571	3,597.28
AYRES HOTEL AND SUITES (DBA)	11/04/10		315572	2,908.44
BANK OF NEW YORK MELLON TRUST	11/04/10		315573	1,496.00
BILL'S SWEEPING SERVICE INC	11/04/10		315574	1,155.00
BIOMAGIC INC	11/04/10		315575	3,219.11
BOWIE, ARNESON, WILES &	11/04/10		315576	30,289.89
BRENNTAG PACIFIC INC	11/04/10		315577	20,968.36
BROOKFIELD PORTOLA LLC	11/04/10		315578	125.93
CALIFORNIA BARRICADE INC	11/04/10		315579	715.17
CAMPBELL SCIENTIFIC INC	11/04/10		315580	548.39
CAPTIVE AUDIENCE MARKETING	11/04/10		315581	85.91
CHAMPION FENCE & IRON	11/04/10		315582	10,945.00
CHAN, MARY	11/04/10		315583	20.84
CHARLES P CROWLEY COMPANY INC	11/04/10		315584	8,073.86
CHEM TECH INTERNATIONAL INC	11/04/10		315585	4,860.90
CH2M HILL, INC	11/04/10		315586	8,087.75

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
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Vendor Name	Issued	Voided	Check#	Check Amount
COAST PLUMBING HEATING	11/04/10		315587	633.43
COASTAL TRAFFIC SYSTEMS, INC	11/04/10		315588	3,625.00
COMMERCIAL DOOR OF ORANGE	11/04/10		315589	549.65
CONEYBEARE INC	11/04/10		315590	2,433.55
CREDENTIAL CHECK CORPORATION	11/04/10		315591	386.00
DATASITE INC	11/04/10		315592	3,192.00
DCSE INC	11/04/10		315593	14,160.00
DEACON, AMOS R.	11/04/10		315594	283.25
DLT&V SYSTEMS ENGINEERING INC	11/04/10		315595	34,943.63
DUDEK	11/04/10		315596	45,116.50
DUDLEY RIDGE WATER DISTRICT	11/04/10		315597	14,406.41
EAGLE GRAPHICS INC	11/04/10		315598	1,270.80
ECMC	11/04/10		315599	551.63
ENVIRONMENTAL ENGINEERING	11/04/10		315600	9,850.34
ENVIRONMENTAL EXPRESS INC	11/04/10		315601	2,254.80
ESA PWA	11/04/10		315602	4,700.00
EXPRESSAIR	11/04/10		315603	104.30
FARRELL & ASSOCIATES	11/04/10		315604	407.66
FEDEX	11/04/10		315605	298.05
FIDELITY SECURITY LIFE	11/04/10		315606	5,691.08
FIRST AMERICAN CORELOGIC INC	11/04/10		315607	18.00
FISERV	11/04/10		315608	8,493.60
FISHER SCIENTIFIC COMPANY LLC	11/04/10		315609	5,677.54
FLEETWOOD CONTINENTAL INC	11/04/10		315610	2,035.87
FLUID CONSERVATION SYSTEMS INC	11/04/10		315611	1,190.75
GRAINGER	11/04/10		315612	3,831.60
HACH COMPANY	11/04/10		315613	3,316.80
HDR ENGINEERING INC.	11/04/10		315614	175,444.56
HILL BROTHERS CHEMICAL COMPANY	11/04/10		315615	16,264.11
HOME DEPOT USA INC	11/04/10		315616	1,039.69
IDEXX DISTRIBUTION, INC	11/04/10		315617	7,925.70
II FUELS INC	11/04/10		315618	24,220.58
INDUSTRIAL METAL SUPPLY CO	11/04/10		315619	392.02
IRVINE PIPE & SUPPLY INC	11/04/10		315620	794.28
IRWD-PETTY CASH CUSTODIAN	11/04/10		315621	1,018.37
JBI WATER & WASTEWATER	11/04/10		315622	54,313.99
JOHN CRANE, INC.	11/04/10		315623	1,301.16
JOHN G. ALEVIZOS D.O. INC.	11/04/10		315624	190.00
KELLEY BLUE BOOK, INC.	11/04/10		315625	65.25
KEY EQUIPMENT FINANCE	11/04/10		315626	9,732.48
KINGS COUNTY TAX COLLECTOR	11/04/10		315627	14,728.16
KONECRANES INC	11/04/10		315628	750.00
KS DIRECT	11/04/10		315629	2,297.89
LAB SAFETY SUPPLY, INC.	11/04/10		315630	513.39
LEONARD CHAIDEZ TREE SERVICE	11/04/10		315631	22,990.00
MAGORIEN, DUFF	11/04/10	11/04/10	315632	150.00
MARYANN BROWN	11/04/10		315633	1,114.80
MC MASTER CARR SUPPLY CO	11/04/10		315634	1,867.88
MCR TECHNOLOGIES, INC.	11/04/10		315635	755.28
MERCHANTS LANDSCAPE SERVICES	11/04/10		315636	14,016.28
MIDRANGE PERFORMANCE GROUP,	11/04/10		315637	1,159.00
NATIONAL READY MIXED CONCRETE	11/04/10		315638	925.70
NEWPORT WINDOW MAINTENANCE	11/04/10		315639	187.50
NMG GEOTECHNICAL INC	11/04/10		315640	19,643.00
NOREX INC	11/04/10		315641	3,030.00
OBRIEN, ELLEN	11/04/10		315642	38.29
OLIN CORPORATION	11/04/10		315643	15,502.34

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
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Vendor Name	Issued	Voided	Check#	Check Amount
ON ASSIGNMENT LAB SUPPORT	11/04/10		315644	3,819.72
ONESOURCE DISTRIBUTORS LLC	11/04/10		315645	4,515.82
ORANGE COUNTY TREASURER	11/04/10		315646	10,247.36
ORANGE COUNTY VECTOR CONTROL	11/04/10		315647	477.67
PARK WEST LANDSCAPE	11/04/10		315648	3,480.00
PARK, SU-SEOK	11/04/10		315649	36.85
PBS&J	11/04/10		315650	10,304.00
PEARPOINT	11/04/10		315651	2,139.35
PERKINELMER HEALTH SCIENCES	11/04/10		315652	969.62
PINNACLE TOWERS LLC	11/04/10		315653	526.38
POWERTECH GROUP INC, THE	11/04/10		315654	1,190.00
PRAXAIR DISTRIBUTION INC	11/04/10		315655	379.24
PRO GROWERS INC	11/04/10		315656	2,104.31
PROTECTION ONE ALARM	11/04/10		315657	224.42
PRUDENTIAL OVERALL SUPPLY	11/04/10		315658	773.78
PSB THE MARKETING SUPERSOURCE	11/04/10		315659	2,490.00
PSOMAS	11/04/10		315660	929.64
QUALITY ENVIRONMENTAL	11/04/10		315661	548.58
QUINN POWER SYSTEMS	11/04/10		315662	641.47
RAINBOW DISPOSAL CO INC	11/04/10		315663	437.39
RAM AIR ENGINEERING INC	11/04/10		315664	370.73
RBF CONSULTING	11/04/10		315665	12,397.50
REACH EMPLOYEE ASSISTANCE INC	11/04/10		315666	800.80
REED, JAMES D	11/04/10		315667	1,931.14
RMC WATER AND ENVIRONMENT	11/04/10		315668	3,696.50
RUTAN & TUCKER, LLP	11/04/10		315669	10,716.38
SADDLEBACK MEMORIAL MEDICAL	11/04/10		315670	3,000.00
SALAMATI, BABAK	11/04/10		315671	20.88
SANTA ANA BLUE PRINT	11/04/10		315672	75.69
SANTIAGO AQUEDUCT COMMISSION	11/04/10		315673	17,611.31
SHAMROCK SUPPLY CO INC	11/04/10		315674	600.97
SIGNATURE FLOORING INC	11/04/10		315675	2,973.00
SOLARBEE, INC	11/04/10		315676	14,700.00
SOUTHERN CALIFORNIA EDISON	11/04/10		315677	367,002.28
SOUTHERN CALIFORNIA EDISON	11/04/10		315678	68,217.68
SPARKLETT'S	11/04/10		315679	93.04
SPECIALTY TECHNICAL PUBLISHERS	11/04/10		315680	552.00
STANTEC CONSULTING SERVICES	11/04/10		315681	8,003.00
STEVEN ENTERPRISES INC	11/04/10		315682	334.94
TESTAMERICA LABORATORIES, INC	11/04/10		315683	535.50
THE FURMAN GROUP INC	11/04/10		315684	10,100.00
THE GAS COMPANY	11/04/10		315685	50.00
THE IRVINE COMPANY LLC	11/04/10		315686	1,498.89
TROPICAL PLAZA NURSERY INC	11/04/10		315687	19,008.00
TRUGREEN LANDCARE	11/04/10		315688	20,287.15
U S RIGGING SUPPLY	11/04/10		315689	571.36
U.S. DEPARTMENT OF EDUCATION	11/04/10		315690	794.43
UNISAN PRODUCTS	11/04/10		315691	797.54
URS CORPORATION	11/04/10		315692	1,563.17
VA CONSULTING, INC	11/04/10		315693	15,830.40
VERIZON CALIFORNIA INC	11/04/10		315694	129.15
VERIZON WIRELESS	11/04/10		315695	11,684.92
VPSI INC	11/04/10		315696	7,839.87
WASTE MGMT OF ORANGE COUNTY	11/04/10		315697	1,158.31
WAXIE SANITARY SUPPLY	11/04/10		315698	792.10
WESTERN EXTERMINATOR COMPANY	11/04/10		315699	6,994.50
WHITAKER, TODD	11/04/10		315700	54.04

IRVINE RANCH WATER DISTRICT

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Vendor Name	Issued	Voided	Check#	Check Amount
WILLIAMS, TWYLA	11/04/10		315701	788.50
WITHERS, JOHN	11/04/10		315702	59.00
WORKPLACE RESOURCE	11/04/10		315703	3,280.00
YRC INC	11/04/10		315704	151.24
YUSON, JANICE	11/04/10		315705	1,359.54
COUNTY OF KERN	11/08/10		315706	50.00
BUCCOLA LANDSCAPE SERVICES	11/11/10		315707	664.29
BUCCOLA LANDSCAPE SERVICES	11/11/10		315708	692.51
CPWH	11/11/10		315709	19.36
EDGE DEVELOPMENT INC	11/11/10		315710	815.53
FU YUMAY	11/11/10		315711	32.60
HASSANEIN ROUKAYA	11/11/10		315712	37.10
KIM DAVID	11/11/10		315713	34.95
MAILLOUX KOLLEEN	11/11/10		315714	220.74
MILLER CAMREN	11/11/10		315715	15.00
PREFERRED GROUP PROPERTIES	11/11/10		315716	27.90
SILVERWOOD LANDSCAPE CONSTRUCT	11/11/10		315717	336.07
THE IRVINE COMPANY	11/11/10		315718	901.44
VALLEYCREST LANDSCAPE	11/11/10		315719	24.65
WESTRIDGE APARTMENTS	11/11/10		315720	130.75
YIM LINDA C	11/11/10		315721	277.52
ZAROKIAN PIERRE	11/11/10		315722	1,208.62
A&A WIPING CLOTH CO	11/11/10		315723	513.30
AARP HEALTH CARE OPTIONS	11/11/10		315724	411.40
ACCURATE AIR ENGINEERING INC	11/11/10		315725	521.58
ACTION ELECTRIC CORP	11/11/10		315726	1,918.93
ADS LLC	11/11/10		315727	1,291.00
ADVANTRA RX	11/11/10		315728	82.20
AIRGAS-WEST, INC.	11/11/10		315729	75.40
ALEXANDER CONTRACT SERVICES	11/11/10		315730	93,602.60
ANTHEM BLUE CROSS	11/11/10		315731	5,242.00
AOSAFETY	11/11/10		315732	67.24
APPLE STORE/NOAH FEHSER	11/11/10		315733	2,406.33
ARNETT, TRACEY	11/11/10		315734	40.00
ASSOCIATED POWER INC	11/11/10		315735	2,523.00
AT&T	11/11/10		315736	1,652.20
AYRES HOTEL AND SUITES (DBA)	11/11/10		315737	1,448.04
BANK OF AMERICA	11/11/10		315738	21,457.77
BANK OF AMERICA MERRILL LYNCH	11/11/10		315739	20,228.49
BIOMAGIC INC	11/11/10		315740	9,320.16
BIOMERIEUX INC	11/11/10		315741	467.16
BLACK & VEATCH CORPORATION	11/11/10		315742	260,089.84
BOND LOGISTIX LLC	11/11/10		315743	4,250.00
BORGEN HEAVY EQUIPMENT REPAIR,	11/11/10		315744	1,804.83
BRENTAG PACIFIC INC	11/11/10		315745	10,609.64
CALIFORNIA BARRICADE INC	11/11/10		315746	2,702.51
CAMPBELL, THOMAS	11/11/10		315747	30.00
CANON FINANCIAL SERVICES INC	11/11/10		315748	5,762.58
CAPTIVE AUDIENCE MARKETING	11/11/10		315749	85.91
CARL WARREN & CO	11/11/10		315750	1,736.63
CHAMPION FENCE & IRON	11/11/10		315751	1,165.00
CHARLES P CROWLEY COMPANY INC	11/11/10		315752	129.70
CLA-VAL COMPANY	11/11/10		315753	477.93
COAST PLUMBING HEATING	11/11/10		315754	1,390.00
COASTAL TRAFFIC SYSTEMS, INC	11/11/10		315755	2,800.00
CONEYBEARE INC	11/11/10		315756	761.60
DATA CLEAN CORPORATION	11/11/10		315757	500.00

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
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Vendor Name	Issued	Voided	Check#	Check Amount
DE VAUL PAINT COMPANY	11/11/10		315758	2,674.18
DEALERS SERVICE, INC	11/11/10		315759	7,174.85
DELL MARKETING LP	11/11/10		315760	32,210.13
DIONEX CORPORATION	11/11/10		315761	3,438.64
EAST ORANGE COUNTY WATER	11/11/10		315762	5,547.49
EMEDCO	11/11/10		315763	867.80
EMPLOYEE BENEFIT SPECIALIST,	11/11/10		315764	665.00
EMPLOYMENT DEVELOPMENT DEPT	11/11/10		315765	14,310.00
ENVIRONMENTAL EXPRESS INC	11/11/10		315766	799.60
ENVIRONMENTAL RESOURCE	11/11/10		315767	327.47
ENVIRONMENTAL WATER MGT	11/11/10		315768	5,550.00
EQUIPCO SALES & SERVICE	11/11/10		315769	1,148.83
ESA PWA	11/11/10		315770	674.78
EXTERRAN ENERGY SOLUTIONS LP	11/11/10		315771	770.47
FARRELL & ASSOCIATES	11/11/10		315772	209.62
FEDEX	11/11/10		315773	278.09
FERGUSON WATERWORKS	11/11/10		315774	3,526.76
FISERV	11/11/10		315775	8,375.24
FISHER SCIENTIFIC COMPANY LLC	11/11/10		315776	2,088.91
FRANK LA PLACA EXTERMINATING	11/11/10		315777	175.00
GANAHL LUMBER CO.	11/11/10		315778	1,134.68
GENTERRA CONSULTANTS INC	11/11/10		315779	2,072.50
GLOBALSTAR INC	11/11/10		315780	167.47
GOLDMAN, SACHS & CO	11/11/10		315781	42,358.71
GRAINGER	11/11/10		315782	2,995.74
GRAYBAR ELECTRIC COMPANY	11/11/10		315783	2,421.25
HACH COMPANY	11/11/10		315784	34,265.01
HAMILTON, KURT	11/11/10		315785	1,151.83
HDR ENGINEERING INC.	11/11/10		315786	42,053.34
HEARTLAND BUSINESS CREDIT	11/11/10		315787	570.58
HOME DEPOT USA INC	11/11/10		315788	1,248.87
HUMANA INSURANCE COMPANY	11/11/10		315789	44.60
HYDRO-SCAPE PRODUCTS INC	11/11/10		315790	336.67
IRVINE PIPE & SUPPLY INC	11/11/10		315791	2,194.32
IRVINE VALLEY COLLEGE	11/11/10		315792	1,000.00
IRVINE, CITY OF	11/11/10		315793	389.00
IRWD-PETTY CASH CUSTODIAN	11/11/10		315794	425.20
JCI JONES CHEMICALS INC	11/11/10		315795	5,005.00
JOHN MICHAEL COVAS	11/11/10		315796	193.00
KARCHER DIGITAL & PRINTING	11/11/10		315797	1,358.15
KIM, SOON TAE	11/11/10		315798	4,250.00
KIMBALL MIDWEST	11/11/10		315799	362.50
KLEINFELDER WEST INC	11/11/10		315800	10,108.20
KNOBBE, MARTENS, OLSON & BEAR	11/11/10		315801	133.50
KONECRANES INC	11/11/10		315802	7,834.13
L&S CONSTRUCTION INC	11/11/10		315803	33,754.95
LAGUNA BEACH COUNTY WATER	11/11/10		315804	2,202.98
LAMAR, STEVEN	11/11/10		315805	194.00
LEADERSHIP TOMORROW	11/11/10		315806	1,200.00
LEE, HAMILTON	11/11/10		315807	27.38
LEONARD CHAIDEZ TREE SERVICE	11/11/10		315808	2,700.00
MARVIN GARDENS LLC	11/11/10		315809	2,593.70
MBF CONSULTING, INC.	11/11/10		315810	41,167.64
MC MASTER CARR SUPPLY CO	11/11/10		315811	1,311.38
MCCROMETER, INC.	11/11/10		315812	4,667.16
MCR TECHNOLOGIES, INC.	11/11/10		315813	1,733.76
MERCHANTS LANDSCAPE SERVICES	11/11/10		315814	3,092.85

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
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Vendor Name	Issued	Voided	Check#	Check Amount
MOUSE GRAPHICS	11/11/10		315815	137.58
OLIN CORPORATION	11/11/10		315816	25,946.59
ON ASSIGNMENT LAB SUPPORT	11/11/10		315817	3,577.88
ONESOURCE DISTRIBUTORS LLC	11/11/10		315818	914.17
ORANGE COUNTY SANITATION	11/11/10		315819	38,770.46
ORANGE, COUNTY OF	11/11/10		315820	87.50
PACIFIC COAST BOLT CORP	11/11/10		315821	626.87
PACIFIC RESOURCE RECOVERY	11/11/10		315822	2,919.78
PAUL E BRADLEY INC	11/11/10		315823	6,930.00
PAYNE & FEARS LLP	11/11/10		315824	337.50
PINNACLE LANDSCAPE COMPANY	11/11/10		315825	5,936.76
PIPER, G DAVID	11/11/10		315826	227.12
POLLARDWATER.COM	11/11/10		315827	2,865.28
PRAXAIR DISTRIBUTION INC	11/11/10		315828	2,381.02
PRUDENTIAL OVERALL SUPPLY	11/11/10		315829	1,033.17
PTI SAND & GRAVEL INC	11/11/10		315830	1,428.67
RAM AIR ENGINEERING INC	11/11/10		315831	2,239.71
RIDGE LANDSCAPE ARCHITECTS	11/11/10		315832	94.10
RINGCLEAR LLC	11/11/10		315833	78.28
RRM DESIGN GROUP	11/11/10		315834	1,674.57
SANTA ANA BLUE PRINT	11/11/10		315835	2,064.73
SANTA ANA, CITY OF	11/11/10		315836	16,362.66
SAUL FOX	11/11/10		315837	347.25
SHAMROCK SUPPLY CO INC	11/11/10		315838	120.50
SIEMENS WATER TECHNOLOGIES	11/11/10		315839	958.75
SIMI VALLEY LANDFILL AND	11/11/10		315840	298.50
SOUTHERN CALIFORNIA EDISON	11/11/10		315841	43,133.76
SOUTHERN CALIFORNIA SECURITY	11/11/10		315842	51.00
SPARLING INSTRUMENTS LLC	11/11/10		315843	742.74
STANDARD CONCRETE PRODUCTS INC	11/11/10		315844	663.38
SUPERMEDIA LLC	11/11/10		315845	68.25
SWAN, PEER A	11/11/10		315846	288.37
T AND S LARSEN MAINTENANCE	11/11/10		315847	360.00
TANAKA KUNIHIDE	11/11/10		315848	58.12
TESTAMERICA LABORATORIES, INC	11/11/10		315849	248.85
TETRA TECH, INC	11/11/10		315850	853.38
TETRA TECH, INC	11/11/10		315851	16,201.58
THE GAS COMPANY	11/11/10		315852	389.57
THE GAS COMPANY	11/11/10		315853	5,164.89
TOOLAND ENGINEERING, INC	11/11/10		315854	2,255.00
TRUCPARCO	11/11/10		315855	450.08
TRUGREEN LANDCARE	11/11/10		315856	2,343.54
UGALDE TRUCKING CO., INC.	11/11/10		315857	18,375.00
USA MOBILITY WIRELESS INC	11/11/10		315858	73.90
VALIN CORPORATION	11/11/10		315859	9,034.95
VCI TELCOM INC	11/11/10		315860	3,494.00
VERIZON CALIFORNIA INC	11/11/10		315861	206.43
VWR INTERNATIONAL, LLC	11/11/10		315862	72.21
WALTERS WHOLESALE ELECTRIC	11/11/10		315863	1,837.88
WASTE MGMT OF ORANGE COUNTY	11/11/10		315864	1,516.73
WATER ENVIRONMENT FEDERATION	11/11/10		315865	267.00
WATERLINE TECHNOLOGIES INC	11/11/10		315866	17,554.32
WAXIE SANITARY SUPPLY	11/11/10		315867	549.74
WECK LABORATORIES INC	11/11/10		315868	200.00
WESTERN EXTERMINATOR COMPANY	11/11/10		315869	2,210.00
WESTERN SAFETY PRODUCTS INC	11/11/10		315870	19,157.68
BOUDREAU PIPELINE CORPORATION	11/18/10		315871	686.41

IRVINE RANCH WATER DISTRICT

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Vendor Name	Issued	Voided	Check#	Check Amount
BROOKFIELD HOMES	11/18/10		315872	15.00
CHIEN ENDA	11/18/10		315873	27.33
FRANCHISE TAX BOARD	11/18/10		315874	175.00
HARDEN HEATHER	11/18/10		315875	17.46
JOHNSON JENNIFER	11/18/10		315876	40.58
KB HOMES	11/18/10		315877	15.00
KING WILLIAM W L	11/18/10		315878	55.18
MARK COMPANY	11/18/10		315879	583.86
MARX NANCY	11/18/10		315880	23.30
ORANGE COUNTY SANITATION	11/18/10		315881	1,570.00
ORANGE COUNTY TREASURER	11/18/10		315882	107,194.40
RUSHTON RICHARD J	11/18/10		315883	115.51
SANTA MARGARITA WATER DISTRICT	11/18/10		315884	3,000.00
SHIN SENG	11/18/10		315885	20.50
SOUTH COAST AIR QUALITY	11/18/10		315886	879.63
SOUTH COAST AIR QUALITY	11/18/10		315887	586.42
SOUTH COAST AIR QUALITY	11/18/10		315888	109.00
SOUTH COAST AIR QUALITY	11/18/10		315889	109.00
SOUTH COAST AIR QUALITY	11/18/10		315890	109.00
SUH SUE	11/18/10		315891	20.02
TIC-IPG-COMMON	11/18/10		315892	148.83
TIC-RETAIL PROPERTIES	11/18/10		315893	1,514.03
TIC-SPECTRUM OFFICE	11/18/10		315894	59.80
WILLIAM LYON HOMES	11/18/10		315895	15.00
WM VANDERGEEST	11/18/10		315896	780.67
ZUKAZA LLC	11/18/10		315897	50.41
ACCURATE AIR ENGINEERING INC	11/18/10		315898	3,854.07
ACTION ELECTRIC CORP	11/18/10		315899	1,677.79
AEL FINANCIAL LLC	11/18/10		315900	1,143.21
AFLAC	11/18/10		315901	4,976.41
AIRGAS-WEST, INC.	11/18/10		315902	1,161.27
AMERICAN CONSTRUCTION AND	11/18/10		315903	138,562.65
ANSON, SAMANTHA	11/18/10		315904	15.00
ANTHEM BLUE CROSS	11/18/10		315905	498.00
APPLIED INDUSTRIAL	11/18/10		315906	263.92
AQUA-METRIC SALES COMPANY	11/18/10		315907	4,521.05
AT&T	11/18/10		315908	4,783.18
AT&T LONG DISTANCE	11/18/10		315909	40.08
AT&T TELECONFERENCE SERVICES	11/18/10		315910	143.50
BAKERSFIELD WELL & PUMP CO	11/18/10		315911	677,269.62
BALANCE INDUSTRIAL SCALE INC	11/18/10		315912	4,310.00
BANK OF AMERICA	11/18/10		315913	73,481.06
BDC SPECIAL WASTE	11/18/10		315914	150.00
BIOMAGIC INC	11/18/10		315915	4,071.61
BORCHARD SURVEYING & MAPPING	11/18/10		315916	13,170.00
BRENNTAG PACIFIC INC	11/18/10		315917	1,913.22
BRITHINEE ELECTRIC	11/18/10		315918	8,096.80
BROOKS UTILITY PRODUCTS GROUP	11/18/10		315919	622.80
BUTIER ENGINEERING INC	11/18/10		315920	29,960.00
BUTLER BOX & STAKE INC	11/18/10		315921	702.50
CAL WATER PURIFICATION	11/18/10		315922	80.00
CALIFORNIA BARRICADE INC	11/18/10		315923	2,705.64
CAMERON WELDING SUPPLY	11/18/10		315924	283.54
CANON FINANCIAL SERVICES INC	11/18/10		315925	4,354.60
CDW GOVERNMENT LLC	11/18/10		315926	19,129.13
CLA-VAL COMPANY	11/18/10		315927	2,334.97
COAST PLUMBING HEATING	11/18/10		315928	761.73

IRVINE RANCH WATER DISTRICT

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Vendor Name	Issued	Voided	Check#	Check Amount
COASTAL TRAFFIC SYSTEMS, INC	11/18/10		315929	2,350.00
COLONIAL LIFE & ACCIDENT	11/18/10		315930	1,755.44
COMPUCOM SYSTEMS, INC.	11/18/10		315931	1,226.27
CONDITION MONITORING SERVICES	11/18/10		315932	2,690.00
CONEYBEARE INC	11/18/10		315933	1,272.19
CR & R INCORPORATED	11/18/10		315934	49.51
CREDENTIAL CHECK CORPORATION	11/18/10		315935	707.05
CURT PRINGLE & ASSOCIATES	11/18/10		315936	6,000.00
D & G SIGNS	11/18/10		315937	1,729.13
DEE JASPAR & ASSOCIATES, INC.	11/18/10		315938	44,955.15
DELL MARKETING LP	11/18/10		315939	3,840.75
DEPARTMENT OF CONSUMER AFFAIRS	11/18/10		315940	125.00
DIRECTV INC	11/18/10		315941	83.99
DLT SOLUTIONS INC	11/18/10		315942	3,633.66
DURANCEAU CONSULTING SERVICES,	11/18/10		315943	1,350.00
EAST ORANGE COUNTY WATER	11/18/10		315944	2,831.00
EDUCATIONAL CREDIT MANAGEMENT	11/18/10		315945	551.63
EISEL ENTERPRISES INC	11/18/10		315946	8,969.94
ELECTRICAL SYSTEMS ENGINEERING	11/18/10		315947	6,850.00
ELECTRONIC DISPLAY, INC.	11/18/10		315948	884.86
EMEDCO	11/18/10		315949	345.38
ENVIRONMENTAL EXPRESS INC	11/18/10		315950	847.30
EVERGREEN OIL INC	11/18/10		315951	295.00
EXPRESSAIR	11/18/10		315952	63.00
FEDEX	11/18/10		315953	380.57
FEDEX NATIONAL LTL, INC	11/18/10		315954	125.17
FERGUSON WATERWORKS	11/18/10		315955	2,351.18
FIDELITY INVESTMENTS	11/18/10		315956	415.00
FISHER SCIENTIFIC COMPANY LLC	11/18/10		315957	2,509.68
FLW SERVICE	11/18/10		315958	450.00
FORD HALL CO INC	11/18/10		315959	310.10
FRONTLINE MANAGEMENT INC	11/18/10		315960	1,960.98
G.M. SAGER CONSTRUCTION CO,INC	11/18/10		315961	8,499.00
GAIL MATERIALS	11/18/10		315962	672.60
GCI CONSTRUCTION, INC.	11/18/10		315963	22,484.89
GMU GEOTECHNICAL INC	11/18/10		315964	2,986.00
GOLDEN STATE LABOR COMPLIANCE,	11/18/10		315965	1,648.50
GRAINGER	11/18/10		315966	2,383.93
GRAYBAR ELECTRIC COMPANY	11/18/10		315967	1,870.37
GREGORY WINNER	11/18/10		315968	9,369.17
GRIZZLE, DONN	11/18/10		315969	36.08
HACH COMPANY	11/18/10		315970	2,958.49
HARTFORD LIFE AND ACCIDENT	11/18/10		315971	207.00
HILL BROTHERS CHEMICAL COMPANY	11/18/10		315972	8,275.05
HOME DEPOT USA INC	11/18/10		315973	653.08
HONEYMAN, MICHAEL	11/18/10		315974	41.36
HYDRO-SCAPE PRODUCTS INC	11/18/10		315975	485.49
HYDRO-WATT, INC.	11/18/10		315976	3,989.09
INTERIOR OFFICE SOLUTIONS, INC	11/18/10		315977	1,295.60
IRON MOUNTAIN INFORMATION	11/18/10		315978	1,624.27
IRVINE PIPE & SUPPLY INC	11/18/10		315979	1,155.36
IRVINE UNIFIED SCHOOL DISTRICT	11/18/10		315980	4,393.06
IRVINE, CITY OF	11/18/10		315981	140,462.40
IRWD-PETTY CASH CUSTODIAN	11/18/10		315982	407.34
ISENBERG/O'HAREN	11/18/10		315983	6,500.00
J.R. FILANC CONSTRUCTION	11/18/10		315984	2,321.81
JOHN CRANE, INC.	11/18/10		315985	1,949.78

IRVINE RANCH WATER DISTRICT

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Vendor Name	Issued	Voided	Check#	Check Amount
JOHN G. ALEVIZOS D.O. INC.	11/18/10		315986	925.00
KONECRANES INC	11/18/10		315987	1,900.00
LE, DAVID	11/18/10		315988	2,528.09
LEWIS OPERATING CORP	11/18/10		315989	15,507.60
MARKET-THINK, LLC	11/18/10		315990	4,375.00
MC MASTER CARR SUPPLY CO	11/18/10		315991	497.87
MERCHANTS LANDSCAPE SERVICES	11/18/10		315992	2,043.87
MICHAELS, ROSS & COLE LTD	11/18/10		315993	6,000.00
MOUSE GRAPHICS	11/18/10		315994	735.67
NATIONAL READY MIXED CONCRETE	11/18/10		315995	1,011.06
OLIN CORPORATION	11/18/10		315996	19,618.02
OLSON HAGEL FISHBURN, LLP	11/18/10		315997	222.50
ON ASSIGNMENT LAB SUPPORT	11/18/10		315998	3,819.72
ONESOURCE DISTRIBUTORS LLC	11/18/10		315999	1,565.53
ORANGE COUNTY FIRE AUTHORITY	11/18/10		316000	1,175.00
ORANGE COUNTY FIRE PROTECTION	11/18/10		316001	2,990.00
ORANGE, COUNTY OF	11/18/10		316003	462.00
ORANGE, COUNTY OF	11/18/10		316004	4,188.00
ORKIN INC	11/18/10		316005	3,250.00
PACIFIC BUILDING CARE INC	11/18/10		316006	28,598.52
PACIFIC STRATEGIES	11/18/10		316007	1,500.00
PACIFIC TECHNOLOGIES INC	11/18/10		316008	8,942.09
PAPER DEPOT DOCUMENT	11/18/10		316009	271.00
PASCAL & LUDWIG CONSTRUCTORS	11/18/10		316010	971,712.45
PASCAL & LUDWIG CONSTRUCTORS	11/18/10		316011	107,968.05
PAUL E BRADLEY INC	11/18/10		316012	10,485.00
PAULUS ENGINEERING INC	11/18/10		316013	92,669.04
PDA INC	11/18/10		316014	106.00
PERS LONG TERM CARE	11/18/10		316015	1,826.79
PRAXAIR DISTRIBUTION INC	11/18/10		316016	690.94
PRE-PAID LEGAL SERVICES INC	11/18/10		316017	1,899.37
PRO-COURIER, INC.	11/18/10		316018	728.00
PROBOLSKY RESEARCH LLC	11/18/10		316019	25,000.00
PRUDENTIAL OVERALL SUPPLY	11/18/10		316020	701.97
PTI SAND & GRAVEL INC	11/18/10		316021	3,867.07
QUALITY ENVIRONMENTAL	11/18/10		316022	596.07
QUICKEL PAVING INC	11/18/10		316023	5,190.00
RAM AIR ENGINEERING INC	11/18/10		316024	2,491.17
RBF CONSULTING	11/18/10		316025	35,897.54
ROCK STRUCTURES CONSTRUCTION	11/18/10		316026	44,384.00
RRM DESIGN GROUP	11/18/10		316027	4,226.85
RUTLAND TOOL & SUPPLY CO	11/18/10		316028	144.01
SAFECHECKS	11/18/10		316029	910.11
SANDERS PAVING INC	11/18/10		316030	13,868.00
SANTA ANA BLUE PRINT	11/18/10		316031	511.86
SEAL ANALYTICAL INC	11/18/10		316032	812.75
SECURTEC DISTRICT PATROL INC	11/18/10		316033	1,800.00
SHI, CHARLES	11/18/10		316034	24.65
SIGMA-ALDRICH INC	11/18/10		316035	103.63
SIGNATURE FLOORING INC	11/18/10		316036	508.73
SIRIUS COMPUTER SOLUTIONS, INC	11/18/10	11/18/10	316037	324,136.39
SOLARBEE, INC	11/18/10		316038	960.00
SOUTH COAST ANSWERING SERVICE	11/18/10		316039	437.08
SOUTH COAST WATER	11/18/10		316040	40.00
SOUTHERN CALIFORNIA EDISON	11/18/10		316041	194,127.90
SOUTHERN CALIFORNIA SECURITY	11/18/10		316042	1,043.89
SOUTHERN COUNTIES LUBRICANTS	11/18/10		316043	2,202.45

IRVINE RANCH WATER DISTRICT

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Vendor Name	Issued	Voided	Check#	Check Amount
SOUTHWEST MEMBRANE OPERATOR	11/18/10		316044	300.00
STATE BOARD OF EQUALIZATION	11/18/10		316045	544.00
STEEL UNLIMITED INC	11/18/10		316046	1,423.50
STEVEN ENTERPRISES INC	11/18/10		316047	241.85
STOUT, CLIFFORD	11/18/10		316048	27.99
STUDDERT, GEORGE M	11/18/10		316049	179.61
TETRA TECH, INC	11/18/10		316050	33,845.81
THE GAS COMPANY	11/18/10		316051	3,184.16
THE GAS COMPANY	11/18/10		316052	288.01
THOMPSON INDUSTRIAL SUPPLY	11/18/10		316053	3,363.93
TROPICAL PLAZA NURSERY INC	11/18/10		316054	12,991.87
TRUGREEN LANDCARE	11/18/10		316055	5,767.76
TUCCI RONALD JUSTIN	11/18/10		316056	1,000.00
U.S. DEPARTMENT OF EDUCATION	11/18/10		316057	794.43
UNDERGROUND SERVICE ALERT OF	11/18/10		316058	577.50
UNITED SITE SERVICES OF	11/18/10		316059	134.92
US PEROXIDE, LLC	11/18/10		316060	22,614.70
USA BLUEBOOK	11/18/10		316061	858.89
VARIAN INC	11/18/10		316062	141.18
VERIZON CALIFORNIA INC	11/18/10		316063	267.94
VORTEX INDUSTRIES INC	11/18/10		316064	295.30
VULCAN MATERIALS COMPANY	11/18/10		316065	1,147.77
WALTERS WHOLESALE ELECTRIC	11/18/10		316066	862.37
WASTE MGMT OF ORANGE COUNTY	11/18/10		316067	240.05
WATERLINE TECHNOLOGIES INC	11/18/10		316068	3,738.90
WAXIE SANITARY SUPPLY	11/18/10		316069	356.48
WECK LABORATORIES INC	11/18/10		316070	260.00
WORKFLOWONE	11/18/10		316071	2,319.32
ZEBRON CONTRACTING INC	11/18/10		316072	3,150.00
DEPARTMENT OF CONSUMER AFFAIRS	11/24/10		316073	125.00
EL TORO HIGH SCHOOL	11/24/10		316074	2,500.00
WATEREUSE FOUNDATION	11/24/10		316075	7,740.00
ACTION ELECTRIC CORP	11/24/10		316076	429.17
ADVANCED INDUSTRIAL SOLUTIONS	11/24/10		316077	1,492.15
ADVANTAGE FITNESS PRODUCTS	11/24/10		316078	480.00
AIRPORT LOCK AND SAFE (DBA)	11/24/10		316079	154.89
ALL AMERICAN ASPHALT	11/24/10		316080	469.51
ALL AMERICAN SEWER TOOLS	11/24/10		316081	1,618.78
APCO GRAPHICS INC	11/24/10		316082	192.86
ASHFORD, WALT	11/24/10		316083	361.35
AT&T	11/24/10		316084	1,162.87
AT&T	11/24/10		316085	2,520.38
AT&T INTERNET SERVICES	11/24/10		316086	1,124.00
ATHENS SERVICES	11/24/10		316087	896.56
AYRES HOTEL AND SUITES (DBA)	11/24/10		316088	1,941.40
BELL PIPE & SUPPLY CO	11/24/10		316089	199.78
BIOMERIEUX INC	11/24/10		316090	567.73
BRENNTAG PACIFIC INC	11/24/10		316091	487.49
C WELLS PIPELINE MATERIALS INC	11/24/10		316092	22,467.76
CAL WATER PURIFICATION	11/24/10		316093	152.00
CALIFORNIA BARRICADE INC	11/24/10		316094	473.72
CALIFORNIA DEPT OF HEALTH SVCS	11/24/10		316095	5,975.00
CANON BUSINESS SOLUTIONS INC	11/24/10		316096	90.24
CARLOS CELLULAR & ELECTRONICS	11/24/10		316097	534.99
COASTAL TRAFFIC SYSTEMS, INC	11/24/10		316098	3,625.00
COMMERCIAL DOOR OF ORANGE	11/24/10		316099	1,732.00
CONEYBEARE INC	11/24/10		316100	916.30

IRVINE RANCH WATER DISTRICT

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Vendor Name	Issued	Voided	Check#	Check Amount
D & G SIGNS	11/24/10		316101	1,527.94
DAPHNE'S GREEK CAFE	11/24/10		316102	138.45
DUDLEY RIDGE WATER DISTRICT	11/24/10		316103	47,156.73
EISEL ENTERPRISES INC	11/24/10		316104	13,121.04
EXPRESSAIR	11/24/10		316105	315.00
FARRELL & ASSOCIATES	11/24/10		316106	107.73
FEDEX	11/24/10		316107	453.55
FERGUSON WATERWORKS	11/24/10		316108	348.00
FISERV	11/24/10		316109	298.50
FISHER SCIENTIFIC COMPANY LLC	11/24/10		316110	3,948.32
FLEET SOLUTIONS, LLC.	11/24/10		316111	4,041.90
FLUID CONSERVATION SYSTEMS INC	11/24/10		316112	630.63
FOUNTAIN VALLEY PAINTS	11/24/10		316113	380.63
FT ZIEBARTH COMPANY	11/24/10		316114	20,928.03
GCI CONSTRUCTION, INC.	11/24/10		316115	25,025.00
GEOPENTECH, INC.	11/24/10		316116	6,590.00
GODWIN PUMPS OF AMERICA, INC.	11/24/10		316117	3,918.86
GRAINGER	11/24/10		316118	4,854.99
HACH COMPANY	11/24/10		316119	2,479.99
HARPER & ASSOCIATES	11/24/10		316120	1,100.00
HDR ENGINEERING INC.	11/24/10		316121	7,140.03
HILL BROTHERS CHEMICAL COMPANY	11/24/10		316122	5,804.76
HOME DEPOT USA INC	11/24/10		316123	521.46
IBM CORPORATION	11/24/10		316124	12,297.00
IDENTICARD SYSTEMS WORLDWIDE	11/24/10		316125	468.41
INDUSTRIAL METAL SUPPLY CO	11/24/10		316126	848.85
IRVINE PIPE & SUPPLY INC	11/24/10		316127	9,894.11
JOHN G. ALEVIZOS D.O. INC.	11/24/10		316128	240.00
JOHN G. ALEVIZOS D.O. INC.	11/24/10		316129	90.00
KASHANI-MATTS, SARV	11/24/10		316130	26.69
KS DIRECT	11/24/10		316131	500.25
LIGHTING RESOURCES LLC	11/24/10		316132	1,881.35
LUBRICATION ENGINEERS, INC.	11/24/10		316133	5,156.39
MC MASTER CARR SUPPLY CO	11/24/10		316134	732.55
MOBILE MODULAR MANAGEMENT	11/24/10		316135	1,119.04
MOUSE GRAPHICS	11/24/10		316136	59.14
MUNICIPAL WATER DISTRICT	11/24/10		316137	77,630.00
NEWPORT BEACH, CITY OF	11/24/10		316138	920.29
OCCAPA	11/24/10		316139	25.00
OLIN CORPORATION	11/24/10		316140	11,700.42
ON ASSIGNMENT LAB SUPPORT	11/24/10		316141	3,305.81
ONESOURCE DISTRIBUTORS LLC	11/24/10		316142	200.04
ORANGE COUNTY SANITATION	11/24/10		316143	1,547.15
ORANGE COUNTY VECTOR CONTROL	11/24/10		316144	139.56
PAULUS ENGINEERING INC	11/24/10		316145	289,765.80
PERKINELMER HEALTH SCIENCES	11/24/10		316146	361.84
PFIFFNER, DOUG	11/24/10		316147	28.29
POLLARDWATER.COM	11/24/10		316148	5,599.59
PRIORITY MAILING SYSTEMS LLC	11/24/10		316149	270.79
PRUDENTIAL OVERALL SUPPLY	11/24/10		316150	798.09
PSOMAS	11/24/10		316151	1,734.14
RAM AIR ENGINEERING INC	11/24/10		316152	4,555.82
RESPONSE ENVELOPE, INC	11/24/10		316153	3,682.00
RRM DESIGN GROUP	11/24/10		316154	9,212.09
SADDLEBACK MATERIALS CO INC	11/24/10		316155	222.14
SANTA ANA CITY OF	11/24/10		316156	49.63
SCHOLTEN RICK	11/24/10		316157	1,333.81

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/05 Ended 11/30/2010

Vendor Name	Issued	Voided	Check#	Check Amount	
SCOTT-MARRIN, INC.	11/24/10		316158	12.40	
SCS ENGINEERS	11/24/10		316159	3,645.00	
SEAL ANALYTICAL INC	11/24/10		316160	665.46	
SEPARATION PROCESSES INC	11/24/10		316161	692.00	
SHAMROCK SUPPLY CO INC	11/24/10		316162	1,618.14	
SHIN, PUTNAM	11/24/10		316163	24.14	
SOUTH COAST AIR QUALITY	11/24/10		316164	3,982.29	
SOUTH COAST WATER	11/24/10		316165	216.74	
SOUTH COAST WATER DISTRICT	11/24/10		316166	262.60	
SOUTHERN CALIFORNIA EDISON	11/24/10		316167	70,757.75	
SOUTHERN CALIFORNIA EDISON	11/24/10		316168	50.92	
SS MECHANICAL CORPORATION	11/24/10		316169	75,445.56	
STANTEC CONSULTING SERVICES	11/24/10		316170	25,690.47	
SWRCB	11/24/10		316171	1,452.00	
TAYLOR WOODROW HOMES	11/24/10		316172	54.32	
TAYLOR WOODROW HOMES	11/24/10		316173	27.38	
TAYLOR WOODROW HOMES	11/24/10		316174	24.65	
TAYLOR WOODROW HOMES	11/24/10		316175	38.80	
TAYLOR WOODROW HOMES	11/24/10		316176	18.08	
TEXCELLENT INDUSTRIES INC	11/24/10		316177	611.76	
THE GAS COMPANY	11/24/10		316178	505.01	
TROPICAL PLAZA NURSERY INC	11/24/10		316179	26,463.06	
TRUCPARCO	11/24/10		316180	18.41	
TRUGREEN LANDCARE	11/24/10		316181	389.00	
UNITED INDUSTRIES	11/24/10		316182	861.76	
US BANK NAT'L ASSOC N.DAKOTA	11/24/10		316183	79,758.31	
US PEROXIDE, LLC	11/24/10		316184	6,616.75	
VA CONSULTING, INC	11/24/10		316185	13,142.10	
VERIZON CALIFORNIA INC	11/24/10		316186	38.29	
VORTEX INDUSTRIES INC	11/24/10		316187	898.14	
WASTE MGMT OF ORANGE COUNTY	11/24/10		316188	238.41	
WATERLINE TECHNOLOGIES INC	11/24/10		316189	4,092.48	
WAXIE SANITARY SUPPLY	11/24/10		316190	875.26	
WIRELESS WATCHDOGS LLC	11/24/10		316191	1,276.00	
WOOD BROS., INC.	11/24/10		316192	157,821.02	
A/P Check Total				7,170,639.36	
YORK INSURANCE SERVICES GROUP	11/02/10		9110210	1,730.58	
YORK INSURANCE SERVICES GROUP	11/16/10		9111610	6,048.00	
YORK INSURANCE SERVICES GROUP	11/23/10		9112310	3,803.22	
YORK INSURANCE SERVICES GROUP	11/30/10		9113010	2,192.73	
Workers Compensation Total				13,774.53	
SIPKOVICH	JIM	5/06/10	11/17/10	310769	22.62-
KAY	DERREL	5/13/10	11/08/10	310961	15.72-
KIM	SUNG	5/13/10	11/08/10	310962	34.65-
LOKE	HARI	6/03/10	11/08/10	311505	26.17-
IRVINE PROPERTY MANAGEMENT INC		6/10/10	11/08/10	311683	24.02-
TIC-RETAIL PROPERTIES		6/10/10	11/17/10	311716	721.50-
TIC-RETAIL PROPERTIES		6/10/10	11/17/10	311717	182.31-
TIC-RETAIL PROPERTIES		6/10/10	11/17/10	311718	10.13-
TIC-RETAIL PROPERTIES		6/10/10	11/17/10	311719	428.91-
TIC-RETAIL PROPERTIES		6/10/10	11/17/10	311720	7,442.59-

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/05 Ended 11/30/2010

Vendor Name	Issued	Voided	Check#	Check Amount
TIC-RETAIL PROPERTIES	6/10/10	11/17/10	311721	30.58-
TIC-RETAIL PROPERTIES	6/10/10	11/17/10	311722	732.46-
TIC-RETAIL PROPERTIES	6/10/10	11/17/10	311723	295.49-
TIC-RETAIL PROPERTIES	6/10/10	11/17/10	311724	161.49-
TIC-RETAIL PROPERTIES	6/10/10	11/17/10	311725	3,163.29-
TIC-RETAIL PROPERTIES	6/10/10	11/17/10	311726	92.69-
TIC-RETAIL PROPERTIES	6/10/10	11/17/10	311727	32.10-
TIC-SPECTRUM OFFICE	6/10/10	11/17/10	311728	91.32-
TIC-TECHNOLOGY	6/10/10	11/17/10	311729	14.83-
PARSONS JOHN	6/17/10	11/08/10	311886	31.64-
SOLIS MIGUEL	6/24/10	11/17/10	312074	27.70-
GEORGE DEANNA	6/30/10	11/08/10	312318	10.76-
HIRAOKA MAYUMI	6/30/10	11/08/10	312320	26.17-
REDDY SRIDHAR	6/30/10	11/17/10	312327	26.17-
TIC-RESORT PROPERTIES	6/30/10	11/17/10	312334	16.29-
TIC-RETAIL PROPERTIES	6/30/10	11/17/10	312335	36.25-
FISERV	10/07/10	11/10/10	314865	8,375.24-
CHANG, HYON	10/21/10	11/02/10	315258	68.72-
MAGORIEN, DUFF	11/04/10	11/04/10	315632	150.00-
SIRIUS COMPUTER SOLUTIONS, INC	11/18/10	11/18/10	316037	324,136.39-
Total Voids				346,428.20-
ORANGE COUNTY SANITATION	11/18/10		316002	
A/P Corrections/Adjustments				
Report Total				<u><u>6,837,985.69</u></u>

Report Includes Checks numbers from 315530 to 316192

Reviewed by
Z
Dec-02-2010

December 13, 2010

Prepared by: K. Lew/M. Hoolihan

Submitted by: G. P. Heiertz 

Approved by: Paul Jones 

CONSENT CALENDAR

FISCAL YEAR 2010-11 PLANNING RESERVE EXPENDITURE AUTHORIZATIONS

SUMMARY:

Staff requests approval of Expenditure Authorizations for the Engineering/Planning Study Reserves, Projects 10565, 20565, and 30565 for a total of \$188,100.

BACKGROUND:

The annual Capital Budget project for the engineering/planning study reserves are used to fund inter-agency coordination, non-project-specific CEQA-related work, requests for planning information, planning studies, initial feasibility studies, MOU and agreement negotiations, miscellaneous right-of-way work, and other general planning work as needs arise. The table below summarizes the status of expenditures against these projects as of November 30, 2010:

Item	Project 10565	Project 20565	Project 30565
Existing EA Direct Costs	\$ 71,500	\$ 58,300	\$ 58,300
Staff Time	(11,000)	(4,000)	(10,000)
Committed amount on POs	(23,500)	(22,000)	(21,300)
Pending POs (Demand Factor Study)	(24,000)	(12,000)	(24,000)
Amount Remaining	\$ 13,000	\$ 20,300	\$ 3,000

Staff continues to do work in coordinating the conversion of the Irvine Lake Pipeline to reclaimed water, the "Four Agency Interconnection Study Project", GAP analysis and negotiations, Joint Recycled Water Study with El Toro Water District and Moulton Niguel Water District, and planning for the acquisition of various well sites. Additionally, staff continues work with other local water districts/cities, coordinating with permitting agencies, preparing the five-year water estimates for Metropolitan Water District of Orange County, certifying the in-lieu seasonal storage, and performing advanced planning activities for Orange County Water District (OCWD). Significant purchase orders charged to these projects include Dudek for Lake Forest area hydraulic modeling work related to the Baker Treatment Plant design and DCSE for hydraulic modeling work for the Green Acres Project with OCWD and Orange County Sanitation District. These projects will also fund the upcoming Water Demand Factor Study with RBF and updates to portions of the Water Resources Master Plan and Urban Water Management Plan.

Staff requests approval of Expenditure Authorizations to cover additional expenditures through the end of the current fiscal year. Copies of the Expenditure Authorizations are attached as Exhibit "A". These projects are scheduled to be closed after June 30, 2011.

FISCAL IMPACTS:

Projects 10565, 20565, and 30565 are included in the FY 2010-11 Capital Budget and are funded based on regional cost allocations.

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
10565	\$143,000	\$ -0-	\$143,000	\$ 71,500	\$ 71,500	\$143,000
20565	\$116,600	\$ -0-	\$116,600	\$ 58,300	\$ 58,300	\$116,600
30565	\$116,600	\$ -0-	\$116,600	\$ 58,300	\$ 58,300	\$116,600
Total	\$376,200	\$ -0-	\$376,200	\$188,100	\$188,100	\$376,200

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee on December 6, 2010.

RECOMMENDATION:

THAT THE BOARD APPROVE ADDITIONAL EXPENDITURE AUTHORIZATIONS FOR THE ENGINEERING/PLANNING STUDY RESERVES IN THE AMOUNTS OF \$71,500 FOR PROJECT 10565, \$58,300 FOR PROJECT 20565, AND \$58,300 FOR PROJECT 30565.

LIST OF EXHIBITS:

Exhibit "A" – Expenditure Authorizations

IRVINE RANCH WATER DISTRICT
Expenditure Authorization

Exhibit "A"

Project Name: ENG PLANNING STUDY RESERVE 10/11
Project No: 10565 EA No: 2

ID Split: Regional Water Split with LAWD (11/08)
Improvement District (ID) Allocations

Project Manager: HOOLIHAN, MICHAEL
Project Engineer: LEW, KELLY
Request Date: November 22, 2010

ID No. Allocation % Source of Funds

ID No.	Allocation %	Source of Funds
112	3.6	BONDS YET TO BE SOLD**
113	4.4	BONDS YET TO BE SOLD**
115	6.2	CAPITAL FUND
121	12.8	BONDS YET TO BE SOLD**
130	10.0	BONDS YET TO BE SOLD**
135	16.2	PREVIOUSLY SOLD BONDS
140	3.5	BONDS YET TO BE SOLD**
150	26.1	BONDS YET TO BE SOLD**
153	2.9	BONDS YET TO BE SOLD**
154	1.2	BONDS YET TO BE SOLD**
161	6.7	BONDS YET TO BE SOLD**
182	2.5	BONDS YET TO BE SOLD**
184	2.3	BONDS YET TO BE SOLD**
186	.8	BONDS YET TO BE SOLD**
188	.8	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$71,500
This Request:	\$71,500
Total EA Requests:	\$143,000
Previously Approved Budget:	\$143,000
Budget Adjustment Requested this EA:	\$0
Updated Budget:	\$143,000
Budget Remaining After This EA	\$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING IRWD	40,000	40,000	80,000	0	80,000	80,000	7/10	6/11
ENGINEERING - PLANNING OUTSIDE	25,000	25,000	50,000	0	50,000	50,000	7/10	6/11
ENGINEERING DESIGN - OUTSIDE	0	0	0	0	0	0	7/10	6/11
Contingency - 10.00% Subtotal	\$6,500	\$6,500	\$13,000	\$0	\$13,000	\$13,000		
Subtotal (Direct Costs)	\$71,500	\$71,500	\$143,000	\$0	\$143,000	\$143,000		
Estimated G/A - 195.00% of direct labor*	\$78,000	\$78,000	\$156,000	\$0	\$156,000	\$156,000		
Total	\$149,500	\$149,500	\$299,000	\$0	\$299,000	\$299,000		
Direct Labor	\$40,000	\$40,000	\$80,000	\$0	\$80,000	\$80,000		

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator: Kelly Lew 11/22/10
 Department Director: [Signature] 11/23/10
 Finance: _____
 Board/General Manager: _____

** IRWD hereby declares that it reasonably expects those expenses marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$305,000 additional documents, if any, which are hereby incorporated by project is made under Treasury Regulation Section 1.150-2.

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: ENG PLANNING STUDY RESERVE 10/11

Project No: 20565 EA No: 2

Project Manager: HOOLIHAN, MICHAEL

Project Engineer: LEW, KELLY

Request Date: November 22, 2010

ID Split: Regional Sewer Split with LAWD (11/08)

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
211	7.7	CAPITAL FUND
212	3.3	BONDS YET TO BE SOLD**
213	4.4	BONDS YET TO BE SOLD**
215	7.2	CAPITAL FUND
221	15.4	BONDS YET TO BE SOLD**
230	10.1	BONDS YET TO BE SOLD**
235	13.3	PREVIOUSLY SOLD BONDS
240	2.9	BONDS YET TO BE SOLD**
250	24.0	BONDS YET TO BE SOLD**
253	.9	BONDS YET TO BE SOLD**
261	6.3	BONDS YET TO BE SOLD**
282	1.7	BONDS YET TO BE SOLD**
284	1.8	BONDS YET TO BE SOLD**
286	.5	BONDS YET TO BE SOLD**
288	.5	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$58,300
This Request:	\$58,300
Total EA Requests:	\$116,600
Previously Approved Budget:	\$116,600
Budget Adjustment Requested this EA:	\$0
Updated Budget:	\$116,600
Budget Remaining After This EA	\$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING IRWD	38,000	38,000	76,000	0	76,000	76,000	7/10	6/11
ENGINEERING - PLANNING OUTSIDE	15,000	15,000	30,000	0	30,000	30,000	7/10	6/11
Contingency - 10.00% Subtotal	\$5,300	\$5,300	\$10,600	\$0	\$10,600	\$10,600		
Subtotal (Direct Costs)	\$58,300	\$58,300	\$116,600	\$0	\$116,600	\$116,600		
Estimated G/A - 195.00% of direct labor*	\$74,100	\$74,100	\$148,200	\$0	\$148,200	\$148,200		
Total	\$132,400	\$132,400	\$264,800	\$0	\$264,800	\$264,800		
Direct Labor	\$38,000	\$38,000	\$76,000	\$0	\$76,000	\$76,000		

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator: Kelly Lew 11/22/10

Department Director: [Signature] 11/23/10

Finance: _____

Board/General Manager: _____

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$271,000 additional documents, if any, which are hereby incorporated by project is made under Treasury Regulation Section 1.150-2.

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: ENG PLANNING STUDY RESERVE 10/11
 Project No: 30565 EA No: 2
 Project Manager: HOOLIHAN, MICHAEL
 Project Engineer: LEW, KELLY
 Request Date: November 22, 2010

ID Split: Regional Reclaimed Water Split with LAWD (11/08)
 Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
211	2.1	CAPITAL FUND
212	13.2	BONDS YET TO BE SOLD**
213	4.8	BONDS YET TO BE SOLD**
215	.7	CAPITAL FUND
221	13.2	BONDS YET TO BE SOLD**
230	9.6	BONDS YET TO BE SOLD**
235	7.9	PREVIOUSLY SOLD BONDS
240	7.7	BONDS YET TO BE SOLD**
250	31.7	BONDS YET TO BE SOLD**
261	9.1	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$58,300
This Request:	\$58,300
Total EA Requests:	\$116,600
Previously Approved Budget:	\$116,600
Budget Adjustment Requested this EA:	\$0
Updated Budget:	\$116,600
Budget Remaining After This EA	\$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING IRWD	30,000	30,000	60,000	0	60,000	60,000	7/10	6/11
ENGINEERING - PLANNING OUTSIDE	23,000	23,000	46,000	0	46,000	46,000	7/10	6/11
Contingency - 10.00% Subtotal	\$5,300	\$5,300	\$10,600	\$0	\$10,600	\$10,600		
Subtotal (Direct Costs)	\$58,300	\$58,300	\$116,600	\$0	\$116,600	\$116,600		
Estimated G/A - 195.00% of direct labor*	\$58,500	\$58,500	\$117,000	\$0	\$117,000	\$117,000		
Total	\$116,800	\$116,800	\$233,600	\$0	\$233,600	\$233,600		
Direct Labor	\$30,000	\$30,000	\$60,000	\$0	\$60,000	\$60,000		

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator: Kelly Lew 11/22/10
 Department Director: [Signature] 11/23/10
 Finance: _____
 Board/General Manager: _____

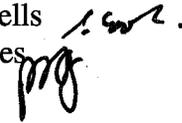
** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$239, further described in the attached staff report and additional documents, if any, which are hereby incorporated into this authorization. No special intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

December 13, 2010

Prepared and

Submitted by: Janet Wells

Approved by: Paul Jones



CONSENT CALENDAR

SECTION 125 FLEXIBLE BENEFITS PLAN AMENDMENT AND CONTRACT RENEWAL

SUMMARY:

Staff has received an Amendment to the District's Section 125 Flexible Benefits Plan administered by Employee Benefit Specialist, Inc. (EBS) as well as the contract to administer the District's program for calendar year 2011. Staff recommends that the Board:

- Authorize staff to contract with Employee Benefits Specialist, Inc. for Flex Spending administration for the calendar year 2011, and
- Adopt a resolution authorizing approval of the Amendment to the Plan to reflect the provisions of the Patient Protection and Affordable Care Act (PPACA), and other provisions of applicable law and the applicable regulations effective December 31, 2009.

BACKGROUND:

The District first added the Section 125 Flex Advantage Plan to its benefits program in July 1989. This program is a tax-favored cafeteria plan that allows employees to pay for certain expenses with pre-tax rather than after-tax dollars. These expenses include medical premiums, miscellaneous medical expenses, dependent care expenses and premiums for some allowable voluntary benefit programs. The program was originally outsourced and administered by Jefferson Pilot but administration was brought in-house in 1998 when the District moved from Jefferson Pilot as a primary health insurer. Until last year, District staff had been administering the District's Flex Advantage Plan. Beginning January 2010, the District contracted with EBS to administer our Flex Advantage Plan to provide employees with a higher level of confidentiality when processing sensitive employee medical information, a convenient debit card to utilize the monies set aside for flex spending and additional staff time previously spent reviewing and processing payments.

The District's Flex Advantage Plan is utilized by almost all employees to pay for medical premiums with pre-tax dollars. A total of 128 employees are signed up for miscellaneous medical expenses, 23 employees are signed up for dependent care expenses and 85 employees pay their voluntary insurance premiums with pre-tax dollars.

Amendment Changes:

An Amendment to the District's Section 125 Flexible Benefits Plan must be adopted to reflect the provisions of the Patient Protection and Affordable Care Act, the Reconciliation Act and other provisions of applicable law and regulations that were generally effective after December 31, 2009. The two optional provisions addressed in the Amendment attached as Exhibit "A" include:

- Election Change for Children Under Age 27
 - This election would provide for an election opportunity for newly eligible dependent coverage under the Cafeteria plan. Staff is not recommending this additional provision.
- Setting the annual Health Care Reimbursement account maximum
 - Staff recommends maintaining the \$5,000 annual maximum.

Changes to Standard Provisions:

Additional changes to the standard provisions include:

- No coverage for over-the-counter medications without a prescription effective January 1, 2011.
- Coverage for children of the participant up to age 26.
- Effective January 1, 2013, the maximum annual amount that can be applied to the Health Care Reimbursement account will be \$2,500.

Administrative Costs Charged by EBS:

Costs to administer the District's Flex Spending Plan will remain at \$5.00 per month for each participant with a debit card plus an annual charge of \$225 to complete the Form 500 filing. These costs are confirmed in the 2011 EBS Contract which is attached as Exhibit "B". There are currently 308 employees enrolled in the program at an estimated annual cost of \$18,705.

FISCAL IMPACTS:

Renewing the contract with Employee Benefit Specialists, Inc. to administer the District's Flex Spending program would result in an annual budgeted expense of \$18,705.

ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act Code of Regulations, Title 14, Chapter 3, Section 15378.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on December 6, 2010.

RECOMMENDATION:

THAT THE BOARD APPROVE THE CONTRACT RENEWAL WITH EMPLOYEE BENEFIT SPECIALISTS, INC. EFFECTIVE JANUARY 1, 2011 TO ADMINISTER THE DISTRICT'S FLEX SPENDING PROGRAM, AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE NECESSARY AGREEMENTS ON BEHALF OF THE DISTRICT, AND ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2010 -

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY, CALIFORNIA
AUTHORIZING EXECUTION OF SECTION 125 FLEXIBLE BENEFITS PLAN
AMENDMENT WITH THE EMPLOYEE BENEFIT SPECIALIST, INC.

LIST OF EXHIBITS:

Exhibit "A" – Resolution adopting Amendment to Section 125 Flexible Benefits Plan for the District
Exhibit "B" – Proposed EBS Contract for 2011

EXHIBIT "A"

RESOLUTION NO. 2010 -

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY, CALIFORNIA
AUTHORIZING EXECUTION OF SECTION 125 FLEXIBLE BENEFITS PLAN
AMENDMENT WITH THE EMPLOYEE BENEFIT SPECIALIST, INC.

WHEREAS, the Irvine Ranch Water District (District) maintains the Irvine Ranch Water District Section 125 Flexible Benefits Plan (the "Plan") for the benefit of its employees; and

WHEREAS, the District desires to amend the Plan to reflect the provisions of the Patient Protection and Affordable Care Act, the Reconciliation Act (PPACA) and certain other provisions of applicable law and the applicable regulations that are generally effective after December 31, 2009; and

WHEREAS, this Amendment is intended as good faith compliance with the requirements of the PPACA and Applicable Law and is to be construed in accordance with same. Additionally, this Amendment and the provisions of Applicable Law shall supersede the provisions of the Plan to extend those provisions that are inconsistent with the provisions of this Amendment, PPACA and the Applicable Law.

NOW, THEREFORE, the Board of Directors of IRWD does hereby RESOLVE, DETERMINE, AND ORDER as follows:

Section 1. That the Plan be amended in the form provided in Exhibit "A" which amendment is hereby adopted and approved.

Section 2. That the appropriate officers of the District be, and they hereby are, authorized and directed to execute said amendment on behalf of the District.

Section 3. That the officers of the District be, and they are hereby are, authorized and directed to take any and all actions and execute and deliver such documents as they deem necessary, appropriate or convenient to effect the foregoing resolution including, without limitation, causing to be prepared and filed such reports, documents or other information as may be required under applicable law.

ADOPTED, SIGNED and APPROVED this ____ of _____, 2010.

President, IRVINE RANCH WATER
DISTRICT and of the Board of
Directors thereof

Secretary, IRVINE RANCH WATER DISTRICT and of the Board of
Directors thereof

APPROVED AS TO FORM:

Legal Counsel
BOWIE, ARNESON, WILES AND GIANNONE

Irvine Ranch Water District
Section 125 Flexible Benefits Plan

AMENDMENT

WHEREAS, Irvine Ranch Water District (the "Company") maintains the Irvine Ranch Water District Section 125 Flexible Benefits Plan (the "Plan") for the benefit of certain of its employees; and

WHEREAS, the Company desires to amend the Plan;

NOW, THEREFORE, the Plan is hereby amended as follows, effective as provided therein:

This Amendment to the Plan is adopted to reflect the provisions of the Patient Protection and Affordable Care Act, the Reconciliation Act (hereinafter both are collectively referred to as "PPACA") and certain other provisions of applicable law and the applicable regulations that are generally effective after December 31, 2009 ("Applicable Law"). This Amendment is intended as good faith compliance with the requirements of the PPACA and Applicable Law and is to be construed in accordance with same. This Amendment and the provisions of Applicable Law shall supersede the provisions of the Plan to the extent those provisions are inconsistent with the provisions of this Amendment, PPACA and Applicable Law.

A. OPTIONAL PROVISIONS:

Election Change For Children Under Age 27

1. If Health Care Reimbursement Account contributions are permitted and the Plan provides coverage for children, does the Plan provide for a new election opportunity for newly eligible dependent coverage under the Cafeteria plan (Paragraph B.5)?
- i. Yes. Effective _____, 20____ (no earlier than March 30, 2010)
- ii. No

Health Care Reimbursement account annual maximum

2. The maximum salary reduction amount that can be contributed to a Health Care Reimbursement Account in any Plan Year is \$ 5,000 _____, except as provided in Paragraph B.2

B. STANDARD PROVISIONS:

1. No Coverage For Over The Counter Medications Without a Prescription. Effective January 1, 2011, reimbursement for expenses incurred for a medicine or a drug shall be treated as a reimbursement for medical expenses under Code section 105(b) only if such medicine or drug is a prescribed drug (determined without regard to whether such drug is available without a prescription) or is insulin. To the extent provided in the Adoption Agreement, the Company may enter into an agreement with a financial institution to provide a Participant with a debit, credit or other stored value card to provide immediate payment of reimbursements provided that the use of such card complies with IRS Notice 2010-59 and any superseding guidance.
2. Maximum Salary Reduction Amount for a Health Care Reimbursement Account. The maximum salary reduction amount that can be contributed to a Health Care Reimbursement Account in any Plan Year may not exceed the maximum permitted under Code section 125(i) AND may not exceed \$2,500 for any plan year beginning on or after January 1, 2013.
3. Qualified Benefits. As of January 1, 2014, the term "Insurance Contract" may not include any qualified health plan (as defined in section 1301(a) of the Patient Protection and Affordable Care Act) offered through an exchange established under section 1311 of such Act unless the Employee's Employer is a qualified employer (as defined in section 1312(f)(2) of the Patient Protection and Affordable Care Act) offering the Employee the opportunity to enroll through such exchange in a qualified health plan in a group market.
4. Coverage for Children up to Age 26. For purposes of Code section 105(b), expenses for a child (as defined in section 152(f)(1)) of the Participant may be covered until his or her 26th birthday although the Plan Administrator may extend coverage until the end of the calendar year in which the child turns age 26.
5. Election Opportunity for Children Under Age 27. If elected in the optional provisions, a Participant may revoke an election during a period of coverage with respect to a qualified benefits plan (as defined in Treas. Reg. 1.125-4(i)(8)) and make a new election for the remaining portion of the period if, under the facts and circumstances: (i) a child up to age 27 became newly eligible for coverage or eligible for coverage beyond the date on which the child otherwise would have lost coverage; and (ii) the election change corresponds with the change in status that affects eligibility for coverage under a qualified benefits plan.
6. Coverage of Preventative Care without Cost-sharing. In the event the Plan constitutes a group health plan as defined in Treas. Reg. section 54.9801-2 or if the Plan Administrator determines that the Plan is subject to HIPAA portability rules, the Plan shall comply with the portability requirements of Code section 9801 et. Seq. The Plan Administrator shall only provide a certificate of creditable coverage if the Plan constitutes a group health plan as defined in Treas. Reg. section 54.9801-2. If i) the Plan constitutes a group health plan

as defined in Treas. Reg. section 54.9801-2 or if the Plan Administrator determines that the Plan is subject to HIPAA portability rules and ii) the Plan is not a grandfathered health plan under the Patient Protection and Affordable Care Act, then the Plan must provide coverage without cost-sharing requirements for preventative care as provided in Treas. Reg. 54.9815-2713T (and any superseding guidance; up to the amount available in the Participant's Health Care Reimbursement Account).

7. Internal and External Claims Procedure for Health Care Reimbursement Account.

(a) **Applicability.** This Section shall apply for any claim for benefits under the Health Care Reimbursement Account if 1) the Plan constitutes a group health plan as defined in Treas. Reg. section 54.9801-2 or if the Plan Administrator determines that the Plan is subject to HIPAA portability rules and 2) the Plan is not a grandfathered health plan under the Patient Protection and Affordable Care Act.

(b) **Effective Date.** This Section shall be effective the later of the first plan year beginning after September 23, 2010 or the date the Plan is no longer a grandfathered health plan under the Patient Protection and Affordable Care Act.

(c) **Internal Claims Process.** The claims requirements of DOL Reg. section 2560.503-1 shall apply as the internal claims process except as provided under DOL Reg. 2590.715-2719, in any superseding guidance and below.

(1) **Adverse Benefit Determination.** An adverse benefit determination means an adverse benefit determination as defined in DOL Reg. 2560.503-1, as well as any rescission of coverage, as described in DOL Reg. 2590.715-2712(a)(2).

(2) **Full and Fair Review.** A Claimant must be allowed to review the file and present evidence and testimony as part of the internal appeals process. Claimants must be provided, free of charge, with any new or additional evidence considered relied upon or generated by the Plan in connection with the claim sufficiently in advance of the final adverse benefit determination to give the Claimant a reasonable opportunity to respond prior to that date. The Plan must also meet the conflict of interest requirements under DOL Reg. 2590.715-2712(b)(2)(D).

(3) **Notice.** A description of available internal and external claims processes and information regarding how to initiate an appeal must be provided. Notices of adverse benefit determinations must include the information required under DOL Reg. 2590.715-2719(b)(2)(ii)(E) as applicable. The final notice of internal adverse benefit determination must include a discussion of the decision. Notice must be provided in a linguistically appropriate manner as provided under DOL Reg. 2590.715-2719(e). The Plan must disclose the contact information for any applicable office of health insurance consumer assistance or ombudsman established under PHS Act section 2793.

(4) **Deemed Exhaustion of Internal Claims Process.** If the Plan fails to strictly adhere to the requirements of DOL Reg. 2590.715-2719(b)(2), the claimant may

Irvine Ranch Water District

Section 125 Flexible Benefits Plan

SUMMARY OF MATERIAL MODIFICATIONS

The purpose of this Summary of Material Modifications is to inform you of a change that has been made to the

This change has affected the information previously provided to you in the Plan's Summary Plan Description. The Summary Plan Description is modified as described below.

Health Care Reimbursement Account

You will be entitled to receive reimbursement from this account for eligible expenses incurred by you, your spouse and dependents, if any. A dependent is generally someone who you may claim as a dependent on your federal tax return and also includes a child who is under the age of 27 through the end of the calendar year. You may receive reimbursement for eligible expenses incurred at a time when you are actively participating in the Plan.

The maximum you may contribute to your Health Care Reimbursement Account in any Plan Year beginning on or after 22 November, 2010 and before January 1, 2013 is \$ 5,000

Effective for any plan year beginning on or after January 1, 2013, the maximum amount you may contribute to your Health Care Reimbursement Account each year is \$2,500.

Effective January 1, 2011, medicines or drugs are eligible expenses for reimbursement under your Health Care Reimbursement Account only if such medicine or drug is a prescribed drug (determined without regard to whether such drug is available without a prescription) or is insulin. Eligible expenses for reimbursement under your Health Care Reimbursement Account generally include all medical expenses that you may deduct on your federal income tax return, although health insurance premiums are not an eligible expense for the Health Care Reimbursement Account.

Debit/Credit Cards

For expenses incurred on and after January 1, 2011, over-the-counter medicine or drug purchases through a debit/credit card must be substantiated before reimbursement may be made. A receipt accompanied by a copy of the related prescription or a letter of medical necessity from your healthcare provider is sufficient substantiation. Debit cards may continue to be used for medical expenses other than over-the-counter medicines or drugs.

Irvine Ranch Water District

GRANDFATHERED PLAN NOTICE

This group health plan believes this plan is a “grandfathered health plan” under the Patient Protection and Affordable Care Act (the Affordable Care Act). As permitted by the Affordable Care Act, a grandfathered health plan can preserve certain basic health coverage that was already in effect when that law was enacted. Being a grandfathered health plan means that your plan may not include certain consumer protections of the Affordable Care Act that apply to other plans, for example, the requirement for the provision of preventive health services without any cost sharing. However, grandfathered health plans must comply with certain other consumer protections in the Affordable Care Act, for example, the elimination of lifetime limits on benefits.

Questions regarding which protections apply and which protections do not apply to a grandfathered health plan and what might cause a plan to change from grandfathered health plan status can be directed to the plan administrator at the contact information listed in the Summary Plan Description, above. You may also contact the Employee Benefits Security Administration, U.S. Department of Labor at 1-866-444-3272 or www.dol.gov/ebsa/healthreform. This website has a table summarizing which protections do and do not apply to grandfathered health plans.

Exhibit "B"



IRVINE RANCH WATER DISTRICT FLEX FEES FOR 2011

MONTHLY ADMINISTRATION FEES (reimbursement accounts)

\$5.00 per participant per month with a debit card (\$150.00 monthly minimum)
 \$250 initial set up fee

ASSUMPTIONS

Eligible Employees	300
Effective Date	January 1, 2011
Accounts Included	Medical Reimbursement / Dependent Care
Reporting Frequency	Monthly
Payroll Schedule(s)	Semi-monthly or Bi-weekly
Claims Adjudication Schedule	Daily
Reimbursement Schedule	Daily
Online Account Balance	www.ebsbenefits.com (Member Center)
Reimbursement Type	Check / Direct Deposit / Debit Card
Payroll Reconciliation	Every pay period
Discrimination Test	One per year included at no cost

OPTIONAL SERVICES / ADDITIONAL FEES

Debit Card	Replacement/Lost card fee (up to five cards for the employees / dependents at no charge)	\$10.00 per card
	Non-Qualified Expense (NQE) Charge	\$10.00 per NQE
Form 5500 Reporting	If a plan has 100 or more participants in the medical reimbursement account the RS required informational filing due 7 months after plan year-end. Schedule F is no longer required	\$225.00
Plan Document	IRS requires the plan to be written in a formal document outlining all rights and rules under the plan	\$350.00
Summary Plan Description	IRS requires the plan document to be summarized in "plain language" and made available to all eligible employees	\$250.00
Printed Communication Materials	EBS has standard printed materials that includes 3 part enrollment forms, worksheets, salary illustration, claim forms, direct deposit forms, Q&A	\$2.25 per packet (Soft copies provided at no charge)
Confirmation Statements	Enrollment confirmation statements for all new enrollees and changes, with claim forms and direct deposit form	\$1.25 per statement
Enrollment Meetings	EBS can present group meetings and or provide individual meetings (one per year if local at no charge)	\$250 per day plus travel
Extended Plan Year	EBS can administer the extended 2.5 month plan year	\$0.90 PPPM

EBS Initials _____

Client Initials _____

ADMINISTRATIVE SERVICES AGREEMENT

AGREEMENT made this September 15, 2009 by and between Irvine Ranch Water District ("Employer") and Employee Benefit Specialists, Inc. (EBS).

WHEREAS, Employer has determined that it is in the best interest of the Employer and its eligible employees to install a Flexible Benefits Plan for the benefit of such eligible employees, to be known as the Irvine Ranch Water District's Flexible Benefits Plan ("Plan") and

WHEREAS, Employer has elected to appoint EBS to serve in such capacity and has and does hereby delegate such ministerial duties and functions to EBS; and

WHEREAS, the parties hereto do desire to set forth their agreement concerning the respective rights, duties and responsibilities of such parties relative to such delegation;

NOW, THEREFORE, for and in consideration of the mutual covenants and agreements hereinafter set forth and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Employer and EBS agree as follows:

I. SERVICE

The Employer appoints EBS to assist it in the performance of its administrative duties under the Plan. EBS accepts such appointment subject to the terms and conditions of this Agreement.

II. DUTIES OF EBS

- A. EBS shall assist the Employer in developing the Plan, which shall provide benefit elections for participating employees consistent with provisions of Section 125 of the Internal Revenue Code of 1986, as amended ("Code").
- B. EBS shall assist the Employer in developing, designing and obtaining vouchers, claim forms or other documentation necessary for the administration of the Plan.
- C. EBS shall provide accounting services to the Plan, as follows:
 - (i) Maintain a list of participating employees, including full names and social security numbers;
 - (ii) Maintain records of contributions by, payments of benefits to, and resulting account balances of participating employees;
 - (iii) For each participating employee under the Plan, prepare year-end reports of contributions made by them and benefits paid to them or on behalf of their participating employees under the Plan;
 - (iv) Maintain records of all transactions under the Agreement during the term of the Agreement. Upon termination of the Agreement, the Employer must provide written notice as to the decision to require EBS to keep records for a period of five years or accept all records from and waive EBS' responsibility to keep such records.
- D. If the Plan offers one or more flexible reimbursement accounts as eligible benefits, EBS shall receive claims for benefits made by participating employees and shall process the same and issue checks payable to such participating employees in accordance with the terms of the Plan and any guidelines issued by the Employer; provided, however, that checks shall be issued only to the extent that accounting information provided to EBS indicates that an account balance is available to permit payment of the benefits applied for by the employee. (As required by IRC Section 125 EBS will make annual elections available to active participants in the medical reimbursement accounts at all times during the plan year.) EBS will not forward its own funds to pay employee claims.



Reimbursement checks shall be mailed to the eligible employees homes'. Alternatively, payments may be deposited directly into an employee's bank account, if the employee has so authorized. If EBS determines that a given application for benefits is not eligible under the Plan, for whatever reason, EBS shall forward a notice to the employee providing the reason for denial and describing any additional information that might be necessary to perfect or complete the application.

EBS is vested only with the ministerial authority to investigate and process claims for benefits under the Plan in accordance with the terms of the Plan. EBS shall have no discretionary authority to make decisions as to Plan policy, interpretations, practices or procedures, but shall perform its duties and functions within the framework of the terms of the Plan and policies, interpretations, rules, practices and procedures made by the Employer. EBS is not a fiduciary with regard to the Plan and shall not be considered the plan administrator, and fiduciary or named fiduciary as the same terms are defined in the Employee Retirements Income Security Act of 1974, as amended ("ERISA").

EBS shall make employee benefit eligibility determinations in strict accordance with the claims procedures set forth in the Plan based upon information provided to EBS by the employee and by the Employer. It is understood that EBS is acting on behalf of the Employer in ministerial, administrative capacity only and shall have no responsibility to investigate the accuracy or truthfulness of any information provided to EBS.

EBS shall not advance its personal funds for the payment of any benefits under the Plan. EBS shall not be considered the insurer or underwriter of the liability of the Employer to provide benefits for the participating employee.

EBS shall promptly provide the Employer with the information in its custody for use in the preparation of all returns and reports that are required by the Internal Revenue Service, the Department of Labor and any other federal or state agency. EBS shall assist in the preparation of such returns and reports whenever called upon to do so by the Employer; provided, however, that the Employer shall be responsible for the timely preparation, filing and content of all such returns and reports, and the payment of any taxes which may be due.

- E. EBS shall have the right to retain outside service providers to assist it in performing the duties delegated to it under this Agreement. All such outside services shall be provided at the expense of EBS and shall be subject to the supervision, control and responsibility of EBS. EBS shall have the right to retain the services of accountants, attorneys, actuaries and any other professionals whose services are reasonably necessary or desirable to aid in the performance of its duties under this Agreement, for the benefit of the Employer. In certain circumstances the expenses for professional services shall be payable by the Employer within thirty (30) days of its receipt of appropriate billing from EBS. EBS shall notify the Employer of any pending matter which necessitates the retention of such professional services and shall refrain from hiring any such persons without the prior written approval of the Employer.
- F. EBS shall obtain and maintain such fiduciary bonds as are required under applicable law.

III. DUTIES OF EMPLOYER

- A. Employer warrants that it has validly adopted the Plan and any component plans of the Plan. True copies of the Plan and any component plans are to be provided to EBS.
- B. Employer shall notify, or insure that the participating employees notify EBS of the age, years of service and benefit elections of participating employees. The Employer shall also notify EBS of: (1) a reduction of participating employee hours of service resulting in loss of benefit eligibility of a participating employee; (2) termination of the employment of a participating employee or leave of absence resulting in termination of benefits; or (3) a participating employee having a change in family status resulting in changes in election amounts.



- C. Employer shall be responsible for the initial qualification of the Plan and any component plans under the Code, ERISA, or any other applicable federal, State or local law or ordinance.
- D. If EBS is to process claims for benefits under flexible reimbursement accounts, as described in paragraph II.D above, funds for the payment of benefits shall be deposited into the Trust Account, held by EBS, the Employer in accordance with Paragraph E indicated below.
- E. Employer, on notice from EBS, shall deposit in the applicable trust account such amounts as EBS may request in order to pay benefits payable under the terms of the Plan which are properly due and payable pursuant to properly filed, processed and documented contributions and claims. Employer can select the method of funds deposit, either hardcopy check, wire or ACH transfer.

IV. CONFIDENTIALITY

EBS acknowledges that the information provided by Employer in connection with this Agreement including, without limitation, the information listed in Section II B (i) of this Agreement is confidential and/or proprietary data, and disclosure of such information would be damaging to Employer and/or its employees. EBS agrees that such information will be provided by Employer to EBS subject to the following terms and conditions:

- A. During the term of this Agreement, and thereafter, such information will be treated as strictly confidential by EBS and, without the prior written consent of Employer, will not be disclosed by EBS except to those third parties with a need to know and that are operating under a confidentiality agreement with non-disclosure provisions no less restrictive than those set forth herein.
- B. EBS will take all reasonable precautions to prevent any unauthorized disclosure of any such information, including those steps it would, or does, take to protect its own confidential information.
- C. All of such information remains the sole property of Employer and except as set forth in subsection A of this Section IV, may not be disclosed or distributed to, or used by, anyone without the express consent of Employer.
- D. Within fourteen (14) days of a request by Employer, EBS shall return all property including but not limited to documents, records, tapes, and any other media as well as all copies thereof in its possession or under its control that contain such confidential information of Employer.
- E. The obligations of EBS under this Section IV shall survive the termination of this Agreement for any reason whatsoever.
- F. EBS agrees that money damages are not a sufficient remedy for breach of obligations of this Section IV. Accordingly, in addition to all remedies that Employer may have, Employer shall be entitled to specific performance and injunctive relief as a remedy for a breach of any provisions of this Section IV.

V. TERM OF AGREEMENT

The appointment of EBS under this Agreement is effective as of January 1, 2010. During any time hereof, and on thirty (30) days prior written notice, either party may terminate the Agreement with or without cause after a period of one year. Employer is responsible for all applicable fees prior to termination and approved fees after termination.

Upon termination of this Agreement, copies of all pertinent information from the files of EBS shall be made available to the Employer at its request, and upon settlement of all final invoices provided by EBS



VI. COMPENSATION

The Employer shall pay to EBS fees in accordance with the schedule attached hereto Fees and other charges authorized hereby shall be paid by the Employer within thirty (30) days of the presentation of a bill by EBS. Employer agrees to pay monthly finance charges of 1.5% on any and all outstanding balances of greater than forty five (45) days. The Employer also agrees to pay all reasonable costs for collection of outstanding invoices including but not limited to reasonable legal costs incurred by EBS.

VII. CHANGES

Employer may request, from time to time, changes in the scope of services to be provided by EBS. Any changes and related fees shall be mutually agreed upon between Employer and EBS and shall be the subject of a written amendment to this Agreement.

VIII. INDEMNIFICATION AND HOLD HARMLESS

Employer shall indemnify and hold harmless EBS for any claims, costs, demands or actions incurred by EBS with regard to EBS's actions or failure to act in regard to the Plan, unless such claims, costs, demands or actions are incurred as a result of the negligence or willful misconduct of EBS Employer will not hold EBS responsible for distribution of communication materials not produced by or specifically approved by EBS

EBS shall defend, indemnify, and hold harmless, Employer its officers and employees from and against all claims, losses, damage, injury, and liability for damages arising from errors, omissions, negligent or wrongful acts of EBS in the performance of its services under this Agreement. This indemnification shall extend for a reasonable period of time after completion of the project as well as during the period of actual performance of services under this Agreement.

Any benefit payments processed by EBS shall be made by EBS as agent for the Employer. In the event that any benefits paid under the Plan should come to be re-characterized for any reason as income to any participating employee, EBS shall under no circumstances be liable for any Employer or employee taxes, including withholding thereof, or interest or penalties relating to them that result from such re-characterization. Other than providing requested information to the Employer as required by Section II.D. of this Agreement, EBS shall have no responsibility for federal, state or local taxes or reporting to federal, state or local taxing authorities with respect to contributions to the Plan or benefits paid from the Plan.

IX. NOTICES

Any notices that may be required under this Agreement shall be sent by U.S. mail, postage prepaid to the principal offices of the parties as follows:

~~If to the Employer, to:~~

If to EBS to:

Jennifer Leugers
5934 Gibraltar Drive, Suite 206
Pleasanton, CA 94588

Notice shall be effective upon receipt. The address to which or the person to who notice is to be given may be changed from time to time by either party by written notice to the other party.

X. MISCELLANEOUS

A. This Agreement shall constitute the entire understanding of the parties with regard to the matters covered in it and shall not be modified except by written document signed by both parties.



- B. This Agreement shall be construed in accordance with the applicable laws of the State of California.
- C. This Agreement shall be binding upon the undersigned parties, their successors and assigns.
- D. Any disputes among the parties as to any matter covered by this Agreement shall be submitted to and settled by arbitration in Pleasanton, California, in accordance with the rules and regulations of the American Arbitration Association then in effect. The parties agree that the decision rendered by the AAA will be binding, conclusive and final on the parties. Judgment upon the award may be entered in any court having jurisdiction. The parties hereto consent to the jurisdiction of the Municipal or Superior Court, State of California, County of Alameda.

EXECUTED the day and year first mentioned above:

Employee Benefit Specialists, Inc.

Irvine Ranch Water District

By: _____

By: _____

Print - Larry Rhodes / Account Executive

Print - Name / Title

Date: _____

Date: _____



December 13, 2010

Prepared by: F. Sanchez

Submitted by: G. Heiertz

Approved by: Paul Jones



CONSENT CALENDAR

EXTENSION OF AGREEMENT BETWEEN THE CITY OF IRVINE AND IRVINE RANCH WATER DISTRICT FOR DEVELOPMENT OF CIENEGA FILTRATION PROJECT FIELD DEMONSTRATION

SUMMARY:

Staff recommends approval of an amendment to the existing partnership agreement between Irvine Ranch Water District (IRWD) and the City of Irvine for the Cienega Field Demonstration Project. The amendment extends the term of the existing agreement, which is currently set to expire on December 31, 2010, and makes no other substantive changes.

BACKGROUND:

In 2007 IRWD and the City entered into an agreement for the construction and operation of the Cienega Field Demonstration Project. The City contributed \$1,425,000 toward the construction of the project. The City's participation in the project was approved by the Executive Officer of the Regional Board as a mechanism for the City to comply with its permit requirements for compliance with selenium and nitrogen (Total Maximum Daily Loads) TMDLs.

The agreement anticipated that in 2009 the parties would negotiate a new agreement regarding participation in the Full-Scale Cienega Project. As a result of additional technology evaluations and pilot testing, the Full-Scale Project is now expected to be implemented in 2011, subject to further authorizations. In order to accommodate the revised schedule, IRWD and the City propose extending the term of the existing agreement, which otherwise would expire at the end of 2010.

Amendment Number 1:

Amendment Number 1 to the Agreement, attached as Exhibit "A", will extend the term of the agreement until the later of: i) the effective date of a new agreement for the City's participation in a Full-Scale Cienega Project; or ii) IRWD electing to proceed with construction of Full-Scale Cienega Selenium and Nitrogen Removal Project. The project stakeholders, including the City and the Regional Board, understand that once construction of the Full-Scale project begins, the Field Demonstration Project will be decommissioned. The agreement will terminate on December 31, 2012 unless otherwise agreed to in writing.

There are no other substantive changes to the agreement, and its extension will allow the City to remain in compliance with its permit obligations.

FISCAL IMPACTS:

There are no fiscal impacts.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, an Environmental Impact Report was prepared. The final Environmental Impact Report was certified by the Board on April 24, 2004.

COMMITTEE STATUS:

This item was not reviewed by Committee.

RECOMMENDATION:

THAT THE BOARD APPROVE THE AMENDMENT NO. 1 TO AGREEMENT BETWEEN THE CITY OF IRVINE AND IRVINE RANCH WATER DISTRICT FOR DEVELOPMENT OF CIENEGA FILTRATION PROJECT FIELD DEMONSTRATION.

LIST OF EXHIBITS:

Exhibit "A" – "Amendment No. 1 to Agreement Between the City of Irvine and Irvine Ranch Water District for Development of Cienega Filtration Project Field Demonstration"

Exhibit "A"

AMENDMENT NO. 1 TO AGREEMENT BETWEEN CITY OF IRVINE AND IRVINE RANCH WATER DISTRICT FOR DEVELOPMENT OF CIENEGA FILTRATION PROJECT FIELD DEMONSTRATION

This Amendment No. 1 to the Agreement for Development of the Cienega Filtration Project Field Demonstration (the "Amendment") is entered into this 30th day of December, 2010, by and between the CITY OF IRVINE, a municipal corporation formed and existing under its Charter and the Constitution and laws of the State of California ("CITY"), and the IRVINE RANCH WATER DISTRICT, a California water district formed and existing under section 34000 *et seq.* of the California Water Code ("IRWD"), pursuant to the following terms and conditions. The City and the IRWD are collectively referred to herein as the "Parties."

RECITALS

A. The Parties have entered into that certain agreement entitled "Agreement Between City of Irvine and Irvine Ranch Water District For Development of the Cienega Filtration Project Field Demonstration," dated June 12, 2007 (the "Agreement"). Capitalized terms used herein shall have the meanings given such terms in the Agreement, unless otherwise defined herein.

B. Pursuant to the Agreement, the Field Demonstration Project was constructed and is continuing in operation, pending implementation of the Full-Scale Project. The term of the Agreement reflected the initial contemplation of the Parties that they would meet and confer to develop a new agreement for the Parties' participation in the Full-Scale Project in 2009. Under current scheduling, the Full-Scale Project is currently under design by IRWD, and development of such new agreement and commencement of construction are anticipated to occur in 2011.

C. The Parties wish to extend the term of the Agreement to accommodate the revised scheduling of the Full-Scale Project.

TERMS OF AMENDMENT

NOW, THEREFORE, the Parties agree as follows:

1. Incorporation of Recitals. The above referenced Recitals are incorporated into the terms of this Amendment in their entirety.

2. Duration of Operation of Field Demonstration Project. Section 3 of the Agreement is amended and replaced to read in its entirety as follows: “IRWD shall use its best efforts to secure permit extensions and/or new permits to continuously operate the Field Demonstration Project so as to ensure uninterrupted compliance with the required City Offsets through the earlier of (i) December 31, 2012, (ii) until such time as IRWD has determined to proceed with construction of the Full-Scale Project and such construction has proceeded to the stage that requires the decommissioning of the Field Demonstration Project, or (iii) the City has notified IRWD in writing that it declines to participate in the Full-Scale Project. It is the intent of the Parties that during the time specified in the preceding sentence, City compliance with the City Offsets is to be secured by the City and IRWD, through the continuous operation of the Field Demonstration Project (as may be supplemented by the San Joaquin Marsh Project for the Nitrogen Offset). If after December 31, 2012, or such earlier date described in clause (ii) above, the Full-Scale Project has been implemented, City compliance with the City Offsets may be secured by the City’s participation in the Full-Scale Project (subject to the executed agreement memorializing the City’s participation in the Full-Scale Project), or by such other means as may be separately secured by the City; provided however, IRWD makes no representations or

warranties regarding the need for and/or the scope of any approvals that may be needed by the City from the Regional Board and/or the U.S. Environmental Protection Agency for the use of the Full-Scale Project as an acceptable offset program for purposes of the City Dewatering Permit or otherwise .”

3. Termination. Section 13 of the Agreement is amended and replaced to read in its entirety as follows: “Unless otherwise extended or shortened in a writing signed by the Parties or where an earlier termination date occurs as provided for in this Agreement, this Agreement will expire on the later of (i) the effective date of an agreement memorializing the City’s participation in the Full-Scale Project; or (ii) until such time as IRWD has determined to proceed with construction of the Full-Scale Project and such construction has proceeded to the stage that requires the decommissioning of the Field Demonstration Project., Notwithstanding the foregoing, in no event is this Agreement to expire at a date later than December 31, 2012, unless otherwise agreed to in writing by the Parties. “

4. Titles and Captions. Titles and captions are for convenience of reference only and do not define, describe or limit the scope or the intent of this Amendment or of any of its terms. References to section numbers are to sections in this Amendment, unless expressly stated otherwise.

5. Legal Advice. Each Party represents and warrants to the other the following: they have carefully read this Amendment, and in signing this Amendment, they do so with full knowledge of any right which they may have; they have received independent legal advice from their respective legal counsel as to the matters set forth in this Amendment, or have knowingly chosen not to consult legal counsel as to the matters set forth in this Amendment; and, they have

freely signed this Amendment without any reliance upon any agreement, promise, statement or representation by or on behalf of the other Party, or their respective agents, employees, or attorneys, except as specifically set forth in this Amendment, and without duress or coercion, whether economic or otherwise.

6. Counterparts. This Amendment may be signed in multiple counterparts which, when signed by the Parties hereto, shall constitute a binding agreement.

7. Modification of Agreement. Except as modified by this Amendment, the provisions of the Agreement shall continue in full force and effect.

IN WITNESS WHEREOF, this Amendment has been executed in the names of the respective parties by their duly authorized officers, effective as of the day and year first above written.

“CITY”

CITY OF IRVINE, a California municipal corporation

Dated: _____

By: _____

Its: _____

ATTEST:

City Clerk

IRVINE RANCH WATER DISTRICT

Dated: _____

By: _____

Its: _____

APPROVED AS TO FORM:

By _____
Attorneys for City of Irvine

APPROVED AS TO FORM:

By _____
Attorneys for Irvine Ranch Water District

December 13, 2010

Prepared by: K. Welch/M. Tetteimer

Submitted by: G. P. Heiertz

Approved by: Paul Jones



ACTION CALENDAR

SANTA ANA WATERSHED PROJECT AUTHORITY PROPOSITION 84 GRANT FUNDING

SUMMARY:

The Santa Ana Watershed Project Authority (SAWPA) has selected the Wells 21 and 22 Project for grant funding under its Integrated Regional Water Management Plan (Plan), One Water, One Watershed (OWOW). As a condition of the grant funding, IRWD must adopt by resolution the OWOW Plan.

BACKGROUND:

To attain the long-term (Year 2030) vision for the Santa Ana watershed that is drought-proofed, salt-balanced, and supports economic and environmental viability, SAWPA has prepared its OWOW Plan to address integrated regional water management planning. With the passage of state water bonds in 2006, new funding will be appropriated to help address watershed problems. Under Proposition 84, Chapter 2, SAWPA will eventually receive \$114 million to help fund new water supply and water quality improvement projects throughout the watershed. Upon adoption of the OWOW Plan, SAWPA will be able to help fund projects utilizing this funding. The Executive Summary of the OWOW Plan is included as Exhibit "A".

On June 29, 2010, IRWD responded to a call for projects by SAWPA by submitting 17 projects for consideration in SAWPA's OWOW Plan. SAWPA received 297 applications overall, which were ranked and included in the OWOW Master Project List. SAWPA ranked all the projects and based project suitability decisions for this first round of funding using Department of Water Resources (DWR) draft Proposition 84 guidelines. The first round of funding allocated under Proposition 84 will be \$12 million. SAWPA selected a total of 13 projects for the Round One funding with a maximum grant of \$1,000,000 per project including IRWD's Wells 21 and 22 project. On September 30, 2010, the OWOW Steering Committee recommended the SAWPA Commission approve the 13 projects and on October 19, 2010, the SAWPA Commission approved the recommended list of projects. Project sponsors' applications are due to SAWPA by December 7, 2010 and SAWPA's overall application to the DWR is due January 7, 2011. Project sponsor agreements with SAWPA and DWR are expected to be completed in June 2011.

SAWPA's Commission adopted the current OWOW Plan on November 16, 2010. The DWR requires that each candidate project sponsor receiving grant funding be included in the OWOW Plan. Therefore, as a condition of receiving the \$1,000,000 in grant funding for Wells 21 and 22 project, IRWD is required to adopt the current OWOW Plan. Staff has prepared a proposed resolution to adopt the OWOW Plan as Exhibit "B".

FISCAL IMPACTS:

The Proposition 84, Chapter 2 funding will provide \$1,000,000 in grant funding for the Wells 21 and 22 project, project 10286. Staff is preparing the application to SAWPA and will administer the grant.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA). In conformance with the California Code of Regulations Title 14, Chapter 3, Section 15004, a Mitigated Negative Declaration/Initial Study/Environmental Assessment (MND/IS/EA) was adopted February 8, 2010. To fulfill requirements of the American Recovery and Reinvestment Act of 2009, the project is also subject to compliance with the National Environmental Policy Act (NEPA). An Environmental Assessment was prepared to achieve NEPA compliance for the project and the USBR has adopted a Categorical Exemption for the project. On March 8, 2010 the Board approved an Addendum to the MND/IS/EA which incorporates Metropolitan Water District of Southern California as a Responsible Agency.

COMMITTEE STATUS:

This item was reviewed at the Water Resources Policy and Communications Committee on December 6, 2010.

RECOMMENDATION:

That the Board adopt the following resolution by title:

RESOLUTION NO. 2010-

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT ADOPTING
THE CURRENT SANTA ANA WATERSHED PROJECT
AUTHORITY ONE WATER, ONE WATERSHED INTEGRATED
REGIONAL WATER MANAGEMENT PLAN AS A MANDATORY
CONDITION OF RECEIVING GRANT FUNDING UNDER PROPOSITION 84.

LIST OF EXHIBITS:

- Exhibit "A" – Executive Summary of the One Water, One Watershed Integrated Regional Watershed Management Plan
- Exhibit "B" – Resolution

Executive Summary

Introduction to the One Water One Watershed Plan

The Santa Ana Watershed Integrated Regional Water Management Plan (IRWMP) is known by stakeholders in the Watershed as the “One Water One Watershed” (OWOW) Plan, a name that originates in the plan’s comprehensive view of the Watershed and water issues: an integral view encompassing all sub-regions, political jurisdictions, water agencies and non-governmental stakeholders (private sector, environmental groups, and the public at large) in the watershed; and one in which all types of water (imported, local surface and groundwater, stormwater, and wastewater effluent) are viewed as components of a *single* water resource, inextricably linked to land use and habitat, and that tries to limit impacts to natural hydrology.

The OWOW Plan was developed by a diverse group of stakeholders led by a Steering Committee composed of public officials from counties and cities in the watershed, representatives from the environmental, regulatory and business communities, and representatives from the Santa Ana Watershed Authority (SAWPA). The Steering Committee was supported by technical experts grouped into 10 disciplines (known as Pillars), ranging from water supply and quality, to climate change, to environmental justice.

The Santa Ana Watershed Project Authority (SAWPA) acted as the Regional Water Management Group (RWMG) for the process, and while SAWPA facilitated the planning process and provided technical input and support through its staff and consultants, the development of the goals and strategies of the Plan, as well as the decision making process were done by the Steering Committee with the support of the Pillars and with consideration to comments from the public at large.

The collaborative, transparent, and watershed-wide view embraced by the OWOW planning process from the onset, builds upon previous planning efforts in the watershed, such as the 2005 Santa Ana Integrated Watershed Plan, and is an attempt to change the way in which water and other environmental resources are managed in the watershed, moving from reliance on large centralized infrastructure projects to a systems approach that complements existing centralized infrastructure with decentralized facilities (e.g. groundwater desalination), technology, natural infrastructure, and human capital.

OWOW Vision and Mission

The vision of the OWOW Plan is:

1. A Watershed that is sustainable, drought-proofed and salt-balanced by 2030, and in which water resources are protected and water is used efficiently
2. A Watershed that supports economic and environmental viability
3. A Watershed that is adaptable to climate change
4. A Watershed in which environmental justice deficiencies are corrected
5. A Watershed in which interruptions to natural hydrology are minimized
6. A new water ethic is created at the institutional and personal level

The Mission of the OWOW Plan is to create opportunities for collaboration to find sustainable watershed-wide solutions among diverse stakeholders from throughout the Watershed. The Plan will also provide a blueprint for water resources management in the Watershed for the next 30 years.

To achieve this vision and mission, stakeholders must address four major crises or threats which we have characterized as the Four Horsemen of the Apocalypse: 1) Climate Change resulting in reduced water supplies combined with increased water needs in the region; 2) Colorado River Drought Conditions resulting in reductions of imported supply due to upper basin entitlements and continued long-term drought; 3) San Joaquin-Bay Delta Vulnerability resulting in loss of supply due to catastrophic levee failure or changing management practices of the Delta; 4) Population Growth and Development resulting in interruptions in hydrology and groundwater recharge while increasing water needs.

Principles for Watershed Planning

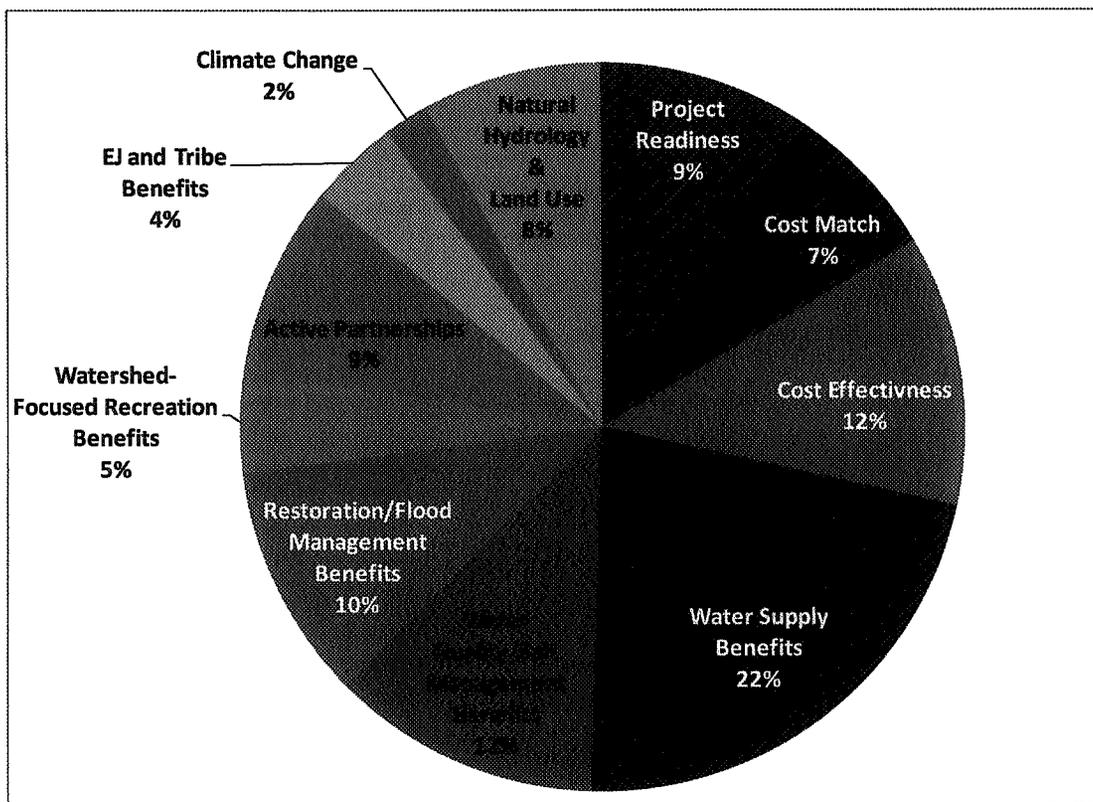
Several principles were applied during the development of the OWOW Plan:

- The planning process must be watershed-wide and bottom-up in order to allow for a holistic and systematic approach to watershed management
- It is necessary to involve stakeholders representing counties, cities and water districts, as well as the private sector and the regulatory, environmental and environmental justice communities. The active participation of this diverse group of stakeholders integrates the different interests in the Watershed beyond political boundaries
- The OWOW Plan and the projects included therein must pursue multiple objectives beyond the “traditional” objective of providing reliable water, and include ensuring reliable water supply, ensuring high quality water for all users, preserving and enhancing the environment, promoting sustainable water solutions, managing rainfall as a resource, preserving open-space and recreational opportunities, maintaining quality of life (including addressing the needs of disadvantaged communities), providing economically effective solutions, and improving regional integration and coordination
- The OWOW Plan must advance a paradigm change from water *supply* to an integral water *management* mentality: moving from a mission of providing abundant high-quality water at the lowest cost possible, to one in which water resources are managed in a sustainable manner and with regard for the needs of the environment
- Watershed-wide planning must transcend specific funding opportunities (e.g. State grants)
- The implementation of the Plan must result in agreements among the Watershed stakeholders on how to manage and operate the watershed
- The Plan must improve life conditions throughout the Watershed, ensuring that an improvement in the welfare of one area is not at the expense of others

Objectives and Targets of the OWOW Plan

In order to achieve the Watershed's vision, the Steering Committee and the Pillar Groups participated in numerous meetings and workshops aimed at developing and adopting specific objectives, targets, and high-level strategies for the watershed. **Figure 1** presents the objectives and their relative importance, as determined by the Steering Committee for the first round of IRWMP funding. As this plan is intended to be a tool in an iterative planning process, it is expected that the Steering Committee will reconsider the objectives and associated rankings to reflect changing conditions. Sub-objectives were established for each objective to increase clarity and granularity.

Figure 1 Objectives of the OWOW Plan



Using the objectives as overarching guiding principles, the Steering Committee then developed a number of high-level strategies, which include:

<ul style="list-style-type: none"> • Increased storage 	<ul style="list-style-type: none"> • Maximizing preservation and use of native plants
<ul style="list-style-type: none"> • Reduced demand 	<ul style="list-style-type: none"> • Developing risk-based water quality improvements
<ul style="list-style-type: none"> • Groundwater desalination 	<ul style="list-style-type: none"> • Incorporating integrated water planning in General Plans
<ul style="list-style-type: none"> • Water recycling 	<ul style="list-style-type: none"> • Managing public property for more than one use
<ul style="list-style-type: none"> • Consideration of stormwater as a water supply 	<ul style="list-style-type: none"> • Creating watershed governance
<ul style="list-style-type: none"> • Valuing water differently 	<ul style="list-style-type: none"> • Implementing watershed-wide education programs

Furthermore, the Pillar Groups developed, based on their technical expertise, 13 specific quantifiable targets that allow measuring the extent to which the plan objectives are being met, including:

1. Recycle and reuse 100% of the wastewater in the watershed
2. Store water to account for half of watershed demand for 3 years
3. Reuse all of Santa Ana River flow at least once
4. Reduce potable water use by 20% by 2020
5. Capture and recharge 80% of rainfall
6. Fill gaps in riparian corridors to provide wetlands and linkages between open space and natural habitat
7. Meet California FloodSAFE goals and construct soft bottom flood systems
8. Meet water quality standards
9. Remove salt from watershed to improve salt balance
10. Complete the SAR Trail and connect all tributary corridors to it
11. Assure adequate water supply and safe wastewater treatment and disposal
12. Reduce greenhouse gas emissions from water management activities
13. Increase resource efficient land use

Benefits of the OWOW Plan

Benefits resulting from the implementation of the OWOW Plan, and from the planning process itself, will materialize at different time horizons and will have very different characteristics. While some specific projects will be operational within a couple of years, other more ambitious projects, such as those requiring significant investment, technological development, or new mindsets and behaviors, could take years or decades to be fully realized. Similarly, some *hard* projects will

provide immediate tangible benefits (e.g. a new groundwater desalination facility), while *softer* projects will result in *less tangible* benefits in a longer timeframe, such as creating a new water ethic among water purveyor and users or changing our land use patterns.

Soft benefits of the Plan include:

- The adoption of a single set of values, goals, targets and high-level strategies for the watershed as a whole that provide a blueprint for water resources development over the next 20-30 years, developed with the input and buy-in of people from all corners of the watershed representing diverse and oftentimes competing interests
- A list of prioritized multi-benefit projects – projects that provide benefits to more than one user or sub-region of the watershed and that address more than one environmental resource
- A vision for the watershed future that transcends specific funding opportunities for local projects and integrates multiple interest (e.g. economic growth vs. environmental protection)

Hard benefits of the Plan upon implementation include, among other:

- Increased and more reliable water supplies
- Improved water quality
- Enhance habitat
- Increased and enhance recreational opportunities
- Green house gas emissions mitigation

OWOW Planning Process

SAWPA officially launched the IRWMP planning effort during a meeting on April 17, 2007, in which 178 officials representing more than 100 agencies in Riverside, San Bernardino and Orange counties met to discuss the framework for the OWOW Plan, a shared vision of the Watershed. From the very beginning, the process has been opened to, and has received the participation of representatives from all geographic regions and political jurisdictions within the watershed, and from diverse representatives of different sectors of the community (governments, water agencies, development and environmental community, and the public at large).

The OWOW process was led by a Steering Committee composed of public officials from counties and cities in the Watershed, representatives from the environmental, regulatory and business communities, and representatives from the Santa Ana Watershed Authority (SAWPA).

The Steering Committee was supported by numerous technical experts grouped into 10 disciplines (known as Pillars), ranging from water supply and quality, to climate change, to environmental justice. Participants from numerous agencies and organizations have volunteered to serve on the Pillar groups and committees and have addressed every aspect of water management planning. Participants integrated water supply with environmental needs, and included the environmental justice and disadvantaged communities in integrated water solutions.

SAWPA acted as the Regional Water Management Group (RWMG) for the process, and while SAWPA facilitated the planning process and provided technical input and support through its staff and consultants, the development of the goals and strategies of the Plan and the decision making process were done by the Steering Committee with the support of the Pillars and with consideration to comments from the public at large.

The OWOW planning process was intended to be problem-focused with the goal of developing linkages across the region’s varied geography and across the numerous disciplines that have an interest in water. Rather than focus on projects first, the Steering Committee suggested a planning process that focuses on the value of water to the region, then on how that water is managed, and finally, on the identification of specific projects. The process identified three broad areas where action is needed: the development of a water ethic that values water differently; a more collaborative approach to water management; and the construction of sustainable water infrastructure.

The fundamental concept for this planning process was to pull parties together in every aspect of the water arena – those who provide water, those who use it, and those who manage it – in a way that has never been done before, and in a way that goes beyond the interests of any one agency. This approach marked a major shift from previous IRWM planning efforts by greatly expanding the number and type of agencies and organizations involved in the process.

In developing the OWOW Plan, a decided “bottom up” approach for governance was envisioned. Unlike in previous SAWPA plans or other planning approaches across the State, every effort has been made to allow the key discussions of major water resource issues, concerns, problems, goals and objectives and potential solutions to originate and be first fully vetted at the stakeholder level. By expanding the involvement and collaboration to the *on-the-ground* level, greater buy-in and support was realized for this planning development process.

Pillar Groups

In order to manage the initial planning work, the stakeholders were organized into ten separate workgroups or *pillars* centered around the following water resource management areas.

1. Water Supply Reliability	2. Flood Risk Management
3. Water Quality Improvement	4. Environment and Habitat Enhancement
5. Water Recycling	6. Parks, Recreation, and Open Space
7. Water Use Efficiency	8. Climate Change
9. Water and Land Use	10. Environmental Justice

The pillars consisted of approximately 10 to 60 volunteers, depending on the topic and interest level, and included participants from local agencies, special districts, non-profit organizations, university officials, Native American tribes, and private citizens, led by a volunteer chair having expertise in that specific water resource area.

The pillars were tasked with the definition of the Watershed problems for their respective discipline and in the identification and development of potential solutions and strategies. While pillars were asked to focus on one specific discipline based on their technical expertise, they were also asked to step out of their role and view problems from the other pillars' perspectives. It was through this process that new synergies were developed and multi-benefit programs were formed.

Steering Committee

The next level of governance up from the foundation of the pillars was the OWOW Steering Committee, which consisted of ten representatives from across the Santa Ana River Watershed. The Committee was convened by the SAWPA Commission, and included two representatives from the SAWPA Commission representing water agencies, who serve as Convener and Vice-Convener; three County Supervisors - one from each county; three mayors - from large cities in each county; a business representative from the development community and; a representative from the environmental community.

The Steering Committee's role was to serve as the developer of plan goals and objectives for the Watershed, and to act as the oversight body that performs strategic decision making, crafts and adopts programmatic suites of project recommendations, and provides program advocacy necessary to optimize water resource protection for all.

Resource Management Strategies

The OWOW plan encourages the development of projects that:

Provide watershed-wide benefits, over local projects that create problems elsewhere;

- Develop Multi-benefit projects; rather than more inefficient costly single purpose projects;
- Integrate all types of water (imported, local surface, local ground, stormwater, effluent) in a more comprehensive water management view;
- Integrate multiple interests (e.g. economic growth vs environmental protection), rather than focus on conflict and litigation;
- Avoid and/or reverse impacts to natural hydrology, and;
- Reduce harm to others; rather than push project and environmental costs onto other communities.

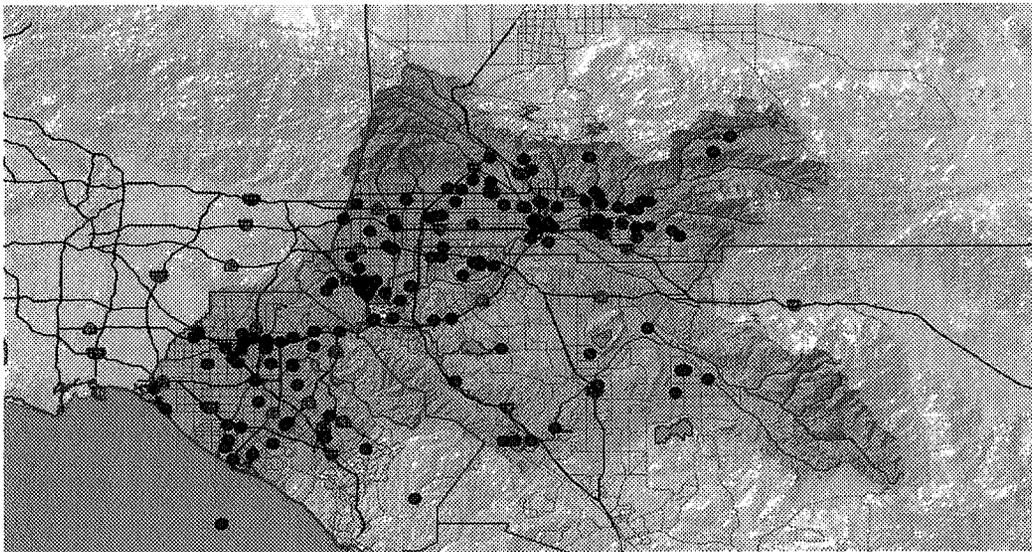
Projects Included in the Plan

SAWPA issued an initial call for projects to be included on the OWOW Plan from any public agency or non-profit organization in the Watershed. The period for the preparation of project application was from May 17 to June 30, 2010. During this initial call for projects, project applications were evaluated in a two-step process to: (1) determine their eligibility to be included in the OWOW Plan, and (2) to prioritize projects for potential Prop 84 funding based on their merits to address the Watershed goals and objectives.

The objective of this process was to develop a comprehensive and unique watershed-wide plan that transcends a request for Proposition 84, Chapter w funding. The intent was to develop a blueprint for water resources management in the watershed that incorporates all meritorious projects, beyond any specific short-term funding availability.

A total of 297 candidate projects were received from 64 diverse agency sponsors from throughout the Watershed. Project sponsors include water utilities, cities and counties, NGOs, the USDA Forest Service, and private-public partnerships. As shown in the map below, candidate projects are well distributed throughout the watershed (as shown in **Figure 2**).

Figure 2 Project Locations



During the call for projects, sponsors were encouraged to consider development and collaboration on watershed-wide, integrated projects that would provide multiple benefits to more than one agency or region of the Watershed. As shown on **Figure 3**, nearly 70% of received applications are for projects that provide a benefit for the entire watershed or multiple municipalities and sub-watersheds.

Furthermore, candidate projects provide a variety of benefits, as shown in **Figure 4**. Guaranteeing a sustainable, reliable, drought-proof and equitable water supply is one of the main objectives of the OWOW Plan and of the mandate of many relevant agencies in the Watershed; this results in 60% of candidate projects being related to water supply. Nevertheless, the remaining 40% address water quality, habitat restoration and flood control, and recreational and open space needs of the Watershed (**Figure 4**). Many of the projects also provide more than one type of benefit.

Finally, a significant number of candidate projects will benefit disadvantaged (40%) and Tribal (14%) communities in the Watershed (**Figures 5 & 6**).

Candidate projects have a total cost estimate of \$3,582 million, of which \$1,682 million (47%) is being requested for grant funding under Proposition 84, Chapter 2. The remaining \$1,900 million (53%) will be covered through a combination of local funds (\$1,355 million) and federal contributions and SRF loans (as shown in **Figure 7**). On average, each project is requesting grant funds in the amount of \$5.7 million, although the amount requested varies significantly from \$34,000 to \$100 million.

These funding requirements represent a significant challenge for the Watershed.

Figure 3 Project Benefit Split by the Extent of Impact on the Watershed

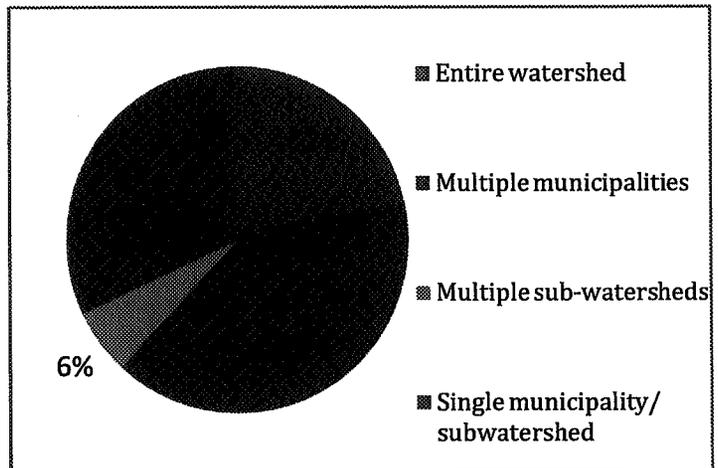


Figure 4 Watershed Projects by Benefit

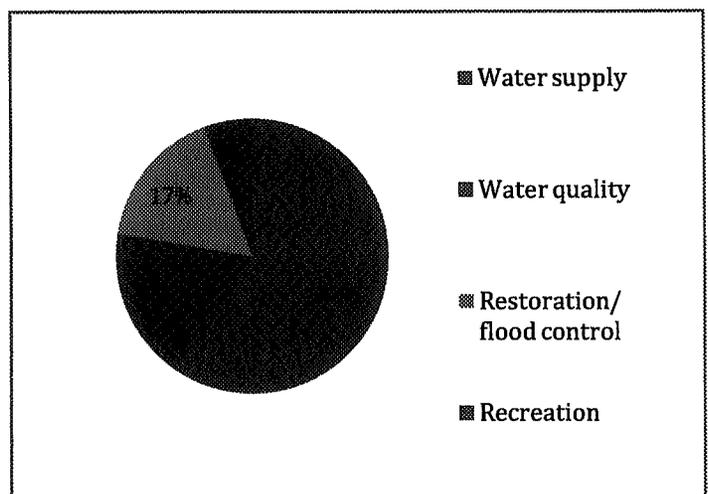


Figure 5 Projects Benefiting Tribal Communities

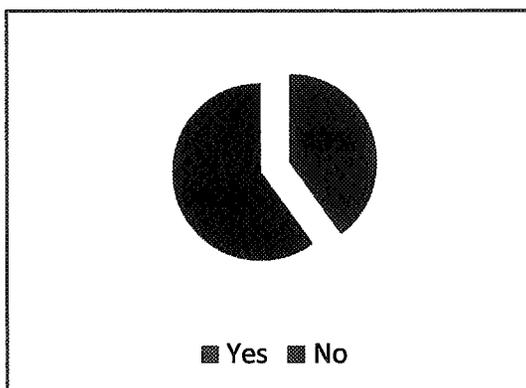
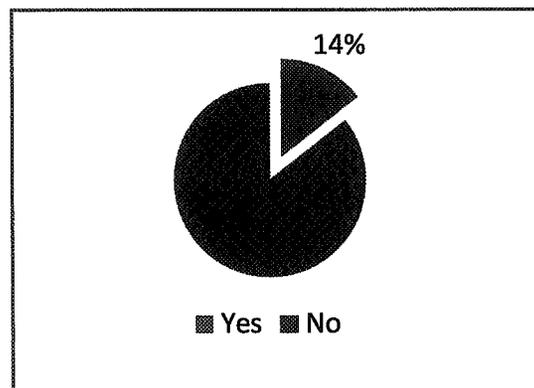


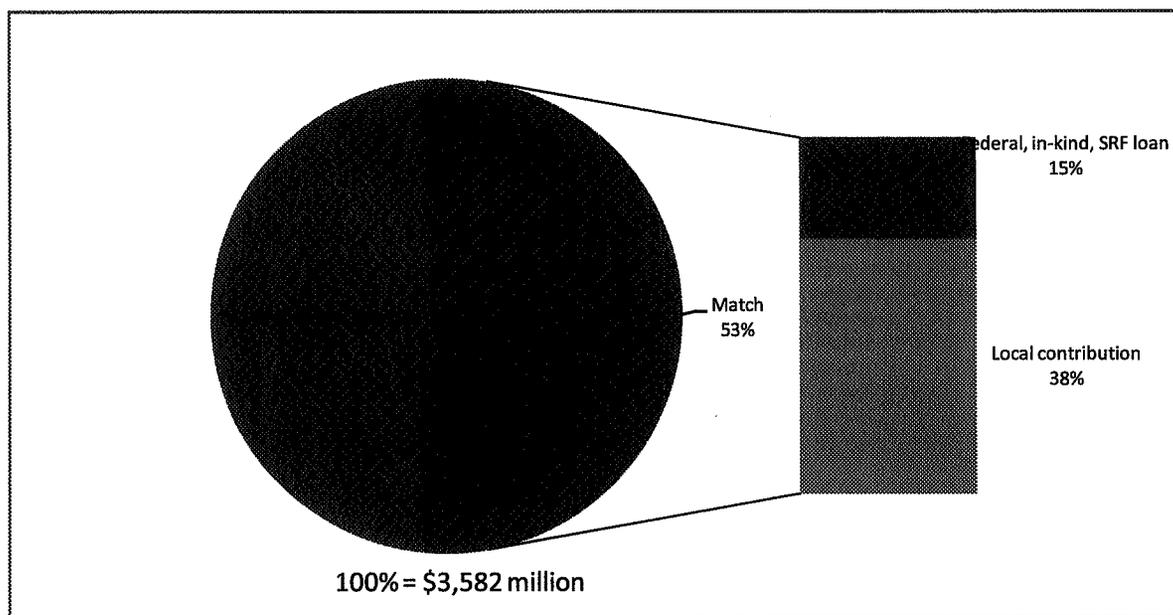
Figure 6 Projects Benefiting Disadvantaged Communities



As stated earlier, this planning process transcends specific funding cycles. Projects are included in the OWOW Plan and ranked based on their merit to address the Watershed's pressing needs, regardless of available funding opportunities at any given time. As funding programs become available, projects included in the OWOW Plan will be selected for funding.

However, it should be noted that any project list is dynamic. Projects are continuously refined and redefined between inception and implementation. The list reflects a response to conditions at a specified date. As the OWOW process encourages further collaboration and the development of multi-benefit, multi-purpose projects, a project list can also serve as a tool to identify new partners or project synergies. To remain viable planning tools and relevant to available funding sources, project lists should be updated regularly. Using the electronic data submission format from the first round of project submittals, it is possible to regularly update project information. With this information, the Steering Committee can track the Watershed's progress in meeting OWOW goals.

Figure 7 Funding Structure of Candidate Projects



Project Evaluation Process

Submitted project applications were evaluated by SAWPA staff in a transparent manner based on the information provided by the applicant and a pre-established process to determine: (1) their eligibility to be part of the OWOW Plan, and (2) their priority to receive Proposition 84, Chapter 2 funding in the initial expedited round. Under the direction of the Steering Committee, updated or additional information may be requested for subsequent rounds of funding

This two-step process had as an objective the development of a comprehensive watershed plan per DWR guidelines, regardless of which of the projects included in the Plan receive Proposition 84 funding during the current funding cycle. As a result, the Plan will be a blueprint for the improvement of water resources management in the Watershed, and not merely a document for requesting funding. Projects in the Plan not receiving Prop 84 funding at this time will be candidates for future funding opportunities, providing an incentive for project sponsors to participate in the watershed-wide plan.

Projects were selected to be included in the OWOW Plan based on the sponsor's eligibility, being located in the Watershed, and providing at least one of four benefits: water supply, water quality, habitat restoration/flood control, or recreational opportunities.

Candidate projects included in the OWOW Plan were then evaluated and prioritized for Proposition 84, Chapter 2 funding based on the degree to which they comply with Evaluation Criteria developed by SAWPA staff. These Criteria were based on the Goals and Objectives, Strategies and Targets established by the Steering Committee and the Pillars.

After initial screening, highly ranked project proposals were reviewed in detail by an independent technical review panel. The panel considered technical and economic feasibility, OWOW goals and objectives, and relative ranking weights developed by the Steering Committee. This panel was tasked with verifying the data provided by project proponents and ensuring that the numeric ranking tools are applied consistently across projects.

Plan Performance and Monitoring

SAWPA will develop a plan to monitor the implementation of the OWOW Plan and the specific projects included. The monitoring will take place at two levels – plan and project – to:

- Ensure progress is being made toward meeting the objectives of the Plan
- Ensure specific projects identified in the Plan are being implemented as planned in terms of schedule, budget, and technical specifications
- Identify potential necessary modifications to the Plan or to specific projects, in order to more efficiently and effectively accomplish the goals and objectives of the Plan
- Provide transparency and accountability regarding the disbursement and use of funds for project implementation

Program management and project administration will be performed by SAWPA, upon receipt of funding, following a process similar to the one used for projects funded through Proposition 13 and 50. SAWPA will serve as administrator for agreements between State Agencies and SAWPA, as well as program manager for the various programmatic requirements and related activities required through these agreements.

Monitoring at the plan level

SAWPA, along with the support of stakeholders in the watershed, will evaluate the performance of the OWOW Plan in terms of accomplishing the plan objectives and targets. While objectives are overarching principles guiding water sustainability in the Watershed, targets are more specific and measurable, and can be mapped to specific objectives of the Plan. For this reason, plan performance indicators are aligned to individual targets. Nevertheless, it is important to point out that some targets are difficult to quantify (e.g. Increase resource efficient land use). It is anticipated that plan performance will be evaluated every two years. SAWPA will lead the effort, but active support from many stakeholders in the Watershed will be required to provide data and information, as well as insight.

Results of the bi-annual evaluation will be published by SAWPA in the OWOW webpage, and will include the use of visual tools (i.e. dashboards) to show the progress to date in achieving the plan targets.

Monitoring at the project level

In addition to monitoring the performance of the OWOW Plan as a whole, the performance of specific projects in the OWOW Plan receiving funding will be evaluated every six months. The evaluation will be led by SAWPA but will require extensive participation for the sponsor of the project in question.

Results of the semi-annual project evaluation will be published by SAWPA in the OWOW webpage, and will include the use of visual tools (i.e. dashboards) to show the progress to date in the implementation of each project.

Adaptive Management

The dynamic nature of projects and plans in the Watershed will result in the need for frequent updates to the OWOW Plan. Since the Plan will be used by agencies in the Watershed to help integrate individual plans and to focus funding opportunities on projects that are most effective and ready to proceed, the information contained in the plan must remain current to be effective.

In recognition of the ever changing aspects of the planning process, the SAWPA will update and refine this Plan every 3 to 5 years. The plan update will take into consideration recent development in the Watershed, such as projects implemented since the last review, and new understanding of the watershed issues. Furthermore, the results of the bi-annual performance review will be used to identify potential modification to the watershed strategy.

As new funding opportunities arise to support the implementation of the remaining water resource projects, SAWPA will continue to pursue these opportunities. With the support of local and State agencies further progress can be made in meeting long term goals of water sustainability for the region and the State.

Continued stakeholder involvement and plan success

Success of this continuous planning process depends on continued stakeholder engagement. The plan will then continue to be watershed-wide, open and transparent, and comprehensive. The Steering Committee and the Pillars will continue to function as representatives of the community at large and provide guidance and insight to the process.

As part of the bi-annual update process, stakeholder conferences will be convened to review progress to date in accomplishing targets and to identify and prioritize remaining gaps, as well as to revisit strategies.

Increased collaboration will lead to the development of more multi-benefit, multi-function projects leading to a new model for managing watershed issues. This new twenty-first century model will create a sustainable watershed, where all residents and the environment enjoy a successful future.

EXHIBIT "B"

RESOLUTION NO. 2010-

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT ADOPTING THE
CURRENT SANTA ANA WATERSHED AUTHORITY
ONE WATER ONE WATERSHED INTEGRATED REGIONAL
WATER MANAGEMENT PLAN AS A MANDATORY CONDITION
OF RECEIVING GRANT FUNDING FOR WELLS 21 AND 22 PROJECT

WHEREAS, on July 29, 2010, the Irvine Ranch Water District submitted a project proposal for its Wells 21 and 22 Project under the Santa Ana Watershed Authority (SAWPA) One Water One Watershed Integrated Regional Water Management Plan (OWOW) for funding through Proposition 84, Chapter 2 through the Department of Water Resources (DWR); and

WHEREAS, on October 19, 2010, the SAWPA Board of Commissioners approved a list of projects by 13 project sponsors, including IRWD's Wells 21 and 22 project, for funding under SAWPA's Round One of funding allocated through the DWR; and

WHEREAS, on November 16, 2020, the SAWPA Board of Commissioners adopted the OWOW as a planning document outlining a sustainable water future for the region and not an endorsement or approval for specific projects contained therein and authorized SAWPA's General Manager to take all actions reasonably necessary to carry out the intent of the OWOW Plan. As a condition of the grant funding for IRWD's Wells 21 and 22 Project, the DWR and SAWPA require that all project sponsors also adopt the current OWOW Plan as adopted by SAWPA on this date.

NOW, THEREFORE, the Board of Directors of the Irvine Ranch Water District does hereby acknowledge the OWOW Plan, and as a required condition of the receiving grant funding under the Plan, adopts the current Santa Ana Watershed Authority's One Water One Watershed Integrated Regional Water Management Plan as of this date.

APPROVED, SIGNED and ADOPTED this 13th day of December 2010.

President, IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof

Secretary, IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof

APPROVED AS TO FORM:
BOWIE, ARNESON, WILES & GIANNONE

Legal Counsel

December 13, 2010

Prepared by: D. Lochridge

Submitted by: D. Pedersen

Approved by: Paul Jones



ACTION CALENDAR

DEEP AQUIFER TREATMENT SYSTEM BUILDING UPGRADES AND REPAIRS CONSTRUCTION AWARD

SUMMARY:

The Deep Aquifer Treatment System (DATS) Building Upgrades and Repairs Project consists of replacing approximately 2,400 square feet of deteriorated sheet metal roofing for the DATS building. Staff recommends that the Board:

- Authorize a \$129,200 increase to the Fiscal Year 2010-11 Capital Budget for Project 11287, from \$107,800 to \$237,000;
- Approve an Expenditure Authorization in the amount of \$237,000 for Project 11287; and
- Authorize the General Manager to execute a construction contract with Commercial Roofing, Inc. in the amount of \$197,410 for Project 11287.

BACKGROUND:

An inspection of the roof of the DATS building in November 2008 revealed severe corrosion of the ferrous metal roofing around the treatment plant's three degasifier exhaust vents. The corrosion was caused by hydrogen sulfide gas discharged from the degasifier vents at the roof level. The original scope of work for the project consisted of the removal and replacement of 2,400 square feet of the deteriorated ferrous metal roofing.

Staff consulted with a roofing expert to incorporate changes in the scope of work to prevent the recurrence of the corrosion problem. The consultant recommended replacing the damaged portions of the ferrous metal roofing with stainless steel material, which is more resistant to corrosion. Installation of a temporary exhaust vent system to divert the discharged gases away from the work area was also added to the scope of the project so the treatment plant could continue to operate continuously during construction. The added cost of the temporary vent system was much less than the cost for shutting down the DATS Plant for the duration of the re-roofing project and losing six to eight weeks of potable water production.

Construction Bid Process:

Three contractors with appropriate roofing experience were invited to submit bids for the project. Bids were received from all three contractors: Commercial Roofing Inc., Applied Roof Engineering, Inc., and Best Contracting. The apparent low bidder was Commercial Roofing with a bid of \$197,410. The bids were significantly higher than the original engineer's estimate of \$80,000 and the project budget of \$107,800 due to the change to stainless steel roofing material and addition of the temporary exhaust vent system. The difference between the high and low bids was less than 9%, indicating that the bidders had a clear understanding of the scope of work. The bid summary is attached as Exhibit "A".

Commercial Roofing, Inc. has completed several roof repair projects for IRWD, and staff has been very pleased with the quality of their work.

FISCAL IMPACTS:

Project 11287 is included in the approved Fiscal Year 2010-11 Capital Budget. Staff requests a budget increase and an Expenditure Authorization as shown in the table below and attached as Exhibit “B”. The project will be funded from the replacement fund.

Project No.	Current Budget	Addition <Reduction>	Total Budget	Exist EA	This EA Request	Total EA Request
11287	107,800	\$129,200	\$237,000	\$0	\$237,000	\$237,000

ENVIRONMENTAL COMPLIANCE:

This activity is categorically exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Sections 15301 and 15302, replacement or reconstruction of existing structures.

COMMITTEE STATUS:

Construction awards are not routinely taken to Committee prior to submittal to the Board.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A \$129,200 INCREASE TO THE FY 2010-11 CAPITAL BUDGET FOR PROJECT 11287, FROM \$107,800 TO \$237,000; APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$237,000 FOR PROJECT 11287; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH COMMERCIAL ROOFING, INC. IN THE AMOUNT OF \$197,410 FOR PROJECT 11287.

LIST OF EXHIBITS:

- Exhibit “A” – Revised Scope of Work Bid Summary
- Exhibit “B” – Expenditure Authorization

EXHIBIT "A"

DEEP AQUIFER TREATMENT SYSTEM
BUILDING UPGRADE AND REPAIR ROOF REPLACE MENT BID RESULTS

	Commerical Roofing	Applied Roof Eng	Best Contracting
Mobilization & Demobilization	\$3,000	\$10,000	\$1,170
Demo	\$17,680	\$13,000	\$11,151
Temporary Vent Extentions	\$8,000	\$4,800	\$6,554
Panel Replacement	\$97,460	\$80,000	\$94,420
Gutter Replacement	\$31,220	\$10,000	\$13,152
Prep. & Painting of Surfaces & gutter	\$4,500	\$7,800	\$1,890
Prep. & Rust Go Prime on C-Channel Braces	\$2,800	\$6,000	\$1,513
Replacemen of Vents & Curbs	\$8,400	\$38,000	\$20,698
Replacement of Wall Panels and Coping	\$17,550	\$17,000	\$6,091
Replacement of Existing wall Panels & Coping	\$6,800	\$12,000	\$5,886
Replace SS Roof Hatches per Addendum 1	inc. bid	inc. bid	\$51,721
TOTAL BID	\$197,410	\$198,600	\$214,236

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: DATS BUILDING UPGRADES AND REPAIRS
Project No: 11287 EA No: 1

ID Split: Regional Potable Water Splits (11/08)
Improvement District (ID) Allocations

Project Manager: LOCHRIDGE, DAVID
Project Engineer: LOCHRIDGE, DAVID
Request Date: October 26, 2010

ID No. Allocation % Source of Funds

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$237,000
Total EA Requests:	\$237,000
Previously Approved Budget:	\$107,800
Budget Adjustment Requested this EA:	\$129,200
Updated Budget:	\$237,000
Budget Remaining After This EA	\$0

112	4.3	BONDS YET TO BE SOLD**
113	5.2	BONDS YET TO BE SOLD**
115	7.3	CAPITAL FUND
121	15.3	BONDS YET TO BE SOLD**
130	11.8	BONDS YET TO BE SOLD**
140	4.2	BONDS YET TO BE SOLD**
150	31.2	BONDS YET TO BE SOLD**
153	3.4	BONDS YET TO BE SOLD**
154	1.5	BONDS YET TO BE SOLD**
161	8.0	BONDS YET TO BE SOLD**
182	3.0	BONDS YET TO BE SOLD**
184	2.8	BONDS YET TO BE SOLD**
186	1.0	BONDS YET TO BE SOLD**
188	1.0	BONDS YET TO BE SOLD**
Total	100.0%	

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	2,000	0	2,000	0	2,000	2,000	7/08	6/11
ENGINEERING DESIGN - OUTSIDE	3,900	0	3,900	(2,100)	6,000	3,900	7/08	6/11
DESIGN STAFF FIELD SUPPORT	1,000	0	1,000	0	1,000	1,000	7/08	6/11
ENGINEERING - CA&I IRWD	2,000	0	2,000	0	2,000	2,000	7/08	6/11
ENGINEERING - CA&I OUTSIDE	6,000	0	6,000	0	6,000	6,000	7/08	6/11
CONSTRUCTION FIELD SUPPORT	3,000	0	3,000	2,000	1,000	3,000	7/08	6/11
CONSTRUCTION	197,500	0	197,500	117,500	80,000	197,500	7/08	6/11
Contingency - 10.00% Subtotal	\$21,600	\$0	\$21,600	\$11,800	\$9,800	\$21,600		
Subtotal (Direct Costs)	\$237,000	\$0	\$237,000	\$129,200	\$107,800	\$237,000		
Estimated G/A - 195.00% of direct labor*	\$15,700	\$0	\$15,700	\$3,900	\$11,800	\$15,700		
Total	\$252,700	\$0	\$252,700	\$133,100	\$119,600	\$252,700		
Direct Labor	\$8,000	\$0	\$8,000	\$2,000	\$6,000	\$8,000		

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator: David Lochridge 10/28/2010
 Department Director: Randy W. Bellum 11/23/2010
 Finance: _____
 Board/General Manager: _____

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$258,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

December 13, 2010
Prepared by: Fournier/Jacobson
Submitted by: Debby Cherney *DC*
Approved by: Paul Jones *PJ*

ACTION CALENDAR

PROPOSED 2011 INVESTMENT POLICY

SUMMARY:

Each year, the District is required to adopt an Investment Policy. Changes to the policy from year-to-year are required to conform to amendments to the California Government Code governing investment of public funds. During 2010, there was one minor amendment to such Code, which eliminated a January 1, 2012 “sunset” date allowing local agencies to invest 30% of their surplus funds in certificates of deposit. As the 2010 Investment Policy did not contain this sunset date, there are no changes in the proposed 2011 Investment Policy and staff recommends that the Board approve the proposed policy and adopt a resolution authorizing the Treasurer and Assistant Treasurer(s) to invest and reinvest funds of the District and of each of its Improvement Districts and to sell and exchange securities.

BACKGROUND:

Staff annually submits a Statement of Investment Policy to the Board of Directors for approval. The annual submittal generally incorporates amendments to investment-related Government Code sections, policy objectives, delegation of authority and a detailed schedule of authorized investments. The proposed 2011 Investment Policy and related resolution are attached as Exhibits “A” and Exhibit “B”, respectively.

During 2010, there were no significant amendments to the Government Code section relating to authorized investments for local agencies. One minor amendment eliminated the January 1, 2012 sunset date allowing local agencies to invest 30% of its surplus funds in certificates of deposit. The District currently has no funds invested in these products.

As specified in the Government Code, the Board’s delegation of authority to the Treasurer and Assistant Treasurer(s) to manage the District’s investment program is limited to a one year period, renewable annually. The recommended 2011 Investment Policy includes continuation of this annual delegation of authority to the Treasurer and Assistant Treasurer(s).

Given the conservative nature of the state codes and the Board’s additional restrictions, staff believes the authorized investments in the recommended 2011 Investment Policy are sufficiently limited to ensure appropriate investments while retaining some degree of flexibility to take advantage of changing market opportunities. Additionally, the recommended policy provides authority for the Finance and Personnel Committee to further restrict, but not liberalize, authorized investments. Any liberalization of authorized investments would first require the approval of the full Board of Directors.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This activity is categorically exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Sections 15301 and 15302.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on December 6, 2010.

RECOMMENDATION:

THAT THE BOARD APPROVE THE PROPOSED 2011 INVESTMENT POLICY AND ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2010 -

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT APPROVING INVESTMENT
POLICY AND AUTHORIZING THE TREASURER AND ASSISTANT
TREASURER(S) TO INVEST AND REINVEST FUNDS OF THE
DISTRICT AND OF EACH OF ITS IMPROVEMENT DISTRICTS
AND TO SELL AND EXCHANGE SECURITIES

LIST OF EXHIBITS:

Exhibit "A" – Proposed 2011 Investment Policy
Exhibit "B" – Resolution Adopting 2011 Investment Policy

Exhibit "A"

IRVINE RANCH WATER DISTRICT PROPOSED 2011 INVESTMENT POLICY

Introduction:

This investment policy is intended to establish a clear understanding of the District's authorized investment activities for members of the public, the Board of Directors of the Irvine Ranch Water District (the "District"), District management and outside investment professionals.

Policy:

It is the policy of the District to invest its funds in a prudent and professional manner which will provide maximum security of principal while meeting required cash flow demands and conforming to all State statutes governing the investment of public funds, the District's investment policies, and prudent cash management principles.

Scope:

This investment policy applies to all District funds that are under the direct oversight of the Board of Directors. The investment of any bond proceeds or related funds will also be made in accordance with this investment policy.

Standard of Care:

The Board of Directors and those persons authorized to make investment decisions on behalf of the District are trustees of public funds. The standard of care to be used in all investment transactions shall be the "prudent person" standard and shall be applied in the context of managing the overall portfolio (Government Code Section 53600.3). The "prudent person" standard is:

Investments shall be made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation but for investment, considering the probable safety of their capital as well as the probable income to be derived.

Officers and employees of the District involved in the investment process shall refrain from personal business activities that could conflict with proper execution of the investment program or could impair their ability to make impartial investment decisions.

"Designated employees" of the District involved in the investment of District funds, which includes the Treasurer and Assistant Treasurer(s), shall disclose all information at the times and in the manner required by the District's Conflict of Interest Code.

Objectives:

The primary objectives of the District's investment activities, in priority order, are as follows:

1. **Safety:** Safety of principal is the foremost objective of the investment program. Investments of the District shall be undertaken in a manner that seeks to ensure the preservation of capital in the overall portfolio. Accordingly, diversification by issuer, type, and maturity of securities will be made to avoid or minimize potential losses on individual securities.
2. **Liquidity:** The District's investment portfolio will remain sufficiently liquid to enable the District to meet all operating and capital cash requirements. To the extent required, this liquidity will be maintained through the purchase of securities with active secondary or resale markets and with short-term maturities so as to minimize market risk on the market price of the securities.
3. **Yield:** The District's investment portfolio shall be designed with the objective of attaining the highest rate of return commensurate with the above requirements for the preservation of capital and the maintenance of adequate liquidity.

Delegation of Authority:

In accordance with Government Code Sections 53607 and 53608, the Board of Directors has delegated to the District's Treasurer and Assistant Treasurer(s), acting singly, the authority to manage the District's investment program and to provide for the safekeeping of securities. This delegated authority is effective for the 2011 calendar year (Resolution 2010-__).

Authorized Investments:

The District is authorized to invest its funds pursuant to the following State codes:

Government Code:

- Section 53600 et seq. - General investments
- Section 16429.1 - Local Agency Investment Fund (LAIF)
- Section 53684 - Orange County Treasury Pool (not currently authorized by the Board of Directors)
- Section 5920 - Public finance contracts

Water Code:

- Section 35912 - Real estate

The Treasurer and Assistant Treasurer(s) are authorized to invest District funds in accordance with these Code sections, subject to certain restrictions imposed by the District's Board of Directors. These authorized investments and restrictions are shown in Exhibit "A".

Whenever practical, a competitive process shall be used for the purchase and sale of securities.

The Board of Directors has approved investing in securities with terms or remaining maturities in excess of five years as part of the District's investment program, but that no such investments are to be made without the concurrence of the Finance and Personnel Committee.

Authorized Financial Institutions:

Only financial institutions designated as "primary dealers" by the Federal Reserve Bank of New York, or other dealers that qualify under Securities and Exchange Commission Rule 15C3-1 (uniform net capital rule), are authorized to provide investment services to the District. The Treasurer may limit the number of dealers authorized to provide such services.

A copy of the District's annual investment policy shall be provided to each institution authorized by the Treasurer to provide services to the District. Prior to providing investment services, such financial institution shall acknowledge in writing that it has received the District's investment policy and that all persons handling the District's account have reviewed the policy.

All authorized financial institutions are required to send the District unaudited quarterly and audited annual financial statements or provide electronic access to the financial statements.

Safekeeping and Custody:

All security transactions entered into by the District shall be conducted on a delivery-versus-payment (DVP) basis. All securities owned by the District shall be delivered to the District by book entry, physical delivery, or a third party custodial agreement. Any third party custodian shall be designated by the Treasurer, and all securities held by such custodian, including book entry and physical securities, shall be held in a manner that clearly establishes the District's right of ownership. The District's custodial agent shall meet the requirements of Government Code Section 53608. The District's deposits with LAIF or any other authorized investment pool shall be evidenced by the standard reporting requirements of LAIF or the investment pool.

Reporting:

The Treasurer shall file a monthly report with the Board of Directors at a public meeting that shows the status of the District's cash and securities, and all related investment transactions that occurred during the month. The status report shall also be filed with the District's General Manager and internal auditor, and will include at least the following information:

- Type of investment
- Issuing institution
- Par amount
- Coupon and/or yield
- Original cost
- Market value, including source
- Maturity date

In addition, the status report shall include the portfolio's rate of return for the month, the average weighted life of the portfolio, a statement regarding the portfolio's compliance with the District's investment policy, and a statement regarding the District's ability to meet expenditure requirements over the following six months. (Government Code Sections 53607 and 53646)

The Treasurer shall also file a quarterly report with the Board of Directors at a public meeting with respect to the District's real estate investments and any related transactions which occurred during such quarter. The real estate report will be structured to comply as closely as possible with the information requirements of G.C. Section 53646.

Investment Policy Adoption and Amendments:

The Treasurer shall submit an investment policy at least annually to the Board of Directors at a public meeting. (Government Code Section 53646) The policy shall be effective for the calendar year specified. If the Board of Directors does not approve an investment policy for any calendar year, then the investment policy for the previous calendar year shall remain in effect until a new policy is approved.

The District's Finance and Personnel Committee is authorized to make changes in the investment policy from time to time as may be necessary, provided that such changes may only be more restrictive in nature. Any changes that would liberalize the investment policy shall be approved by the Board of Directors before becoming effective. Any changes in the investment policy by the Finance and Personnel Committee shall be reported to the Board of Directors at its next regular meeting.

IRVINE RANCH WATER DISTRICT
2011 AUTHORIZED INVESTMENTS

TYPE OF INVESTMENT	MAJOR PROVISIONS (G.C. 53601 or 53635 except as noted)	ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS
California State and Local Agency Bonds, Notes and Warrants	Registered State warrants, treasury notes or bonds. Any bonds, notes, warrants or other evidences of indebtedness of any local agency.	Limited to securities approved by the Finance and Personnel Committee.
U.S. Treasury and Agency Obligations	U.S. Treasury notes, bonds, bills or certificates of indebtedness or those for which the full faith and credit of the United States are pledged for the payment of principal and interest. Also federal agency or U.S. government sponsored obligations.	No additional restrictions.
Registered treasury notes or bonds of California or other 49 United States	Registered treasury notes or bonds of any of the other 49 United States in addition to California, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by a state or by a department, board, agency, or authority of any of the other 49 United States, in addition to California.	Limited to states and/or agencies approved by the Finance and Personnel Committee.
Banker's Acceptances	Must be eligible for discount at the Federal Reserve Bank. May not exceed 180 days maturity or 40% of local agency funds. No more than 30% of local agency funds may be invested in banker's acceptances of any one commercial bank.	Limited to domestic and foreign banks approved by the Finance and Personnel Committee.
Commercial Paper	Must be of "prime" quality of the highest ranking or of the highest letter and number rating as provided for by a nationally recognized rating service. Issuers must be organized and operating in U.S., have assets exceeding \$500 million and be rated "A" or better. May not exceed 270 days maturity. May not exceed 25% of a local agency's funds.	Limited to corporations approved by the Finance and Personnel Committee.
Negotiable Certificates of Deposit	Issued by national or state-chartered banks, savings associations, federal associations, or state or federal credit unions or state-licensed branches of a foreign bank. Specified restrictions on credit unions. Limited to 30% of local agency funds.	Limited to domestic and foreign banks and thrift institutions approved by the Finance and Personnel Committee.

IRVINE RANCH WATER DISTRICT
2011 AUTHORIZED INVESTMENTS

TYPE OF INVESTMENT

MAJOR PROVISIONS

(G.C. 53601 or 53635 except as noted)

ADDITIONAL RESTRICTIONS IMPOSED
BY THE BOARD OF DIRECTORS

<p>Repurchase and Reverse Repurchase Agreements</p>	<p>Repurchase agreements are limited to one year or less and collateral shall be valued at least 102%. Reverse repurchase agreements, including securities lending agreements, are limited to 20% of the base portfolio value and to terms of 92 days or less unless a spread is guaranteed in writing. Securities being sold on reverse must be owned by the agency for at least 30 days. Reverse repurchase agreements may be made with primary dealers of the Federal Reserve Bank of New York, or nationally and state chartered banks with a significant banking relationship with the local agency.</p>	<p>All reverse repurchase agreements must have the prior approval of the Finance and Personnel Committee. All repurchase agreements must be made only with primary dealers of the Federal Reserve Bank of New York, or nationally and state chartered banks with a significant banking relationship with the local agency.</p>
<p>Medium Term Corporate Notes</p>	<p>All debt securities issued by U.S. corporations or depository institutions licensed by the U.S. or any state and operating within the U.S. Institutions rated "A" or better. May not exceed five years maturity, or 30% of funds.</p>	<p>For depository institutions, same as shown under Negotiable Certificates of Deposit. For corporations, limited to those approved by the Finance and Personnel Committee.</p>
<p>Shares of Beneficial Interest</p>	<p>Issued by diversified management companies investing in securities as specified. Companies shall have highest rating assigned by not less than two nationally recognized statistical rating organizations or shall have a registered and experienced investment advisor. Purchase price shall not include any commissions. Limited to 20% of funds of which no more than 10% may be with any one fund.</p>	<p>No additional restrictions.</p>
<p>Shares of Beneficial Interest - (JPA)</p>	<p>Issued by a joint powers authority (JPA) organized pursuant to Section 6509.7 investing in authorized securities as specified. The issuing JPA shall retain an investment advisor that is registered or exempt from registration with the SEC, has not less than five years of investment experience and meets the minimum requirement for assets under management.</p>	<p>No investment in shares of beneficial interest issued by a joint powers authority shall be made without the prior approval of the Finance and Personnel Committee.</p>

IRVINE RANCH WATER DISTRICT
2011 AUTHORIZED INVESTMENTS

TYPE OF INVESTMENT	MAJOR PROVISIONS (G.C. 53601 or 53635 except as noted)	ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS
Collateralized Negotiable Securities	Notes, bonds or obligations secured by a valid first priority security interest in specified securities. Collateral to be placed by delivery or book-entry into the custody of a trust company/department not affiliated with the issuer. Security interest perfected in accordance with Uniform Commercial Code or applicable federal regulations. Collateral requirements are the same as required to secure bank deposits made by local agencies.	No investment in collateralized negotiable securities shall be made without the prior approval of the Finance and Personnel Committee.
Collateralized Mortgage Obligations and Asset-Backed Securities	Mortgage pass-through security, collateralized mortgage obligation, mortgage-backed or other pay-through bond, equipment lease-backed certificate, consumer receivable pass-through certificate, or consumer receivable-backed bond of a maximum of 5 years maturity. Securities must be issued by an issuer having an "A" or higher rating by a nationally recognized rating service. Securities themselves must have an "AA" rating and may not exceed 20% of surplus funds.	No investment in collateralized mortgage obligations or mortgage-backed securities shall be made without the prior approval of the Finance and Personnel Committee.
Financial Futures and Options	Authorizes the investment in financial futures and financial option contracts in any of the investment categories contained in G.C. Section 53601. (Government Code Section 53601.1)	No investments in financial futures and financial option contracts are to be made without the prior approval of the Finance and Personnel Committee.
Prohibited Investments	A local agency shall not invest any funds in inverse floaters, range notes, and mortgage derived interest-only strips, or any security that could result in zero interest accrual if held to maturity. (Government Code Sections 53601.6 and 53631.5)	No additional restrictions.

IRVINE RANCH WATER DISTRICT
2011 AUTHORIZED INVESTMENTS

TYPE OF INVESTMENT MAJOR PROVISIONS (G.C. 53601 or 53635 except as noted) ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS

Local Agency Investment Fund	Permits a local agency to deposit funds with the State Treasurer for the purpose of investment in securities prescribed in Government Code Section 16430. (Government Code Section 16429.1 et seq.)	No additional restrictions.
Orange County Treasury Pool	Permits a local agency to deposit funds with the County Treasurer for investment in securities prescribed in Government Code Section 53601 or 53635. (Government Code Section 53684)	No investments are to be made with the Orange County Treasury Pool without the prior approval of the Board of Directors.
Inactive Public Deposits	Deposits or contracts with Federal Reserve System banks insured by FDIC, savings associations or federal associations which are home loan bank members or insured by FSLIC, and state or federal credit unions. Specified restrictions on credit unions.	No inactive public deposits are to be made without the prior approval of the Finance and Personnel Committee.
Public Finance Contracts	Includes interest rate swap agreements, currency swap agreements, forward payment conversion agreements, futures, or index-based agreements to hedge payment, currency, rate, spread or similar exposure. Requires certain determinations by governing body. (Government Code Section 5920 et seq.)	No public finance contracts may be entered into without the prior approval of the Board of Directors. The Board is authorized to approve the general parameters for swap transactions including transaction type (i.e. fixed receiver, fixed payer or basis trade), maximum notional amount(s) and maximum duration(s). The Finance and Personnel Committee shall structure specific parameters for individual transactions including notional amount, transaction timing, counterparty selection, index to be used and ISDA agreement approval. (Resolution 2003-36)
Real Estate Investments	Authorized to invest no more than 30% of the District's Replacement Fund in real estate located in Orange County. (Water Code Section 35912)	Real estate investments shall be made in accordance with existing Board policies (Resolution 1990-30). All real estate investments must be individually approved by the Board of Directors.

Exhibit "B"

RESOLUTION NO. 2010-___

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
IRVINE RANCH WATER DISTRICT APPROVING INVESTMENT
POLICY AND AUTHORIZING THE TREASURER AND ASSISTANT
TREASURERS TO INVEST AND REINVEST FUNDS OF THE
DISTRICT AND OF EACH OF ITS IMPROVEMENT DISTRICTS
AND TO SELL AND EXCHANGE SECURITIES

WHEREAS, the Treasurer of the Irvine Ranch Water District is permitted by Section 53646 of the California Government Code to annually render to the Board of Directors a statement of investment policy, which the Board shall consider at a public meeting; and

WHEREAS, in accordance with such requirement, the Treasurer has presented an investment policy to the Board at this meeting; and

WHEREAS, Section 53607 of the California Government Code permits the Board of Directors to delegate to the Treasurer of the District the Board's authority to invest or reinvest funds of the District or sell or exchange securities so purchased, limits the delegation to a one-year period, allows renewal by the Board on an annual basis and establishes a requirement for monthly reporting of the transactions by the Treasurer to the Board; and

WHEREAS, Section 53608 of the California Government Code permits the Board of Directors to delegate to the Treasurer of the District the Board's authority to deposit for safekeeping the bonds, notes, bills, debentures, obligations, certificates of indebtedness, warrants or other evidences of instruments in which money of the District is invested; and

WHEREAS, under Section 53635.2 of the California Government Code, funds of the District may be deposited with certain financial institutions; and

WHEREAS, pursuant to Section V, Paragraph 8 of the District's Bylaws, the Board has appointed two Assistant Treasurers;

WHEREAS, Resolution No. 2009-32 contains the previous delegation by this Board of the authority to invest or reinvest funds, sell or exchange securities, deposit investments for safekeeping, and deposit funds;

NOW THEREFORE, the Board of Directors of Irvine Ranch Water District DOES HEREBY RESOLVE, DETERMINE and ORDER as follows:

Section 1. The 2011 Investment Policy of the District is approved in the form presented by the Treasurer to this meeting, to be effective January 1, 2011, and remain in effect until it is revoked or is superseded.

Section 2. The authority of the Board of Directors to invest or reinvest funds of the District and its improvement districts or sell or exchange securities so purchased, subject to the requirements of the Investment Policy approved hereby, is hereby delegated to each of the Treasurer and the Assistant Treasurers, acting singly. Pursuant to Government Code Section 53607, the Treasurer shall assume full responsibility for those transactions until this delegation is revoked or expires. This delegation shall become effective January 1, 2011, and shall remain in

effect until it is revoked or is superseded by a subsequent delegation.

Section 3. The authority of the Board of Directors to deposit for safekeeping the bonds, notes, bills, debentures, obligations, certificates of indebtedness, warrants or other evidences of instruments in which money of the District and its improvement districts is invested, subject to the requirements of the investment policy approved hereby, is hereby delegated to each of the Treasurer and the Assistant Treasurers, acting singly. This delegation shall become effective January 1, 2011, and shall remain in effect until it is revoked or is superseded by a subsequent delegation.

ADOPTED, SIGNED AND APPROVED this ____ day of _____, 2010.

President
IRVINE RANCH WATER DISTRICT and
of the Board of Directors thereof

Secretary
IRVINE RANCH WATER DISTRICT and
of the Board of Directors thereof

APPROVED AS TO FORM:

BOWIE, ARNESON,
WILES & GIANNONE
Legal Counsel - IRWD

By _____

jca33731/ 112410

December 13, 2010

Prepared by: J. Moeder/C. Spangenberg

Submitted by: K. Burton

Approved by: Paul Jones

ACTION CALENDAR

LAKE FOREST WELL NO. 2 WELLHEAD DESIGN CONSULTANT SELECTION

SUMMARY:

Proposals were solicited from three engineering design firms for the design of wellhead and disinfection facilities for Lake Forest Well No. 2. Staff has reviewed the proposals and recommends that the Board:

- Approve an Expenditure Authorization in the amount of \$309,800 for Project 11461; and
- Authorize the General Manager to execute a Professional Services Agreement in the amount of \$290,764 with Kennedy/Jenks Consultants for engineering services for Lake Forest Well No. 2 Wellhead, Project 11461.

BACKGROUND:

The Board awarded a construction contract to Layne Christensen Company on September 23, 2010 for destruction of the existing Lake Forest Well No. 2 and the construction of a replacement well at the same site as shown in Exhibit "A." Layne Christensen has completed demolition of the existing well and is in the process of constructing the new well. Geoscience, the District's geohydrologist, is performing construction inspection. It is anticipated that the well construction will be completed by January 2011.

Based on the technical memorandum prepared by Geoscience, it is anticipated that the new well will produce approximately 400 gallons per minute. The water will be pumped to Lake Forest Zone 2 East Reservoir where it will enter the distribution system. Prior to entering the distribution system the water will need to be disinfected. The following improvements or evaluations must be made before groundwater from Lake Forest Well No. 2 can be introduced into the potable water system:

- Pump and wellhead discharge and metering facilities;
- Waste discharge pipeline (with meter) from the well to storm drain;
- Raw water pipeline to deliver water from the wellheads to the transmission main in Osterman Road;
- Evaluation of existing electrical service, SCADA and other auxiliary equipment for reuse and/or replacement; and
- Disinfection using chlorine and/or chloramines.

Wellhead Design Consultant Selection:

Proposals for the design of the Lake Forest Well No. 2 project were received from Dean Ryan Consultants, Kennedy/Jenks Consultants, and RW Beck on November 24. Staff has completed their review of the proposals and recommends that Kennedy/Jenks be awarded the project as

their thorough understanding of the project, design approach, qualifications, schedule, and man-hour estimates are consistent with staff's expectations. Staff's evaluation of the proposals is summarized in the Consultant Ranking Matrix presented as Exhibit "B". Kennedy/Jenks' scope of work and fee proposal, in the amount of \$290,764, for design and construction phase services is presented in Exhibit "C".

Wellhead Design Schedule:

The project work is being conducted in accordance with the following milestone schedule:

- Technical Memorandum February 2011
- 60 Percent Design Submittal February 2011
- 100 Percent Design Submittal March 2011
- Final Mylars/Plans March 2011
- Bid Opening April 2011
- Construction Notice of Award May 2011
- Well Operational November 2011

FISCAL IMPACTS:

Project 11461 is included in the FY 2010-11 Capital Budget. An Expenditure Authorization is requested for design services and staff time as shown in the table below and in Exhibit "D".

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
11461	\$2,394,200	\$-0-	\$2,394,200	\$1,396,700	\$309,800	\$1,706,500

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA). In conformance with the California Code of Regulations Title 14, Chapter 3, Section 15004, a Notice of Exemption was filed at the County Recorder's Office on March 4, 2010.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee on December 6, 2010.

RECOMMENDATION:

THAT THE BOARD APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$309,800; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT IN THE AMOUNT OF \$290,764 WITH KENNEDY/JENKS CONSULTANTS FOR ENGINEERING SERVICES FOR THE LAKE FOREST WELL NO. 2 WELLHEAD DESIGN, PROJECT 11461.

LIST OF EXHIBITS:

- Exhibit "A" – Project Location
- Exhibit "B" – Consultant Ranking Matrix
- Exhibit "C" – Kennedy/Jenks Proposed Scope of Work
- Exhibit "D" – Expenditure Authorization

Exhibit "A"

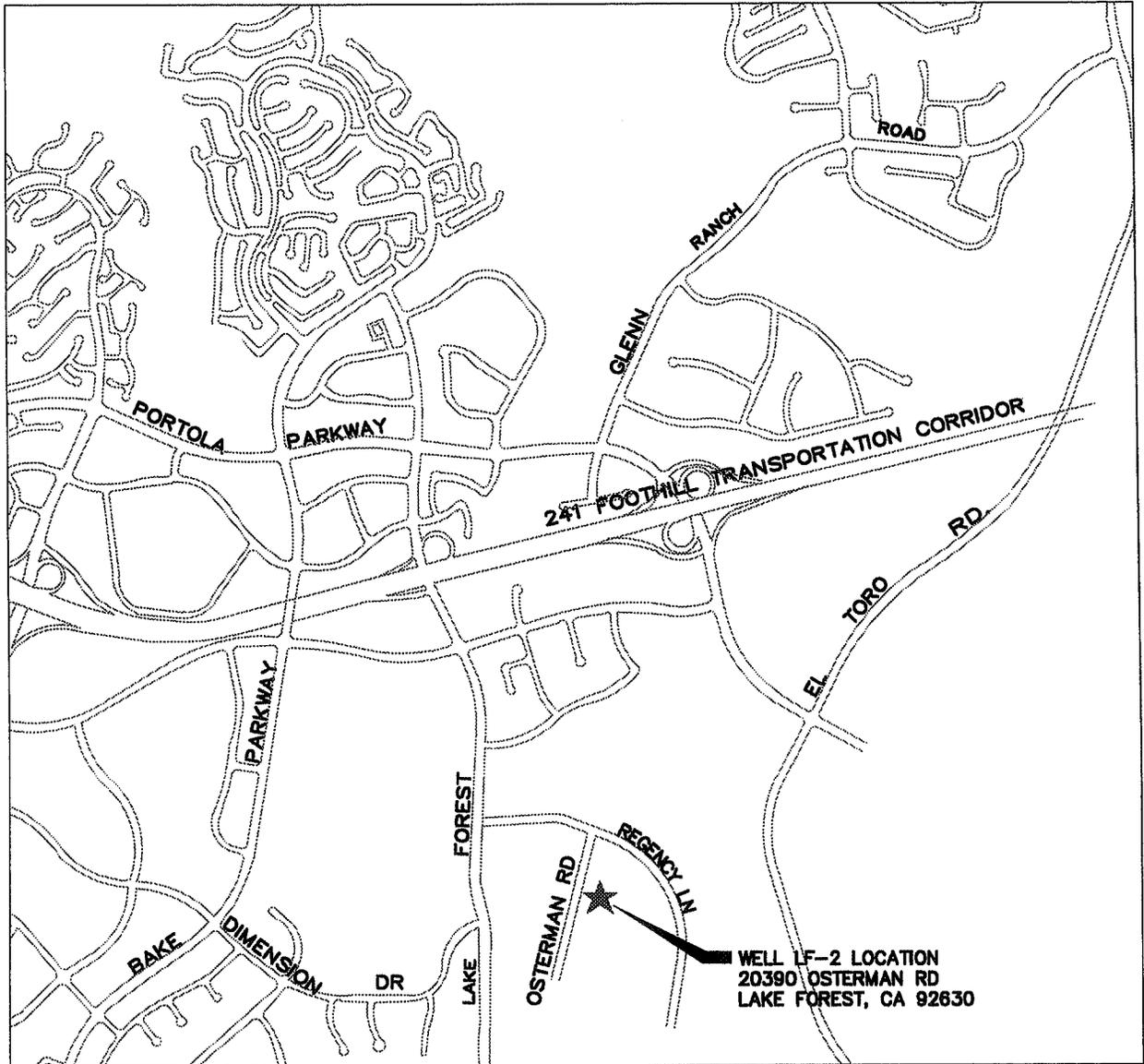


Exhibit "B"
Engineering Design Services
Lake Forest Well No. 2 Wellhead Design
Consultant Selection Matrix

	Weights	Dean Ryan	Kennedy/Jenks	RW Beck		
TECHNICAL APPROACH	60%					
*Project Approach	40%	3	1	2		
*Scope of Work	30%	3	1	2		
*Man Hour Estimates	30%	2	1	3		
Weighted Score - Technical Approach		2.70	1.00	2.30		
EXPERIENCE	40%					
*Firm/Team	15%	2	1	3		
*Project Manager	40%	3	1	2		
*QA/QC	15%	2	1	3		
*Project Engineer - Mechanical/Pumps	15%	2	3	1		
*Project Engineer - Electrical	15%	2	3	1		
Weighted Score - Experience		2.40	1.60	2.00		
		Yrs	Yrs	Yrs		
Project Manager	William Stracker	30	Brent Payne	30	Stephen Dopudja	20
Project Engineer	Fang Maw Lee	30			Marek Przywara	30
Project Controls/PIC	--				--	
QA/QC	Robert Wright	35	B. Thomas/C. Thompson	30?	Brian Houston	18
Mechanical/Pump Station Design	--		Corey Young	10?	Momo Savovic	27
Disinfection	--		Sunny Huang	16	Momo Savovic	27
Surge Analysis	David Axworthy	19	--		--	
Electrical and I&C	Danilo Bautista	40	Tony Wakim	?	Marek Przywara	30
COMBINED WEIGHTED SCORE		2.58	1.24	2.18		
		Man-hours	Man-hours	Man-hours		
SCOPE OF SERVICES						
Task 1 Project Management		176	118	74		
Task 2 Technical Memorandum		256	208	174		
Task 3 Final Design		1,197	948	356		
Task 4 Construction Service		346	288	179		
TOTAL HOURS		1,975	1,562	783		
FEE						
Task 1 Project Management		\$30,193	\$24,302	\$18,495		
Task 2 Technical Memorandum		\$36,244	\$33,884	\$27,614		
Task 3 Final Design		\$208,444	\$189,242	\$104,411		
Task 4 Construction Service		\$50,404	\$43,336	\$28,656		
TOTAL FEE		\$325,285	\$290,764	\$179,176		
SHEET COUNT						
General		2	2	2		
Civil		4	4	4		
Mechanical		5	5	5		
Electrical/Instrumentation		8	8	8		
TOTAL SHEET COUNT		19 *	19	19 *		
Final Design (Hrs/Sht)		63	50	19		
Final Design Unit Prices (\$/Sht)		\$10,971	\$9,960	\$5,495		
Professional Liability Insurance		YES	YES	YES		
General Liability Insurance		YES	YES	YES		
RANKINGS:		3 - Third	1 - First	2 - Second		

*Sheet count not provided. Kennedy/Jenks sheet count of 19 assumed.

Project Understanding

The IRWD water supply is a blend of groundwater and imported surface water from the Metropolitan Water District of Southern California (MWD). Areas in South Orange County, including the IRWD Los Alisos Service Area rely mostly on costly imported MWD water. Replacement of the Lake Forest Well #2 (LF-2) will provide IRWD with a low cost groundwater supply to serve this area and help offset the costs of imported water in the Los Alisos rate area. Furthermore, LF-2 represents a low cost groundwater source since it is located outside the boundaries of the Orange County Water District, so the Basin Equity Assessment does not apply.

The original well was drilled by the Los Alisos Water District (LAWD) in 1957 and produced about 440 gallons per minute (gpm). The LAWD was consolidated with IRWD on January 1, 2001 at which time the well became an IRWD asset. Production rates from the years 2000 to 2004 were about 200 gpm, or about half of the original production. Based on an evaluation by IRWD of the existing well, including video survey, IRWD decided to abandon the existing well and drill a new well on the same property, about 110 feet west of the original well location. The production capacity for the new well is estimated to be about 400 gpm (Geoscience Support Services, Inc., August 10, 2010 Technical Memorandum). If the well operates continuously as a base load supply, it will deliver about 650 acre-feet per year. If the cost to operate the well is on the order of \$100/ac-ft, and the cost of MWD

water is about \$700/ac-ft, the operating savings to use LF-2 could be nearly \$400,000 per year.

Recognizing the financial advantages of operating LF-2, IRWD initiated a well drilling replacement project for LF-2 in 2010. This project is identified as IRWD Project No. 11461 in the IRWD 2010/11 Capital Budget. With the well drilling scheduled for completion in January 2011, IRWD is initiating this well equipping project in order to have the new LF-2 well in service by November 2011 to help meet it's cost of service goals in the Los Alisos rate area. This schedule allows IRWD to restore one of its most cost effective sources of water and take advantage of the favorable construction market.

Since the original LF-2 facilities were built by the LAWD, an important objective for this project is to design and construct facilities to meet current IRWD standards. This will include wellhead piping and metering systems, pump to waste, instrumentation and controls, supervisory control and data acquisition (SCADA) features, and disinfection systems. Kennedy/Jenks has already reviewed many of the key IRWD standards and details for wellhead facilities based our work on the IRWD Strand Ranch Project. For example, we recently reviewed standard civil/mechanical details for a submersible wellhead facility provided by Soon Kim. We also reviewed standard well pump control schematics provided by Chris Lum. Our goal is to expedite the project design by being up to speed on the relevant IRWD design standards and requirements.

Key Issue	Kennedy/Jenks Approach	Benefit to IRWD
Pump Selection	<ul style="list-style-type: none"> ◆ Select pump for maximum production based on well capacity ◆ Optimize efficiency over range of expected water levels 	<ul style="list-style-type: none"> ◆ Cost-effective operation and operational flexibility
Disinfection Facilities	<ul style="list-style-type: none"> ◆ Locate, size and layout system to meet IRWD operational and water quality objectives ◆ Use IRWD standards as basis for facility design 	<ul style="list-style-type: none"> ◆ Reliable ◆ Operator Friendly ◆ Easy to maintain
Community Impacts	<ul style="list-style-type: none"> ◆ Identify site-specific impacts and mitigation options considering similar IRWD facilities 	<ul style="list-style-type: none"> ◆ Meet IRWD objectives for low impact to neighborhood and park areas
Schedule	<ul style="list-style-type: none"> ◆ Identify permits and meet with key stakeholders early ◆ Expedite Technical Memo and design submittals 	<ul style="list-style-type: none"> ◆ Meet or exceed IRWD goals for cost-savings

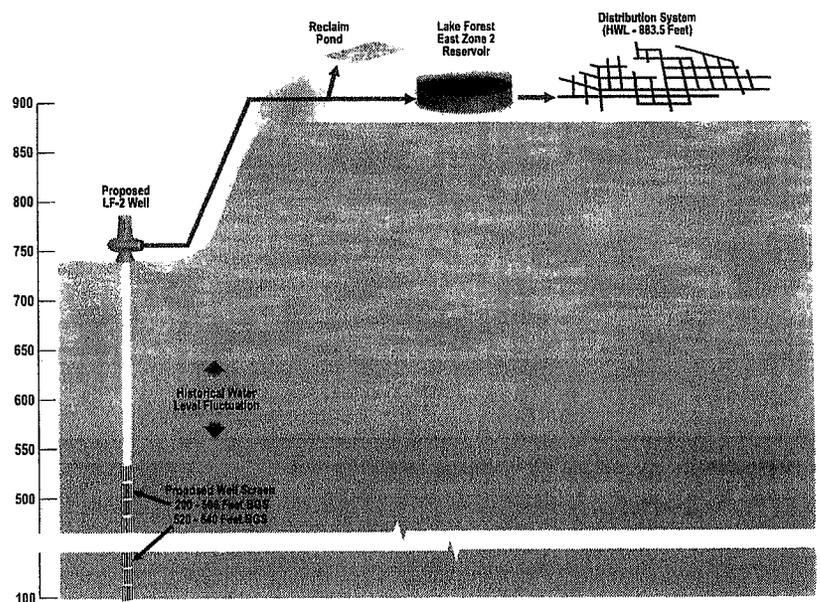
Kennedy/Jenks has identified a set of key issues along with our approach to solve these issues and the resulting benefits to IRWD.

The project location is adjacent to a City of Lake Forest Park (Regency Park) and apartment complexes. We understand and are sensitive to the needs of the surrounding community, and how this can impact the design of facilities. For example, we recently completed design of a chloramine disinfection system at a recreational park for the City of Glendale Water and Power (GWP). For the GWP project, we designed the disinfection storage and feed systems to fit within an existing pump station at the park, with upgrades to comply with local Fire Code requirements and system operation needs. For the LF-2 project, we understand the need for facilities to be designed considering noise, aesthetics, security and public safety, while also providing access for operations and maintenance. We also recognize that IRWD has a long history of operating wellhead facilities in neighborhood and park settings. We recently toured some IRWD wellhead facility sites as part of the IRWD Energy and Green House Gas Master Plan that Kennedy/Jenks is developing for IRWD. We will be able to work effectively with IRWD to design a system to meet IRWD objectives for community acceptance.

A fundamental element of the project is pump/system hydraulics. The well pump should be selected to take full advantage of the well yield (to be confirmed after drilling and testing), while also providing for optimum efficiency over the anticipated range of static ground water levels and well efficiencies over the life of the well. We recently completed a similar pump evaluation as part of the IRWD Strand Ranch Recovery Facilities Project. For the LF-2 project, we have included David Axworthy (Northwest Hydraulics) as part of our team to assist in evaluating the need for surge facilities, as required. David has worked on other IRWD projects and is already familiar with much of the IRWD potable water system and facilities.

We understand that IRWD would also like to consider incentives offered by Southern California Edison (SCE) in use of more efficient pumps and motors. We have already started this process on behalf of IRWD as part of the IRWD Energy and Greenhouse Gas Master Plan project and are considering use of Premium Efficiency Motors for continuous use pumps and motors.

Disinfection facilities will be required as part of the wellhead facilities. We understand that IRWD uses chloramines as a drinking water disinfectant. We also understand that IRWD has recently completed a year long project to install 11 bulk sodium hypochlorite and aqueous ammonia reservoir management systems (RMS), including the Lake Forest Zone 2 East Reservoir. IRWD operates the disinfection systems to match total chlorine residuals with imported MWD water in the distribution system, generally providing 2.5 mg/l total chlorine residual. Water quality is an important element of designing a chloramine feed system. For example, as part of our GWP project, softened carrier water was recommended for the ammonia feed system to prevent buildup of scale at the point of injection, based on the hardness of the GWP water. Several water quality parameters were evaluated by Dennis Williams (August 12, 2010 Geoscience Technical Memorandum). Total Dissolved Solids (TDS) levels generally exceed the secondary maximum contaminate level (MCL) of 500 mg/l. Historical data indicate that iron concentrations have been increasing over time and exceed the secondary standard of 0.3 mg/l. Kennedy/Jenks will consider these parameters as they relate to performance of the production well and disinfection systems.



Kennedy/Jenks will design the well pump/motor to provide optimized production over range of water level conditions.

Project permitting is often times a critical path for capital projects. For timely completion of the LF-2 project, it will be important to identify permit requirements upfront and plan well in advance for review and approval by the agencies. We understand that since this project is to replace an existing facility, it is Categorically Exempt under CEQA. However, the installation of a new well and disinfection facilities could prompt the need for a permit amendment from the California Department of Public Health (CDPH). Other permitting requirements could include discharges to the storm drain (i.e., pump-to-waste) and sanitary sewer (e.g., discharge from on-line chloramine analyzers). Coordination with SCE must also be considered for potential requirements to upgrade metering.

Kennedy/Jenks' Project Approach

Kennedy/Jenks approach to the key project issues will enable IRWD to upgrade its wellhead facilities and initiate operation of the new well by November 2011. Our approach is based on the following objectives:

- ◆ Deliver final, approved, bid-ready plans to IRWD by March 21, 2011. This objective will allow IRWD to meet its goal to bring the LF-2 on-line by November 2011.
- ◆ Involve permitting agencies early to garner support and expedite approvals.
- ◆ Select an appropriate well pump for maximum production and efficient operation through the anticipated range of groundwater levels.
- ◆ Evaluate disinfection alternatives to meet operational requirements for reliability and flexibility.
- ◆ Early development of site layout alternatives to allow IRWD input while making sure the project stays on schedule.

Our approach is described in more detail below.

Kennedy/Jenks' project schedule delivers bid-ready plans by March 21, 2011

Based on IRWD project objectives, we have prepared a preliminary schedule to manage the project according to key decisions, deliverables, and to expedite critical path items for both design and construction. Features of our schedule include the following:

- ◆ Project Kick-off Meeting and Initial Workshop to be held before Christmas
- ◆ Early focus on siting evaluation for the disinfection facilities (early submittal of draft Technical Memorandum)

- ◆ Incorporate recommendations for pump design into final Technical Memorandum as information becomes available from Layne Christensen
- ◆ Provide early notifications for permitting (i.e., Department of Public Health) with planning for timely review and approval of permit amendments, as required
- ◆ Parallel field activities for survey and geotechnical
- ◆ Use standard IRWD approach to facilities design to expedite IRWD review and approval
- ◆ Expedite design by providing 60% with sufficient details to then deliver a 100% and Final Designs.

Technical Memorandum

We will prepare the TM to define design criteria, permitting requirements, SCE requirements, and the basis for design as directed by IRWD. To keep on schedule, we will prepare the draft and final technical memorandums as described below.

Based on the project schedule provided in Addendum 1 to the RFP, we understand that the final well testing information may not be available until late January 2011. Kennedy/Jenks will keep the project on schedule without compromising design review and input by focusing the draft TM on the disinfection alternatives and wellhead facility layout alternatives, which will be largely unaffected by the results of the final well testing information to be provided by Layne. Following this approach, we will provide layout alternatives in the draft TM utilizing existing topographic survey files provided by IRWD. Kennedy/Jenks will submit the draft TM on January 14, 2011, or approximately 10 days ahead of schedule.

We will work closely with IRWD upfront to confirm the facility requirements including preferred vendors, building details, piping details, control strategy and instrumentation, etc. and document key criteria in the Technical Memorandum. Early confirmation and data gathering will help to expedite the design process and stay on track to meet or exceed IRWD project schedule requirements.

Input provided by Layne in January 2011 will be used to finalize the pump selection, set the pump depth and confirm key water quality characteristics. These details and input received from IRWD on the draft TM will both be reflected in the final TM which will be provided to IRWD by February 4, 2011, assuming well construction and testing are completed the last week in January 2011.

We will coordinate with IRWD and Layne Christensen (Dennis Skinner) to obtain pumping production and specific capacity data as it becomes available. Any further comments provided by IRWD can be readily incorporated into the 60% design submittal. This scheduling approach avoids delaying the TM while the well testing information is being finalized.

With the draft TM is being used to reach consensus on the site layout and disinfection facilities type/location, Kennedy/Jenks can initiate the site civil portions of the 60% design while the final TM (focusing on pump selection and related details) is being developed.

Design Schedule

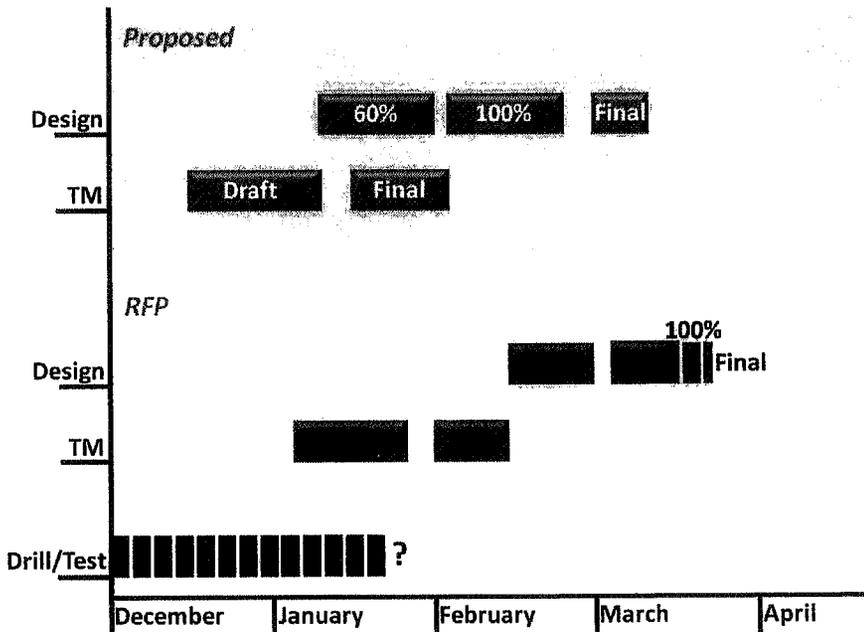
Building from our current work on the Strand Ranch Groundwater Recovery Facility, and our team's experience with numerous other well equipping projects, we are confident that we can bridge from the 60% design to the 100% design without the need for a 90% submittal. We feel that the relatively limited number of decision points on this project warrants the TM, 60%, 100%, final design approach. This approach will reduce the schedule by two weeks vs. a TM, 60%, 90%, 100%, and final design approach, without sacrificing IRWD input or quality control reviews.

Our scheduling approach allows IRWD to bid the project approximately two weeks earlier than the baseline schedule of the RFP. Time that is saved during design can/should be applied to the construction schedule, allowing additional time for procurement of key equipment, such as: pumps, motors and electrical switchgear. For example, procurement of the well pumps for Kennedy/Jenks' recently completed VDC Recharge Basin project for Rancho California Water District took 16 weeks after the shop drawings were approved. Kennedy/Jenks accelerated design schedule enables IRWD to complete construction by November 2011 through traditional means of construction and equipment procurement. If the design schedule is not accelerated, IRWD may need to consider pre-purchasing long-lead equipment (such as pumps, motors and electrical switchgear) in order to meet the schedule. Kennedy/Jenks approach helps IRWD avoid this hassle.

Involve Permitting Agencies early to garner support and expedite approvals

Although permitting is included in the final design, the TM will identify the permitting requirements to ensure they are incorporated into the project schedule to avoid delays. With IRWD's permission (or in conjunction with IRWD), we will contact the California Department of Public

Health District 8 Engineer, Oliver Pacifico, to confirm permitting requirements. Since this is a replacement well with upgrades, we anticipate the permitting requirements to be limited to DPH issue of well permit along with amendments to the DPH Engineer's Report to describe the wellhead facilities as they relate to DPH requirements. We will also define other permitting requirements such as the Notice of Intent to be filed with the California Regional Water Quality Control Board, Santa Ana Region, for coverage under NDPES Permit No. CAG998001, the General Waste Discharge Requirements for "De Minimus" discharges for well purging. We do not anticipate the need for California Accidental Release Program Risk Management Plan since the system will likely be based on sodium hypochlorite and aqueous ammonia at storage volumes and concentrations below the regulatory thresholds.



Design Time Savings

Kennedy/Jenks' schedule delivers bid-ready plans three weeks early, providing additional time for Contractor procurement of long lead items and avoids the need for equipment purchasing by IRWD.

Consideration of groundwater level fluctuations enables proper pump selection

The 12 August 2010 Technical Memorandum by Geoscience indicated that static groundwater levels within LF-2 fluctuated between 162 feet and 76 feet below ground surface (bgs) from 1997 to 2004. Proper pump selection requires careful consideration of this 86-foot fluctuation in static water levels. Without such consideration, the well pumps could experience a 20% reduction in efficiency as groundwater levels change, or could require IRWD to pull the submersible pump to add (or remove) bowl assemblies in response to changing groundwater levels.

Kennedy/Jenks has developed preliminary system head curves for the proposed well site for maximum and minimum groundwater levels. Using these system head curves, we have reviewed various pump models to confirm that a single-speed pump is capable of meeting the anticipated range of operating conditions. Based on

this review, we have identified two pump manufacturers who make submersible vertical turbine well pumps that can effectively meet the full range of pumping conditions for the proposed well:

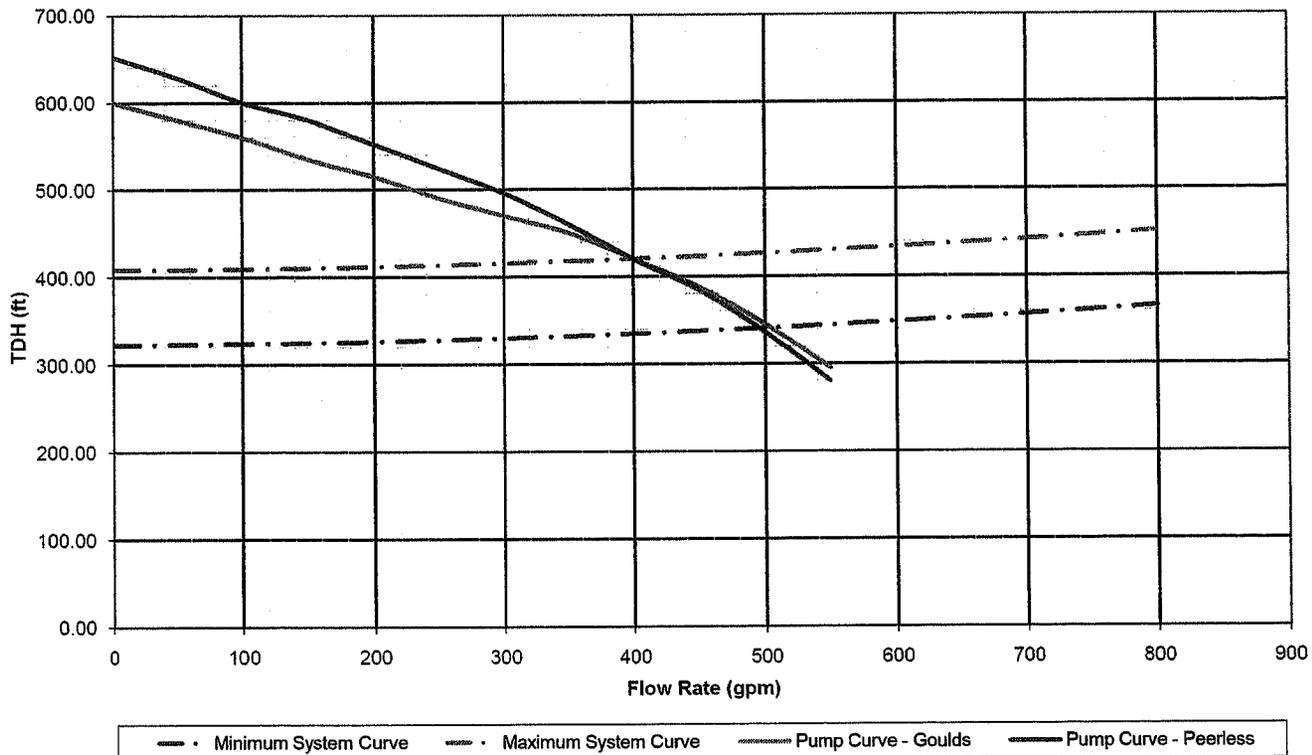
- ◆ Goulds Model 8RJLC, and
- ◆ Peerless Model 7HXB

The selected pumps operate between 75% and 80% efficiency over the full range of operating conditions. The system head and pump curves will both be refined as the final well pump testing information becomes available, but this preliminary analysis verifies that a single, fixed-speed, submersible pump can efficiently meet the system requirements without having to modify impeller sizes, add/subtract pump stages as groundwater levels fluctuate over time, or utilize a variable frequency drive. Kennedy/Jenks' knowledge of well system hydraulics benefits IRWD by:

- ◆ Lower operating costs associated with operating a pump that maintains reasonable efficiency throughout the operating range,

Pump/System Head Curves

Goulds, 8RJLC, 5 Stage, 3500 rpm, 60 hp, 4.98" Impeller
Peerless, 7HXB, 8 Stage, 3500 rpm, 60 hp, 4.43" Impeller



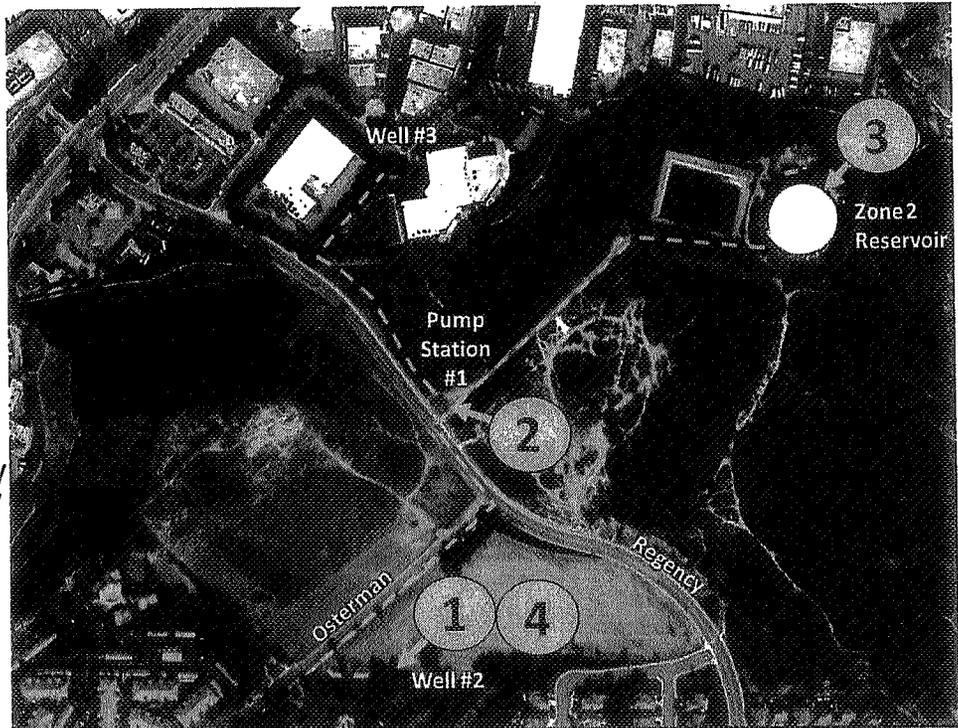
Kennedy/Jenks' calculations confirm that at a fixed speed submersible pump is capable of delivering 400 gpm under varying system head requirements.

- ◆ Lower construction costs by avoiding VFDs and related ancillary equipment (such as harmonic filters),
- ◆ Avoiding construction lead time for a VFD, which can be 16 to 20 weeks, and
- ◆ Eliminating future operating headaches as groundwater levels fluctuate.

We will confirm the operational scenario for LF-2 with IRWD (operations), however we anticipate that well LF-2 will operate continuously to provide a base supply for the IRWD/ Los Alisos service area. As such, it may be a likely candidate for use of a premium efficiency motor with associated energy savings under the SCE program. We will contact the SCE Account Manager, Mr. James Pasmore, Jr. to confirm the payback based on preliminary motor sizing and continuous operations.

Disinfection

Development of the disinfection design approach is of critical importance to IRWD operations, and to the success of this project. The system must provide a stable disinfectant residual, be reliable to operate, and easy to maintain. The RFP calls for the Consultant to develop and evaluate three different alternatives for disinfection locations using chlorine and/or chloramines. The evaluation must consider the disinfection process performance as well as site-specific facility requirements. While several alternatives are possible (six based on use of chlorine or chloramine at three sites), we have initially identified four possible alternatives. We will confirm the best three alternatives with IRWD in the Project Kick-Off meeting for further evaluation in the Technical Memorandum.



1		Alternate 1 - New Chloramine System at LF-2
Advantage	◆	Reliable - provides stable disinfection residual entering reservoir
	◆	Limited size - treats disinfection demand associated with well and transmission line
Disadvantage	◆	Requires small building at well site
	◆	Water hardness may require frequent cleaning of injectors or use of softened carrier water for in-line injection
2		Alternate 2 - New Chloramine System at Unused Pump Station Site
Advantage	◆	Reliable - provides stable disinfection entering reservoir
	◆	Use of existing building may save capital costs
	◆	May be sized or expanded to accommodate future use of LF-3
Disadvantage	◆	Requires retrofit of building to store and feed disinfection systems
	◆	Water hardness may require frequent cleaning of injectors or use of softened carrier water for in-line injection
3		Alternate 3 - Use Existing Disinfection System at Reservoir (assumes no distribution occurs in line before reservoir)
Advantage	◆	Makes use of existing disinfection system
	◆	Lowest cost since no disinfection facilities are located at well site
	◆	Avoids need for softened carrier water since chemicals are added to reservoir
Disadvantage	◆	Requires additional dosage at reservoir to treat demand from well and pipeline
	◆	May be more difficult to control and/or unreliable for maintaining residual if mixing in tank is not adequate
4		Alternate 4 - New Chlorine System at LF-2, Use Existing Disinfection System at Reservoir
Advantage	◆	Requires limited facilities at well site (compared to chloramine option)
Disadvantage	◆	Free chlorine may result in chloramine formation with potential taste and odor issues
	◆	May be more difficult to control and/or unreliable for maintaining residual if mixing in tank is not adequate

- ◆ Alternative 1 – Provide new chloramine system at the LF-2 Well Site
- ◆ Alternative 2 – Provide new chloramine system at the unused Pump Station Site
- ◆ Alternative 3 – Use existing chloramine system at Lake Forest Zone 2 East Reservoir (assumes no distribution occurs before reservoir)
- ◆ Alternative 4 – Provide new chlorine system at the LF-2 Well Site sufficient to remove demand from well water and pipeline. Use existing chloramine system at reservoir.

We will work closely with IRWD upfront to confirm the criteria for evaluation. Process criteria will include effectiveness, reliability and flexibility. Site-specific criteria will include access, security, aesthetics and cost. As an initial screening, we have identified some of the advantages and disadvantages of the four alternatives listed above.

Design requirements for the disinfection system will be developed and included in the Technical Memorandum. This will include sizing chemical storage and feed systems, confirming control strategy, identifying system features, and support utility requirements. Based on a flow of 400 gpm and a two week desired storage capacity, as indicated by IRWD during the pre-proposal meeting, the estimated quantities would be:

Chemical	Quantity
Ammonia	40.4 lbs.; as 19% Aqueous Ammonia: ~28 gallons
Chlorine	201.0 lbs.; as 12.5% Sodium Hypochlorite: ~175 gallons

We will also evaluate the use of a standard system size used at IRWD, and whether it introduces any quality concerns such as degradation byproducts (i.e., associated with longer storage of sodium hypochlorite) or excessive venting (i.e., aqueous ammonia).

Space to accommodate containers for these volumes should not be an issue at any of the three sites.

Location of points of injection for disinfection will also be considered both in respect to the required separation for the proper reaction between the ammonia and chlorine, but also in relationship to the distance between injection and the Lake Forest Zone 2 East Reservoir. The reaction of these chemicals is relatively fast and the LF-2 and Zone

3 #1 Pump Station locations provide ample contact time to form a stable chloramine residual before entering the reservoir. The Zone 2 Reservoir site was not made available during the pre-proposal site walk so the available placement opportunities and relative separation at that site are not known at this time.

Disinfection system features, in addition to the storage facilities and chemical feeding equipment, may be required. Based on our review of the historical water quality of the LF-2 water as provided in the Geoscience TM, this particular disinfection system may need to include softening of the chemical feed carrier stream to minimize scaling at the points of injection for the sodium hypochlorite and aqueous ammonia. In cases where the calcium carbonate in the well water is at or above its saturation limit, the likelihood of scale formation can be very high. To determine the need for softened carrier water, we conducted an initial evaluation of the well water for scale formation potential. Average values for calcium, total alkalinity, and pH were calculated along with a carbonate speciation analysis. The initial findings suggest that the well water is above the saturation limit for calcium carbonate and would therefore likely present a high potential for scaling at the injection locations. This preliminary analysis will need to be verified once updated water quality data is provided by the new LF-2 testing. If required, supporting utilities for the water softening will include a potable water stream for the carrier water and a connection to the sanitary sewer for disposal of the softening systems brine.

The evaluation should also consider possible future needs of IRWD. For example, if the use of available supply from LF Well #3 has some level of probability, (we will need IRWD input) additional space for housing and operations of an expanded disinfection system should also be taken into account during the site evaluation. The locations of the Zone 3 #1 Pump Station and Zone 2 Reservoir would both allow for disinfection without significant piping modifications or resulting impacts to access, security or esthetics. Locating the disinfection at LF-2 at this time would not accommodate the possibility for disinfection of water from LF Well #3 without significant piping modifications.

Early development of site layout alternatives promotes IRWD input while making sure the project stays on schedule

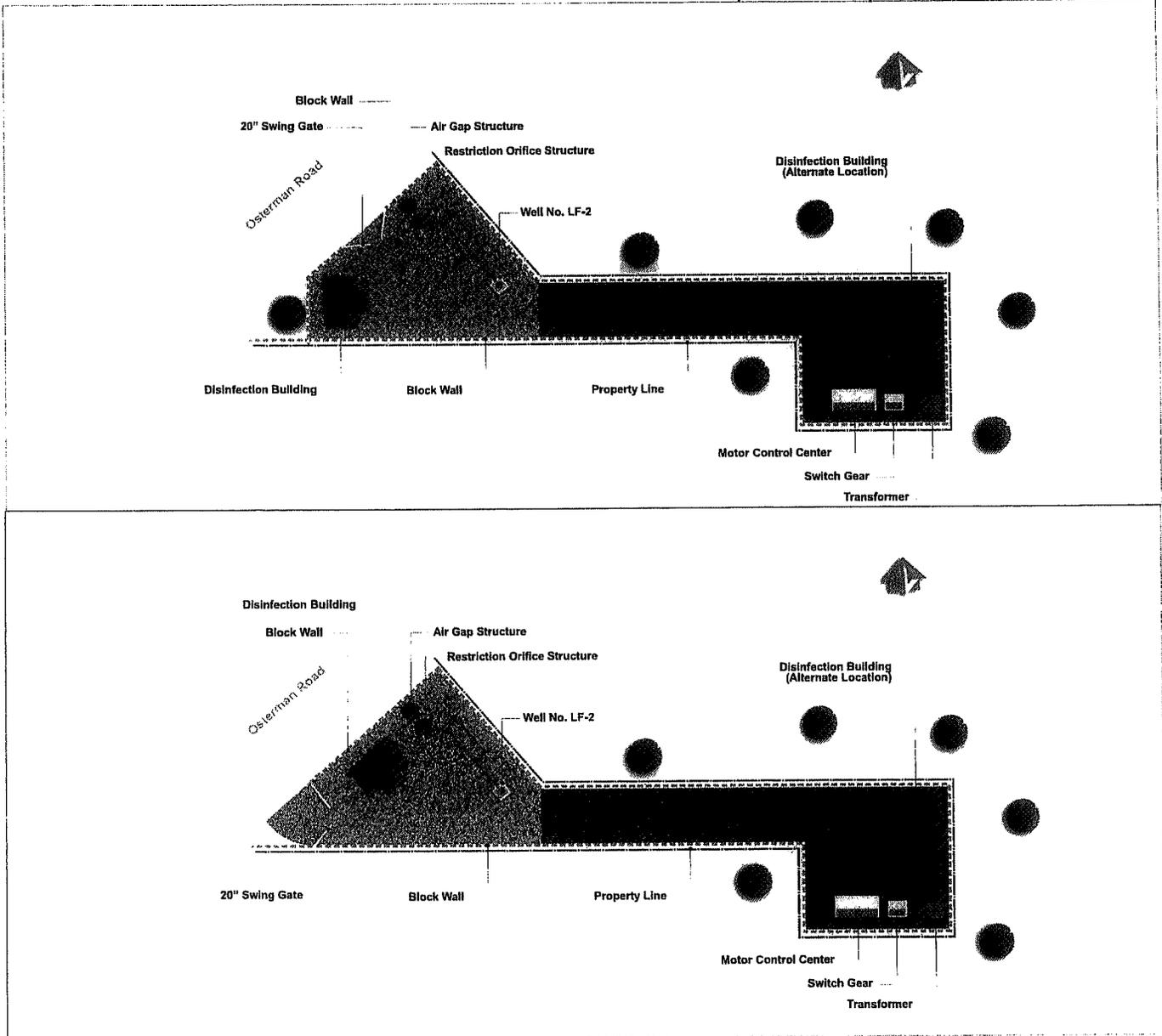
As discussed above, one of the keys to the draft TM will be developing site layout alternatives and helping IRWD evaluate these alternatives so that the locations of the major project components are defined as the TM is finalized, including:

- ◆ Location of and type of disinfection system,
- ◆ Layout of the well discharge piping,
- ◆ Connections to existing utilities,

- ◆ Location of the MCC and electrical switchgear, and
- ◆ Site access and entry gate.

Recognizing that time is of the essence, Kennedy/Jenks has developed two preliminary site layout options for the LF-2 replacement and equipping project (see Appendix B). The first layout (Option 1) shows constructing a new access drive from Osterman Road along the existing southern wall of the site. Option 2 shows the site utilizing the existing driveway. There are some advantages and disadvantages to both site access options.

If the disinfection equipment is to be placed at the wellhead site, we see two possible locations within the



Appendix B provides two optional site layouts for IRWD's consideration. Consideration of layout alternatives now, allows IRWD time to adequately consider its options while maintaining the project schedule.

site where the building could be located; either in the front, near the wellhead, or in the back near the electrical equipment. We will evaluate both options.

	Option 1 New Driveway	Option 2 Use Existing Driveway
Access from Osterman Road	+	-
Vehicle Maneuverability	+	-
Relocation of Existing Utilities	-	+
Impacts to Existing Landscaping	-	+
Cost	-	+

Site layout options offer tradeoffs between accessibility, impacts to the existing site, and cost.

The layout for the well discharge piping and the connection to existing utilities is identical in both options. The piping has been laid out to promote accessibility for operations and maintenance and minimize construction impacts in Osterman Road. Only the storm drain connection for the pump-to-waste line requires construction in Osterman Road. The water line connection is shown to be tied into the existing on-site piping that connects to the reservoir.

These preliminary site layout options will be further refined by Kennedy/Jenks based on input received from IRWD and further evaluated as the draft TM is prepared.

Scope of Work and Methodology

The following discussions address the designated tasks as presented in the RFP so that IRWD has a clear picture of how we propose to address various tasks, who from our team will be responsible in leading that particular task, and why that individual is being proposed for that specific assignment.

Task 1 – Project Management

Our proposed Project Manager for the LF-2 project is Brent Payne. As PM, Brent will be responsible for making sure that our team meets all the requirements as outlined in the RFP, to include: adherence to scope, schedule and budget; maintaining efficient and timely communications with IRWD staff, subconsultants, California Department of Public Health, Orange County and the City of Lake Forest as appropriate; and the oversight of our Quality Assurance/Quality Control program. Under his direction, the following sub tasks will be completed.

Task 1.1 – Status Reporting

Prepare weekly and monthly status reports. Brent is familiar with this requirement not only for our work with IRWD but it is his practice for all of his clients to keep communications consistent, timely and precise.

Task 1.2 – Meetings

Plan, organize, attend and report all meetings and workshops associated with design, permitting and construction engineering services. As per the RFP we have assumed ten, 2-hour meetings during design with IRWD and two, 2-hour meetings with other stakeholders and jurisdictional agencies (Meetings during the Construction are addressed and accounted for under Task 4 of this proposal.)

Task 1.3 – QA/QC

Our QA/QC program begins with the preparation of our required Project Memorandum (Work Plan), the holding of our early design stage Concept & Criteria Review (C&CR) meeting, and scheduling of appropriate Kennedy/Jenks experts to conduct in-house design document reviews of each deliverable, beginning with the Preliminary Design Technical Memorandum through every design document submittal. The C&CR is a long standing tradition with Kennedy/Jenks that utilizes technical experts within the firm, not directly involved with the project, who have extensive experience in the design of the project's significant features which in this case will be the wellhead equipment design for submersible, fixed speed pumps and the design of chloramines disinfection systems.

Task 2 – Technical Memorandum – Preliminary Design & Alternatives

A Technical Memorandum (TM) establishing the basis for design of the selected alternative will be the final deliverable prepared under this task. The TM will be developed based on the review of previous work such as the Preliminary Design by Geoscience Support Services, IRWD standards for design and construction, and factors such as historical water quality and production information, system hydraulics, code requirements, available space at possible alternative disinfection locations, potential impacts to surrounding residential and park facilities, esthetics, permitting requirements and costs, to name a few.

The focus of the TM will be on the wellhead facilities, raw water and waste discharge pipelines, disinfection and the location of the disinfection system. To optimize the final design and take advantage of available space and existing features, the design of these three aspects of the facility will need to be closely coordinated especially for any alternative that sites the disinfection system on the existing LF-2 site.

Task 2.1 – Wellhead Facilities.

Cory Young will lead this task bringing to the project his experience in the design of wellhead facilities. Over the past three years Cory has completed the design of three wellhead facilities including one submersible pump and two surface mounted vertical turbine pumps. Those projects, Terra Cotta Well, Trilogy Well and Machado Well, are presented in the Experience section of this proposal. We will utilize IRWD's submersible wellhead construction standards as applicable to this project and will develop two alternatives for the well bypass piping and well discharge piping. It is assumed for this proposal that permits to discharge to the existing storm drain will be accessible. It is understood that any alternative layout at the LF-2 site must stay within the existing IRWD property boundary but site improvements to facilitate better access and operations can be considered.

Kennedy/Jenks' in-house architectural group will conduct code reviews for the alternatives and provide renderings of any chemical storage and/or feed system enclosures being evaluated for alternatives. For instance, for the LF-2 site, the graphics to be included in the TM will present a visual perspective as to how that enclosure will blend into the surrounding residential apartment community and park setting.

The wellhead facility evaluation will include verification that the existing electrical service and transformer are adequate to support the new pump and disinfection system as was indicated during the Pre-proposal Meeting.

IRWD's SCADA system using radio communications and Alan Bradley equipment is similar to systems Kennedy/Jenks has designed. We anticipate that these new facilities, both well and disinfection system, will have local PLCs and radio to communicate a variety of field data back to the backbone of the system. We understand that IRWD is using wireless monitoring and alarm systems which sends alarm condition notices to operations personnel and run

times, starts and flow measurement information to a web site. Instrumentation and controls will accommodate the typical parameters such as high/low pressure, motor temperature, low level, run conditions, water quality data, etc.

Task 2.2 – Raw Water Pipelines

Ray Lyons, working in coordination with Corey Young on the wellhead piping design, will be responsible for the engineering on the raw water and waste discharge piping from the wellhead piping to connections in Osterman Road. The raw water line will connect to an existing 8-inch PVC line to convey water to the Zone 2 East Reservoir and the waste discharge line to the existing 30-inch storm drain. Two alternative alignments and connections will be developed for each pipeline considering separation requirements of the California Department of Public Health, required easements, permitting conditions, constructability and traffic impacts, and costs. Ray will also lead our utility search efforts and the determination of permitting needs as he has extensive experience with Orange County cities and agencies in the design, permitting and construction of infrastructure modifications throughout the County.

Task 2.3 – Disinfection

Sunny Huang will lead the development of alternatives and subsequent design for the disinfection system. His recent experience included the site selection and evaluation of chemical system combinations for disinfection on the GWP Glorietta Well project. This evaluation was required to facilitate limited available space for the installation and operations of the disinfection system while considering the security and exposed risk aspects of the facilities being located at the wellheads in close proximity to an established residential neighborhood.

The evaluation will also include the feasibility of including flows from LF Well #3 in the future. If IRWD anticipates accommodating this supply in the future, location of the disinfection system at the Lake Forest Zone 3 #1 Pump Station would likely be recommended. As noted in our Approach Section, preliminary evaluation of water quality data indicates the possible need for chemical feed carrier water softening which adds to the special requirements of the disinfection system.

During this task, Kennedy/Jenks will also consult with our sub-consultant, MTS on a conceptual basis for their input regarding possible traffic impacts of the alternatives being evaluated.

Task 2.4 – Technical Memorandum - Production

Brent Payne will oversee the preparation of the draft and final Technical Memorandum which will summarize and document all of the work completed during Task 2. The TM will contain an Executive Summary which will include a clear description of the objectives, criteria, and standards used for the development and evaluation of the various alternatives followed by the findings of those evaluations and final recommendations upon which the subsequent design will be based. The body of the TM will present more detailed discussion supported with graphic presentations and matrix evaluation comparisons of alternatives. As required by the RFP the TM will discuss and/or include:

- ◆ Results of the data collection, utility research, identification of required permits and easements, and a list of impacted landowners if applicable.
- ◆ Constructability and potential impacts to operations and traffic
- ◆ Potential measures to be considered during final design to mitigate impacts
- ◆ Criteria and standards used for design and a summary of design issues yet to be addressed during final design
- ◆ Conceptual estimates for capital, operational and maintenance costs
- ◆ A recommended list of drawings and a table of contents for required technical specifications for the final design
- ◆ An evaluation of the impacts to, and update for, the schedule from design through construction for the selected alternative

Calculations, reference drawings, and other reference material as necessary will be provided as appendices to the TM.

Deliverables
10 copies of draft and 10 copies of final TM
1 electronic PDF copy of TM

Task 3 – Final Design

The extent of the Scope of Work for Final Design depends on the alternative selected as a result of Task 2. Should it be determined that the most beneficial location for the

disinfection system is in the Lake Forest Zone 3 #1 Pump Station, then design for site improvements at the wellhead will be less than otherwise and vice versa. The proposed scope of work provided in the following assumes that the disinfection system will be located at the Lake Forest Zone 3 #1 Pump Station. Under this assumptions the design will not need to address certain site improvements for the housing of the chemical storage and feed system at the LF-2 site but will need to include improvements at the pump station.

In general, all tasks under the Final Design Task 3 will be preformed in accordance with IRWD's Design Process Manual.

Task 3.1 – Project Manual

In accordance with the requirements of Design Process Manual, Kennedy/Jenks will utilize IRWD's standard front end documents for the preparation of the Project Manual. We will closely coordinate the review of the supplemental general conditions and special provisions with our preparation of the technical specification in case edits are required to address the project's possible unique conditions.

IRWD's General Technical Specifications will be used for most of the features anticipated for this project however for features related to the disinfection system, possible site enclosures and sound attenuation, we will use our Kennedy/Jenks specification guides to develop specification sections that are not included in IRWD's listing.

Task 3.2 – Construction Plans

Kennedy/Jenks will provide construction plans that comply with all of the detailed requirements identified in the RFP under Task 3, paragraph B on page 6.

In addition, we will utilize our standard QA/QC practices for the planning and drafting of the drawing package which includes specific review steps for each discipline and detailed coordination with the technical specifications and preparation of the estimate of probable construction costs.

Our approach to the development and production of construction drawings is enhanced by the level of project participation our designers have in the planning of drawings and their familiarity of our standard presentation and use of details. The drafting for this LF-2 will be lead

by Bill Bujacich, a mechanical designer with over 30 years of experience and over 12 years with Kennedy/Jenks in the design of mechanical piping systems. Bill will be supported by Mark Ronderos who has been with Kennedy/Jenks in our Irvine office for over 23 years. These two individuals therefore understand the importance of, and are committed to, meeting the quality production requirements of Kennedy/Jenks and the standards of our clients. The following is a list of construction drawings anticipated for this project:

Sheet No.	Title
G-1	Title Sheet, Vicinity & Location Maps, Sheet Index
G-2	General Notes, Agency Index and List of Standard Drawings, Abbreviations, Symbols
C-1	LF Well #2 Site Plan and Control
C-2	LF Well #2 Yard Piping Plans and Profiles – Raw Water and Waste Piping
C-3	Site Civil Details – Fencing, Paving
C-4	Pumps Station Site - Chem Feed Piping Plan, Sections and Details
M-1	LF Well #2 Wellhead Equipment Plan and Sections
M-2	LF Well #2 Wellhead Equipment – Details and Sections
M-3	Pump Station Modifications Plan
M-4	Disinfection Chemical Feed Storage, Containment and Piping Details
M-5	Mechanical Details
E-1	Electrical Site Plan, Symbols and Abbreviations
E-2	Single Line Diagrams
E-3	LF Well #2 Power Plan
E-4	Pump Station Disinfection System Power & Lighting Plan
E-5	Control Schematics
E-6	Electrical Details
I-1	Well and Disinfection System P&ID's
I-2	Control Panel Details and Communication Block Diagrams
T-1	Traffic Control Notes, Legend and Symbols
T-2	Traffic Control Plan – LF Well #2 and Osterman Road

Task 3.3 – Permits

Kristin Tirado will be responsible for identifying needs for permits and will begin to evaluate the impacts of these needs during Task 2. During Task 3 Design, she will continue the process in making applications and securing these for inclusion in the Project Manual. We have included a \$5,000 allowance in our proposed fee for procurement of these permits.

Task 3.4 – Utility Research

Research of existing utilities will also commence preliminarily during Task 2 so that the impacts of those utilities will be accounted for in our evaluation of alternatives. Potholing for determining final location will be conducted during this task. Kristin Tirado, in conjunction with her permitting responsibilities will be responsible for leading this task. As per the RFP, we have accounted for potholing to locate five (5) existing utilities. These may be located near the LF-2 site or possibly near Lake Forest Zone 3 #1 Pump Station depending on the results of the Preliminary Design selection of location for the disinfection system.

Task 3.5 – Topographic Mapping

Project control will consist of locating, identifying and verifying project control as specified in the RFP and setting adequate field control for 1st order accuracies for topography within the areas of work. Control points will be set throughout the length of the project in order to accomplish closure. Full topography of the Zone 3 #1 Pump Station and LF-2 sites will be provided and include existing improvements up to 50 feet outside the physical boundaries of the sites and portions of both streets to accommodate traffic control plans. The topographic survey will include 1-foot contours and 10 or 20 scale AutoCAD drawings provided for the design. The survey will be based on the State Plane Coordinate system NAD 83 and elevations on NAVD 88. Closures will be adjusted daily to assure that all published elevations are within the accuracy required.

Our approach at this time does not include aerial photogrammetry for these relatively small sites as the field surveys will be more accurate and economical. If however IRWD requires this, as referred to in the RFP, our approach will be adjusted and a proposal for the cost to include this feature will be submitted for IRWD consideration.

Task 3.6 – Geotechnical Investigation

Our sub-consultant Ninyo & Moore will provide the geotechnical investigation and subsequent Geotechnical Investigation Report (GIR) in support of the engineering design required for this LF-2 project. Their scope of work incorporates the requirements of the RFP and will include:

Field Investigation

- ◆ Review of readily available background materials, including published geologic maps, fault and seismic hazards maps, groundwater data, topographic maps, pertinent in-house information, stereoscopic aerial photographs, and project related reports and/or plans provided by IRWD.
- ◆ Perform a site reconnaissance to locate proposed borings for utility clearance and coordinate with Underground Services Alert for underground utility location.
- ◆ Perform subsurface exploration consisting of drilling, logging, and sampling of three small-diameter borings to evaluate the subsurface conditions at the well head and pump facility locations, and along the proposed pipeline alignments. It is anticipated that two borings will be drilled to a depth of approximately 20 feet and one boring will be drilled to a depth of approximately 10 feet. After drilling the borings will be backfilled with on-site soils and patched with concrete.
- ◆ Perform laboratory testing on selected, representative soil samples. Laboratory tests will include evaluation of in-situ moisture and density, gradation, sand equivalent, Atterberg limits, expansion index, shear strength, and soil corrosivity.

GIR

- ◆ Compile data and analyze the information obtained from their background review, subsurface evaluation, and laboratory testing. The geotechnical analyses and recommendations will include:
 - ◆ Suitability of the well and pump station sites for the proposed construction from a geotechnical perspective.
 - ◆ Description of the geology and soils anticipated during construction, including an evaluation of geologic and seismic hazards that might be present at the site.
 - ◆ Evaluation of the depth to groundwater, based on exploratory borings and readily available groundwater data. The potential for construction dewatering will be addressed.
 - ◆ Evaluation of site seismicity and applicable CBC seismic design coefficients.
 - ◆ Excavation characteristics of the on-site materials, including anticipated difficult excavation and caving potential.
 - ◆ Evaluation of trenching conditions and shoring parameters, including allowable lateral earth pressures and allowable passive pressures.
 - ◆ Fill material and compaction requirements, including structure pad preparation, pipe bedding, pipe zone

material and suitability of on-site soils for trench backfill.

- ◆ Analysis of pipe design criteria including modulus of soil reaction.
- ◆ Evaluation of corrosion potential of on-site soils.
- ◆ Engineering for proposed structures, including foundation design, allowable bearing capacity, and slab-on-grade construction.
- ◆ Preparation of a draft geotechnical report presenting findings, conclusions, and recommendations.
- ◆ Respond to review comments from IRWD and prepare a Final Geotechnical Evaluation Report. One cycle of review and response is included.

Deliverables

- | |
|---|
| 6 copies of draft and 10 copies of final Report |
| 1 electronic PDF copy of Report |

Task 3.7 – Easements

As with Task 3.3 – Permits, we will provide preliminary identification of potential easement requirements during Task 2 to evaluate any impacts those easements might have in the selection of the final alternative. Kristin Tirado, in coordination of the permitting efforts, will be responsible for identifying construction and/or permanent easements and possible rights of entry. Kristin was Project Engineer for the modification of over 100 water delivery turnouts for the Calleguas Municipal Water District, and as part of her responsibilities, coordinated the identification and application for both construction and permanent jurisdictional and private party easements on literally dozens of sites.

Task 3.8 – Surge Analysis and Facilities

Northwest Hydraulic Consultants (NHC) will provide the surge analysis and recommendations for surge suppressing facilities as required on the LF-2 project. Their work will include:

- ◆ Review existing documentation associated with the proposed LF-Well #2 wellhead facilities and existing transmission main (e.g., alignment/plan and elevation drawings, etc.). Extract lengths, diameters, material type, and elevations from pipeline alignment and elevation drawings. Gather additional data (e.g., diameters, discharge coefficients, etc.) from manufacturing literature associated with the well pump, valves, etc. Determine polar moment of inertia of well pump and electric motor and calculate friction factors and acoustic wavespeed for the pipeline. They

will develop four-quadrant pump characteristics for their hydraulic transient analysis computer model using the pump performance curve supplied by Kennedy/Jenks for the selected well pump.

- ◆ Define the critical operating scenarios for the proposed LF-2 and establish hydraulic grade line (HGL) elevations for the existing transmission main under steady state operation and static conditions.
- ◆ NHC will use the above initial HGL elevations to perform pressure surge analysis simulations for the operation of LF-2. Simulations will include well pump power failure and well pump startup for the critical operating scenarios defined in Task 1.2.
- ◆ Evaluate the results (i.e., predicted maximum and minimum pressures) of the simulations and determine whether or not surge control measures are required to protect the pipelines from adverse pressure transients (e.g., over-pressurization, vapor cavity formation, and large magnitude negative pressures) created by the loss of power and startup of the well pump.
- ◆ If surge protection is deemed necessary, NHC will determine surge control alternatives (e.g., volume of pressurized surge tank, diameter of controlled venting vacuum relief valves, diameter of surge/pressure relief valves, etc.) for LF-2 and the existing transmission main. The results of the hydraulic transient analysis with the recommended surge protection improvements in place will also be provided.

Upon completion of the analysis, NHC will provide a detailed engineering report that includes:

- ◆ a description of the pressure surge analysis modeling approach,
- ◆ a description of the physical facilities, including a schematic showing the pressure surge analysis model,
- ◆ component data and assumptions used for the analyses,
- ◆ the results of the pressure surge analysis, including graphical plots of the maximum and minimum HGL envelopes along the pipelines and plots of pressure head at the well and at significant locations on the pipelines, etc.,
- ◆ the recommended surge protection measures, and
- ◆ movies of the most pertinent pressure surge analysis simulations.

Task 3.9 – Electrical/Instrumentation

Kennedy/Jenks' Chief Electrical Engineer, Tony Wakim, has been assigned to this project and will lead our electrical, instrumentation and SCADA activities. As

previously noted, Tony is a key member of the design group coming off of the Glorietta Well Chloramination project and IRWD's Strand Ranch project in December this year. The electrical task will focus on the power and SCADA requirements. We will initially meet with IRWD engineers to gain full understanding of the requirements for integrating the operations and controls of the new well and disinfection systems into IRWD's SCADA system. Kennedy/Jenks recently completed the design for automating the metering of over 100 turnout sites which include incorporation of this automation into an expanded SCADA system for Calleguas Municipal Water District. That system implemented cell phone technology for communicating to the District's backbone from remote PLCs but we have extensive experience working with radio based systems such as the one at IRWD. We will develop a written control scheme for the well and the chemical feed system for disinfection which will be submitted for IRWD review and approval.

We will also meet with Southern California Edison to discuss our approach for selecting a premium efficiency motor for the well and the possible energy savings incentives that might be available from this program.

Task 3.10 – Project Schedule

Kennedy/Jenks will develop our initial project schedule during Task 2 – Technical Memorandum, for use in evaluating different alternative impacts on the project schedule noting a targeted start-up date of November 2011. As design develops to the 60 and 100 percent levels, we will update the schedule to reflect new understanding of the project or information regarding availability of equipment. Our schedule will be developed using Microsoft Project which is our standard for projects of this complexity, size and anticipated duration.

Task 3.11 – Opinion of Probable Construction Costs

As with the Project Schedule, development of our opinion of probable construction costs (OPCC) will begin during Task 2 – Technical Memorandum. The OPCC will be used initially in the comparison of alternatives. As design develops in Task 3, the estimate will be updated and used to help maintain capital budgets. Kennedy/Jenks has a focus group made of engineers and estimators from across the firm that are available for input regarding special systems or conditions. We also maintain contact with specialty contractors and equipment vendors to provide

the reality of market impacts that we may not see on a daily basis. These resources, coupled with an educated use of printed costing resources will be used to prepare and maintain the OPCC throughout the project stages.

Deliverables
60% Submittal - 10 copies (11 x 17) and one CD containing AutoCAD and PDF files for the 60% package. We will include an updated OPCC and an outline of technical specifications.
In the interest of time and given the complexity and size of this project, we would propose to forego the 90% submittal in favor of advancing the 60% submittal to the 100% level.
100% Submittal - 10 copies (11 x 17), one CD containing a full set of drawings in AutoCAD and one CD containing a single PDF file complete with drawings at original scale, specifications, notebook of checked calculations and appendices containing hydraulic surge analysis, geotechnical report and other reference documents in support of the project design.
Final Submittal – Signed and sealed reproducible original 24-inch by 36-inch plans on mylar and the original signed and sealed Project Manual for IRWD signatures. Kennedy/Jenks will attend a meeting with IRWD to present and explain the project and to answer questions regarding the design, construction and operations of the new LF-2 and system disinfection.

Task 3.12 – Bid Services Addenda

During the Bid Phase, Kennedy/Jenks will prepare and agenda in accordance with IRWD policy and conduct the Pre-Bid meeting and site walk to explain the critical features of the project and the project schedule. We will be available to provide information to bidders in response to requests for clarification. For budgeting purposes, our proposal assumes that two (2) addenda will be issued during the bidding period.

Task 4 – Construction Phase Services

Brent Payne, our propose Project Manager will continue throughout the construction phase and participate and conduct construction progress meetings as required. We will however support Brent as required with specialists at these meetings who have designed the specific facilities under construction at that time. As requested by the RFP, Kennedy/Jenks will provide construction engineering services as follows:

Task 4.1 - Project Meetings

Attend and conduct up to five (5) construction progress meetings of two hours each and within three days after provide minutes of those meetings. As noted, we may at times propose to also include a Project Engineer responsible for the design of facilities currently being constructed.

Task 4.2 - Requests For Information

We will respond to up to ten (10) RFIs received from the construction contractor. Kennedy/Jenks places the highest priority in responding to RFIs during construction. This minimizes contractor downtime and disruptions.

Task 4.3 - Minor Plan Revisions

Kennedy/Jenks has budgeted 80 hours for preparing minor plan changes to the construction drawings. As with policy in responding to RFIs, these revisions will be given the highest priority to maintain progress in the field.

Task 4.4 - Site Visits

In addition to attendance to the five (5) progress meetings, we have budgeted five (5) Construction site visits of two (2) hours each to observe ongoing construction and/or answer contractor or IRWD questions. Kennedy/Jenks will follow all IRWD Safety Program requirements while visiting sites in addition to preparing our own Hazard Appraisal and Recognition Plan.

Task 4.5 - Shop Drawing Reviews

We have budgeted time to review and process 15 shop drawing submittal and/or re-submittals. Review of Shop Drawings is often the last chance for the engineer to participate in the quality control of a project and as such, this task is always overseen or performed by the design engineer responsible for the specific aspect being reviewed.

Task 4.6 - Record Drawings

Based on contractor and IRWD Inspector redlined 24-inch by 36-inch drawings, Kennedy/Jenks will prepare full size mylar Record Drawings. When completed and reviewed with IRWD, we will prepare a package that contains:

- ◆ Signed, full size, re-issued drawings (if applicable)
- ◆ Final full size Record Drawings, and
- ◆ Single, color, PDF electronic file of the entire signed plan set.

Kennedy/Jenks Consultants

Engineers & Scientists

2355 Main Street
Suite 140
Irvine, California 92614
949-261-1577
FAX 949-261-2134

24 November 2010

Patricia L. Uematsu, P.E.
Principal Engineer – Capital Projects
Engineering Department
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92619-7000

Subject: Budget Proposal
Engineering Design Services
Lake Forest Well #2 Wellhead Facilities and Pipelines

Dear Ms. Uematsu:

Kennedy/Jenks Consultants is pleased to have this opportunity to submit the enclosed Schedule of Charges (Fee Schedule) and Proposal Fee Estimate to provide engineering services on the Lake Forest #2 Well project. The fees are broken down by task and job classification indicating the individuals to be providing these services by their initials in their respective classification. In some cases there are more than one individual with that specific classification that might be working on a specific task.

The effort assumes that for final design, the selected project will be to locate a chloramination system inside the existing Lake Forest Zone 3 #1 Pump Station. This alternative limits geotechnical, surveying and traffic control to a single site focus and we have included those costs appropriately.

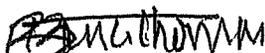
We look forward to meeting with the Irvine Ranch Water District to discuss this proposal and getting started on this very fast paced project as soon as possible. Thanks again and if you have any questions, please contact Brent Payne at (949) 261-1577.

Very truly yours,

KENNEDY/JENKS CONSULTANTS



Brent Payne, P.E.
Project Manager



R. Bruce Thomas, P.E.
Engineering Manager

Enclosure(s)

Client/Address: Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92619-7000

Contract/Proposal Date: 29 November 2010 Revision

Schedule of Charges

January 1, 2010

Personnel Compensation

Classification	Hourly Rate
CAD-Technician	\$100
Designer-Senior Technician	\$130
Engineer-Scientist-Specialist 2	\$125
Engineer-Scientist-Specialist 3	\$140
Engineer-Scientist-Specialist 4	\$155
Engineer-Scientist-Specialist 5	\$170
Engineer-Scientist-Specialist 6	\$190
Engineer-Scientist-Specialist 7	\$215
Engineer-Scientist-Specialist 8	\$225
Engineer-Scientist-Specialist 9	\$230
Project Administrator	\$90
Administrative Assistant.....	\$75
Aide.....	\$60

In addition to the above Hourly Rates, a three percent Communications Surcharge will be added to Personnel Compensation for normal and incidental copies, communications and postage.

Direct Expenses

Reimbursement for direct expenses, as listed below, incurred in connection with the work, will be at cost, plus ~~ten percent~~ ^{25%} for items such as:

- Maps, photographs, reproductions, printing, equipment rental, and special supplies related to the work.
- Consultants, soils engineers, surveyors, contractors, and other outside services.
- Rented vehicles, local public transportation and taxis, travel and subsistence.
- Specific telecommunications and delivery charges.
- Special fees, insurance, permits, and licenses applicable to the work.
- Outside computer processing, computation, and proprietary programs purchased for the work.

Reimbursement for vehicles used in connection with the work will be at the federally approved mileage rates or at a negotiated monthly rate.

Reimbursement for use of computerized drafting systems (CAD), geographical information systems (GIS), and other specialized software and hardware will be at the rate of \$12 per hour.

Rates for professional staff for legal proceedings or as expert witnesses will be at rates one and one-half times the Hourly Rates specified above.

Other in-house charges for prints and reproductions, equipment usage, laboratory analyses, etc. will be at standard company rates.

Excise and gross receipts taxes, if any, will be added as a direct expense.

The foregoing Schedule of Charges is incorporated into the agreement for the services provided, effective January 1, 2010 through December 31, 2010. After December 31, 2010, invoices will reflect the Schedule of Charges currently in effect.

IRVINE RANCH WATER DISTRICT

EXHIBIT "D"

Expenditure Authorization

Project Name: LAKE FOREST WELL #2 REPLACEMENT DRILLING/WELLHEAD.

Project No: 11461 EA No: 2

ID Split: Miscellaneous

Improvement District (ID) Allocations

Project Manager: UEMATSU, PATRICIA

Project Engineer: SPANGENBERG, CARL

Request Date: November 29, 2010

ID No.	Allocation %	Source of Funds
135	100.0	REPLACEMENT FUND**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$1,396,700
This Request:	\$309,800
Total EA Requests:	\$1,706,500
Previously Approved Budget:	\$2,394,200
Budget Adjustment Requested this EA:	\$0
Updated Budget:	\$2,394,200
Budget Remaining After This EA	\$687,700

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING IRWD	0	5,000	5,000	0	5,000	5,000	7/10	11/10
ENGINEERING - PLANNING OUTSIDE	0	0	0	0	0	0	11/10	11/11
ENGINEERING DESIGN - IRWD	0	20,000	20,000	0	20,000	20,000	7/10	11/10
ENGINEERING DESIGN - OUTSIDE	255,000	70,000	325,000	330,000	70,000	400,000	7/10	11/10
ENGINEERING - CA&I IRWD	0	65,000	65,000	0	65,000	65,000	12/10	10/11
ENGINEERING - CA&I OUTSIDE	45,000	130,000	175,000	45,000	130,000	175,000	12/10	10/11
CONSTRUCTION FIELD SUPPORT	0	10,000	10,000	0	10,000	10,000	7/10	11/11
CONSTRUCTION	0	920,000	920,000	(370,000)	1,870,000	1,500,000	12/10	10/11
LEGAL	0	5,000	5,000	0	5,000	5,000	12/10	10/11
LAND	(5,000)	15,000	10,000	(5,000)	15,000	10,000	7/10	10/11
WATER QUALITY	0	50,000	50,000	0	50,000	50,000	12/10	10/11
ENGINEERING ENVIRONMENTAL-OUTS	0	40,000	40,000	0	40,000	40,000	9/09	10/11
Contingency - 5.00% Subtotal	\$14,800	\$66,700	\$81,500	\$0	\$114,200	\$114,200		
Subtotal (Direct Costs)	\$309,800	\$1,396,700	\$1,706,500	\$0	\$2,394,200	\$2,394,200		
Estimated G/A - 195.00% of direct labor*	\$0	\$292,600	\$292,600	\$0	\$292,600	\$292,600		
Total	\$309,800	\$1,689,300	\$1,999,100	\$0	\$2,686,800	\$2,686,800		
Direct Labor	\$0	\$150,000	\$150,000	\$0	\$150,000	\$150,000		

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator: _____ 11/29/10

Department Director: Kevin J. Bunker 11/29/10

Finance: _____

Board/General Manager: _____

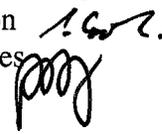
** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$2,741,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

December 13, 2010

Prepared by: C. Spangenberg/S. Malloy

Submitted by: K. Burton

Approved by: Paul Jones



ACTION CALENDAR

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY LETTER OF INTENT TO PARTICIPATE IN THE MWRP BIOSOLIDS FACILITIES PROJECT

SUMMARY:

The South Orange County Wastewater Authority (SOCWA) desires to participate in the Michelson Water Recycling Plant (MWRP) Biosolids Facilities which are currently being designed. Under the proposed arrangement, SOCWA would transport the equivalent of 25 wet tons per day of digested and dewatered sludge to MWRP for drying to produce a pelletize product suitable for reuse. Staff recommends that the Board approve the attached Letter of Intent for SOCWA to participate in IRWD's MWRP Biosolids Project.

BACKGROUND:

The MWRP Biosolids and Energy Recovery Facilities project includes the following key components:

- Sludge thickening;
- Acid phase anaerobic digestion;
- Electrical energy generation (fuel cell powered by biogas);
- Sludge dewatering;
- Sludge drying and pelletizing;
- Sludge dryer off-gas treatment; and
- Pellet load-out facilities.

SOCWA Participation in IRWD's Biosolids Facilities:

The MWRP Biosolids Facilities' dryer system is being design to process 163 wet tons per day of digested and dewatered sludge from the MWRP. SOCWA is proposing to truck digested and dewatered sludge from either SOCWA's Regional Plant or the Latham Wastewater Treatment Plant to MWRP for drying and load-out of pellets for reuse. The proposed dryer, dryer building, off gas treatment, and pellet load-out facilities currently being designed at the MWRP would need to be upsized to accept the SOCWA sludge. Also, a new solids receiving and dedicated odor control facilities, which are not currently included in the design, would be needed to accept off-loading of sludge trucks at MWRP.

SOCWA's proposal to truck sludge to MWRP represents a 17% increase in the amount of water that needs to be evaporated in the sludge dryer. One sludge truck from SOCWA can carries approximately 25 wet tons of sludge and because the MWRP dryer will only operate five days per week, SOCWA would send one or two sludge trucks per day, five days per week, to the MWRP. SOCWA digests and dewateres it biosolids at its existing treatment facilities, so SOCWA would not participate in the thickening, digestion, fuel cell, or dewatering components of the MWRP project.

Letter of Intent for SOCWA's Participation:

A Letter of Intent (LOI) from SOCWA is attached as Exhibit "A". The LOI serves as a basis to develop an agreement between SOCWA and IRWD. The agreement will address design capacities of facilities at MWRP and at SOCWA treatment plants, funding options, and timing requirements so that IRWD can meet the commitment to stop sending biosolids to the Orange County Sanitation District by 2015. The LOI also identifies a right of first refusal for SOCWA to take a portion of the project's pelletize biosolids product for use by SOCWA.

FISCAL IMPACTS:

A memo authorized by SOCWA and prepared by Black & Veatch analyzing the incremental capital and O&M costs of up-sizing the MWRP Biosolids Facilities to receive SOCWA's digested and dewatered sludge is attached as Exhibit "B". Based upon this memo and information presented by SOCWA staff at their November 30, 2010 Board meeting, the total unit cost (capital cost plus operation and maintenance costs) for SOCWA to transport its biosolids to the MWRP is approximately \$119 per wet ton, assuming that IRWD shares 50% of the cost of the biosolids truck receiving facilities. If IRWD does not participate in these costs, then SOCWA's cost would be \$136 per wet ton. For comparison purposes, if SOCWA were to construct their own sludge drying system at their Regional Treatment Plant, their estimated cost of sludge handling is approximately \$129 per wet ton.

Project 20847 is included in the FY 2010-11 Capital Budget; no Expenditure Authorization is requested at this time.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, an Environmental Impact Report is being prepared.

COMMITTEE STATUS:

This item was not reviewed by the Engineering and Operations Committee due to the timing of SOCWA's proposal and the accelerated schedule of the MWRP Biosolids Project.

RECOMMENDATION:

THAT THE BOARD APPROVE THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY'S LETTER OF INTENT TO PARTICIPATE IN THE MWRP BIOSOLIDS PROJECT SUBJECT TO NON-SUBSTANTIVE CHANGES.

LIST OF EXHIBITS:

Exhibit "A" – South Orange County Wastewater Authority Letter of Intent
Exhibit "B" – Black & Veatch Memo



South Orange County Wastewater Authority

December 8, 2010

Board of Directors
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92619

Re: Letter of Intent to Participate in Biosolids Project

Dear Board Members:

The South Orange County Wastewater Authority ("SOCWA") is submitting this Letter of Intent ("LOI") to participate in the Irvine Ranch Water District ("IRWD") project to dry and pelletize biosolids produced at IRWD's Michelson Water Recycling Plant (the "Project"). SOCWA is interested in acquiring capacity in the Project as a primary disposal option for SOCWA's biosolids. SOCWA understands that in the current timing of IRWD's ongoing design activities for the Project, IRWD requires the below commitments of SOCWA to support IRWD's inclusion of additional capacity in the Project for SOCWA's biosolids disposal needs, in advance of the development of a long-term participation agreement ("Agreement"). The LOI will serve as an agreement of SOCWA and IRWD to undertake the preliminary efforts described herein. The LOI is not a binding Agreement of IRWD and SOCWA for long-term Project participation, and SOCWA and IRWD will negotiate in good faith to develop an Agreement that will include the basic elements set forth in this LOI.

- 1. Design Effort and Cost:* IRWD will incorporate additional capacity and facilities in the design of the Project to accommodate SOCWA's biosolids. The amount of SOCWA's capacity is currently estimated at 25 wet tons per day. IRWD's design will include the development of cost estimates for the construction, operations and maintenance of SOCWA's capacity amount.
- 2. Funding:* SOCWA will contribute its incremental portion of the design and construction cost on a periodic basis as invoiced by IRWD. SOCWA's incremental portion of the cost will be equal to the difference between the cost of the Project to provide the biosolids disposal capacity currently estimated at 163 wet tons per day for IRWD's needs, only, and the cost of the Project with the SOCWA capacity amount specified in 1., above. Such costs will also include all additional costs for California Environmental Quality Act (CEQA) compliance and permitting as a result of including SOCWA's participation in the Project.
- 3. SOCWA Facilities:* SOCWA will independently design and construct facilities at its own treatment plant sites to condition its biosolids in a

manner that ensures compatibility with the operation of the Project by IRWD, as may be necessary.

4. Agreement:

SOCWA and IRWD will negotiate in good faith and exercise best efforts to develop an Agreement and to enter into the Agreement within ninety (90) calendar days of the execution of this LOI. SOCWA will have the opportunity to terminate its' participation in the Project no later than after construction cost estimates by IRWD's design engineer are finalized but before IRWD begins the solicitation of construction bids for the Project. IRWD currently estimates that it will commence such solicitation process in November 2011. If SOCWA elects to terminate its' participation in the Project, SOCWA will so notify IRWD in writing and IRWD and SOCWA will in good faith quantify IRWD's expenses incurred to accommodate SOCWA's participation up to the time of such discontinuation, based on section 2 *Funding*, above, and to delete such participation. SOCWA acknowledges that such expenses to delete SOCWA's participation would include re-design fees and any incremental costs incurred by IRWD from the Orange County Sanitation District as a result of Project delays directly resulting from SOCWA's termination, and other costs as identified in the Agreement. Prior to SOCWA's approval of the Project Agreement, IRWD will make best efforts to calculate and provide SOCWA an estimate and schedule of incremental costs that IRWD would incur from the Orange County Sanitation District as a result of Project implementation delays. SOCWA agrees to reimburse and pay IRWD for all such expenses associated with the deletion of its participation in the Project with the understanding that IRWD shall be responsible for costs that it may incur from the Orange County Sanitation District for Project delays not caused by SOCWA's termination.

- 5. Capital/O&M Participation:* IRWD will investigate and seek to develop mutually acceptable terms for the capacity ownership of SOCWA in the Project and financial participation of SOCWA in Project capital costs, including methods for capital cost financing or repayment and Project operating costs, including a variable monthly fee per wet ton. The investigation of these terms will be part of the development of the Agreement.

6. Right of First Refusal: The Agreement will include a right of first refusal retained by SOCWA to take the portion of the Project's pelletized biosolids product proportionately attributable to SOCWA's biosolids delivered to the Project for processing, with a corresponding off-set against SOCWA's operating cost share.

7. Termination: If IRWD terminates the Project, or SOCWA's participation in the Project, for infeasibility or other reason, SOCWA shall be reimbursed for design, legal and CEQA documentation preparation and other expenses related to its participation in the Project, including expenses incurred for the SOCWA facilities described in section 3 above, if any.

If the foregoing is acceptable, please execute below.

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

Thomas R. Rosales
General Manager

Accepted and Agreed:

IRVINE RANCH WATER DISTRICT

SOUTH ORANGE COUNTY
WASTEWATER AUTHORITY

By: _____
President

By: _____
Chairman

By: _____
Secretary

By: _____
Secretary

Date: _____

Date: _____

Exhibit "B"



South Orange County Wastewater Authority
Solids Receiving and Incremental Dryer Capacity Storage

B&V Project 169712
November 18, 2010

To: Mr. Brian Peck, Director of Engineering
From: Bruce Chow
Prepared by: Valerie Ratto
Reviewed by: Dan Buhmaster
Subject: Conceptual Design of Sludge Cake Receiving Facility

In accordance with the Scope of Work, a concept was developed for a facility at IRWD's Michelson Water Recycling Plant to receive sludge cake by truck delivery. This conceptual design was based upon receiving centrifuge-dewatered anaerobically digested sludge (cake solids) from the Regional Treatment Plant and the Latham Treatment Plant. The SOCWA cake solids would have a solids content ranging from 23% - 27% solids, averaging 24%. This preliminary design was based upon production of 25 wet tons per day (7 day basis) at the SOCWA facilities, but delivered to IRWD five days per week (35 tons per day on 5 day basis) to correspond with the dryer's operation.

TRUCK TYPE

Initial consideration was given to the type of truck that would be recommended for delivery of the cake solids. Side dump, tilting end-dump, and live bottom trucks were all evaluated. The side dump truck was not a feasible option because it required more area than was available (twice the width of the truck) and because the local hauler does not have this type of truck in his fleet. Therefore, it was not further evaluated. The tilting end-dump truck is a feasible option; however, this type of truck requires a large structure for odor control and containment while unloading its contents. The live bottom truck is also a feasible option. It would require a smaller structure, and the smaller truck loading containment volume would minimize the additional odor control required. However, in a conference call with SOCWA, it was determined that the tilting end-dump truck should be the subject of this evaluation because this type of truck is more readily available to SOCWA. The preliminary conceptual design drawings for the tilting end-dump truck have been included herein in the figures referenced in the discussion below.

SOLIDS RECEIVING FACILITY STRUCTURE

The location of the Solids Receiving Facility was evaluated on the existing site plan (Figure 1). The Solids Receiving Facility needs to be kept as close to the heat dryers and wet material bins as possible due to the high pump pressures associated with pumping cake solids. This criterion had to be balanced by the other considerations such as building access. Due to the limited space on the existing site, it is recommended to locate the hopper and the cake pumping equipment below grade. The below grade hopper would have a cover to allow trucks to drive over the top of the hopper in order to maintain truck access. The anticipated direction of truck traffic through the site used in this evaluation was counter-clockwise through the site. If that direction is reversed, additional layout options may be needed; however, IRWD had indicated that the direction of circulation is not a major issue to them.

The available locations for this receiving facility are limited. The evaluation criteria for the location were such that it did not block existing access to the building and that it was otherwise as close to the heat dryers and wet material storage bin as possible. A location on the east side of the north building face was considered (near the planned electrical transformer) but not selected because that area is intended for lobby level access to the building. A truck loading facility there would obstruct that function. Also, this location would require that the delivery trucks back-up at least a full truck length along the side of the building to unload into the bin. The recommended location for the Solids Receiving Facility is just west of the Cake/Pellet Load-Out Area as shown in Figure 2. This position places the cake receiving bin as close as possible to the heat dryer,



minimizing pumping distance without impacting IRWD cake pumping distance to the Cake/Pellet Load-Out Area and without obstructing planned building entrances. The existing structure can be extended to house the truck to the West, providing the required odor containment. Rollup doors on both ends of the Solids Receiving Facility would contain the delivery truck and any associated odors while unloading. The roofline of this structure would need to be high to accommodate a tipping truck and would be approximately 48 feet tall to match that of the Cake/Pellet Load-Out Area (Figure 3). If live bottom trucks are used, this same space can be provided, but with a lower roof elevation. The Solids Receiving Facility is recommended to be tied into the structure for the IRWD Cake/Pellet Load-Out Area to reduce costs. Locating the entire structure for the tilting end-dump truck to the east of the Cake/Pellet Load-Out Area is not recommended because its length would push the IRWD Cake/Pellet Load-Out Area too far to the west which would increase IRWD's cake pumping distance by 50 to 70 feet which would significantly increase cake pump operating and maintenance costs.

The below grade hopper would have a cover to allow trucks to drive over the top of the hopper to maintain access (Figures 4, 5, 6). An H-20 rated fabricated access hatch was evaluated as a cover for the hopper. The hatch would provide a completely closed cover when the hopper is not being filled, and would optimize odor containment. An open grate was considered, as there would be nothing to open to unload. However, the openings in the grating would have to be large (at least 12" square) to prevent bridging of material over the grate. This size opening can lead to safety hazards and would be difficult for a truck to drive over since the wheel diameters are approximately 42 inches.

The geometry of the recommended hopper was also evaluated. It is recommended that a hopper with a sliding frame bottom be utilized. The sliding frame allows for vertical side wall construction of the hopper resulting in increased storage capacity and reduced overall height when compared to traditional live bottoms and gravity feed bins with conical discharge cones. The sliding frame would move the cake into a feed screw which in turns feeds a cake pump. Consideration was also given to both a circular hopper and a rectangular hopper. A rectangular bin is recommended as it would provide more storage space than a circular silo for a similar sized foot print. Load cells would be placed under the bin supports to measure the weight of the delivery and provide a check on level indication of the material in the bin. The hopper was sized to hold one and a half days of cake solids, at the five-days per week delivery rate or two full truckloads. It was not intended that the hopper would receive shipments on days the dryer is not-operating; however, it may be feasible for the facility to accept and store deliveries while the dryers are off if the bin is empty when the dryers go offline.

The attached conceptual design drawings show a minimum of 3 ft clearance around all equipment, and 5 ft clearance below the hopper for maintenance. If additional clearance is required, this can be accomplished. Also, since the cake pump would be below grade, it is recommended that an H-20 rated fabricated hatch be provided over the pump for removal for maintenance. An equipment lifting davit should also be provided for pump removal. It is recommended that davit be located such that it can drop the pump in front of the roll-up door for easy removal. Stairs would be provided to access the lower level. Possible locations for stairs are shown in Figure 7.

Both a cake pump and a screw conveyer were evaluated to transport the sludge from the Solids Receiving Facility to the heat dryer's mixer or the cake storage bin. The screw conveyer is not a viable option due to the maximum slope limitations on the conveyance lines. Cake pumps provide more direct routing to the mixer, however, they would need to operate at high pressure due to the distance from the Solids Receiving Facility to the mixer. The cake piping would be routed similar to the existing piping. It is anticipated that the cake from SOCWA would be pumped directly to the heat dryer's mixer to mix with IRWD cake solids. The parameters for mixing the two sources remain under evaluation; however, it is anticipated that the cake solids from SOCWA would be fed at a constant rate for up to five days a week while the dryers are in operation. The current parameters for dryer operation are five days on, two days off for preventative maintenance. The two days off will not necessarily be the weekend days because the maintenance activities would require additional staff. In addition, power usage costs may be less expensive on the weekends, so the dryers will likely run when power costs are low. The SOCWA cake solids would be blended with the IRWD solids to provide a

consistent mix. The cake pumps would also have the capability to pump to the wet bins (cake storage) underneath the dewatering centrifuges, further upstream of the heat dryer.

In reviewing the design, consideration was given to providing a duty/standby system for the hopper screw conveyor and cake pump. (Note that this screw conveyor is integral with the sliding frame system and is only used to feed the cake pump.) It is recommended that redundancy not be provided for this system. Routine maintenance would occur during dryer non-operation. If the system needs to be taken offline during dryer operation, the solids from SOCWA can be sent to off-site disposal for brief periods as is the current practice. However, it is recommended that spare parts be kept on hand to expedite maintenance activities, and reduce the amount of time the system is off-line.

ODOR CONTROL

This conceptual design includes a completely enclosed structure to provide odor control (Figure 5). The Solids Receiving Facility would be designed to have 12 air changes per hour, which equates to approximately 24,000 cfm. To accommodate this flow, the odor control system would need to be expanded by adding a third package scrubber and expanding the site eastward slightly. (IRWD has given some leeway to expand the site in that direction, if needed.) A benefit to using a completely separate package scrubber is that the system will be able to run only when needed, which is at all times that SOCWA cake solids are delivered and until the unloading area is clear of odors. If a package scrubber is provided, the air space below grade would need to be tied into IRWD's odor control, as this space would need to be scrubbed continuously. This would be a 2500 cfm increase to that system; however, there appears to be excess capacity to absorb this additional odor control demand.

IMPACT ON HEAT DRYER CAPACITY

The IRWD heat drying system capacity is based on the amount of water that it can evaporate. Both the Andritz and Siemens triple pass dryer systems use size increments of 1,000 kg/hr of evaporative capacity. In addition, IRWD plans to size its dryer for a 5-day per week operation. Therefore, a SOCWA solids delivery of 25 tons per day on a 7 day per week basis translates to 35 tons per day on a 5-day equivalent operating basis. At 24% solids, that translates to 990 kg/hr water evaporated. This amount is nearly equal to the size interval of either of the two heat drying systems. For example, if IRWD is planning for a 4,000 kg/hr heat drying system, the addition of SOCWA solids would require the heat dryer to be increased to the next larger sized system which is a 5,000 kg/hr system. The increment includes increasing the size of all heat dryer components (furnace, drum, elevators, mixer, conveyors between them etc.) and the regenerative thermal oxidizer (RTO). There would be some increase in natural gas supply and condenser water supply pipelines, but the existing cost information was not sufficiently detailed to identify those individual costs, so they are considered as part of the cost contingency. To effectively utilize this size increase, the cake solids from SOCWA would be feed at a continuous rate to the heat dryers while the dryers are in operation. In addition, the SOCWA cake solids will be blended with other sources to ensure a constant feed to the dryers.

Table 1. Equipment

Description	Criteria	Units
Cake Bin with sliding frame live bottom		
Delivery (Average)	35	Wet tons / day (5 days per week)
Delivery (Maximum)	50	Wet tons (two truckloads in a day)
Theoretical Storage Capacity	130	Cu. Yd.
Effective Storage Capacity	84	Cu. Yd. (1.5 day)
Material of Construction:	A36	Carbon Steel
Length	21	Ft.
Width	14	Ft.
Height	12	Ft.
Number of Hydraulic Cylinders	3	Ea.
Method of Measurement	Load Cell	Each Leg
Extraction (Hopper) Conveyor		
Horsepower	15	HP
Length	26	Ft.
Cake Pump		
Capacity	100	Cu. Ft. / Hour
Discharge Head	330	PSI
Odor Control		
Air Changes/Hour	12	
Room Volume	120,000	Cu. Ft.
Capacity	24,000	Cu. Ft. / Min
Scrubber Dimensions	30 x 9 x 17.75	Ft. x Ft. x Ft
Duct Size (W x H)	3.5 x 4	Ft. x Ft.
Heat Dryer		
Loading	35	Wet tons / day
Solids Content	24	percent
Water Evaporated	990	kg/hr (5 days/week)

COST ANALYSIS

The opinion of cost presented in Table 2, includes costs for both construction and operation and maintenance. The opinion of construction cost has two components, the construction of the Solids Receiving Facility, and modifications or additions to the facilities already in design. The facilities already in design include the incremental size increase for the heat dryer, the size increase for the odor control, and the incremental size increase for the Biosolids Building. IRWD has indicated that they are interested in sharing the use of the Solids Receiving Facility. Therefore, the construction costs associated with the facility itself and the odor control reflect a 50 percent share only, not the full construction cost. However, because the increased capacity of the dryer is solely due to the solids from SOCWA, 100 percent of the incremental cost of the dryer equipment (furnace, drum, elevators, conveyors, etc. and incremental increase in Biosolids building size) are included. The total opinion of construction cost is annualized using $i=4\%$ as the discount rate (provided by SOCWA), and assuming a 20 year depreciation.

The cost also includes an opinion of annual operations and maintenance costs. The energy rates are the same rates used in IRWD studies which are \$0.09 per kilowatt-hour and \$4.57 per MMBTU for natural gas. Energy usage includes pumping equipment for pumping the sludge to the dryer, and the additional energy required to dry the sludge, and to provide odor control. Additional labor to operate the Solids Receiving Facility is also considered. The incremental labor increase is based on an experienced operator's at salary with a 2.95 multiplier (to include benefits). Labor is based on IRWD providing an operator for two hours (per truckload at the Solids Receiving Facility, 500 truckloads per year, with approximately 18.5 tons (30 cubic



yards) per truckload. Additional labor costs are not included for operating the heat dryers because this system is planned to be manned at all times when in operation regardless of the heat dryer capacity. Therefore, increasing the dryer capacity would not affect the labor required. Maintenance cost is considered only for the Solids Receiving Facility for analogous reasons.

Table 2. Opinion of Cost

Construction	
Receiving Facility	\$2,057,987
Incremental Dryer Costs	\$700,000
Building Size Increase	\$673,400
Overhead & Profit	\$548,937
Total	\$3,980,324
A/P, 20 years, 4%	0.07358
Annualized	\$292,872
O&M	
Energy	\$248,140
Labor	\$50,560
Maintenance**	\$45,276
Total Annual O&M	\$349,260
Subtotal Annual Cost	\$642,132
Contingency, 30%	\$192,640
Grand Total Annual Cost	\$834,772
Unit Cost	
Annual Sludge Delivery, tons	9,250 tons
Cost per ton	\$90 per Ton*
* Cost without IRWD sharing costs of the Receiving Facility = \$117/ton	
** 2% of Receiving Facility cost, including overhead & profit	

STRAINPRESS

IRWD has determined that it will be passing its sludge through strainpresses (typically 5mm perforation), prior to dewatering, in order to remove rag and other debris which hinder the formation of pellets in the dryer. Therefore, they have indicated that they would require SOCWA to do the same as one of the conditions for receiving the dewatered cake. Since strainpresses would likely be located on SOCWA plant sites, the costs are not included in the above cost analysis. However, an approximate cost for the addition of a strainpress is included below. The Latham plant currently operates two centrifuges at a time totaling approximately 250 gpm, and two centrifuges at the Regional plant totaling approximately 260 gpm, therefore, this cost assumes that only one 300 gpm strainpress would be required at each site. As with the cake pumps, redundancy would not be provided. The cost also assumes that the strainpress would be located on simple pedestals at the same elevation as the centrifuge and that additional pumping equipment will not be required.

Table 3. Approximate Opinion of Cost of Strainpress

Construction	
Strain Press	\$392,000
Overhead & Profit	\$39,200
Total	\$431,200
A/P, 20 years, 4%	0.07358
Annualized	\$31,728
O&M	
Total Annual O&M	\$4,000
Subtotal Annual Cost	\$35,728
Contingency, 30%	\$10,718
Total Annual Cost (Single Plant)	\$46,446
Total Annual Cost (Two Plants, One Press per Plant)	\$92,892
Unit Cost	
Annual Sludge Delivery, tons	9,250 tons
Cost per ton (Two Plants)	\$10 per Ton

ADDITIONAL CONSIDERATIONS

There are additional considerations that are not included in the discussions above, but that are important to identify. These are explained below:

- IRWD is currently evaluating the need for phosphorous removal which could reduce struvite formation. However it is too early in the design phase to determine if this will be implemented.
- IRWD prefers to have a receiving facility designed for the live-bottom trucks, which will reduce the construction cost of the facility. Therefore, it is recommended that SOCWA conduct some field tests to confirm that they can successfully unload the dewatered cake produced by SOCWA. (There are some concerns about possible bridging which would hinder the unloading process.)
- Trucking costs are not included.
- The costs presented in this technical memorandum are based on opinions of construction and operation and maintenance costs. They do not reflect any other considerations that may enter into the negotiation process.
- There may be limitations on solids content in the delivered dewatered sludge. This may take the form of a minimum solids content and a maximum solids content. The minimum solids content controls the amount of water that needs to be evaporated, hence controls the dryer energy use. The maximum solids content may be set to optimize the ability to form pellets in the heat dryer. If the sludge cake is too dry, the pellets do not form properly or too much dust is formed in the process. Typically, this occurs above approximately 26 percent solids.
- This technical memorandum assumes that dewatered sludge cake is made from anaerobic digester sludge. IRWD may decide to bar or restrict deliveries of cake made from other types of sludge (for





example lagoon sludge). Sludge from other types of processes may have different abilities to form pellets, or may not be conducive to forming pellets at all.



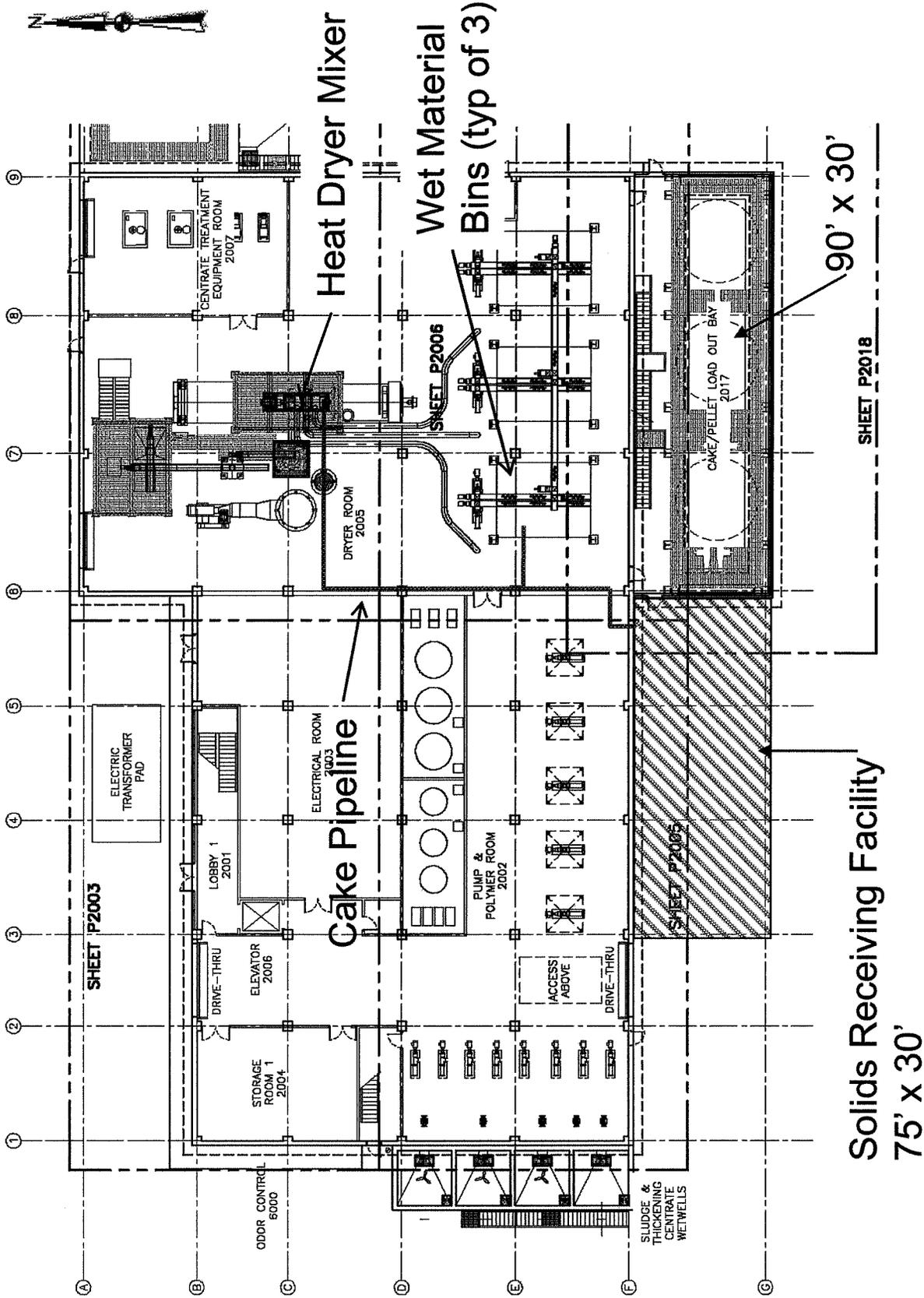


Figure 2: Solids Receiving Facility Relative to the Planned IRWD Biosolids Building

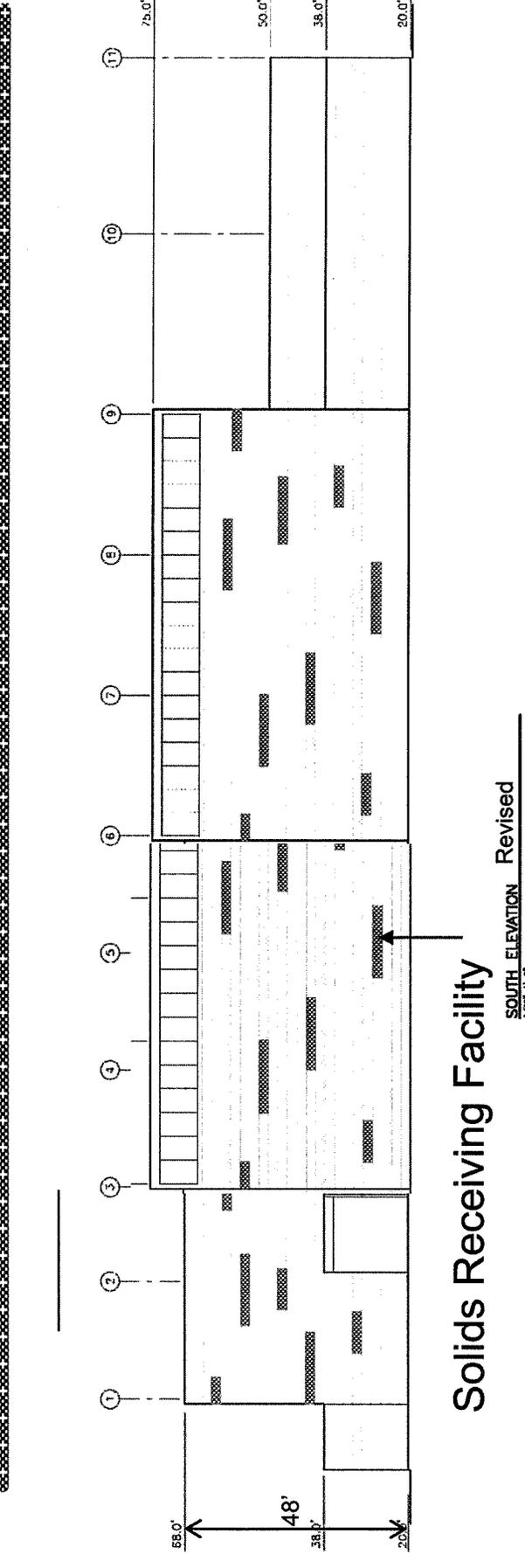
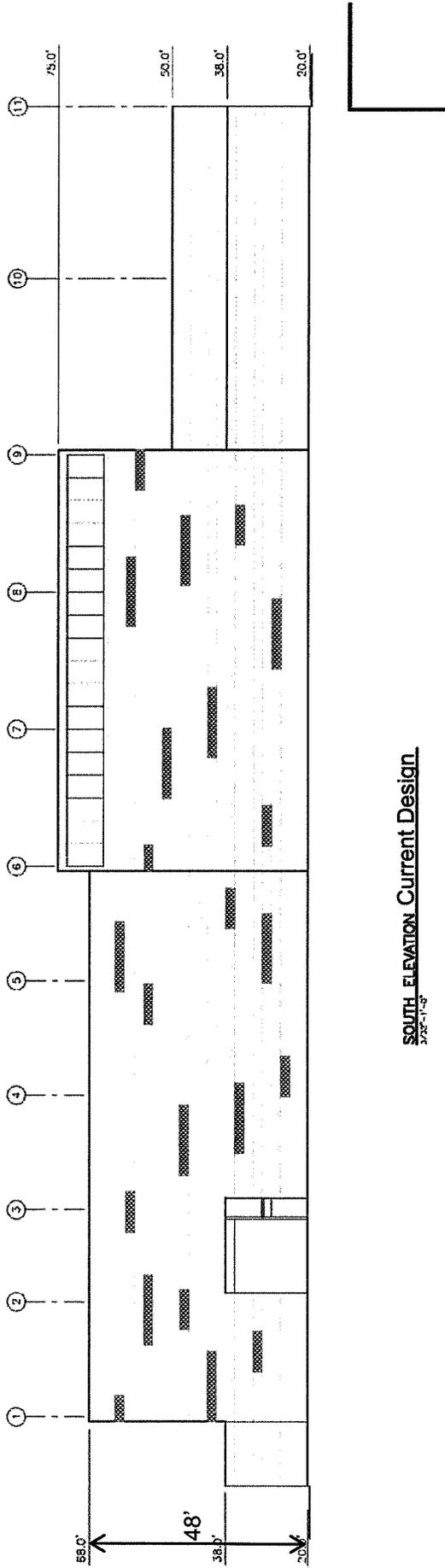
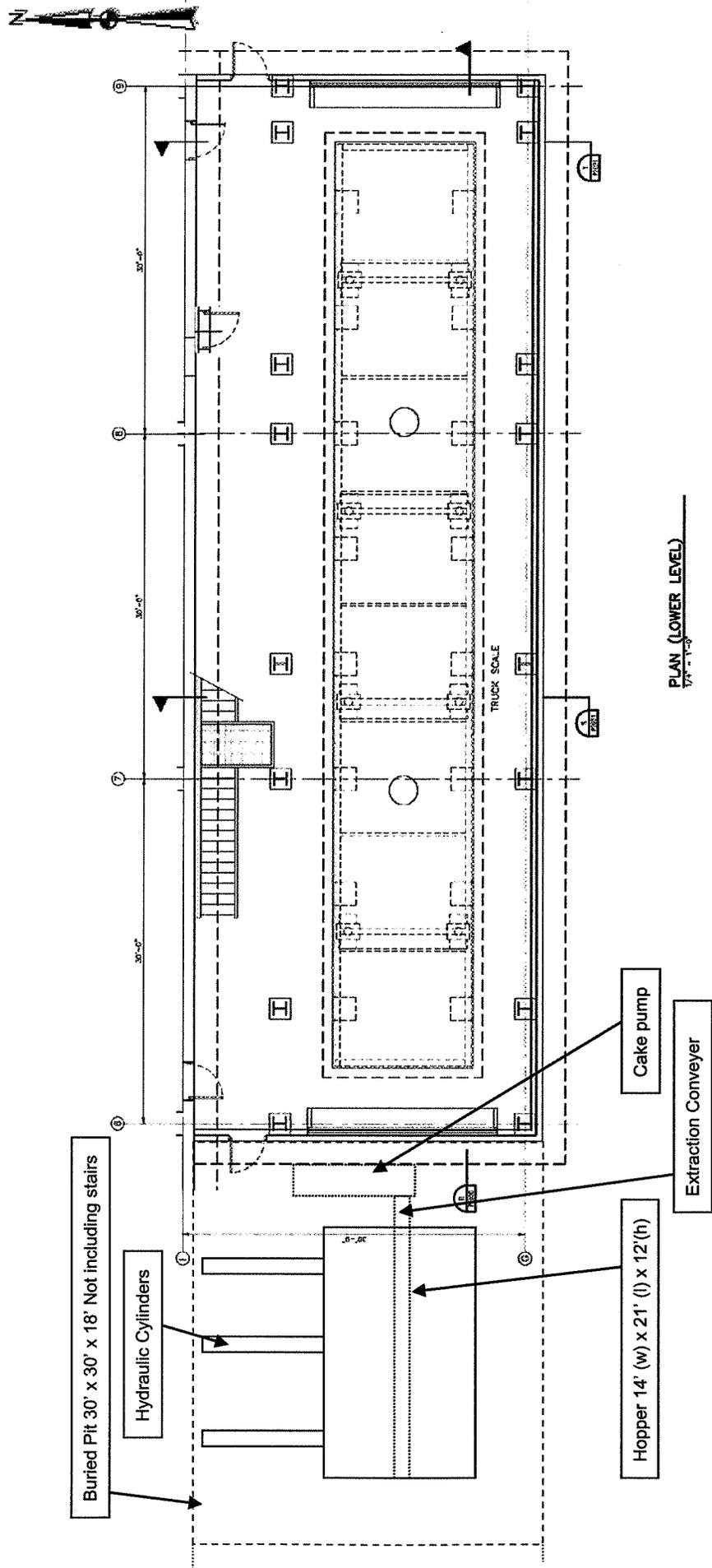
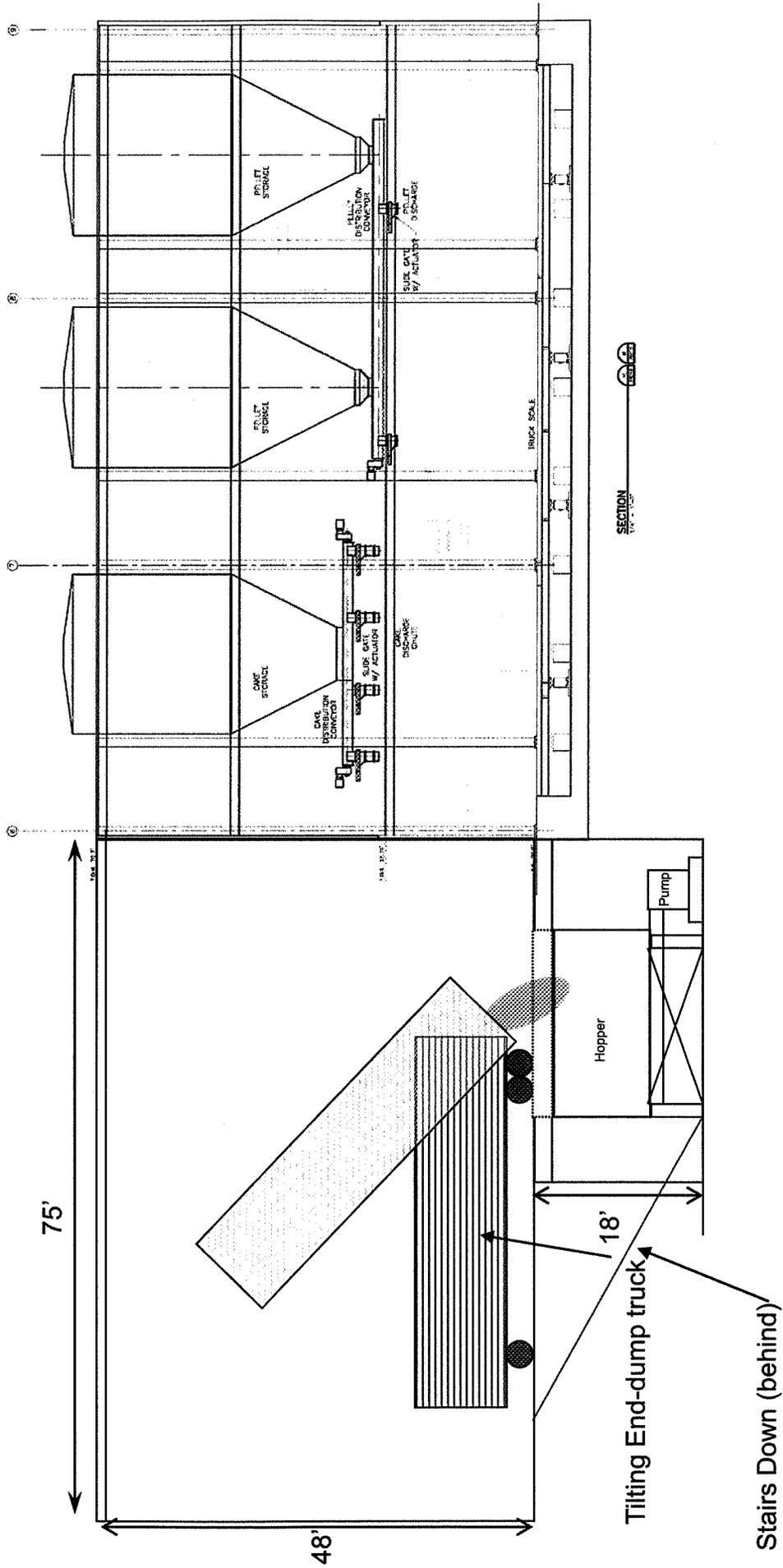


Figure 3: Elevation and Location of the Solids Receiving Facility Relative to the IRWD Load-Out Facility



B-11

Figure 4: Solids Receiving Facility - Below Grade



B-12

Figure 5: Solids Receiving Facility Section View (East-West Facing North)

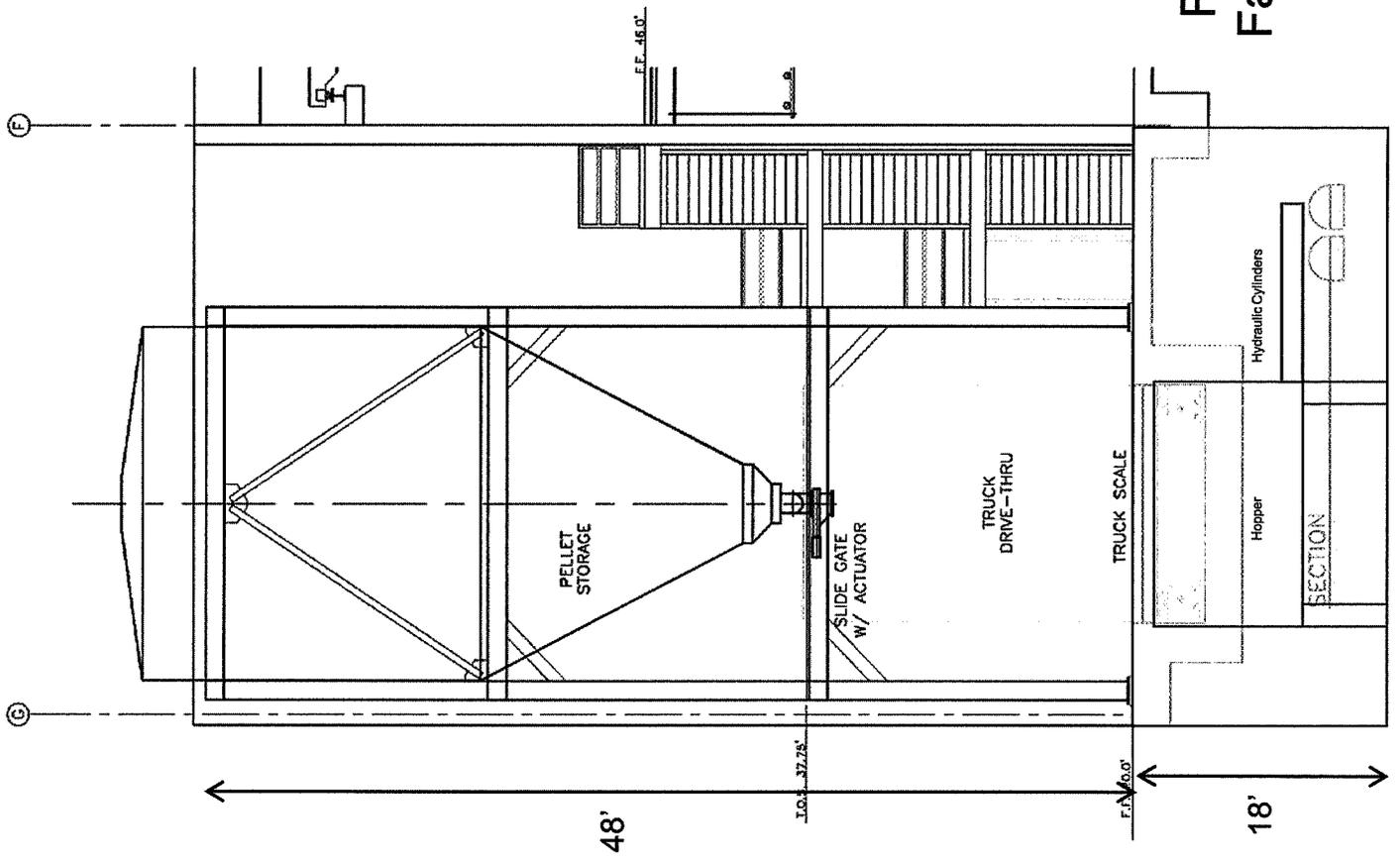


Figure 6: Solids Receiving Facility Section View Facing East (IRWD Load-Out Facility in Foreground)

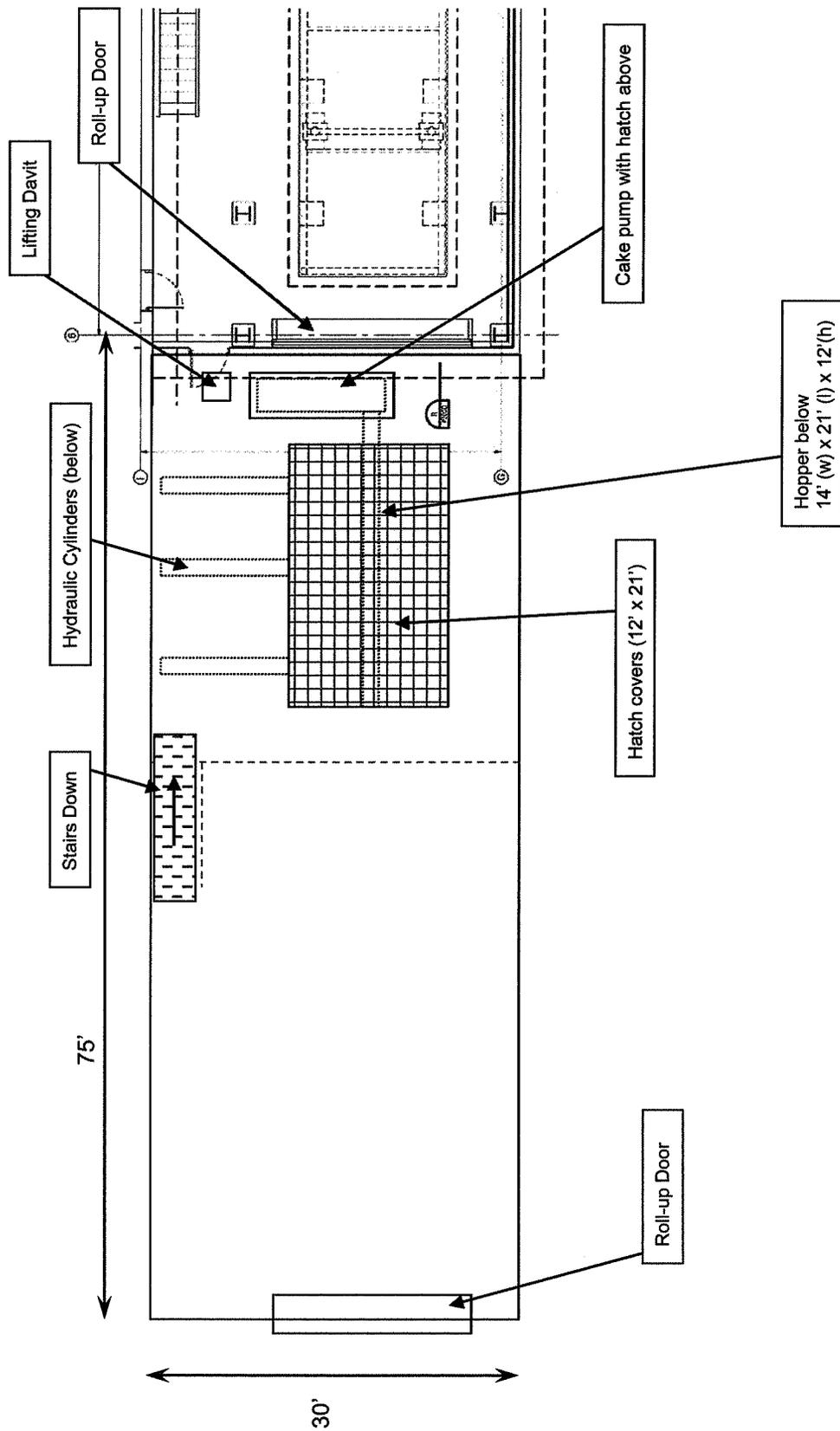


Figure 7: Solids Receiving Facility - At Grade

December 13, 2010

Prepared by: J. Smyth/M. Cortez

Submitted by: K. Burton

Approved by: Paul Jones



ACTION CALENDAR

OPERATIONS CENTER FACILITIES EXPANSION PHASE 1 STORAGE BUILDING CONSTRUCTION AWARD

SUMMARY:

The Preliminary Planning Report (PPR) for the current Operations Center space needs and expansion planning through the year 2025, approved in September 2008, identified the need for additional storage space for the Wastewater Operations Department. This project consists of constructing 4,571 square feet of pre-engineered metal storage building to meet the need for additional storage and also includes retrofitting lights in Operations Center Buildings 10, 40, 50, and 60 to reduce energy and labor costs. Staff recommends that the Board:

- Adopt the Final Mitigated Negative Declaration (MND) for the project;
- Approve Expenditure Authorizations for Projects 11422, 21422, and 31422 in the amount of \$352,400 each; and
- Authorize the General Manager to execute a construction contract with PhilCo Construction in the amount of \$619,380.

BACKGROUND:

On August 27, 2007, the Board authorized the General Manager to execute a Professional Services Contract with RRM Design Group (RRM) to create a PPR to evaluate the present and future Operations Center space needs and plan for expansion through the year 2025. The completed PPR, which summarized the future space needs at the Operations Center along with a phased approach to meet these needs, was distributed to the Board on September 16, 2008. The Phase 1 facilities included a new warehouse, conversion of the existing warehouse to office space, conversion of the Purchasing mezzanine to office space, a new pre-engineered metal storage building, and associated site work. Following a competitive bid process, RRM was retained to develop the design of the Phase 1 facilities. RRM completed the design of the 4,571 sq. ft. pre-engineered metal storage building with associated site work in October 2010. A Location Map is attached as Exhibit "A".

This project will also include a lighting retrofit to improve energy efficiency and reduce lamp replacement for the Operations Center Buildings 10, 40, 50 and 60, also shown on Exhibit "A". Several alternatives were considered including replacing the existing T-8 lamps in kind, replacing the existing lamps and fixtures with LED units, and replacing the existing lamps with reduced wattage T-8 lamps and electronic ballast. Staff is recommending replacing the existing lamps with reduced wattage T-8 lamps and electronic ballast which will increase the amount of light while reducing energy consumption and heat load.

Storage Building Construction Award:

The storage building project was advertised on October 27, 2010 to a select bid list of seven contractors: Gateway Pacific Contractors Inc., J.R. Filanc Construction Co., Schuler Engineering, F.T. Ziebarth Co., Pacific Hydrotech, Snyder Langston, and PhilCo Construction. Only two contractors, Schuler Engineering and Pacific Hydrotech, attended the mandatory pre-bid meeting on November 2, 2010. S.S. Mechanical was added to the select bid list and S.S. Mechanical, PhilCo Construction and Gateway Pacific Contractors Inc. attended a second pre-bid meeting held on November 10, 2010. The bid opening was held on November 23, 2010 with bids received from Gateway Pacific, Schuler Engineering, PhilCo Construction, and Pacific Hydrotech. PhilCo Construction is the apparent low bidder with a bid amount of \$619,380. The engineer's estimate was \$596,266. PhilCo Construction recently completed the San Joaquin Marsh Campus with excellent results. A Bid Summary is attached as Exhibit "B".

A draft MND (Department 50 Storage Building Mitigated Negative Declaration) for the storage building was circulated pursuant to California Environmental Quality Act (CEQA). The MND addressed the categories of impacts required under environmental review. No comment letters were received during public review and the final MND is attached as Exhibit "C". Staff recommends that the Board adopt the Final MND for the project.

Lighting Retrofit Construction Award:

A job walk was held on October 25, 2010 with three select bidders: Action Electric, Halcyon Electric and Interior Electric. The bid opening was held on November 4, 2010 with bids received from all three contractors. Action Electric is the apparent low bidder with a bid amount of \$89,950. Since the construction amount is less than \$100,000, this construction contract will be executed under the authority of the General Manager. A Southern California Edison incentive of \$14,947.50 is expected upon completion of the retrofit resulting in an estimated payback for the lighting retrofit of 20 months.

FISCAL IMPACTS:

Projects 11422, 21422 and 31422 are included in the FY 2010-11 Capital Budget. Staff requests Expenditure Authorizations to fund the storage building and lighting retrofit construction projects as shown in the table below and in Exhibit "D". Funds are included for the construction contracts, staff time, and consultant construction phase services.

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
11422	\$3,015,200	-\$0-	\$3,015,200	\$290,400	\$ 352,400	\$ 642,800
21422	\$3,015,200	-\$0-	\$3,015,200	\$290,400	\$ 352,400	\$ 642,800
31422	\$3,015,200	-\$0-	\$3,015,200	\$290,400	\$ 352,400	\$ 642,800
Total	\$9,045,600	-\$0-	\$9,045,600	\$871,200	\$1,057,200	\$1,928,400

ENVIRONMENTAL COMPLIANCE:

The project MND was prepared and circulated for public review in compliance with the CEQA of 1970 (as amended), codified at California Public Resources Code Section 21000 et. seq., and the state CEQA guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3.

COMMITTEE STATUS:

Construction awards are not routinely taken to Committee prior to submittal for Board approval.

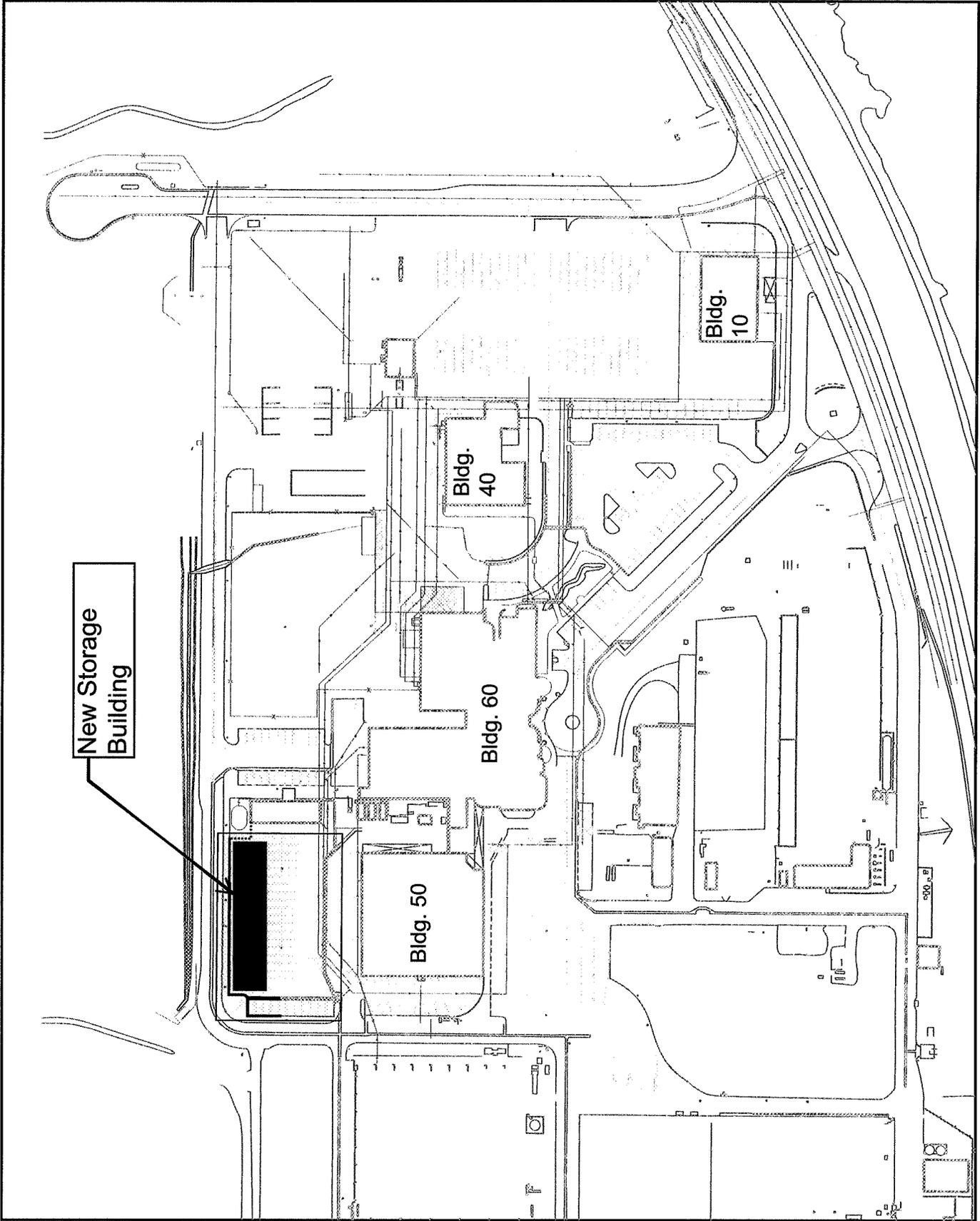
RECOMMENDATION:

THAT THE BOARD ADOPT THE FINAL MITIGATED NEGATIVE DECLARATION FOR THE DEPARTMENT 50 STORAGE BUILDING AND APPROVE THE PROJECT; DIRECT STAFF TO POST AND FILE A NOTICE OF DETERMINATION; APPROVE EXPENDITURE AUTHORIZATIONS IN THE AMOUNT OF \$352,400 EACH FOR PROJECTS 11422, 21422 AND 31422; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH PHILCO CONSTRUCTION IN THE AMOUNT OF \$619,380 FOR THE OPERATIONS CENTER FACILITIES EXPANSION PHASE I STORAGE BUILDING, PROJECTS 11422, 21422 AND 31422.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Bid Summary
- Exhibit "C" – Department 50 Storage Building Final Mitigated Negative Declaration
- Exhibit "D" – Expenditure Authorizations

EXHIBIT "A"



KEY MAP
NTS



EXHIBIT "B"

Item No.	Description	Qty.	Unit	Engineers Estimate		1 PhilCo Construction Inc. Orange, CA		2 Schuler Engineering Corp. Corona, CA		3 Pacific Hydrotech Corp. Perris, CA		4 Gateway Pacific Cont. Sacramento, CA	
				Unit Price	Total Bid Amount	Unit Price	Total Bid Amount	Unit Price	Total Bid Amount	Unit Price	Total Bid Amount		
1	Mobilization	1	LS	\$11,000.00	\$11,000.00	\$7,500.00	\$7,500.00	\$32,000.00	\$32,000.00	\$45,300.00	\$45,300.00	\$40,000.00	\$40,000.00
2	Site Electrical	1	LS	\$7,400.00	\$7,400.00	\$71,000.00	\$71,000.00	\$36,000.00	\$36,000.00	\$118,000.00	\$118,000.00	\$100,000.00	\$100,000.00
3	asphalt, v gutter, curb, windsock relocation, and new slab/gutter/curb at entrance manhole.	1	LS	\$63,910.00	\$63,910.00	\$81,320.00	\$81,320.00	\$61,000.00	\$61,000.00	\$47,700.00	\$47,700.00	\$50,000.00	\$50,000.00
4	Slurry seal parking lot and restripe.	1	LS	\$18,990.00	\$18,990.00	\$4,720.00	\$4,720.00	\$3,000.00	\$3,000.00	\$2,600.00	\$2,600.00	\$3,000.00	\$3,000.00
5	Concrete slab and footings.	1	LS	\$52,640.00	\$52,640.00	\$77,300.00	\$77,300.00	\$100,000.00	\$100,000.00	\$97,200.00	\$97,200.00	\$250,000.00	\$250,000.00
6	Perimeter masonry wall, incl. landscape removal, tree removal, waterproofing, gravel backfill, sub-grade drainage and concrete V-gutter.	1	LS	\$25,489.00	\$25,489.00	\$41,000.00	\$41,000.00	\$25,000.00	\$25,000.00	\$30,500.00	\$30,500.00	\$40,000.00	\$40,000.00
7	Interior wire-mesh partitions	1	LS	\$37,800.00	\$37,800.00	\$22,420.00	\$22,420.00	\$30,000.00	\$30,000.00	\$39,100.00	\$39,100.00	\$26,000.00	\$26,000.00
8	Metal stud partitions	1	LS	\$8,278.00	\$8,278.00	\$15,000.00	\$15,000.00	\$6,500.00	\$6,500.00	\$9,200.00	\$9,200.00	\$5,000.00	\$5,000.00
9	OSB interior wall finish panels	1	LS	\$13,395.00	\$13,395.00	\$10,000.00	\$10,000.00	\$16,000.00	\$16,000.00	\$35,100.00	\$35,100.00	\$5,000.00	\$5,000.00
10	Metal racking systems and installation	1	LS	\$35,000.00	\$35,000.00	\$10,000.00	\$10,000.00	\$27,000.00	\$27,000.00	\$70,700.00	\$70,700.00	\$26,525.00	\$26,525.00
11	Electrical power and lighting systems	1	LS	\$40,128.00	\$40,128.00	\$51,000.00	\$51,000.00	\$110,000.00	\$110,000.00	\$84,700.00	\$84,700.00	\$100,000.00	\$100,000.00
12	Pre-engineered metal storage building with partitions complete with man-doors and rollup doors, gutters and downspout gutters	1	LS	\$200,100.00	\$200,100.00	\$196,420.00	\$196,420.00	\$222,474.00	\$222,474.00	\$253,000.00	\$253,000.00	\$200,000.00	\$200,000.00
13	Final record drawings	1	LS	\$5,000.00	\$5,000.00	\$1,200.00	\$1,200.00	\$600.00	\$600.00	\$1,000.00	\$1,000.00	\$500.00	\$500.00
14	Safety measures	1	LS	\$6,850.00	\$6,850.00	\$5,000.00	\$5,000.00	\$600.00	\$600.00	\$100.00	\$100.00	\$1,000.00	\$1,000.00
15	Startup, testing, and commissioning.	1	LS	\$2,400.00	\$2,400.00	\$8,000.00	\$8,000.00	\$2,400.00	\$2,400.00	\$1,100.00	\$1,100.00	\$1,000.00	\$1,000.00
16	Demobilization	1	LS	\$4,000.00	\$4,000.00	\$3,000.00	\$3,000.00	\$7,200.00	\$7,200.00	\$500.00	\$500.00	\$10,000.00	\$10,000.00
	Subtotal Base Bid Items			\$532,380.00	\$532,380.00	\$604,880.00	\$604,880.00	\$679,774.00	\$679,774.00	\$835,800.00	\$835,800.00	\$858,025.00	\$858,025.00
Alternative Bid Items													
Item No.													
A-1	Builder's Risk Insurance	1	LS	\$10,648.00	\$10,648.00	\$2,500.00	\$2,500.00	\$0.00	\$0.00	\$836.00	\$836.00	\$4,000.00	\$4,000.00
	Addition (+) or Deduction (-)			\$53,238.00	\$53,238.00	\$12,000.00	\$12,000.00	(\$8,560.00)	(\$8,560.00)	\$0.00	\$0.00	\$0.00	\$0.00
	TOTAL AMOUNT OF BID			\$596,266.00	\$596,266.00	\$619,380.00	\$619,380.00	\$671,214.00	\$671,214.00	\$836,636.00	\$836,636.00	\$862,025.00	\$862,025.00

Exhibit "C"

MICHELSON WATER RECYCLING PLANT DEPARTMENT 50 STORAGE BUILDING FINAL INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

PREPARED FOR:

Irvine Ranch Water District
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Contact: Christian Kessler
949/453-5441

PREPARED BY:

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December 2010



ICF International. 2010. Michelson Water Recycling Plant Department 50 Storage Building. Final Initial Study/ Mitigated Negative Declaration. December. (ICF 00550.09.) Irvine, CA. Prepared for Irvine Ranch Water District, Irvine, CA

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Acronyms and Abbreviations

AELUP	Airport Environment Land Use Plan
AQMP	SCAQMD's Air Quality Management Plan
Basin	South Coast Air Basin
BAU	Business As Usual
BMPs	Best Management Practices
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CO ₂ e	carbon dioxide equivalent
CEQA	California Environmental Quality Act
CNEL	community noise equivalent level
CSS	coastal sage scrub
DAMP	Drainage Area Management Plan
dB	decibels
dBA	decibels in the A-weighted scale
EIR	Environmental Impact Report
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FEMA	Federal Emergency Management Agency
FIRMS	Fire Insurance Rate Maps
GHG	greenhouse gas
IRWD	Irvine Ranch Water District
IS/MND	Initial Study/Draft Mitigated Negative Declaration
Leq	equivalent continuous sound pressure level
LOS	level of service
LST	Localized Significance Threshold
MWRP	Michelson Water Recycling Plant
NCCP/HCP	Natural Communities Conservation Program/Habitat Conservation Plan
NPDES	National Pollutant Discharge Elimination System
OCPW	Orange County Public Works, Flood Control Division
PCC	Portland Cement Concrete
RCPG	Regional Comprehensive Plan and Guide
SAMP	Special Area Management Plan
SARWQCB	Santa Ana Regional Water Quality Control Board
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SRA	Seismic Response Areas
SWPPP	Stormwater Pollution and Prevention Program
USACE	United States Army Corps of Engineers

Overview

Irvine Ranch Water District (IRWD) has prepared this Final Initial Study/ Mitigated Negative Declaration (IS/MND) to evaluate the potential environmental consequences associated with the development of a new 4,571-square-foot one-story storage building and parking lot (proposed project) at the Michelson Water Recycling Plant (MWRP) in the City of Irvine (City). Prior to consideration of the project by the Board of Directors, the proposed project is required to undergo an environmental review pursuant to the California Environmental Quality Act (CEQA).

Authority

The preparation of this IS/MND is governed by two principal sets of documents: CEQA (Public Resources Code Section 21000 *et seq.*) and the State CEQA Guidelines (California Code of Regulations Section 15000 *et seq.*).

One of the main objectives of CEQA is to disclose to the public and decision makers the potential environmental impacts of proposed activities. CEQA requires that the lead agency determine whether a project is subject to CEQA review or exempt under statutory exemptions (CEQA Guidelines, Article 18, Sections 15260 *et seq.*) or categorical exemptions (CEQA Guidelines, Article 19, Section 15300 *et seq.*). IRWD determined that the proposed project is not exempt from CEQA and therefore proceeded with the preparation of an IS to determine whether an environmental impact report, a negative declaration, or an MND is appropriate. IRWD is the lead agency for the proposed project under CEQA.

The preparation of an IS is guided by Section 15063 of the State CEQA Guidelines, and Sections 15070–15075 of Article 6 guide the process for the preparation of an MND. Where appropriate and supportive to an understanding of the issues, reference will be made to the statute, the State CEQA Guidelines, or appropriate case law.

This IS/MND meets CEQA content requirements by including a project description; a description of the environmental setting, potential environmental impacts, and mitigation measures for any significant impacts; discussion of consistency with plans and policies; and names of preparers.

Scope of the Initial Study/Mitigated Negative Declaration

This IS/MND evaluates the proposed project's impacts on the following resource topics:

- Aesthetics
- Agriculture and Forest Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Impact Terminology

The following terminology is used to describe the level of significance of impacts.

- A finding of *no impact* is appropriate if the analysis concludes that the proposed project would not affect the particular resource in any way.
- An impact is considered *less than significant* if the analysis concludes that it would cause no substantial adverse change to the environment and requires no mitigation.
- An impact is considered *less than significant with mitigation incorporated* if the analysis concludes that it would cause no substantial adverse change to the environment with the inclusion of environmental commitments that have been agreed to by the applicant.
- An impact is considered *potentially significant* if the analysis concludes that it could have a substantial adverse impact on the environment.

Organization of the Initial Study/Mitigated Negative Declaration

The content and format of this report are designed to meet the requirements of CEQA. The report contains the following sections.

- Chapter 1, "Introduction," identifies the purpose and scope of this IS/MND and the terminology used in the report.

- Chapter 2, "Project Description and Environmental Setting," identifies the location, setting description, background, and planning objectives of the proposed project and describes the proposed project in detail.
- Chapter 3, "Environmental Checklist," presents the CEQA environmental checklist and responses for each resource topic in the checklist. This section includes a brief setting section for each resource topic and identifies the impacts of implementing the proposed project.
- Chapter 4, "References," identifies all printed and Internet references and individuals cited in this IS/MND.
- Chapter 5, "List of Preparers," identifies the individuals who prepared this report and their roles in the proposed project.

Chapter 2

Project Description and Environmental Setting

Introduction and Overview

The proposed project involves development of a new 4,571 square foot pre-fabricated one-story metal storage building and new parking lot on a portion of an existing surface parking lot at the Michelson Water Recycling Plant (MWRP). Details regarding the project objectives, location, environmental setting, and construction and operation of the proposed project are included in this chapter.

Project Location

The project site is located within the boundaries of the MWRP located at 3512 Michelson Drive in the City of Irvine. The Irvine Ranch Water District (IRWD) property, containing the MWRP site, the San Joaquin Marsh and San Joaquin Marsh Campus, is bounded by Michelson Drive, the San Diego Creek Channel, Campus Drive, and Carlson Avenue. Figures 2-1 and 2-2 depict the regional location and local vicinity of the project area, respectively. Other land uses in the general vicinity of the project site include John Wayne Airport, Rancho San Joaquin Golf Course, University of California Irvine, commercial, high-rise office buildings, and residential.

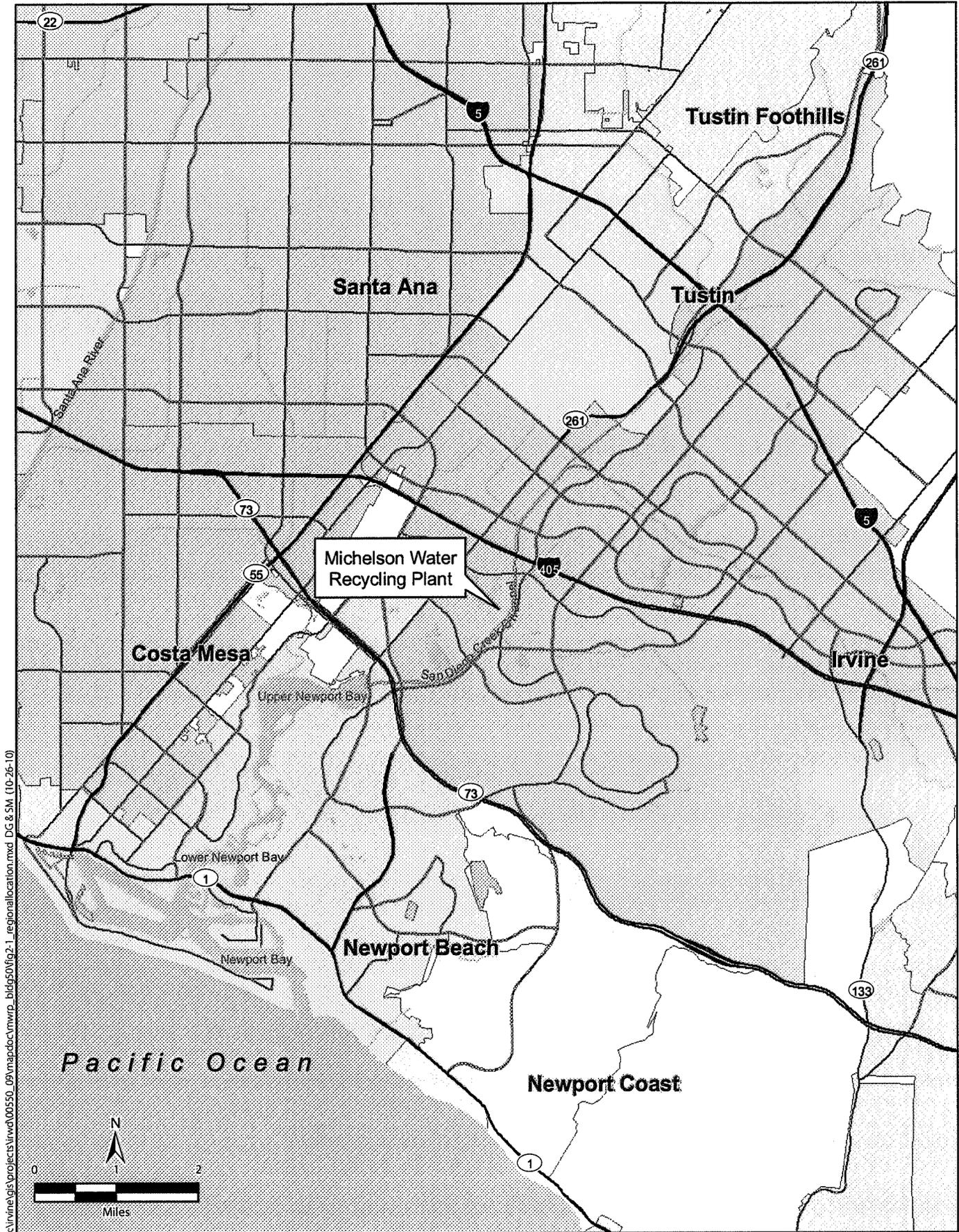
The MWRP contains office buildings, vehicle garages, and other structures including treatment plant operational facilities, as well as parking lots and water treatment facilities. The San Joaquin Marsh contains wetland habitats, riparian habitats, open water areas, meeting rooms, and a private residence. Between the MWRP, Campus Drive, and the riparian habitat, are former duck ponds which are now operated and maintained by IRWD as natural treatment water quality ponds. Southwest of the plant and within the marsh is the San Joaquin Marsh Campus, an interpretive/learning center, a portion of which is operated by the Sea and Sage Audubon Society.

The project site is located at the western edge of the existing MWRP facilities. Figure 2-3 depicts the project site in relation to the surrounding MWRP facilities.

Existing Conditions

The proposed project would be located on a currently developed parking lot. The lot totals approximately 33,000 square feet and currently accommodates surface parking for up to 57 vehicles. The project site would encompass approximately 12,000 square feet of the existing parking lot, and would displace 15 parking spaces. The proposed project would be located between MWRP operations and office buildings to the east and south, and the San Joaquin Marsh to the west. Undeveloped MWRP property is located to the north. The existing parking lot is void of vegetation with the exception of a small amount of ornamental landscaping.

Land uses surrounding the MWRP are preservation and recreation while land uses around the project site include buildings, secondary clarifier, parking lot and undeveloped land.



K:\irvine\gis\projects\irwd\00550_09\mapdoc\mwrp_bldg50\fig2-1_regionallocation.mxd_DG & SM (10-26-10)

SOURCE: ESRI 2008



Figure 2-1
Regional Location



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SOURCE: ESRI 2008



Figure 2-2
Local Vicinity



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SOURCE: ESRI 2008



Figure 2-3
Project Site

Proposed Project

Project Objectives

CEQA Guidelines (Section 15124[b]) require that the project description contain a statement of objectives, including the underlying purpose of the proposed project. The objective for the proposed project includes accommodating the need for additional on-site storage at the MWRP related to ongoing expansion of MWRP operations.

Project Description

The proposed project includes demolition and removal of approximately 12,000 square feet of an existing 33,000 square foot surface parking lot, and construction of a new 4,571 square foot one-story pre-engineered storage building. The project would displace 15 of the existing 57 parking spaces within the existing parking lot. Primary project elements include:

- demolition and removal of asphalt pavement, curb and gutter, landscaping, etc., in an approximately 60-foot by 200-foot area of existing parking lot;
- construction of a 24-foot by 163-foot metal frame storage building with metal siding, roof and 6-inch Portland cement concrete (PCC) slab-on-grade;
- construction of perimeter supports for the building which would be provided by a combination of column footings, turned down slab edges, grade beams, and masonry wall footings all 16 to 24 inches below finished grade;
- construction of 4-foot-high masonry retaining walls at the base of the west and north walls since the new building pad would cut into an existing small slope that descends from the adjacent road;
- waterproofed retaining walls without subdrains;
- pouring of new asphalt concrete (AC) paving consisting of 4 inches of AC over 8 inches of aggregate base (AB) around the new building;
- construction of a concrete v-gutter for surface drainage; and
- installation of electrical lines.

The storage building would be approximately 24 feet tall and would be used for storage of materials and equipment used for maintenance activities at the MWRP. The materials to be stored within the building would be relocated from other existing storage buildings currently located elsewhere within the MWRP site.

Construction Activities

Construction of the proposed storage building would begin in January 2011 and last approximately 6 months. Construction activities would include demolition, on-site improvements, site preparation, paving, and modifications to an existing culvert and drainage. The building would be constructed using pre-manufactured metal panels that would be transported to the project site. Access to the project site would be provided via Riparian View, IRWD's private road accessed from of Michelson Drive.

Since the site is already developed and the topography is flat, there would be minimal soil disturbance during construction. Import and export of soil may be necessary in the event that the grading contractor finds that some excavated soil is not suitable for reuse. Soil would be disturbed to a depth of approximately 5 feet to prepare for the building foundations and electrical utilities.

All construction would comply with all applicable building and construction codes, including those related to seismic activity. Construction crews would work no more than 8 hours per day and would restrict their activities to between 7:00 a.m. and 6:00 p.m. on non-federal-holiday weekdays and between 8:00 a.m. and 5:00 p.m. on Saturdays.

Regulatory Setting

City of Irvine General Plan

The City of Irvine approved the General Plan in June 2006 (City of Irvine 2006). The General Plan consists of thirteen elements, including Land Use, Circulation, Housing, Seismic, Cultural Resources, Noise, Public Facilities and Services, Integrated Waste Management, Energy, Safety, Parks and Recreation, Conservation and Open Space, and Growth Management. The General Plan and each of these elements present the long-range vision of the City and development and preservation policies to implement that vision.

The project site is located in the San Joaquin Marsh planning area in the southwest portion of the City of Irvine. The San Joaquin Marsh planning area encompasses the MWRP facilities, San Joaquin Marsh, Mariposa Villa, and Bethel Korean Church. The area is bounded by Michelson Drive, University Drive, Harvard Avenue, Campus Drive, and Carlson Avenue.

The project site is designated as Public Facilities (PF) per the General Plan Land Use Element. The PF designation includes government, public, quasi-public, and community owned facilities. It also includes uses that may be privately owned, but are nonprofit and generally open to the public. The properties surrounding the project site have the land use designations of Preservation, Recreation, Public Facilities, Commercial Recreation, and High Density residential (City of Irvine 2006).

City of Irvine Zoning Code

The City of Irvine zoning code is intended to carry out the policies of the City of Irvine General Plan. It is the intent of the zoning code to protect, promote, and enhance the public health, safety, and general welfare; ensure consistency between the zoning district and the general plan land use diagram; and promote compatibility between the natural and built environment. The project site is currently zoned 6.1 (Institutional). The Institutional designation includes a nonprofit or quasipublic use such as a church, library, public or private school, hospital, or municipally owned or operated building, structure, or land used for public purpose or not-for-profit housing.

Airport Land Use Plan

The project site is located in the Orange County Airport Environment Land Use Plan (AELUP) for John Wayne Airport, which is administered by the Airport Land Use Commission. The project site is within the height restriction zone for the John Wayne (Orange County) Airport and the notification area of the Federal Aviation Regulation (FAR) Part 77 imaginary surfaces aeronautical obstruction

area. Section 77.13 of the FAR requires the notification of the Federal Aviation Administration (FAA) for any construction or alteration to buildings meeting specific criteria, including structures with heights greater than 200 feet above ground level.

Central and Coastal Subregion, Parts I and II Natural Communities Conservation Program/Habitat Conservation Plan (NCCP/HCP)

The purposes of the Central and Coastal Subregion, Parts I and II Natural Communities Conservation Program/Habitat Conservation Plan (NCCP/HCP) focus on creating a multiple-species, multiple-habitat subregional Reserve System and implementing a long-term “adaptive management” program that will protect coastal sage scrub (CSS) and other habitats and species located within the CSS habitat mosaic, while providing for economic uses that will meet the social and economic needs of the people of the subregion. The primary goal of the NCCP/HCP is to protect and manage habitat supporting a broad range of plant and animal populations that now are found within the Central and Coastal Subregion. To accomplish this goal, the NCCP/HCP creates a subregional habitat Reserve System and implements a coordinated program to manage biological resources within the habitat reserve. The San Joaquin Marsh, which surrounds the MWRP, is designated as “Non-Reserve Open Space.” However, the MWRP and the project site are not identified as any reserve type by the NCCP/HCP. The Non-Reserve Public Open Space contains 3,831 acres of permanent, dedicated public open space located outside the reserve. These public open space areas were not considered suitable for inclusion in the CSS management program due to a lack of significant CSS habitat, the absence of “Target Species,” and/or a location which did not contribute directly to enhanced biological connectivity within the subregion. Areas such as the San Joaquin Marsh contain significant biological resources but do not contribute to the function of the Reserve System established by this NCCP/HCP. It is expected that non-reserve public areas will continue to provide some habitat value (County of Orange 1996).

Discretionary Actions and Approvals

Under CEQA, the IRWD has the primary discretionary authority over the approval of the proposed project. The anticipated discretionary approvals required for IRWD to implement the proposed project include the following:

- Adoption of the MND;
- Adoption of a mitigation monitoring and reporting program; and
- Design and construction of the project.

Other public agencies may also have discretionary authority over the project, or aspects of the project, and are considered responsible agencies. The IS/MND can be used by the responsible agencies to comply with CEQA in connection with permitting or approval authority over the project.

Chapter 3 Environmental Checklist

1. **Project Title:** MWRP Department 50 Storage Building
2. **Lead Agency Name and Address:** Irvine Ranch Water District (IRWD)
15600 Sand Canyon Avenue
Irvine, CA 92618
3. **Contact Person and Phone Number:** Christian Kessler
949-453-5441
4. **Project Location:** Michelson Water Recycling Plant (MWRP)
3512 Michelson Drive
Irvine, CA 92612
5. **Project Sponsor's Name and Address:** Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618
6. **General Plan Designation:** Public Facilities
7. **Zoning:** Institutional
8. **Description of Project:** See Chapter 2, Project Description.
9. **Surrounding Land Uses and Setting:** See Chapter 2, Project Description.
10. **Other Public Agencies Whose Approval is Required:**
City of Irvine

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.

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

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.

Signature

Date

Printed Name

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.
9. The explanation of each issue should identify:
 - a. the significance criteria or threshold, if any, used to evaluate each question; and
 - b. the mitigation measure identified, if any, to reduce the impact to a less-than-significant level.

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

Discussion

Would the project:

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

Less-than-Significant Impact. The proposed project is located just north of a major view as depicted in the City of Irvine General Plan on Figure A-4, Scenic Highways. The major view is located at the intersection of Culver Drive and University Drive, less than 1 mile from the project site. University Drive is designated as a road with rural or natural character by the City of Irvine General Plan and runs along the other side of the San Diego Creek near the southern border of the MWRP boundary, approximately 0.5 mile from the project site. The San Diego Freeway (I-405) is designated as a freeway with urban character by the City of Irvine General Plan and is located just over 0.5 mile to the north of the project site. However, the project site is not identified as a public viewpoint, nor would the proposed 24-foot high storage building be visible from the intersection of Culver and University or obstruct views from any public viewpoints. The project site is located within the boundaries of the IRWD MWRP, is currently occupied by surface parking spaces, and is adjacent to existing two-story maintenance and office buildings. Therefore, as there are no scenic vistas on the project site and two-story maintenance and office buildings are located immediately adjacent, the proposed project would not substantially alter or introduce a visually obtrusive structure to the landscape. Impacts would be less than significant.

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

No Impact. The project site and vicinity do not contain any rock outcroppings that are of significant visual quality. There are no historic buildings on site or in the project area that would be affected by the proposed project. Furthermore, there are no designated scenic

highways in the vicinity of the proposed project (California Department of Transportation 2010). Therefore, the proposed project would not damage a scenic resource, and there would be no impact.

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

Less-than-Significant Impact. The proposed project would not adversely affect the existing visual character or quality of the site and its surroundings. The project site is located within the MWRP boundaries, currently occupied by surface parking spaces, and adjacent to existing two-story maintenance and office buildings. The proposed project would not degrade any scenic resources. The proposed project would blend in with the existing character of the MWRP facilities and adjacent buildings. Approximately 40% of the project site would consist of the 4,571 square foot one-story storage building and approximately 60% of the site would be paved and include the remaining 42 stalls of surface parking. The maximum height of the storage building would be approximately 24 feet above the original grade. Therefore, because the proposed project would be located within the boundaries of the MWRP facility and would blend in with the existing character of the facilities and adjacent buildings, impacts would be less than significant.

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

Less-than-Significant Impact. The project site is located within the boundaries of the existing MWRP which includes a mix of office buildings and water treatment facilities. The existing parking lot is lighted for safety purposes. Lighting associated with the proposed project would be similar to the existing lighting in the area, and would not substantially increase the amount of lighting in the area. Impacts would be less than significant.

II. Agriculture and Forest Resources	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
<p>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 as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts on forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board.</p> <p>Would the project:</p>				
<p>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?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>c. Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>d. Result in the loss of forest land or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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 Resource Agency, to non-agricultural use?***

No Impact. The proposed project would not convert any farmland to a non-agricultural use. The project site is not designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance (California Department of Conservation 2009). The project site and the surrounding land are identified as “urban and built-up land” and “other land” respectively by the California Department of Conservation’s Farmland Mapping and Monitoring Program. Furthermore, the project site is located within the boundaries of an existing developed water treatment facility with no agricultural uses on or surrounding the site. Therefore, there would be no impact.

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

No Impact. The proposed project would not conflict with existing zoning or agriculture use. The project site is currently zoned Institutional, which does not allow agricultural uses. The Williamson Act applies to parcels consisting of at least 20 acres of Prime Farmland or at least 40 acres of farmland not designated as Prime Farmland. The project site is not located within a Prime Farmland designation, nor does it consist of more than 40 acres of farmland. Therefore, the site is not eligible to be placed under a Williamson Act contract. Therefore, there would be no impact.

- c. ***Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?***

No Impact. The proposed project would not conflict with existing zoning or cause rezoning of forest land. The project site is located in an urban area and does not contain any forest lands. Therefore, there would be no impact.

- d. ***Result in the loss of forest land or conversion of forest land to non-forest use?***

No Impact. The proposed project would not result in the loss of forest land or conversion of forest land to a non-forest use. The project site is located in an urban area and does not contain any forest lands. Therefore, there would be no impact.

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

No Impact. The proposed project would not result in the conversion of farmland to non-agricultural use, and would not result in the conversion of forest land to non-forest use. The project site is not currently used for agriculture and does not contain any forest land. The

project site is not located near or adjacent to any areas that are actively farmed or used for forest land. Therefore, the proposed project would not disrupt or damage the operation or productivity of any areas designated as farmland or forest land, and no farmland or forest land would be affected by the proposed project. There would be no impact.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Would the project:

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

No Impact. The project site is located within the South Coast Air Basin (Basin). The South Coast Air Quality Management District (SCAQMD) is required, pursuant to the Federal Clean Air Act, to reduce emissions of criteria pollutants for which the Basin is in nonattainment (i.e., O₃, PM₁₀ and PM_{2.5}). As such, the proposed project would be subject to the SCAQMD’s Air Quality Management Plan (AQMP). The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the Southern California Association of Governments (SCAG).

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, economy, community development, and environment. With regard to air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG), which includes Growth Management and Regional Mobility chapters that form the basis for the land use and transportation control portions of the AQMP. These documents are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP.

Both the RCPG and AQMP are based, in part, on projections originating with County and City General Plans.

The proposed project would involve the demolition and removal of an existing 37-stall surface parking lot to construct a new 4,571 square foot one-story pre-engineered storage building and a 16-stall surface parking lot. It would not result in either an increase in population or the number of new permanent employees in the area that would affect growth. Furthermore, the proposed project would be largely maintenance free, thereby resulting in no net increase in employment in the region. The proposed project is consistent with both the County of Orange General Plan designation and zoning.

Because the proposed project is consistent with the local general plan and the regional growth management plan, pursuant to SCAQMD guidelines, the proposed project is considered consistent with the region's AQMP. Therefore, there would be no impact.

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

Less-than-Significant Impact. As discussed in Response III(a), the project site is located within the Basin. State and federal air quality standards are often exceeded in many parts of the Basin. A discussion of the proposed project's potential short term construction-period and long term operational-period air quality impacts are provided below.

Regional Construction Impacts

The SCAQMD has established methodologies to quantify air emissions associated with construction activities, such as air pollutant emissions generated by operation of onsite construction equipment, fugitive dust emissions related trenching and earthwork activities, and mobile (tailpipe) emissions from construction worker vehicles and haul/delivery truck trips. 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.

A construction-period mass emissions inventory was compiled based on an estimate of construction equipment as well as scheduling and phasing assumptions. More specifically, the mass emissions analysis takes into account the following:

- combustion emissions from operating onsite construction equipment,
- fugitive dust emissions from the placement of fill material, and
- mobile-source combustion emissions from worker commute travel.

For the purpose of estimating emissions associated with construction activities, a proposed project timeframe of January 2011 through June 2011 was applied to the analysis. Emissions were calculated using the URBEMIS2007 emissions inventory model. A conservative estimate of the proposed project's regional mass emissions during construction is presented in the Table 3-1. As shown, all criteria pollutant emissions would remain below their respective thresholds. Thus, impacts would be less than significant.

Table 3-1. Forecast of Regional Construction Emissions

Construction Phase	Criteria Pollutant Emissions (pounds per day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Demolition	1.5	12.0	7.4	<0.1	5.8	1.7
Site Prep	2.9	24.3	13.2	<0.1	2.1	1.3
Building Erection	3.1	20.5	14.1	<0.1	1.6	1.4
Maximum Regional Project Emissions	3	24	14	<1	6	2
SCAQMD Regional Emissions Threshold (lbs/day)	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

URBEMIS 2007 outputs are provided in Appendix A. Air Quality Calculations.

Localized Construction Impacts

When quantifying mass emissions for localized analysis, only emissions that occur on site are considered. Consistent with SCAQMD Localized Significance Threshold (LST) methodology guidelines, emissions related to offsite delivery/haul truck activity and employee trips are not considered in the evaluation of localized impacts. As shown in Table 3-2, localized emissions for all criteria pollutants would remain below their respective SCAQMD LST significance threshold. As such, localized impacts that may result from construction-period air pollutant emissions would be less than significant.

Table 3-2. Forecast of Localized Construction Emissions

Construction Phase	Criteria Pollutant Emissions (pounds per day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Demolition	1.1	7.2	4.6	<0.1	5.6	1.6
Site Prep	2.8	23.4	12.0	<0.1	2.0	1.3
Building Erection	3.0	19.8	11.6	<0.1	1.5	1.4
Worst Case On-Site Total	3	23	12	<1	6	2
SCAQMD Localized Significance Threshold (lbs/day) ^a	--	123	2,109	--	60	22
Exceed Threshold?	No	No	No	No	No	No

^a These localized thresholds were taken from tables provided in the SCAQMD Localized Significance Thresholds Methodology guidance document based on the following: 1) The proposed project site is located in SCAQMD Source Receptor Area No. 20, 2) sensitive receptors located within 200 meters of construction activity, and 3) the maximum site area disturbed is less than 1 acre.

URBEMIS 2007 outputs are provided in Appendix A. Air Quality Calculations.

Regional and Localized Operations Impacts

Because the proposed project is a storage building, operations period emissions are not expected to increase substantially. Potential impacts would be less than significant.

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. SCAQMD’s approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the Federal and State Clean Air Acts. As discussed earlier in Response III(a), the proposed project would be consistent with the AQMP, which is intended to bring the Basin into attainment for all criteria pollutants.¹ In addition, the mass regional emissions calculated for the proposed project (Forecast of Regional Construction Emissions) are lower than the applicable SCAQMD daily significance thresholds that are designed to assist the region in attaining the applicable state and national ambient air quality standards. As such, cumulative impacts would be less than significant.

d. Expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant Impact. As described in Response III(b), construction of the proposed project would not result in any substantial localized or regional air pollution impacts and therefore would not expose any nearby sensitive receptors to substantial pollutant concentrations. As such, the proposed project would have a less than significant impact in regards to substantial pollutant concentrations.

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

Less-than-Significant Impact. According to the SCAQMD CEQA Air Quality Handbook (South Coast Air Quality Management District 1993), land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified by the SCAQMD as being associated with odors and therefore would not produce objectionable odors. As such, the proposed project would have a less than significant impact in regards to objectionable odors.

¹ CEQA Guidelines Section 15064(h)(3) states “A lead agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g. water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.”

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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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?*

Less-than-Significant with Mitigation Incorporated. The proposed project would involve construction activities on an existing parking lot. The proposed project would be located between the MWRP operations and office buildings to the east and south and the

San Joaquin Marsh to the west. The existing project site is devoid of vegetation with the exception of ornamental landscaping. Planted ornamental trees were observed on-site and could provide potential habitat for raptors that have some potential to occur in the project vicinity. However, these raptor species would be more likely to utilize areas of dense riparian forest associated with the San Joaquin Marsh and not the developed areas of the project site located at the MWRP. No direct impacts are anticipated to local raptors or any other avian species protected by the Migratory Bird Treaty Act or state species of special concern.

Least Bell's vireo have been observed in the San Joaquin Marsh and southwestern willow flycatcher has a moderate potential to occur in the marsh as well (Dudek 2005). Portions of the project site are located within approximately 50 feet from the western boundary of the MWRP, which is adjacent to the San Joaquin Marsh. As such, suitable habitat for these species is assumed to occur adjacent to the MWRP boundary and therefore, as near as 50 feet from the project site. Indirect noise impacts from construction activities may occur that could affect potentially occurring state- and federally-listed endangered least Bell's vireo and state- and federally-listed endangered southwestern willow flycatcher (*Empidonax traillii extimus*) associated with the riparian habitats of San Joaquin Marsh. If construction during least Bell's vireo and southwestern willow flycatcher nesting season (March 15 through September 15) cannot be avoided, implementation of **Mitigation Measure BIO-1** would reduce potential noise impacts to these species to a less-than-significant level.

Mitigation Measure BIO-1: Conduct Biological Surveys. Should construction occur during the nesting season (February 15 through August 15), IRWD will retain a qualified biologist to conduct avian surveys in accordance with USFWS protocols to determine the presence or absence of nesting birds within 500 feet of the project area. If active nests are found, the biologist shall determine whether construction activities have the potential to disturb the nest, and if so then determine appropriate construction limitations which may include, but are not limited to, erection of sound barriers, full-time monitoring by a qualified biologist, or establishment of no-construction buffers usually 300 ft for nesting song birds and 500 ft for nesting raptors and special-status bird species. In addition the biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure no inadvertent impacts to the nest will occur.

With implementation of **Mitigation Measure BIO-1**, the proposed project would not have a substantial adverse effect, through direct impact or through habitat modification, on any identified candidate, sensitive, or special-status species. Thus, impacts would be considered less than significant after mitigation.

- 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?***

Less-than-Significant Impact. Several sensitive communities, including mulefat scrub, willow scrub, willow riparian forest habitats, and coastal freshwater marsh occur in the project area in association with San Joaquin Marsh. Portions of the project site are located within approximately 50 feet from the western boundary of the MWRP, which is adjacent to

the San Joaquin Marsh. As such, these communities are assumed to occur adjacent to the MWRP boundary and therefore, as near as 50 feet from the project site. However, construction activities for the proposed project would be confined to the limits of an existing parking lot at the MWRP. No direct impacts to freshwater marsh or riparian habitats or any sensitive natural communities would occur as a result of project construction.

Short-term indirect impacts to vegetation communities that could potentially result from the proposed project include dust that could affect plant growth in adjacent habitats, erosion and resulting sedimentation in adjacent wetland areas that would affect water quality and habitat function in the San Joaquin Marsh, and pollutant run-off associated with the use and maintenance of construction vehicles and machinery.

Because stormwater at the MWRP is pumped into the plant headworks and treated as part of the recycled water process, the potential for increased storm water runoff and resulting erosion and sedimentation and subsequent damage to adjacent wetland habitats is limited (Dudek 2005). In addition, Best Management Practices (BMPs) have been developed for the MWRP and would be implemented for the proposed project to limit dust pollution and to further avoid the release of toxic chemicals into the San Joaquin Marsh. As a result, no substantial adverse effects to riparian or any other sensitive natural communities would result from construction of the proposed project. Furthermore, the proposed project would be confined to the limits of the existing parking lot, which is located amongst developed facilities comprising the MWRP. Impacts would be less than significant.

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. Because all construction activities associated with the proposed project would occur on an existing parking lot, no impacts to the adjacent San Joaquin Marsh would occur. All soil disturbance and removal would occur within the boundaries of the existing parking lot. No soil removal, filling, hydrological interruption or other disturbance to the marsh would result from proposed construction activities. Furthermore, as described in Response IV(b), no additional run off into wetlands is anticipated from the proposed project because all storm water would be collected and pumped back into the recycling plant itself. As a result, the proposed project would not have direct or indirect impacts on federally protected wetlands, and therefore, there would be no impact.

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?*

No Impact. The proposed project would not result in direct impacts to any portion of the San Joaquin Marsh. No fish or wildlife nursery sites occur on the existing parking lot, and construction activities are not expected to impact adjacent marsh areas where these biological resources could occur. As a result, implementation of the proposed project would

not impact either the movement of native resident or migratory fish species and would not impede the use of established native wildlife nursery sites.

Furthermore, the proposed project would not interfere with established native resident or migratory wildlife corridors. Construction activities on the existing parking lot would not preclude wildlife movement through the habitats associated with the San Joaquin Marsh. The scale and height of the storage building would be the same as or similar to the existing buildings within the MWRP, and would be located within the immediate vicinity of other structures at the MWRP. Thus, the proposed project is not expected to interfere with avian flight patterns. Vegetation associated with the marsh, including riparian and marsh habitats, would remain unaffected and available for use by migratory birds and small mammal species moving through the region. Construction would occur between the hours of 7:00 a.m. and 6:00 p.m. on non-federal-holiday weekdays and between 8:00 a.m. and 5:00 p.m. on Saturdays. Project construction would not interfere with the movement of nocturnal species because construction crews would restrict their activities to primarily daylight hours. Therefore, the proposed project would not interfere 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. There would be no impact.

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

No impact. As stated previously in Response IV(a), the proposed project would be located on an existing parking lot. With the exception of ornamental landscaping, the project site supports no vegetation; therefore, development of this area would not conflict with any local policies or ordinances protecting biological resources. There would be no impact.

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?

No Impact. Because the project site does not support any sensitive coastal sage scrub habitat or associated target species, it is not considered part of the “reserve” established by the Orange County Natural Communities Conservation Program/Habitat Conservation Plan (NCCP/HCP). Furthermore, the project site does not contribute to biological connectivity between areas of habitats targeted for conservation by the NCCP/HCP (R. J. Meade Consulting 1996). The discussion below describes three planning documents that address the biological resources of the project vicinity and evaluates the proposed project relative to these regional conservation efforts.

County of Orange Natural Communities Conservation Program/Habitat Conservation Plan

The San Joaquin Marsh, which surrounds the MWRP, is designated as “Non-Reserve Open Space.” However, the MWRP and the project site are not identified as any reserve type by the NCCP/HCP. The San Joaquin Marsh is considered to have significant biological resources and habitat value (R. J. Meade Consulting 1996). It is not subject to the provisions of the NCCP/HCP because the preservation of marsh habitat does not directly address the issue of

regional CSS conservation that is the objective of the NCCP reserve system (R. J. Meade Consulting 1996). As a result, the proposed project would not conflict with the provisions of the NCCP/HCP.

City of Irvine General Plan

Management of the San Joaquin Marsh is addressed in the City of Irvine General Plan (2006). Based on this plan, portions of the marsh not subject to the Habitat Enhancement and Wetlands Program dedicated to the University of California Natural Reserve System may be used as a mitigation bank for development in areas adjacent to the marsh throughout the City of Irvine. The general plan also requires that significant riparian areas be maintained as natural corridors, that humans use be located away from rare or endangered species, and that enhancement be allowed as mitigation for development impacts (City of Irvine 2006).

The proposed project would not preclude the use of the San Joaquin Marsh as a potential mitigation area or the enhancement of marsh areas to mitigate for development impacts associated with other projects in the City of Irvine. In addition, no significant, unmitigatable direct or indirect impacts to riparian areas, potential wildlife corridors, or rare and endangered species are anticipated from construction of the proposed project. Therefore, the proposed project would not conflict with the provisions of the City of Irvine general plan.

San Diego Creek Special Area Management Plan

The San Joaquin Marsh is included in the Special Area Management Plan (SAMP) developed for the San Diego Creek watershed. The SAMP is an interagency collaboration by the United States Army Corps of Engineers (USACE) and the California Department of Fish and Game. The plan was established "to provide for a watershed-based approach to issuing Corps permits" (USACE 2008). In particular, the SAMP identifies measures to protect, improve, and monitor watershed conditions and provides options for complying with Section 404 and streambed alteration regulations (ICF Jones & Stokes 2009). The tenets of the SAMP are to

- a. Cause no-net-loss of acreage and functions of waters of the United States;
- b. Maintain/restore hydrologic, water quality, and habitat integrity;
- c. Protect headwaters;
- d. Maintain/protect/restore diverse and continuous riparian corridors;
- e. Maintain or restore floodplain connection;
- f. Maintain and/or restore sediment and transport equilibrium;
- g. Maintain adequate buffer for the protected riparian corridors; and
- h. Protect riparian areas and associated habitats supporting federally and state-listed sensitive species and their critical habitat

Because construction activities would result in direct impacts to only the existing parking lot, the proposed project would result in no-net-loss of acreage and functions of waters of the United States, headwaters would remain undisturbed, riparian corridors and floodplain connection would be maintained, sediment and transport equilibrium would be maintained, and riparian areas and associated habitats that potentially support federally- and state-listed sensitive species would not be disturbed. Indirect impacts to water quality and habitat integrity would be accomplished through the collection and treatment of stormwater runoff to avoid contamination of the San Joaquin Marsh with chemical pollutants.

In order to fully conform to the tenets of the SAMP, water quality, habitat integrity and riparian corridors also would be protected by maintaining adequate buffers between wetland areas and the proposed project (USACE 2008). These buffers would ensure that the riparian ecosystems would be sustainable over time (USACE 2008). The proposed project would be constructed entirely within the existing parking lot and Mitigation Measure BIO-1 would be implemented, if necessary. Therefore, buffers previously established between the current development and adjacent habitat areas provide adequate protection to native vegetation and wildlife from edge effects as well as indirect noise and pollution impacts to wildlife. Therefore, the proposed project would not conflict with the provisions of the SAMP.

The proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. There would be no impact.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Would the project:

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

No Impact. The project site currently consists of a parking lot with no structures present. Modern buildings are adjacent to the project site to the northeast and southeast. The nearest known historical resource is the first home of Jose Sepulveda, an existing City of Irvine historical/archaeological landmark. According to figure E-1 of the City of Irvine General Plan, Jose Sepulveda’s first home is located in the upper San Joaquin Marsh along the west bank of the San Diego Creek, north of the MWRP. The landmark is located adjacent to the MWRP, with another MWRP parking lot and landscaping separating the landmark from the project site. The project would not impact any existing structures, and would not affect the Jose Sepulveda first home landmark. Therefore, the proposed project would not cause a substantial change in the significance of a historical resource. There would be no impact.

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

Less-than-Significant Impact with Mitigation Incorporated. Since there would be no surface exposure at the project site, no archaeological resources survey was performed for this project. A record search indicates that there are three recorded archaeological resources within a half mile of the project area, CA-ORA-111 east of the San Diego Creek, and CA-ORA-196/H and CA-ORA-197 west of the San Diego Creek. However, none of these sites are within proximity of the project area. The MWRP parcel has undergone grading for construction of the existing parking lot. Ground disturbances from this previous development likely would have inadvertently destroyed any unknown archeological

resources present. Furthermore, a geotechnical report prepared for the proposed project indicated that the site is underlain by approximately 3 to 6 feet of sandy fill (Appendix B - NMG Geotechnical, Inc. 2010). Construction of the proposed project would involve limited surface soil disturbance and grading to an approximate depth of five feet to prepare for the building foundations. Therefore, it is highly unlikely the proposed project would disturb any unknown archaeological resources. Impacts would be less than significant.

However, because significant buried cultural resources may exist within the project area, and it is possible these archaeological materials could be unearthed during project excavation activities, **Mitigation Measure CR-1** has been included to further minimize the potential for impacts associated with the proposed project.

Mitigation Measure CR-1: Project plans will specify that in the event that cultural resources are discovered in the project area during ground-disturbing activities, work will stop in that area and within 50 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation. If during cultural resources monitoring the qualified archaeologist determines that the sediments being excavated are previously disturbed or unlikely to contain significant cultural materials, the qualified archaeologist can specify that monitoring be reduced or eliminated.

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

Less-than-Significant Impact. The City of Irvine General Plan identifies the MWRP as an area with low paleontological sensitivity. Only a limited area would be disturbed with minimal ground surface grading. The proposed project would be located entirely within the existing treatment plant property on an existing surface parking which has been previously graded. A geotechnical report prepared for the proposed project indicated that the site is underlain by approximately 3 to 6 feet of sandy fill (Appendix B - NMG Geotechnical, Inc. 2010). Therefore, the potential for encountering unique paleontological resources or unique geologic features is low and impacts would be less than significant.

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

Less-than-Significant Impact. The project site is not a formal cemetery and is not adjacent to a formal cemetery. The project site is not known to contain human remains interred outside formal cemeteries, nor is it known to be located on a burial ground. The proposed project would involve limited grading to a depth of approximately 5 feet to prepare for the building foundations. A geotechnical report prepared for the proposed project indicated that the site is underlain by approximately 3 to 6 feet of sandy fill (Appendix B - NMG Geotechnical, Inc. 2010). Therefore, it is highly unlikely that construction of the proposed project would disturb human remains.

If human remains were found, they would be treated as specified by state law. State Health and Safety Code Section 7050.5 states that no further disturbance will occur until the

County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code 5097.98. If such a discovery occurs, excavation or construction will halt in the area of the discovery, the area will be protected, and consultation and treatment will occur as prescribed by law. If the Coroner recognizes the remains to be Native American, he or she will contact the Native American Heritage Commission, who will appoint the Most Likely Descendent. Additionally, if the bones are determined to be Native American, a plan will be developed regarding the treatment of human remains and associated burial objects, and the plan will be implemented under the direction of the Most Likely Descendent. Therefore, impacts would be less than significant.

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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Would the project:

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

- a1. 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?***

No Impact. The project area has been previously evaluated for soils, geology, and seismicity in three separate reports (Dudek & Associates 2006). No known faulting exists within or adjacent to the MWRP site and the site is not located in a delineated earthquake zone on an Alquist-Priolo Earthquake Fault Map (California Department of Conservation 1999). Therefore, no impacts would occur.

a2. *Strong seismic ground shaking?*

Less-than-Significant Impact. All of southern California, including the City of Irvine, is located in a seismically active area and is subject to strong seismic groundshaking. The City of Irvine and its sphere of influence are affected by both local and regional active faults. These include the Norwalk, Newport-Inglewood, Whittier-Elsinore, San Andreas, and San Jacinto faults. There are also a number of inactive faults which have been identified in the City (City of Irvine 2006). The proposed project would be designed and built in accordance with seismic design provisions in the Uniform Building Code and City of Irvine General Plan. Furthermore, all facets of excavation, construction, and facility design would meet the standards established for previous development at the MWRP site. Specifically, this would include measures such as the over-excavation of unsuitable base soils and geologic units, the proper composition, placement, and compaction of all construction fill, the use of additional foundation design techniques as necessary, and the utilization of appropriate construction materials and methods (Dudek & Associates 2006). Implementation of these design measures would minimize the potential for adverse effects caused by seismic and geologic hazards such as strong seismic groundshaking. Impacts would be less than significant.

a3. *Seismic-related ground failure, including liquefaction?*

Less-than-Significant Impact. The City of Irvine General Plan Seismic Element identifies five general types of geologic conditions called Seismic Response Areas (SRA). SRAs describe the different types and magnitudes of potential seismic hazards. The project site is located in an area designated as SRA1 and is described as having the potential for soft or loose soils and high ground water. This area is considered to have a relatively high potential for ground failure in the form of liquefaction. However, liquefaction is not expected to occur for all earthquakes, or over the entire SRA1 (City of Irvine 2006). The project site is underlain with 3 to 6 feet of sandy fill. The fill layer is thicker at the west end of the site on which the project site is located. Immediately below the fill are layers of highly plastic, organic clays with peat. These organic clays had very high moisture contents and are highly compressible (Appendix B – NMG Geotech Report). The liquefaction potential of these soils is estimated to be low (Dudek 2006). Therefore, impacts related to seismic-related ground failure, including liquefaction, are considered to be less than significant.

a4. *Landslides?*

No Impact. Landslides are associated with steep slopes or areas adjacent to variable topography. The project site is located on a level mesa and is not adjacent to any significant slopes. Therefore, there would be no impact.

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

Less-than-Significant Impact. The project site does not contain substantial amounts of topsoil. The project site currently consists of a paved parking lot with some landscaped areas. Small amounts of exposed on-site soils would be prone to soil erosion during the construction phase of the proposed project. Construction plans and activities would include erosion control measures to minimize runoff during construction. Upon completion of construction activities the project site would be covered with impermeable surface or with landscaping, serving to limit the amount of topsoil loss or potential erosion from the site as under existing conditions. Therefore, impacts 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. As discussed in Response VI(a3), the project site is underlain by organic clays of very high moisture content and are highly compressible. The liquefaction potential of the project site is estimated to be low because of the presence of dense to very dense sands and clayey sands at the MWRP (Dudek 2006). Therefore, 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. See Responses VI(a3) and VI(c) for additional details regarding soils at the project site. Soil samples taken in the general vicinity of the MWRP indicated that the soils have little or no expansion potential (Dudek 2006). Therefore, no impacts from expansive soils are anticipated and impacts 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. No septic tanks or alternative wastewater disposal systems are included as part of the proposed project. Impacts would not occur.

VII. Greenhouse Gas Emissions	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Would the project:

- a. ***Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

Less-than-Significant Impact. Table 3-3 presents an estimate of proposed project-related greenhouse gas (GHG) emissions of CO₂, CH₄, and N₂O in terms of CO₂e (carbon dioxide equivalent). Because quantitative GHG guidelines, including thresholds, have not officially been developed by the SCAQMD, these emissions have been compared to both official and interim thresholds set by other agencies, and are provided for information and discussion purposes only.

Table 3-3. Estimate of Proposed Project-Related Greenhouse Gas Emissions

	Annual CO ₂ e (metric tons)
Proposed Project Emissions	
Construction-Period Emissions	
2011	86
CAPCOA Significance Threshold	900
BAAQMD Significance Threshold	1,100
SCAQMD Significance Threshold	3,000
Exceed Threshold?	No

Source: ICF 2010. URBEMIS 2007 outputs are provided in Air Quality Appendix A.

As shown above, the quantity of proposed project-related GHG emissions falls below all suggested GHG thresholds. As such, the proposed project's amount of emissions, without considering other cumulative global emissions, would be insufficient to cause global climate change. Thus, proposed 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.

With regard to climate change and GHG emissions, the amounts of GHG emissions that would result from development of the proposed project are negligible. Total construction emissions would total approximately 86 metric tons CO₂e. These amounts of CO₂e are far below the preliminary threshold that is currently being contemplated by the SCAQMD's GHG Significance Thresholds Working Group of 3,000 metric tons CO₂e per year. Additionally, proposed project related emissions are below the much stricter thresholds set by the California Air Pollution Control Officers Association and the Bay Area Air Quality Management District. As such, it is concluded that proposed project-related GHG emissions would be less than significant.

b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-than-Significant Impact. AB 32 identified the acceptable level of GHG emissions in California in 2020 as 427 MMT of CO₂e, which is the same as the 1990 GHG emissions level, is approximately 10% less than the current level (474 MMT CO₂e in 2008), and is approximately 28.5% less than 2020 Business As Usual (BAU) conditions (596 MMT CO₂e). To achieve these GHG reductions, there will have to be widespread reductions of GHG emissions across California. Some of those reductions will need to come in the form of changes in vehicle emissions and mileage, changes in the sources of electricity, and increases in energy efficiency by existing facilities, as well as other measures. The remainder of the necessary GHG reductions will need to come from requiring new facility development to have lower carbon intensity than BAU conditions. Therefore, this analysis uses a threshold of significance that is in conformance with the state's goals.

Operation of the proposed project is expected to result in increased emissions of GHGs due to energy consumption from the new lighting required for the storage building. Increased emissions of GHGs would contribute to global warming and the adverse global environmental effects thereof. Increased GHG emissions could also potentially conflict with the requirement of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020.

On December 12, 2008, CARB approved the Assembly Bill 32 Scoping Plan, which contains emission reduction measures targeting sources of GHG emissions called for in AB 32. The scoping plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market based mechanisms such as a cap-and-trade system, and an AB32 cost of implementation fee regulation to fund the program.

Proposed project operational GHG emissions would result from onsite electricity consumption. In their AB32 Scoping Plan, CARB has set in place aggressive energy efficiency measures requiring that 33% of all energy consumed in California will come from renewable sources by 2020. Assuming conformity with CARB standards, GHG emissions in 2020 associated with operation of the proposed project are expected to be 33% less than under BAU conditions. As such, the proposed project would result in less than significant impacts.

VIII. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on a site 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Would the project:

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

No Impact. Development of the proposed project would require the demolition of a portion of an existing parking lot. It is likely that most of the asphalt, which is not considered a

hazardous material, would be recycled. The proposed project would operate as a storage building that would not contain hazardous materials. Routine transport, use, or disposal of hazardous materials would not be associated with the proposed project. Therefore, there would be no impact.

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. Construction and operation of the proposed project would not result in the reasonably foreseeable upset or release of any hazardous materials. Construction equipment that would be used to build the proposed project has the potential to release oils, greases, solvents, and other finishing materials through accidental spills. Spill or upset of these materials would have the potential to affect surrounding land uses. However, the consequences of construction-related spills are generally reduced in comparison to other accidental spills and releases because the amount of hazardous material released during a construction-related spill is small because the volume in any single piece of construction equipment is generally less than 50 gallons. Construction-related spills of hazardous materials are not uncommon, but the enforcement of construction and demolition standards, including BMPs by appropriate local and state agencies, would minimize the potential for an accidental release of petroleum products and/or hazardous materials or explosions during construction. Federal, state, and local controls have been enacted to reduce the effects of potential hazardous materials spills.

The Orange County Fire Authority provides regional fire and public safety services for 22 cities in Orange County, including the City of Irvine, and enforces city, state, and federal hazardous materials regulations. It has the resources to respond and provide services to all types of emergencies, including fires, medical emergencies, rescue, hazardous materials incidents, and wildland and wildland-urban interface fires (Orange County Fire Authority 2010a, 2010b). City regulations include Title 4 Division 17 Hazardous Materials of the Irvine Municipal Code and implementation of the California Accidental Release Prevention Program. Compliance with these requirements is mandatory as standard permitting conditions, and would minimize the potential for the accidental release or upset of hazardous materials, helping to ensure public safety.

The proposed project would not use or store large amounts of hazardous substances and an upset of those types of materials would not be reasonably foreseeable. The construction and operation of the proposed project would not 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. Therefore, impacts would be less than significant.

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?*

No Impact. The proposed project includes the construction and operation of a storage building at the MWRP. The nearest school is the KinderCare Learning Center located at

3661 Michelson Drive, approximately 0.6 mile from the project site. The University of California Irvine and University of California Irvine Child Development Center are located within 1 mile of the project site. No schools are within 0.25 mile of the proposed project. Furthermore, the proposed project would not emit hazardous emissions or require handling hazardous or acutely hazardous materials, substances, or waste. Therefore, there would be no impact.

- 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?***

Less-than-Significant Impact. The project site is located at 3512 Michelson Drive and, although it is not on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, plant operations does require handling and storing hazardous materials. A search of 3512 Michelson Drive in the California Environmental Protection Agency (CalEPA) Cortese List as a Department of Toxic Substances and Control Hazardous Waste site did not yield any results, and the proposed project site address is not in the EnviroStor data base of hazardous substances release sites (CalEPA 2010a, 2010b). Geotracker, the California database of leaking underground storage tanks, lists two incidents that were remediated in 1995 and 2000. The potential contaminants of concern were diesel and gasoline, and the potential media affected were soil and groundwater uses other than drinking water. The database does not report any current leaking underground storage tanks at the project site or in the vicinity of the project site (Geotracker 2010). Finally, there are no active Cease and Desist Orders or Clean Up and Abatement Order for hazardous materials/facilities in the project vicinity or at the project site (CalEPA 2010c). Therefore, the proposed project would not create a significant hazard to the public or the environment, and impacts would be less than significant.

- 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?***

Less-than-Significant Impact. The closest airport is John Wayne (Orange County) Airport, approximately 2 miles northwest of the project site. The project site is located within the boundaries of the Airport Environs Land Use Plan (AELUP) for John Wayne Airport. The project site is within the notification area of the Federal Aviation Regulation (FAR) Part 77 for instrument approach for the John Wayne Airport, and the FAA Notice Criteria Tool indicates that the FAA requests that notification of the proposed project be filed (Federal Aviation Administration 2010).

Section 77.13 of the FAR requires the notification of the Federal Aviation Administration (FAA) for any construction or alteration which:

- exceeds 200 feet in height above the ground level at its site;
- exceeds a height greater than an imaginary surface extending outward and upward at specific slope characteristics at 20,000 feet, 10,000 feet, and 5,000 feet from the nearest point of the airport runway;
- is a highway with specific characteristics;
- would be in an instrument approach area and construction or alteration is more than 200 feet above the surface level of the site or an FAA regional office advises that submission of notification is required, and/or,
- occurs at an airport.

However, Section 77.15 of the FAR does not require notification of construction or alteration for any of the following:

- Any object that would be shielded by existing structures or a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town, or settlement which it is evident beyond all reasonable doubt that the structure so shielded will not adversely affect safety in air navigation.
- Any antenna structure 20 feet or less in height except one that would increase the height of another antenna structure.
- Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device, or a type approved by the Administrator, or an appropriate military service on military airports, the location and height of which is fixed by its functional purpose.
- Any construction or alteration for which notice is required by any other FAA regulation.

The proposed project would construct a single-story storage building with a maximum height of 24 feet. The project site is approximately 67 feet above mean sea level (RRM Design Group 2010). Since the proposed project would be located amongst existing MWRP operations and office buildings and the surrounding area includes development and structures of equal or greater height, the proposed project would be shielded by existing structures of a permanent and substantial character and would not adversely affect safety in air navigation. Therefore, the proposed project would meet FAA exemption criteria 77.15(a) for filing a construction or alteration notice.

Although the proposed project is located within 2 miles of a public airport and within the Airport Environs Land Use Plan planning area for John Wayne Airport, it would not result in a safety hazard for people residing or working in the project area. Furthermore, the proposed project would be located in an urban and developed area amongst structures of equal and greater height and not require filing notification with the FAA. Impacts would be less than significant.

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 proposed project is not located within the vicinity of a private airstrip. Therefore, the proposed project would not result in a safety hazard for people residing or working in the project area and there would be no impact.

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

No Impact. The proposed project would not involve expansion beyond the existing MWRP boundaries; therefore, conflicts with any emergency evacuation plan would not occur. Furthermore, the MWRP is not located along any of the major arterials that could serve as major evacuation routes. Therefore, implementation of the proposed project would not impair or physically interfere with any emergency plan and there would be no impact.

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. Portions of the project area are included in or adjacent to open space with fire potential designated by the Orange County Fire Authority. The project site is within 2 miles of areas designated as having medium or high fire potential according to the Orange County Planning and Development Services Department (Dudek 2006). Construction of the proposed project would not involve any housing units, and the proposed storage building would be fabricated of non-combustible or fire-retardant materials. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires and impacts would be less than significant.

IX. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Place within a 100-year flood hazard area structures that would impede or redirect floodflows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j. Contribute to inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Would the project:

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

Less-than-Significant Impact. The MWRP is located in the Santa Ana River hydrological unit, the lower Santa Ana River hydrologic area, and the East Coastal Plain hydrologic subarea (SARWQCB 1995). The MWRP is also contained within the San Diego Creek Watershed, which covers 112.2 square miles in central Orange County. The San Diego Creek Watershed includes portions of the cities of Costa Mesa, Irvine, Laguna Woods, Lake Forest, Newport Beach, Orange, Santa Ana, and Tustin. Its main tributary, San Diego Creek, drains into Upper Newport Bay. The watershed is under the jurisdiction of the Santa Ana Regional Water Quality Control Board (SARWQCB) and subject to the objectives, water quality standards, and BMP requirements established in the Santa Ana River Basin Plan and Orange County Drainage Area Management Plan (DAMP). The EPA and Santa Ana Regional Water Quality Control Board have identified San Diego Creek as an impaired water body. Impairments are identified for metals, nutrients, pesticides, sediments and toxics (EPA 2010).

Under the provision of the City of Irvine Municipal Code Section 6-8-302, no person shall cause, facilitate, or contribute to a discharge into the stormwater drainage system, or into an area or in a manner that will result in a discharge into the stormwater drainage system of any substance causing or contributing to an exceedance of any water quality standard for surface water or groundwater. The proposed project would comply with all regional and local water quality standards and waste discharge requirements. Since the proposed activities do not involve the paving or disturbance of an area equal to or greater than 1 acre, a Storm Water Pollution Prevention Plan would not be required for the proposed project. Construction plans and activities would include erosion control measures to minimize runoff during construction. Furthermore, stormwater runoff at the MWRP is pumped into the plant headworks and treated as part of the recycled water process, therefore limiting the potential for erosion and sedimentation and subsequent damage to the San Joaquin Marsh and San Diego Creek.

Operation of the proposed project would not result in discharges of water. The proposed project would not violate water quality standards or waste discharge requirements. Therefore, impacts would be less than significant.

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)?*

No Impact. The MWRP is located within the Irvine Management Zone for groundwater which is bounded by the San Joaquin Hills to the south and the foothills of the Santa Ana Mountains to the northeast. The management zone is made up of three groundwater basins, specifically the Irvine Forebay I, Irvine Forbay II, and Irvine Pressure areas.

Groundwater in the Irvine Management Zone flows westward from the forebay area into the pressure area. The MWRP is located in the pressure area, which is defined as the area where surface waters and near-surface groundwater are impeded from percolating in large quantities into the major producible aquifers by clay and silt layers at shallow depths. Generally, the majority of the recharge occurs in the unconfined forebay area, which is characterized by highly permeable sands and gravels with discontinuous clay and silt deposits. The Irvine Management Zone is divided into three groundwater aquifers referred to as the shallow, principal, and deep aquifers. The shallow aquifer is unconfined and is of poor quality and generally not used for municipal supply (Dudek 2006).

IRWD constructed a series of ponds as part of a constructed wetlands habitat in the San Joaquin Marsh. The ponds are located between the MWRP and Campus Drive. The ponds receive water via a pump station located approximately 500 feet downstream from the MWRP in San Diego Creek. The ponds are naturally lined with fine sediment, i.e., clay, peat, which was typically identified beneath the MWRP. It appears that some water infiltrates through the bottom of the ponds and recharges the shallow aquifer (Dudek 2006). However, as previously stated, the shallow aquifer is of poor quality and generally not used for municipal supply.

Because the project site is currently developed with an impermeable parking lot and is not considered a location of groundwater recharge, the proposed project would not interfere with groundwater recharge. Furthermore, the proposed project would not directly withdraw groundwater from beneath the site, thereby substantially depleting groundwater supplies. There would be no impact.

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 existing project area is in the San Diego Creek Watershed and adjacent to the San Diego Creek, its main tributary. The proposed project would not substantially alter the existing drainage pattern of the site or area, nor would it alter the course of a stream or river. Furthermore, the proposed project would not substantially increase the amount of stormwater runoff volumes and velocities. The proposed project would be developed on an existing impermeable 33,000 square foot surface parking lot. The proposed project would involve some grading and minor soil disturbance during construction. These activities would not alter the existing drainage pattern of the site. The proposed project would implement construction plans, activities and BMPs consistent with the DAMP in order to limit erosion during construction. Furthermore, stormwater runoff at the MWRP is pumped into the plant headworks and treated as part of the recycled water process, therefore limiting the potential for erosion and sedimentation and subsequent damage to the San Joaquin Marsh and San Diego Creek. Once operational, the project site would be covered with impermeable and landscaped surfaces. 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. No streams or rivers are located on the project site; however, the San Diego Creek and San Joaquin Marsh are adjacent to the MWRP. Construction and operation of the proposed project would not directly affect the flow of a river or stream. Substantial amounts of stormwater are not readily absorbed into the soil because of the existing use of the project site as a surface parking lot.

During construction, runoff quantities and velocities from the project site would be minimized through implementation of construction plans, activities and BMPs consistent with the DAMP in order to limit flooding during construction. Furthermore, all surface runoff at the MWRP is pumped into the plant headworks and treated as part of the recycled water process, therefore limiting the potential for onsite and offsite flooding. As discussed above in Section IX(a) and (c), operation of the proposed project would not substantially alter the existing drainage pattern of the site and would not substantially increase the impervious area on the project site. Therefore, the proposed project would not substantially alter the existing drainage pattern of the project 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. 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. As discussed in Responses IX(a) and IX(c), with the implementation of construction plans, activities and BMPs consistent with the DAMP, the proposed project would not substantially increase the volume or velocities of stormwater flow or contribute to substantial erosion or siltation onsite or offsite. Therefore, impacts would be less than significant.

- f. *Otherwise substantially degrade water quality?***

Less-than-Significant Impact. The proposed project would not substantially degrade water quality. As outlined under Responses IX(a) and (c), the proposed project would not substantially increase surface runoff, would not substantially alter the drainage of the existing project site, and would otherwise have less than significant impacts on water quality with the incorporation of construction plans, activities and BMPs consistent with the DAMP. Impacts would be less than significant.

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

No Impact. The proposed project does not include the construction of housing units. Therefore, the proposed project would not locate housing within a 100-year flood hazard area. There would be no impact.

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

Less-than-Significant Impact. The MWRP is located along the westerly bank of the San Diego Creek and is protected from flooding by the San Diego Creek Channel. The San Diego Creek Channel is a 100-year flood control facility under the maintenance of the Orange County Public Works, Flood Control Division (OCPW) and is the primary regional flood control facility serving the San Diego Creek Watershed. Federal Emergency Management Agency (FEMA) Fire Insurance Rate Maps (FIRMs) identify flood zones and areas that are susceptible to 100-year and 500-year floods. The MWRP and the majority of the land bordering the San Diego Creek are not in the 100-year to 500-year flood plain according to FEMA FIRMs (Dudek 2006). However, the San Diego Creek itself is identified as a flood hazard area (City of Irvine 2006). The proposed project does not involve the construction of structures that impede or redirect flows in the San Diego Creek Channel. However, the San Diego Creek Channel between Jamboree Road and the I-405 freeway was determined to be deficient in its ability to convey 100-year storm flows due to extensive vegetation growth on the north/east side of the channel. The OCPW has proposed a project to restore the channel to its as-built condition by removing the vegetation along the north/east side except for a 40-foot wide buffer (OCPW 2010). Therefore, until the San Diego Creek Channel baseline condition as a 100-year flood control facility is re-established, there will remain a potential for flooding at the project site. For the purposes of this IS/MND, it is expected that OCPW will restore the 100-year flood capacity of the channel. Regardless, the proposed project would not increase the potential for flooding and would not impede flood flows. Therefore, impacts would be less than significant.

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?

Less-than-Significant Impact. The proposed project would not involve introduction of structures in a dam inundation zone. As discussed in Response IX(h), the proposed project is not located in a flood hazard area; however, the adjacent San Diego Creek is identified as a flood hazard area. For the purposes of this IS/MND, it is expected that OCPW will restore the 100-year flood capacity of the channel, and impacts would be less than significant.

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

No Impact. Hydrologic and topographic conditions of the project site and surrounding area do not lend themselves to these conditions. The project site is not near any water body that would potentially be affected by a seiche, tsunami, or mudflow (Dudek 2006). Therefore, the proposed project would not contribute to inundation by seiche, tsunami, or mudflow and there would be no impact.

X. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Would the project:

a. *Physically divide an established community?*

No Impact. The proposed project would be located entirely within the existing MWRP boundaries. Therefore, the proposed project would not physically divide an established community, and there would be no impact.

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

No Impact. The project site is designated “Public Facilities” by the City of Irvine General Plan, and “Institutional” by the City of Irvine Zoning Code. These designations include the MWRP as an allowable use. The proposed project would not create any new uses that do not already exist within the facility boundary and would not conflict with general plan or zoning designations. The proposed project represents an ancillary facility for continued operations of the existing use as a water recycling facility. Therefore, the proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project; and there would be no impact.

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

No Impact. See Response IV(f). The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. There would be no impact.

XI. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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?***

No Impact. Mineral extraction activities are not conducted on site and the MWRP is not located in area of known mineral resources. Therefore, the proposed project would not result in the loss of availability of a known mineral resource 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 Response XI(a). There would be no impact.

XII. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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?***

Less-than-Significant Impact. Project-related noise would be created as a result of construction and operational noise, as well as project-related traffic noise. The proposed project is located in the City of Irvine, which regulates noise through the Noise Element of the General Plan and the Municipal Code. The relevant portions of these noise regulations are summarized below:

City of Irvine Noise Element

The noise standards specified in the City’s Noise Element (City of Irvine 2006) are summarized in Table 3-4. The City uses 65 decibels in the A-weighted scale (dBA) community noise equivalent level (CNEL) as the critical criterion for assessing the compatibility of residential land uses with noise sources. The City requires that the exterior

living areas (backyards and patios) for new residential land uses not exceed 65 dBA CNEL. In addition, the City of Irvine requires that both single-family and multifamily developments achieve an indoor noise standard of 45 dBA CNEL. Other short-term noise impacts, such as construction activities, are regulated by the noise ordinance.

Noise Ordinance

The City’s Noise Ordinance [Irvine, City of. 2005. *Code of Ordinances, Title 6 – Public Works, Division 8 – Pollution, Chapter 2 – Noise.* Irvine, CA.] establishes the maximum permissible noise level that may intrude into a neighbor’s property. The Noise Ordinance (adopted in 1975 and revised in 1984) establishes noise level standards for various land use categories affected by stationary noise sources.

For residential uses, the exterior noise level shall not exceed 55 dBA during daytime hours (7:00 a.m.–10:00 p.m.) or 50 dBA during the nighttime hours (10:00 p.m.–7:00 a.m.) for more than 30 minutes in any hour. For events occurring within shorter periods of time, these noise levels are adjusted upward accordingly.

Table 3-4. Interior and Exterior Noise Standards, Energy Average (CNEL), City of Irvine

Land Use Categories		Energy Average (CNEL)		
Category	Use	Interior ^a	Exterior ^b	
Residential	Single-Family and Multifamily	45 ^c 55 ^d	65 ^e	
	Mobile Home	--	65 ^f	
Commercial/ Industrial/ Institutional	Hotel, Motel, Transient Lodging	45	65	
	Commercial, Retail, Bank, Restaurant	55	--	
	Office building, Professional Office, Research and Development	50	--	
	Amphitheater, Concert Hall, Auditorium, Meeting Hall	45	--	
	Gymnasium (Multipurpose)	50	--	
	Health Clubs	55	--	
	Manufacturing, Warehousing, Wholesale, Utilities	65	--	
	Movie Theater	45	--	
	Institutional	Hospital, School Classroom	45	65
		Church, Library	45	--
Open space	Parks	--	65 ^g	

Source: City of Irvine Noise Element, updated 2006.

- ^a Interior environment, excluding bathrooms, toilets, closets, and corridors.
- ^b Outdoor environment limited to private yard of single-family or multifamily residences; private patio which is accessed by a means of exit from inside the unit; mobile home park; hospital patio; park picnic area; school playground; and hotel and motel recreation area.
- ^c Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided pursuant to Appendix Chapter 12, Section 1208 of UBC.
- ^d Noise level requirement with open windows, if they are used to meet natural ventilation requirement.

-
- e Multifamily developments with balconies that do not meet the 65 dBA CNEL are required to provide occupancy disclosure notices to all future tenants regarding potential noise impacts.
 - f Exterior noise level shall be such that interior noise level will not exceed 45 dBA CNEL.
 - g Except those areas affected by aircraft noise.
- CNEL = community noise equivalent level
-

The Noise Ordinance regulates the timing of construction activities and includes special provisions for sensitive land uses. Construction activities shall occur only between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and 9:00 a.m.–6:00 p.m. on Saturdays. No construction is permitted outside of these hours or on Sundays and federal holidays.

Noise-Sensitive Land Uses. The nearest noise-sensitive land uses consist of residences located approximately 2,100 feet southeast of the project site. A church is also located approximately 2,100 feet to the south. The view of the project site to the residences and to the church is shielded by existing Irvine Ranch Water District buildings. The nearest noise-sensitive land uses with an unobstructed view are residences located approximately 2,400 feet to the northwest.

Construction Noise. Noise from construction activities could temporarily increase noise levels at nearby noise-sensitive land uses. The duration of construction is estimated to be approximately 6 months. Construction activities would include demolition of an existing parking lots, on-site improvements, site preparation, paving, and modifications to an existing culvert and drainage. Access to the project site would be provided through Riparian View, IRWD's private road off of Michelson Drive.

Because the site is already developed and the topography is flat, there would be minimal soil disturbance during construction. Import and export of soil may be necessary in the event that the grading contractor finds that some excavated soil is not suitable for reuse. Soil would be disturbed to an approximately depth of 5 feet to prepare for the building foundations. The building would be constructed using pre-manufactured metal panels that would be transported to the project site.

All construction would comply with applicable codes. Construction crews would work no more than 8 hours per day and would restrict their activities to between 7:00 a.m. and 6:00 p.m. on non-federal-holiday weekdays and between 8:00 a.m. and 5:00 p.m. on Saturdays. No special construction methods such as blasting or pile-driving would be used.

Noise from construction activity is generated by the broad array of powered, noise-producing mechanical equipment used in the construction process. This equipment ranges from hand-held pneumatic tools to bulldozers, dump trucks, and front loaders. The exact complement of noise-producing equipment that would be in use during any particular period has not yet been determined. However, the noise levels from construction activity during various phases of a typical construction project have been evaluated, and their use provides an acceptable prediction of a project's potential noise impacts.

In order to assess the potential noise effects of construction, this noise analysis used data from an extensive field study of various types of industrial and commercial construction

projects (U.S. Environmental Protection Agency 1971). Noise levels associated with various construction phases where all pertinent equipment is present and operating, at a reference distance of 50 feet, are shown in Table 3-5. Because of vehicle technology improvements and stricter noise regulations since the field study was published, this analysis used the average noise levels shown in Table 3-5 for the loudest construction phase. This information indicates that the overall average noise level generated on a construction site could be 89 dBA at a distance of 50 feet during excavation and finishing phases. The noise levels presented are value ranges; the magnitude of construction noise emission typically varies over time because construction activity is intermittent and the power demands on construction equipment (and the resulting noise output) are cyclical.

Table 3-5. Typical Noise Levels from Construction Activities for Public Works Projects

Construction Activity	Average Sound Level at 50 feet (dBA Leq)^a	Standard Deviation (dB)
Ground Clearing	84	7
Excavation	89	6
Foundations	78	3
Erection	87	6
Finishing	89	7

^a Sound level with all pertinent equipment operating.
Source: U.S. Environmental Protection Agency 1971.

Noise levels generated by construction equipment (or by any point source) decrease at a rate of approximately 6 dBA per doubling of distance from the source (Harris 1979). Therefore, if a particular construction activity generated average noise levels of 89 dBA at 50 feet, the L_{eq} would be 83 dBA at 100 feet, 77 dBA at 200 feet, 71 dBA at 400 feet, and so on. This calculated reduction in noise level is based on the loss of energy resulting from the geometric spreading of the sound wave as it leaves the source and travels outward. Intervening structures that block the line of sight, such as buildings, would further decrease the resultant noise level by a minimum of 5 dBA. The effects of molecular air absorption and anomalous excess attenuation would reduce the noise level from construction activities at more distant locations at the rates of 0.7 dBA and 1.0 dBA per 1,000 feet, respectively.

The closest noise-sensitive receptors to the project are residential land uses located approximately 2,100 feet to the southeast of the project site. A construction noise level of 89 dBA L_{eq} at 50 feet would attenuate to approximately 48 dBA L_{eq} at a distance of 2,100 feet from the source, after accounting for structural shielding, attenuation with distance and absorption effects. At the nearest noise-sensitive receivers with an unobstructed line of sight, the construction noise is predicted to be approximately 51 dBA. These noise levels are on a par with or slightly below typical, daytime suburban ambient noise levels² in the absence of nearby major noise sources (such as highways, major roadways, industrial

² Reference: Harris Miller Miller & Hanson, Inc. 2003. Noise and Vibration Impact Assessment for the San Francisco Bay Area Rapid Transit District (BART) Warm Springs Extension Project. Draft report. February. (HMMH Report No. 298760-01.) Burlington, MA.

plants, etc). Thus, construction noise levels may be slightly audible at times in the residential areas during construction operations, however the levels are sufficiently low such that they are unlikely to cause interference with conversation or other activities requiring concentration, or to cause sleep interference. Furthermore, noise levels generated by construction activities would be less than the 30-minute 55 dBA exterior standard for residential receptors as specified in the noise ordinance. Provided that construction is conducted within the hours permitted by the City's Municipal Code (i.e., 7:00 a.m.–7:00 p.m., Monday through Friday, and 9:00 a.m.–6:00 p.m. on Saturdays), noise from construction would result in a less than significant impact.

Operational Noise On-Site. The storage building would be approximately 24 feet in height and would be used for storage of materials and equipment used for maintenance activities at the MWRP. The materials to be stored within the building would be relocated from other storage buildings on the MWRP site. The materials that would be stored in the structure are currently stored at other buildings on the same site. Once the building is constructed, these materials would be consolidated in the new structure and the existing buildings would be converted to office space. Delivery of materials to the plant would not increase as a result of the proposed project; therefore, no increase in truck deliveries would result from the proposed project, and no net increase in overall on-site noise would result when compared to existing levels. Although there may be a minor increase in the number of automobile traffic trips, the increase in traffic noise would not be measurable or audible, and would not cause an exceedance of City of Irvine noise standards. The noise from operation of the proposed project would not exceed applicable standards and would therefore be less than significant.

b. *Expose persons to or generate excessive groundborne vibration or groundborne noise levels?*

Less-than-Significant Impact. The nearest vibration-sensitive land uses are residences, located approximately 2,100 feet from the project site. Vibration would be generated by construction equipment during project construction and by trucks and other equipment during project operations. Groundborne vibration from construction and operations equipment would be relatively minor, and would generally dissipate to a level below perceptibility within 50 feet or less. At nearby sensitive land uses, vibration or groundborne noise would not be perceptible; therefore, impact from groundborne vibration or groundborne noise would be less than significant. No mitigation measures are required or recommended.

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. As discussed in Response XII(a), the nature of the proposed project is such that noise from project operation would not generate noise levels that would be noticeably different from existing levels on-site. No substantial permanent increase in ambient noise levels above existing levels without the project is anticipated; therefore, impacts would be less than significant. No mitigation measures are required or recommended.

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. As discussed in Response XII(a), construction noise at noise-sensitive land uses is estimated to be approximately 51 dBA L_{eq} or less. These noise levels are on a par with or slightly below typical, daytime suburban ambient noise levels. The combined effect of the temporary noise from construction and the ambient noise would result in a temporary increase in overall noise levels in the area of approximately 3 decibels, assuming that the construction noise was equivalent in sound level to the existing ambient level. In terms of audibility (all other things being equal), a change in noise level of 3 decibels is considered to be barely perceptible in a community environment, while a change of 5 decibels is considered to be clearly perceptible. Impacts would be less than significant.

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?

Less-than-Significant Impact. The project site is located within the Orange County Airport Environment Land Use Plan (AELUP) for John Wayne (Orange County) Airport. The project site is approximately 1.8 miles east of the airport's main runway (19R/1L), and lies approximately 0.5 mile outside of the airport's 60 dBA CNEL noise contour. Therefore, the project would not expose people residing or working in the project area to excessive noise levels and impacts would be less than significant. No mitigation measures are required or recommended.

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. The proposed project is not located in the vicinity of a private airstrip. Therefore, there would be no impact.

XIII. 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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)?***

No Impact. No housing or commercial facilities are related to the proposed project. In addition, the proposed project would not modify land use or zoning designations to permit new residential or commercial development. Therefore, the proposed project would not have the potential to induce substantial population growth and there would be no impact.

- 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 site. Therefore, the proposed project would not displace a substantial number of existing housing units and there would be no impact.

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

No Impact. See Response XIII(b). There would be no impact.

XIV. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Would the project:

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:

a1. Fire protection?

No Impact. Introduction of an additional storage building would not change local fire protection authority response times or substantially affect demand for fire protection services at the facility. Therefore, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities and there would be no impact.

a2. Police protection?

No Impact. The proposed project would not involve the introduction of structures outside of the existing MWRP property. Further, the proposed project would not include the addition of housing, schools, or other community facilities that might require additional police protection. Therefore, the proposed project would not affect local police response times or demand for police protection services and there would be no impact.

a3. Schools?

No Impact. As discussed in the Response XIII(a), Population and Housing, the proposed project would not induce population growth. Therefore, no new demands would be placed on schools and there would be no impact.

a4. *Parks?*

No Impact. As discussed in Response XIII(a), Population and Housing, the proposed project would not induce population growth. Therefore, no new demands would be placed on parks and there would be no impact.

a5. *Other public facilities?*

No Impact. As discussed in Response XIII(a), Population and Housing, the proposed project would not induce population growth. Therefore, no new demands would be placed on other public facilities and there would be no impact.

XV. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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?***

No Impact. As discussed in Response XIII(a), Population and Housing, the proposed project would not induce population growth. Therefore, no new demands would be placed on recreational facilities and there would be no impact.

- 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. As discussed in Response XIII(a), Population and Housing, the proposed project would not induce population growth. The proposed project would not include recreational facilities or require the construction of or expansion of recreational facilities that might have an adverse effect on the environment. The construction laydown area would be located within the fenced MWRP boundaries, and access to trails in the area surrounding the MWRP for walkers/joggers and bicyclists would remain available. There would be no impact.

XVI. Transportation/Traffic	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Would the project:

- a. ***Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?***

Less-than-Significant Impact. Although the proposed project is located entirely within the MWRP site boundaries, there is a potential for project-related traffic to affect adjacent roadways providing access to the project site during construction and operation.

Construction Period

No road or lane closures are expected to result from construction of the proposed project. Access to the project site during construction would be provided through Riparian View, IRWD's private road accessed from Michelson Drive. Construction activities would generate construction-related traffic, which could create a temporary increase in localized traffic. Additionally, construction related traffic could potentially disrupt or reduce pedestrian, bicycle, and vehicular accessibility in the area during construction hours.

The impact of construction generated traffic on area traffic volumes would be less than significant with implementation of IRWD project technical specifications section 1300 pertaining to construction traffic control (IRWD 2010). Covered traffic regulations include construction signing, vehicular traffic control, pedestrian traffic control and safety, access to adjacent properties, and permanent traffic control devices. Traffic control associated with the proposed project would conform to the ordinances and regulations of the City of Irvine.

Operation Period

During operation, increases in traffic volumes are not expected to result from the introduction of an additional storage building. Thus, operational traffic volume impacts would be less than significant.

- b. *Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways?***

Less-than-Significant Impact. See Response XVI(a). Although the proposed project would result in minor temporary increases in traffic on local area roadways, this short-term construction-related traffic would not create a substantial impact on traffic volumes nor change traffic patterns in such a way as to conflict with any congestion management programs. Impacts would be less than significant.

- 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. Neither construction nor operation of the proposed project is expected to have any effect on air traffic patterns. 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)?***

No Impact. No obstacles to sight distance are expected to result from construction of the proposed project. No sharp roadway curves currently exist in the project area, nor would such curves be created as a result of the proposed project. There would be no impact.

- e. *Result in inadequate emergency access?***

Less-than-Significant Impact. No lane closures would occur and emergency access would be maintained through the site and on surrounding roadways. The impact of construction

generated traffic on emergency vehicle access would be minimized with implementation of IRWD project technical specifications section 1300 pertaining to construction traffic control (IRWD 2010). Therefore, impacts during construction would be less than significant.

Once operational, the proposed project would not result in inadequate emergency access. Operational impacts would be less than significant.

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less-than-Significant Impact. The proposed project would not conflict with any alternative transportation policies, plans, or programs within the City. Because public transit service does not run on the project site access road (Riparian View), construction-related traffic is not expected to interfere with transit operations.

There is an unpaved equestrian and hiking path located between Riparian View and the San Diego Creek Channel. During construction of the proposed project, access to the path would remain fully available, and no adverse impact to the path would occur. Therefore, impacts to alternative transportation would be less than significant after mitigation.

XVII. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Would the project:

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

Less-than-Significant Impact. The proposed project would not exceed wastewater treatment requirements of SARWQCB. The proposed project would be constructed in an area that is currently developed with an existing 33,000 square foot 57-stall surface parking lot and some landscaped area. The project site currently generates wastewater from urban runoff during rain events. The proposed project would replace 12,000 square feet of impervious parking lot with a pre-fabricated steel storage building, also impervious, and therefore would not increase wastewater generation above the existing conditions. No point source discharge would occur as a result of the proposed project. The proposed

project does not involve connection to the existing sewer system. Therefore, the proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. Impacts would be less than significant.

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?*

No Impact. As discussed in Response XIII(a), Population and Housing, the proposed project would not induce population growth. Therefore, no new demands would be placed on water or wastewater facilities and there would be no impact.

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 site consists mostly of impervious surfaces. The proposed project would not alter the existing drainage pattern of the site and would not increase the pervious area as described in Section IX, Hydrology and Water Quality. During construction, runoff from the project site would be managed by construction plans, activities and BMPs consistent with the DAMP. Furthermore, all surface runoff at the MWRP is collected, pumped to the headworks, and incorporated into the water treatment flow. Therefore, the proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities. Impacts 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. See Response XVII(b) above. There would be no impact.

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?*

No Impact. See Response XVII(b) above. There would be no impact.

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

Less-than-Significant Impact. The proposed project would generate a modest amount of construction-related solid waste during the construction phase. The Frank K. Bowerman landfill, located in Irvine, serves as the landfill for all solid waste at the MWRP, and has a permitted capacity to accept the expected waste generated from construction of the proposed project. The proposed new storage building, once operational, would not create an additional demand for solid waste disposal. Impacts would be less than significant.

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

No Impact. The proposed project would comply with all regulations related to solid waste, including the California Integrated Waste Management Act and City recycling programs. Therefore, there would be no impact.

XVIII. 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Would the project:

- 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 with Mitigation Incorporated. The proposed project could potentially result in indirect noise impacts to least Bell’s vireo and southwestern willow flycatcher if construction occurs during the nesting season. If construction during least Bell’s vireo and southwestern willow flycatcher nesting season (March 15 through September 15) cannot be avoided, noise impacts to these species would be avoided through implementation of **Mitigation Measure BIO-1**, thus reducing impacts to a less than significant level. Additionally, no historical cultural resources would be affected by the construction or operation of the proposed project. Although the proposed project is unlikely to disturb significant archaeological resources during construction, **Mitigation Measure CR-1** would reduce impacts on archaeological resources to less than significant levels. Therefore, impacts would be less than significant with mitigation incorporated.

- 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. Due to its limited size and magnitude, the proposed project, in conjunction with other area projects, would not result in cumulative impacts on the physical environment. Impacts would be less than significant.

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

No Impact. Based on the analysis of the above listed topics, the proposed project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly. There would be no impact.

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Victor Ortiz Air Quality Specialist
Anita Eng Biologist
Mark Robinson Cultural Resources
Michael Greene Noise Specialists
Yonnel Gardes Traffic and Transportation Specialists
Soraya Mustain GIS
Diana Roberts Editor

Appendix A
Air Quality Calculations

CONSERVATIVE ESTIMATE OF UNMITIGATED CONSTRUCTION EMISSIONS (pounds per day)

	ROC	NO _x	CO	SO _x	PM ₁₀ ^a	PM _{2.5} ^a	CO ₂
Demolition Emissions							
On-site Total	1.05	7.22	4.58	-	5.59	1.55	700.30
Fugitive Dust	-	-	-	-	5.04	1.05	-
Off-Road Diesel	1.05	7.22	4.58	-	0.55	0.50	700.30
Off-site Total	0.40	4.73	2.78	0.01	0.22	0.18	830.77
On-Road Diesel	0.37	4.67	1.80	0.01	0.21	0.18	706.40
Worker Trips	0.03	0.06	0.98	-	0.01	-	124.37
Grand Total	1.45	11.95	7.36	0.01	5.81	1.73	1,531.07
Site Grading Emissions							
On-site Total	2.83	23.44	11.96	-	2.03	1.26	2,247.32
Fugitive Dust	-	-	-	-	0.86	0.18	-
Off-Road Diesel	2.83	23.44	11.96	-	1.17	1.08	2,247.32
Off-site Total	0.09	0.84	1.28	-	0.05	0.03	242.10
On-Road Diesel	0.06	0.78	0.30	-	0.04	0.03	117.73
Worker Trip	0.03	0.06	0.98	-	0.01	-	124.37
Grand Total	2.92	24.28	13.24	-	2.08	1.29	2,489.42
Building Erection/Finishing Emissions							
On-site Total	3.00	19.77	11.59	-	1.52	1.40	1,872.62
Off-Road Diesel, Bldg Cnst	1.11	8.51	4.68	-	0.54	0.50	893.39
Arch Coatings Off-Gas	-	-	-	-	-	-	-
Asphalt Off-Gas	0.06	-	-	-	-	-	-
Off-Road Diesel, Asphalt	1.83	11.26	6.91	-	0.98	0.90	979.23
Off-site Total	0.12	0.75	2.46	-	0.05	0.04	378.99
Worker Trips, Bldg Cnst	0.01	0.02	0.37	-	-	-	47.74
Vendor Trips, Bldg Cnst	0.04	0.40	0.29	-	0.02	0.02	79.38
Worker Trips, Arch Coatings	-	-	-	-	-	-	-
On-Road Diesel, Asphalt	0.02	0.23	0.09	-	0.01	0.01	34.23
Worker Trips, Asphalt	0.05	0.10	1.71	-	0.02	0.01	217.64
Grand Total	3.12	20.52	14.05	-	1.57	1.44	2,251.61
On-site Emissions Totals							
Demolition	1.1	7.2	4.6	-	5.6	1.6	700.3
Site Grading	2.8	23.4	12.0	-	2.0	1.3	2,247.3
Building Erection/Finishing	3.0	19.8	11.6	-	1.5	1.4	1,872.6
Maximum On-site Emissions	3	23	12	-	6	2	2,247
Localized Significance Threshold ^b	--	123	2,109	--	60	22	--
Exceed Threshold?	No	No	No	No	No	No	No
Regional Emissions Totals							
Demolition	1.5	12.0	7.4	0.0	5.8	1.7	1,531.1
Site Grading	2.9	24.3	13.2	-	2.1	1.3	2,489.4
Building Erection/Finishing	3.1	20.5	14.1	-	1.6	1.4	2,251.6
Maximum Regional Emissions	3	24	14	0	6	2	2,489
Regional Significance Threshold	75	100	550	150	150	55	--
Exceed Threshold?	No	No	No	No	No	No	No

Notes:

URBEMIS print-out sheets and fugitive PM calculation worksheet are included in Appendix A.

^a Fugitive PM₁₀ and PM_{2.5} emissions estimates take into account compliance with SCAQMD Rule 403 requirements for fugitive dust suppression, which require that no visible dust be present beyond the site boundaries.

^b The project site is located in SCAQMD SRA No. 20. These LSTs are based on the site location SRA, distance to nearest sensitive receptor location from the project site (200 meters), and project area that could be under construction on any given day (less than one acre).

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\Victor M Ortiz\Desktop\09232010\MWRP Storage Bldg\MWRP Storage Bldg.urb924

Project Name: MWRP Storage Bldg

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

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011 TOTALS (lbs/day unmitigated)	3.11	24.27	14.05	0.01	5.07	1.55	5.81	1.06	1.43	1.74	2,489.42

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
Time Slice 1/3/2011-1/31/2011 Active Days: 21	1.45	11.95	7.36	<u>0.01</u>	<u>5.07</u>	0.74	<u>5.81</u>	<u>1.06</u>	0.68	<u>1.74</u>	1,531.07
Demolition 01/01/2011- 01/31/2011	1.45	11.95	7.36	0.01	5.07	0.74	5.81	1.06	0.68	1.74	1,531.07
Fugitive Dust	0.00	0.00	0.00	0.00	5.04	0.00	5.04	1.05	0.00	1.05	0.00
Demo Off Road Diesel	1.05	7.22	4.58	0.00	0.00	0.55	0.55	0.00	0.50	0.50	700.30
Demo On Road Diesel	0.37	4.67	1.80	0.01	0.02	0.19	0.21	0.01	0.17	0.18	706.40
Demo Worker Trips	0.03	0.06	0.98	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.37

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Time Slice 2/1/2011-2/28/2011	2.92	<u>24.27</u>	13.23	0.00	0.87	1.21	2.07	0.18	1.11	1.29	<u>2,489.42</u>
Active Days: 20											
Fine Grading 02/01/2011-02/28/2011	2.92	24.27	13.23	0.00	0.87	1.21	2.07	0.18	1.11	1.29	2,489.42
Fine Grading Dust	0.00	0.00	0.00	0.00	0.86	0.00	0.86	0.18	0.00	0.18	0.00
Fine Grading Off Road Diesel	2.83	23.44	11.96	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,247.32
Fine Grading On Road Diesel	0.06	0.78	0.30	0.00	0.00	0.03	0.04	0.00	0.03	0.03	117.73
Fine Grading Worker Trips	0.03	0.06	0.98	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.37
Time Slice 3/1/2011-6/14/2011	1.16	8.93	5.34	0.00	0.01	0.56	0.57	0.00	0.52	0.52	1,020.51
Active Days: 76											
Building 03/01/2011-06/30/2011	1.16	8.93	5.34	0.00	0.01	0.56	0.57	0.00	0.52	0.52	1,020.51
Building Off Road Diesel	1.11	8.51	4.68	0.00	0.00	0.54	0.54	0.00	0.50	0.50	893.39
Building Vendor Trips	0.04	0.40	0.29	0.00	0.00	0.02	0.02	0.00	0.02	0.02	79.38
Building Worker Trips	0.01	0.02	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.74
Time Slice 6/15/2011-6/30/2011	<u>3.11</u>	20.51	<u>14.05</u>	0.00	0.02	<u>1.55</u>	1.57	0.01	<u>1.43</u>	1.43	2,251.61
Active Days: 12											
Asphalt 06/15/2011-06/30/2011	1.96	11.58	8.70	0.00	0.01	0.99	1.00	0.00	0.91	0.92	1,231.10
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.83	11.26	6.91	0.00	0.00	0.98	0.98	0.00	0.90	0.90	979.23
Paving On Road Diesel	0.02	0.23	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	34.23
Paving Worker Trips	0.05	0.10	1.71	0.00	0.01	0.01	0.02	0.00	0.00	0.01	217.64
Building 03/01/2011-06/30/2011	1.16	8.93	5.34	0.00	0.01	0.56	0.57	0.00	0.52	0.52	1,020.51
Building Off Road Diesel	1.11	8.51	4.68	0.00	0.00	0.54	0.54	0.00	0.50	0.50	893.39
Building Vendor Trips	0.04	0.40	0.29	0.00	0.00	0.02	0.02	0.00	0.02	0.02	79.38
Building Worker Trips	0.01	0.02	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.74

Phase Assumptions

Phase: Demolition 1/1/2011 - 1/31/2011 - Default Demolition Description

Building Volume Total (cubic feet): 12000

Building Volume Daily (cubic feet): 12000

On Road Truck Travel (VMT): 166.67

Off-Road Equipment:

1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Fine Grading 2/1/2011 - 2/28/2011 - Default Fine Site Grading/Excavation Description

Total Acres Disturbed: 0.28

Maximum Daily Acreage Disturbed: 0.07

Fugitive Dust Level of Detail: Default

12.22 lbs per acre-day

On Road Truck Travel (VMT): 27.78

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

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

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 6/15/2011 - 6/30/2011 - Default Paving Description

Acres to be Paved: 0.27

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

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Phase: Building Construction 3/1/2011 - 6/30/2011 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

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

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\Victor M Ortiz\Desktop\09232010\MWRP Storage Bldg\MWRP Storage Bldg.urb924

Project Name: MWRP Storage Bldg

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

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011 TOTALS (tons/year unmitigated)	0.11	0.83	0.50	0.00	0.06	0.05	0.11	0.01	0.05	0.06	93.26

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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2011	0.11	0.83	0.50	0.00	0.06	0.05	0.11	0.01	0.05	0.06	93.26
Demolition 01/01/2011-01/31/2011	0.02	0.13	0.08	0.00	0.05	0.01	0.06	0.01	0.01	0.02	16.08
Fugitive Dust	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
Demo Off Road Diesel	0.01	0.08	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	7.35
Demo On Road Diesel	0.00	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.42
Demo Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31
Fine Grading 02/01/2011-02/28/2011	0.03	0.24	0.13	0.00	0.01	0.01	0.02	0.00	0.01	0.01	24.89
Fine Grading Dust	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
Fine Grading Off Road Diesel	0.03	0.23	0.12	0.00	0.00	0.01	0.01	0.00	0.01	0.01	22.47
Fine Grading On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.18
Fine Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.24
Building 03/01/2011-06/30/2011	0.05	0.39	0.24	0.00	0.00	0.02	0.02	0.00	0.02	0.02	44.90
Building Off Road Diesel	0.05	0.37	0.21	0.00	0.00	0.02	0.02	0.00	0.02	0.02	39.31
Building Vendor Trips	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.49
Building Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10
Asphalt 06/15/2011-06/30/2011	0.01	0.07	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	7.39
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	0.07	0.04	0.00	0.00	0.01	0.01	0.00	0.01	0.01	5.88
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Paving Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31

Phase Assumptions

Phase: Demolition 1/1/2011 - 1/31/2011 - Default Demolition Description

Building Volume Total (cubic feet): 12000

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Building Volume Daily (cubic feet): 12000

On Road Truck Travel (VMT): 166.67

Off-Road Equipment:

1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Fine Grading 2/1/2011 - 2/28/2011 - Default Fine Site Grading/Excavation Description

Total Acres Disturbed: 0.28

Maximum Daily Acreage Disturbed: 0.07

Fugitive Dust Level of Detail: Default

12.22 lbs per acre-day

On Road Truck Travel (VMT): 27.78

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

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

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 6/15/2011 - 6/30/2011 - Default Paving Description

Acres to be Paved: 0.27

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 3/1/2011 - 6/30/2011 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

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2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

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

CH4 and N2O from Construction

Author: Brian Schuster

Date: August 11, 2008

Methodology:

Calculated ratio of CO2 emissions per gallon diesel fuel to CH4 and N2O to determine CH4 and N2O emissions from construction equipmen
Used CCAR May 2008 Efs

Sources:

CCAR General Reporting Protocol May 2008 (pg. 93, 96)

CCAR General Reporting Protocol May 2008 (pg. 93, 96)

Assumptions:

Diesel Fuel	CO2	CH4	N2O		
kg CO2/gal diesel	10.15	0.00058	0.00026		
g/gal diesel construction equip		0.58	0.26		
ratio	1	0.0000571368415763901477286708	0.0000254631563190789125000000	0.00006	0.00003
Gasoline	CO2	CH4	N2O		
kg CO2/gal gasoline	8.81				
g/mi passenger (2005)		0.0147	0.0079		
g/mi light truck (2005)		0.0157	0.0101		
ratio	1	0.00177071510794598183881953462089	0.0011353348009089784335993190789125000000		

Table 6. Total estimated GHG emissions from construction

Year of Construction	Input Emissions					
	Off Road Emissions			On road Emissions		
	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2 (metric tons/yr)	Other (metric tons/yr)	CO2e (metric tons/yr)
2010	-	-	-	-	-	-
2011	68.0	0.0	0.0	16.6	0.9	86.1
2012	-	-	-	-	-	-
2013	-	-	-	-	-	-
2014	-	-	-	-	-	-
2015	-	-	-	-	-	-
2016	-	-	-	-	-	-
2017	-	-	-	-	-	-
2018	-	-	-	-	-	-
2019	-	-	-	-	-	-
2020	-	-	-	-	-	-
2021	-	-	-	-	-	-
2022	-	-	-	-	-	-
2023	-	-	-	-	-	-
2024	-	-	-	-	-	-
2025	-	-	-	-	-	-
2026	-	-	-	-	-	-
2027	-	-	-	-	-	-
2028	-	-	-	-	-	-
2029	-	-	-	-	-	-
2030	-	-	-	-	-	-
Total Construction Emissions	68.0	0.0	0.0	16.6	0.9	86.1

Sources: URBEMIS 2007; CCAR 2008.

2.2

Diesel Fuel	CO2	CH4	N2O
kg CO2/gal diesel	10.15	0.00058	0.00026
g/gal diesel construction equip		0.58	0.26
ratio	1	0.0571329	0.0256190

Source: CH4 and N2O from Construction

tons/metric ton	Percent other	GAS	CH4	N2O
0.90718474	5.00%	GWP	21	310

Appendix B
NMG Geotech Report



August 26, 2010

Project No. 07052-03

To: Irvine Ranch Water District
3512 Michelson Drive
Irvine, California 92612

Attention: Mr. Ron Esmilla

Subject: Geotechnical Review of Grading, Foundation, and Improvement Plans for IRWD Operations Center Expansion Phase 1, Storage Building, 3512 Michelson Drive, Irvine, California

Reference: NMG Geotechnical, Inc., 2009, Geotechnical Exploration and Preliminary Design Recommendations for Irvine Ranch Water District, Michelson Operations Center Facility Improvements, City of Irvine, County of Orange, California, Project No. 07052-02, dated September 11, 2009.

INTRODUCTION

At your request, NMG Geotechnical, Inc. (NMG) has conducted a geotechnical review of plans related to the subject storage building construction at the IRWD Operations Center next to the Michelson treatment plant. The planned storage building is to be constructed in the northwest end of the existing parking lot behind Building 50.

The 20-scale plan set we reviewed was prepared by RMM Design Group and received from you electronically on August 23, 2010. The plan sheets are dated May and July, 2010 and July 29, 2010. The sheets we focused on were the demolition, grading, utility, and structural sheets (DM-1, GD-1, UT-1, SS-2.1, S-4.1, S-4.2, and S-5.1).

The basis of our review is the geotechnical exploration and testing that NMG performed for the operations center expansion, as reported in the referenced report (NMG, 2009). We provided preliminary remedial grading, foundation, and paving recommendations in that report. This report provides updated and specific recommendations for the storage building project. The recommendations herein supersede those in the referenced report, if they differ.

PROPOSED PROJECT

The reviewed plan shows the following primary project elements:

- Demolition and removal of asphalt pavement, curb and gutter, landscaping, etc., in an approximately 35-foot by 115-foot area of existing parking lot,
- Construction of a 28-foot by 160-foot metal frame storage building with metal siding, roof and 6-inch PCC slab-on-grade,
- Perimeter support for the structure provided by a combination of column footings, turned down slab edges, grade beams, and masonry wall footings all 16 to 24 inches below finish grade,
- 4-foot-high masonry retaining walls at the base of the west and north walls since the new building pad will cut into an existing small slope that descends from the adjacent road,
- A separate L-shaped retaining wall at the northwest corner of the building,
- Retaining walls have waterproofing but no subdrains shown,
- New asphalt concrete (AC) paving consisting of 4 inches of AC over 8 inches of aggregate base (AB) around the new building,
- Concrete v-gutter for surface drainage,
- Relatively shallow electrical and water service lines.

GEOTECHNICAL FINDINGS

In our prior study, NMG excavated two borings, H-3 and H-4, in the footprint of the planned storage building. Below the existing pavement, these borings encountered 3 to 6 feet of sandy fill. The fill layer was thicker at the west end of the site. Immediately below that fill were layers of highly plastic, organic clays with peat. These organic clays had very high moisture contents and were highly compressible. Without remedial grading, the reviewed plans indicate that some of the planned foundations might bear upon these clays, especially toward the eastern side of the building.

The plans show waterproofing but no subdrains behind the small retaining wall as well as the masonry walls associated with the building. In that scenario, the mitigation of potential moisture intrusion into the interior of the storage building will fall entirely to the waterproofing.

CONCLUSIONS AND RECOMMENDATIONS

The planned project is geotechnically feasible and the reviewed plan is acceptable from a geotechnical standpoint, provided the recommendations in this report and those previously provided in the referenced report are implemented during construction.

1. Remedial Grading

The previous recommendation of 5 feet of overexcavation and recompaction of the building area remains valid. The 5 feet should be measured from planned finish grades. This will provide at least 2 feet of compacted fill below the planned foundations and grade beams. The grading contractor should note that some of the excavated materials, especially toward the east end of the planned building, may not be suitable for reuse as compacted fill if it is highly organic. We recommend that the remedial removals be done in such a manner so as to segregate the sandier fill materials from the organic clays. The clays may need to be exported and replaced with more suitable soil. Import fill should have very low to medium expansion potential and be reviewed and accepted by the geotechnical consultant prior to placement.

The grading contractor should also note that bottom of the overexcavated area may expose wet and soft soils. These bottoms may require stabilization prior to placement of new compacted fill. Stabilization options may include mixing in of quick lime or dry cement in the upper 12 inches or placement of a woven geotextile such as Mirifi 500X on the bottom topped with 12 inches of pea gravel or ½-inch gravel. For the latter option, we do not recommend the use of heavier aggregate since it can induce settlements in the clay and peat layers over longer periods of time.

Removal excavations and any bottom stabilization measures should be observed and accepted by the geotechnical consultant.

2. Fill Placement and Subgrade Preparations

Compacted fill should be placed in loose lifts of 6 inches or less, at near optimum moisture content and compacted to a relative compaction of at least 90 percent, per ASTM D1557. Highly organic native soil may not be suitable for use as fill. At the geotechnical consultant's discretion, small quantities may be acceptable if sufficiently mixed and diluted with the sandier onsite soil.

Soil subgrades for AC paving should be compacted to minimum 90 percent relative compaction. Below PCC pavements, such as ribbon gutters, the upper 12 inches of subgrade should be compacted to a minimum of 95 percent relative compaction.

3. Retaining Walls

The water proofing system should be reviewed and accepted by the project architect prior to installation. If a subdrain system is desired, we would recommend the waterproofing system include a drainage board that will direct moisture down to a "burrito" type subdrain (1 cubic ft./ft. of clean gravel wrapped in filter fabric with a 4-inch PVC pipe in the middle). Due to the relatively flat site, any wall subdrain system will have to be carried via solid pipe out under the parking lot and outlet to the PCC ribbon gutter via a riser pipe (bubbler).

Backfill for the planned retaining walls should be compacted to minimum 90 percent relative compaction. Highly organic, clayey soil should not be used as wall backfill.

4. Pavement Construction

The 4 inches of AC over 8 inches of AB that is shown on the plan matches the existing pavement section and should be adequate over the existing sandy fill that we anticipate at the site.

The upper 12 inches of subgrade should be scarified and recompact to minimum 90 percent relative compaction. The AB may be processed or crushed aggregate base as allowed by the latest edition of the "Greenbook" for public works construction. AB should be compacted at near optimum moisture content to a minimum of 95 percent relative compaction.

5. Utility Trenches

For repair of pavements where utility trenches cut through them, the plan calls for matching the existing section plus an additional inch of AC. That would mean 5 inches of AC over 8 inches of AB. Native soil may be used for the remaining trench backfill below. This backfill should be compacted to at least 90 percent relative compaction (plans call for 95 percent). Highly organic soil should not be used for trench backfill. We anticipate that if the utility trenches are less than 3 feet deep, they will be predominantly in the sandy fill material.

6. Observation and Testing

A geotechnical field representative should observe and test the following elements of the project:

- After demolition and during overexcavation;
- Following completion of overexcavations and removal bottoms are exposed;
- During fill placement;
- Following foundation excavations, prior to placement of reinforcements;
- During retaining wall backfill placement and compaction;
- During retaining wall subdrain installation (if any);
- After slab-on-grade and pavement subgrade preparations, prior to placement of PCC or pavements; and
- During AC and AB placement and compaction.

If you have any questions regarding this report, please contact our office. We appreciate this opportunity to provide our services.

Respectfully submitted,

NMG GEOTECHNICAL, INC.



Ted Miyake, RCE 44864
Principal Engineer



TM/je

Distribution: (2) Addressee
(1) Mr. Billy Stewart, IRWD (via email)

RVINE RANCH WATER DISTR EXHIBIT "D"

Expenditure Authorization

Project Name: OPERATIONS CENTER FACILITY EXPANSION PH 1

Project No: 11422 EA No: 3

ID Split: Regional Water Split with LAWD (11/08)

Project Manager: CORTEZ, MALCOLM

Project Engineer: SMYTH, JEFFREY

Request Date: November 24, 2010

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
112	3.6	BONDS YET TO BE SOLD**
113	4.4	BONDS YET TO BE SOLD**
115	6.2	CAPITAL FUND
121	12.8	BONDS YET TO BE SOLD**
130	10.0	BONDS YET TO BE SOLD**
135	16.2	PREVIOUSLY SOLD BONDS
140	3.5	BONDS YET TO BE SOLD**
150	26.1	BONDS YET TO BE SOLD**
153	2.9	BONDS YET TO BE SOLD**
154	1.2	BONDS YET TO BE SOLD**
161	6.7	BONDS YET TO BE SOLD**
182	2.5	BONDS YET TO BE SOLD**
184	2.3	BONDS YET TO BE SOLD**
186	.8	BONDS YET TO BE SOLD**
188	.8	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$290,400
This Request:	\$352,400
Total EA Requests:	\$642,800
Previously Approved Budget:	\$3,015,200
Budget Adjustment Requested this EA:	\$0
Updated Budget:	\$3,015,200
Budget Remaining After This EA	\$2,372,400

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING OUTSIDE	0	0	0	0	0	0	11/10	6/15
ENGINEERING DESIGN - IRWD	0	17,500	17,500	0	17,500	17,500	12/08	6/10
ENGINEERING DESIGN - OUTSIDE	0	255,000	255,000	0	255,000	255,000	12/08	6/10
DESIGN STAFF FIELD SUPPORT	0	2,500	2,500	0	2,500	2,500	12/08	6/10
ENGINEERING - CA&I IRWD	22,000	0	22,000	0	40,000	40,000	7/13	6/15
ENGINEERING - CA&I OUTSIDE	46,000	0	46,000	0	100,000	100,000	7/13	6/15
CONSTRUCTION FIELD SUPPORT	9,000	0	9,000	0	10,000	10,000	7/13	6/15
ENGINEERING - GIS IRWD	2,000	0	2,000	0	5,000	5,000	7/13	6/15
CONSTRUCTION	255,000	0	255,000	(4,000)	2,440,000	2,436,000	7/13	6/15
LEGAL	1,500	1,500	3,000	4,000	1,500	5,500	12/08	7/13
Contingency - 5.00% Subtotal	\$16,900	\$13,900	\$30,800	\$0	\$143,700	\$143,700		
Subtotal (Direct Costs)	\$352,400	\$290,400	\$642,800	\$0	\$3,015,200	\$3,015,200		
Estimated G/A - 195.00% of direct labor*	\$66,400	\$37,000	\$103,400	\$0	\$146,300	\$146,300		
Total	\$418,800	\$327,400	\$746,200	\$0	\$3,161,500	\$3,161,500		
Direct Labor	\$33,000	\$20,000	\$53,000	\$0	\$75,000	\$75,000		

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator:

Department Director:

Finance:

Board/General Manager:

* IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$3,225,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference into this authorization. No legal intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

RVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: OPERATIONS CENTER FACILITY EXPANSION PH 1

Project No: 21422 EA No: 3

ID Split: Regional Sewer Split with LAWD (11/08)

Project Manager: CORTEZ, MALCOLM

Project Engineer: SMYTH, JEFFREY

Request Date: November 24, 2010

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
211	7.7	CAPITAL FUND
212	3.3	BONDS YET TO BE SOLD**
213	4.4	BONDS YET TO BE SOLD**
215	7.2	CAPITAL FUND
221	15.4	BONDS YET TO BE SOLD**
230	10.1	BONDS YET TO BE SOLD**
235	13.3	PREVIOUSLY SOLD BONDS
240	2.9	BONDS YET TO BE SOLD**
250	24.0	BONDS YET TO BE SOLD**
253	.9	BONDS YET TO BE SOLD**
261	6.3	BONDS YET TO BE SOLD**
282	1.7	BONDS YET TO BE SOLD**
284	1.8	BONDS YET TO BE SOLD**
286	.5	BONDS YET TO BE SOLD**
288	.5	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$290,400
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Total EA Requests:	\$642,800
Previously Approved Budget:	\$3,015,200
Budget Adjustment Requested this EA:	\$0
Updated Budget:	\$3,015,200
Budget Remaining After This EA	\$2,372,400

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	0	17,500	17,500	0	17,500	17,500	12/08	6/10
ENGINEERING DESIGN - OUTSIDE	0	255,000	255,000	0	255,000	255,000	12/08	6/10
DESIGN STAFF FIELD SUPPORT	0	2,500	2,500	0	2,500	2,500	12/08	6/10
ENGINEERING - CA&I IRWD	22,000	0	22,000	0	40,000	40,000	7/13	6/15
ENGINEERING - CA&I OUTSIDE	46,000	0	46,000	0	100,000	100,000	7/13	6/15
CONSTRUCTION FIELD SUPPORT	9,000	0	9,000	0	10,000	10,000	7/13	6/15
ENGINEERING - GIS IRWD	2,000	0	2,000	0	5,000	5,000	7/13	6/15
CONSTRUCTION	255,000	0	255,000	(4,000)	2,440,000	2,436,000	7/13	6/15
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Estimated G/A - 195.00% of direct labor*	\$66,400	\$37,000	\$103,400	\$0	\$146,300	\$146,300		
Total	\$418,800	\$327,400	\$746,200	\$0	\$3,161,500	\$3,161,500		
Direct Labor	\$33,000	\$20,000	\$53,000	\$0	\$75,000	\$75,000		

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator:

Department Director:

Finance:

Board/General Manager:

* IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$3,225,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This expenditure authorization is made under Treasury Regulation Section 1.150-2.

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: OPERATIONS CENTER FACILITY EXPANSION PH 1

Project No: 31422 EA No: 3

ID Split: Regional Reclaimed Water Split with LAWD (11/08)

Project Manager: CORTEZ, MALCOLM

Project Engineer: SMYTH, JEFFREY

Request Date: November 24, 2010

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
211	2.1	CAPITAL FUND
212	13.2	BONDS YET TO BE SOLD**
213	4.8	BONDS YET TO BE SOLD**
215	.7	CAPITAL FUND
221	13.2	BONDS YET TO BE SOLD**
230	9.6	BONDS YET TO BE SOLD**
235	7.9	PREVIOUSLY SOLD BONDS
240	7.7	BONDS YET TO BE SOLD**
250	31.7	BONDS YET TO BE SOLD**
261	9.1	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

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Comments:

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ENGINEERING DESIGN - IRWD	0	17,500	17,500	0	17,500	17,500	12/08	6/10
ENGINEERING DESIGN - OUTSIDE	0	255,000	255,000	0	255,000	255,000	12/08	6/10
DESIGN STAFF FIELD SUPPORT	0	2,500	2,500	0	2,500	2,500	12/08	6/10
ENGINEERING - CA&I IRWD	22,000	0	22,000	0	40,000	40,000	7/13	6/15
ENGINEERING - CA&I OUTSIDE	46,000	0	46,000	0	100,000	100,000	7/13	6/15
CONSTRUCTION FIELD SUPPORT	9,000	0	9,000	0	10,000	10,000	7/13	6/15
ENGINEERING - GIS IRWD	2,000	0	2,000	0	5,000	5,000	7/13	6/15
CONSTRUCTION	255,000	0	255,000	(4,000)	2,440,000	2,436,000	7/13	6/15
LEGAL	1,500	1,500	3,000	4,000	1,500	5,500	12/08	7/13
Contingency - 5.00% Subtotal	\$16,900	\$13,900	\$30,800	\$0	\$143,700	\$143,700		
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Total	\$418,800	\$327,400	\$746,200	\$0	\$3,161,500	\$3,161,500		
Direct Labor	\$33,000	\$20,000	\$53,000	\$0	\$75,000	\$75,000		

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator:

Department Director:

Finance:

Board/General Manager:

* IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$3,225,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This expenditure authorization is made under Treasury Regulation Section 1.150-

December 13, 2010

Prepared By: P. Weghorst/R. Jacobson

Submitted By: G. Heiertz

Approved By: Paul Jones



ACTION CALENDAR

STOCKDALE WEST RANCH PROPERTY PURCHASE

SUMMARY:

On October 25, 2010, the IRWD Board of Directors directed staff to submit a Letter of Intent (LOI) to purchase Diamond Farming Company's Stockdale West Ranch property comprised of 325.49 acres of land within an unincorporated area of Kern County (Property). A Letter of Intent was prepared and executed on October 29, 2010. On November 8, 2010, the Board authorized staff to perform due diligence activities on the acquisition of the Property, to file a Notice of Exemption consistent with the California Environmental Quality Act, and to execute a Purchase Agreement for the Property consistent with the terms of the LOI. The due diligence work has been completed and this report provides the Board with the findings and makes a staff recommendation that the District proceed with the purchase of the Property.

BACKGROUND:

In its continuing effort to acquire land suitable for the expansion of the District's water banking programs, staff has been in discussions with certain land owners regarding their properties including Grimmway Farms, Inc. (Grimmway) that owns (through its subsidiary known as Diamond Farming Company) the Stockdale West Ranch. This ranch is comprised of 325.49 acres of land within the unincorporated area of Kern County and is located adjacent to Strand Ranch. The Property is bounded on the north by Stockdale Highway and on the south by undeveloped lands situated north of the Pioneer and Cross Valley Canals. The Property is shown on Exhibit "A". On September 30, 2010 staff received an offer to sell the Property to IRWD.

On October 25, 2010, the Board directed staff to submit a LOI to purchase the Property. As additional consideration to purchasing the Property, staff was directed to include 1,000 acre-feet of water stored in Kern Water Bank or Strand Ranch Integrated Banking Project or elsewhere with the seller being able to store this water for up to ten years from the Closing Date of the purchase. The Property owners approved and executed the LOI on October 29, 2010.

On November 8, 2010, the Board authorized staff to perform due diligence activities on the acquisition of the property, to file a Notice of Exemption consistent with the California Environmental Quality Act, and to execute a Purchase Agreement for the Property and a Banked Water Agreement consistent with the terms of the LOI.

Purchase and Banked Water Agreements:

Staff and legal counsel have developed the Banked Water Agreement in a form and content mutually acceptable to the seller and it is attached as Exhibit "B". This agreement needs to be executed by December 14, 2010 to adhere to the schedule for the IRWD's acceptance of all items associated with the due diligence work.

The Purchase Agreement was executed on November 30, 2010, which provides for the Closing to take place by December 31, 2010. The Purchase Agreement includes terms for a 45-day due diligence period in which IRWD can perform its Baseline Property Assessment. This period ends on December 14, 2010. The due diligence work includes a Preliminary Title Report review, an Environmental Phase 1 investigation, examination of the suitability of the site for water banking, evaluation of infrastructure needed to get water to the Property, development of an American Land Title Association (ALTA) survey, a review of mineral rights, and review of general plan, Williamson Act and zoning designations. The following is an overview of the results of the Baseline Property Assessment.

Baseline Property Assessment:

On November 8, 2010, the Board authorized staff to contract with Dee Jaspar & Associates (DJA) to complete the Baseline Property Assessment on the Property pursuant to the Purchase Agreement. Exhibit "C" is a letter summarizing the results of DJA's Baseline Property Assessment which will be provided to IRWD in report form before Closing. From a physical standpoint, this Baseline Property Assessment concludes that the Stockdale West Ranch property is in good condition and suitable for purchase for the purpose of water banking. Following are the conclusions of the summary letter:

Physical Site Assessment and Land use: The property is well maintained and the above-ground irrigation system, pumps and equipment are in good working condition. Grimmway acquired the property in 1997, and Grimmway has grown vegetables and field crops on the property. The subsurface irrigation system identified at the site has not been utilized since Grimmway acquired the property. Grimmway crops were irrigated by an above-ground sprinkler system fed by the one agricultural well near the southeastern corner of the property.

Phase 1 Environmental Site Assessment: The final Phase 1 Environmental Site Assessment was performed by subcontractor Kleinfelder Engineering and revealed no evidence of recognized environmental conditions in connection with the property. However, there are two possible concerns listed:

- The site has been used for agricultural purposes since the 1940's. The application of agricultural chemicals has assuredly occurred on the site. The condition of soils at areas of the site formerly used for storage, mixing, or rinsing of containers, is not known. A more detailed soils assessment was beyond the scope of the Phase 1 assessment.
- The old irrigation piping may contain asbestos. There may be some residual agricultural chemicals in the backfilled prisms of the old irrigation canals. However, these chemicals are not generally considered a recognized environmental condition. Assessment of either of these issues was not included in the scope of the Phase 1 assessment.

ALTA Survey: An ALTA survey was conducted by DJA which identifies and documents all easements to the property. The ALTA survey determines the property boundaries and encroachments and shows the lands dedicated for field roads and public road easements, underground utilities easements and water district or other public utility easements. The ALTA survey confirms actual gross acreage of 322.58 which equates to 2.91 less acres than estimated in the Purchase Agreement (325.49 acres).

Preliminary Title Report Review: The Preliminary Title Report indicates that there is one old canal lateral easement held by the defunct Pioneer Canal Company for laterals (other than the Pioneer Canal) that have been backfilled. This easement remains of record.

Existing Irrigation Facilities: A subsurface irrigation system identified at the site has not been utilized since Grimmway acquired the property in 1997. Grimmway crops are irrigated by an above-ground sprinkler system fed by the agricultural well near the southeastern corner of the property. There is one well on the property that supplies irrigation to the entire property. This well is 704 feet deep and has been experiencing declines in production that are likely due to dropping water surface elevations and the condition of the well.

Mineral Rights: The Purchase Agreement provides for IRWD to acquire any oil, gas or mineral rights ("mineral rights") held by the seller. Based on the Preliminary Title Report and a mineral rights search performed by Chicago Title, the seller owns no mineral rights for the property. The mineral rights are owned by Vintage Petroleum (Vintage), a subsidiary of Occidental Petroleum Corporation and were originally conveyed in the 1930s. Research confirms that these mineral right conveyances were typical among most properties in the area. The conveyance documents provide the owner of the mineral rights the ability to explore, drill and extract any oil, gas or minerals with the provision that the rights holders must compensate the landowner for any damages to crops, facilities or other use impairments caused by their actions.

Vintage is also an owner of oil, gas rights on the Strand Ranch property adjacent to the Property. The sellers of the Strand Ranch property retained any remaining rights, and as a condition of the Strand Ranch purchase, required the District to reserve four sites on the property for future potential drilling islands. Importantly, there are no requirements to reserve drilling island sites as a condition to purchase of the Stockdale West property.

General Plan Designation and Williamson Act: The property is zoned by Kern County as Exclusive Agriculture with a General Plan Designation of Intensive Agriculture. Ingress and egress is via Stockdale Highway. Zoning and General Plan designations are appropriate for the contemplated recharge and recovery project. This property is not within a Williamson Act contract.

Suitability of the Site the Water Banking: Kleinfelder performed cone penetration tests (CPTs) at ten locations on the property and at one location off the property at monitoring well SROW-4 on the adjacent Strand Ranch facility. The test at the Strand Ranch well was conducted for calibration purposes. Geologic cross sections developed from the CPTs show shallow subsurface conditions to depths of 30 to 56 feet and indicate that the property is underlain by sands, silty sands and lenses of silty clays. There appears to be adequate connectivity to the

deeper sand layers underlying the property. Results indicate that the southern portion of the property is better suited to recharge than the northern portion. DJA estimates that the northern portion of the property will exhibit initial infiltration rates of about 0.50 feet per day which will rapidly reduce and stabilize at about 0.15 feet per day. The southern portion of the property should exhibit initial infiltration rates of 1.5 to 2.0 feet per day, stabilizing at about 0.50 feet per day. The conditions on the southern side are more predominant and overall steady state recharge rates for the Property may be on the order of 0.4 feet per day. The Strand Ranch is expected to provide an overall steady state recharge rate of 0.3 feet per day.

Staff conservatively estimates that the total annual recharge capacity of the property will be about 13,000 AF. The installation of 3 extraction wells on the Property with capacities of 5 cfs each, would provide the ability to recover that same amount of water within 14.5 months. The estimated storage capacity that would be available at the Property would be at least 25,000 AF.

Alternatives for Delivery of Water to the Property:

DJA reviewed four infrastructure options to supply water to the Property using existing and new facilities associated with the Cross Valley Canal (CVC). These options are summarized below.

Option 1 - Improve the existing Rosedale-Rio Bravo Water Storage District (Rosedale) CVC turnout structure and intake canal: This option requires the modification of the existing Rosedale turnout structure from the CVC to the Rosedale intake canal, installation of a check structure in the canal, raising the liner and installation of a transfer structure in the canal. The flow in the canal would need to be increased from 100 cfs to 200 cfs. The preliminary estimate for this option is \$1,500,000. This option is likely most feasible solution for delivering water to the Property.

Option 2 - Install a new 100 cfs turnout in the CVC parallel to the Rosedale turnout: This option involves installing a new CVC turnout on the high side of CVC Pumping Plant 2, installation of about 1,000 feet of 72-inch reinforced concrete pipe (RCP) and a siphon under the Rosedale intake canal. The flow would be by gravity to the Property. The preliminary estimate for this option is \$2,000,000.

Option 3 - Install a new 100 cfs turnout and a pumping plant on the low side of CVC Pumping Plant 2: This option involves installation of two low head lift pump stations, 400 feet of 72-inch RCP and a turn-in to the property. The preliminary estimate for this option is \$3,000,000.

Option 4 - Utilize the existing CVC Strand Ranch North Turnout and route the water through the Strand Ranch facility: This option takes advantage of the existing 100 cfs turnout on the north side of the Strand Ranch. This option involves the construction of a siphon under the Rosedale intake canal and inlet and outlet transitions. The preliminary estimate for this option is \$800,000. Even though the costs are low for this option, it has a major disadvantage in that water would only be available to the Property when the Strand Ranch north basins are full and there is sufficient flow to deliver to the Property.

Estimated Project Costs:

Based on IRWD's experience from constructing the Strand Ranch facilities, staff has prepared an estimate for the cost of implementing water banking improvements on the Property. The estimated costs of all recharge and recovery related facilities on the Property (excluding the cost of the land) are as follows:

Baseline Report/Due Diligence	\$ 101,000
Environmental Impact Report	\$ 350,000
Design	\$ 450,000
Recharge Basins	\$ 1,900,000
Option 1 – Turn-out Improvements	\$ 1,500,000
Three Extraction Wells	\$ 2,100,000
Pipelines and CVC turn-ins	\$ 500,000
Monitoring Well	\$ 240,000
Construction Management	\$ 325,000
<hr/> Total	<hr/> \$ 7,466,000

The total cost of the same items for the Strand Ranch Project, including the remediation of the transfer structures, will be approximately \$15 Million.

FISCAL IMPACTS:

The total purchase costs for the land is \$6,509,800, plus approximately \$5,000 for closing costs. As an additional consideration, IRWD will provide 1,000 acre-feet of water stored in Kern Water Bank or Strand Ranch Integrated Banking Project and the seller may store this water for up to ten years at no cost. The cost for the Baseline Property Assessment work was \$71,400. The cost of legal counsel assistance for the development of the Purchase and Banked Water Agreement and support during the due diligence period is estimated at \$15,000. Additional staff time required during due diligence work and environmental documentation is estimated at \$15,000. Sufficient budget and Expenditure Authorization for Project No. 11368 were approved at the November 8, 2010 Board meeting to cover the Property purchase, due diligence costs and closing costs. There are no other fiscal impacts.

ENVIRONMENTAL COMPLIANCE:

Any new lands purchased for water banking purposes would be subject to compliance with the California Environmental Quality Act of 1970 (as amended), codified at California Public Resources Code Sections 21000 et. seq., and the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3. On November 10, 2010 staff filed a Notice of Exemption for the purchase of the Stockdale West Ranch property with the County of Kern. The Notice of Exemption states that the District is not presently contemplating changes in the existing use of the land and therefore no environmental impacts associated with the property acquisition are expected. IRWD specifically conditioned any proposed future change in use of the Property on subsequent CEQA compliance actions. The Notice of Exemption has a 35-day notice period which ends on December 14, 2010.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER AND THE TREASURER TO EXECUTE A BANKED WATER AGREEMENT BETWEEN DIAMOND FARMING COMPANY AND IRVINE RANCH WATER DISTRICT, IN THE FORM PRESENTED TO THIS MEETING, WITH SUCH CHANGES AS THE GENERAL MANAGER AND COUNSEL MAY APPROVE; FIND THAT ALL MATTERS CURRENTLY IDENTIFIED WITH REGARD TO THE CONDITION OF TITLE, PHYSICAL CONDITION AND SUITABILITY OF THE PROPERTY FOR THE USES CONTEMPLATED ARE ACCEPTABLE; AND AUTHORIZE THE GENERAL MANAGER AND TREASURER AND EACH OTHER OFFICER OF THE DISTRICT, EACH ACTING SINGLY, TO EXECUTE AND DELIVER ANY AND ALL DOCUMENTS, CERTIFICATES, INSTRUCTIONS AND INSTRUMENTS NECESSARY OR PROPER FOR CARRYING OUT AND CLOSING THE REAL ESTATE PURCHASE TRANSACTION CONTEMPLATED THEREIN.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Draft Banked Water Agreement
- Exhibit "C" – Baseline Property Assessment Summary

Exhibit "A"



EXHIBIT "B"

12/10/10 Draft AGREEMENT FOR STORAGE AND RECOVERY OF BANKED WATER

THIS AGREEMENT ("Agreement"), dated this _____ day of December, 2010, is made and entered into by and between DIAMOND FARMING COMPANY, a California corporation ("DFC") and IRVINE RANCH WATER DISTRICT ("IRWD"), a California Water District formed under and existing pursuant to Section 34000 *et seq.* of the California Water Code.

RECITALS:

WHEREAS, DFC, as seller, and IRWD, as buyer have entered into an agreement dated as of ____2010 (the "Purchase Agreement") for the sale and purchase of certain land, as described in the Purchase Agreement (the "Property"); and

WHEREAS, the Purchase Agreement provides that a part of the consideration to be furnished by IRWD to DFC for the purchase of the Property shall consist of One Thousand (1,000) acre feet (AF) of water from IRWD's rights to water held in storage in the Kern Water Bank, the Strand Ranch Integrated Banking Project or other facility or program, together with the right to store said 1,000 AF for up to ten (10) years from the closing date defined in the Purchase Agreement, subject to rights and obligations with respect to the storage, recovery and delivery thereof and other terms to be set forth in an agreement to be delivered at closing of the purchase and sale of the Property; and

NOW, THEREFORE, in consideration of the promises and covenants herein contained, DFC and IRWD agree as follows:

AGREEMENT:

Section 1. **Assignment of Banked Water.** IRWD hereby assigns and conveys, and DFC accepts the assignment and conveyance of, One Thousand (1,000) acre feet (AF) of water from IRWD's water held in storage in the Kern Water Bank, the Strand Ranch Integrated Banking Project, or in another facility or program (the "Banked Water"). All Banked Water (including water obtained by in-lieu exchange for stored water authorized in Section 3) shall be water conducive for direct delivery or exchange as provided in Section 3 for use in Kern County by DFC or DFC's designee, subject to the terms and conditions of this Agreement. IRWD shall take such actions as may be necessary to reflect DFC's right and interest in the Banked Water in its water banking program accounts. The Banked Water does not represent any particular water and may be held in any banking program or programs in which IRWD has rights to store the same, and may be transferred by IRWD among its programs from time to time.

Section 2. **Right to Store Banked Water.** DFC shall have the right to have IRWD store the Banked Water or any portion thereof which has not been recovered on DFC's behalf for up to ten

(10) years from the date of the recording of the deed conveying the Property to IRWD pursuant to the Purchase Agreement (“Closing Date”). DFC shall be deemed to relinquish all right, title and interest in any Banked Water that has not been recovered for DFC, as provided herein, prior to the tenth (10th) anniversary of the Closing Date. The ten-year limitation shall not apply to, and DFC will not be deemed to relinquish its right, title, and interest in, any quantity of Banked Water as to which all of the following conditions are met: (1) DFC timely requests delivery of the water no later than the time specified under Section 5 to obtain delivery in a calendar year or calendar years that begin within the ten-year period,(2) DFC timely complies with or removes all requirements, limitations and restrictions for such requested delivery pursuant to Section 3, and (3) IRWD does not deliver the water to DFC, as provided in Section 3, within the ten-year period for any reason other than a material breach of the Agreement by DFC.

Section 3. Recovery of Banked Water. DFC or its designee shall take delivery of Banked Water recovered on DFC’s behalf by IRWD in the Cross Valley Canal (or at any other mutually acceptable location upon such terms as the parties agree). Delivery by IRWD to DFC or DFC’s designee shall be deemed to occur at the point and time at which the water enters the Cross Valley Canal. Such recovery shall be accomplished by means of either groundwater extraction or an exchange in-lieu of extraction; which of such recovery methods shall be used shall be determined by IRWD at its sole discretion. The quality of the water delivered by IRWD shall meet the water quality standards established by the California Department of Water Resources (or its successor) for pump-in to the California Aqueduct as of the date of delivery. DFC shall be responsible for making its own arrangements to deliver Banked Water through the Cross Valley Canal or by other means of exchange or direct delivery; and the ultimate destination and recipients of the water shall be determined by DFC in its sole discretion. IRWD shall cooperate with DFC in arranging any deliveries and/or exchanges. If Banked Water is recovered from a facility other than IRWD’s Strand Ranch facility or the Kern Water Bank, IRWD shall bear and be responsible for any conveyance losses up to the point of delivery in the Cross Valley Canal. At DFC’s request and at DFC’s sole risk and expense, IRWD shall assist in the conveyance of the water through the Cross Valley Canal after DFC or its designee takes delivery, using any capacity that IRWD is contractually entitled to use for such purpose at the time DFC is taking delivery; provided, however, that IRWD shall have no obligation to establish or defend such contractual entitlement to use such capacity for such purpose at such time, in the event it is refused, denied or challenged. DFC acknowledges that there may be physical or legal requirements, limitations or restrictions on the transport of the Banked Water to, or the use thereof at, a particular property or location, including, but not limited to, turnout accessibility, exportability of water, contractual limitations on the use of delivery capacity to the benefit of the service area of a capacity participant, and compliance with the California Environmental Quality Act, and DFC accepts full responsibility for complying with or removing any such requirements, limitations or restrictions.

Section 4. Costs. DFC shall pay all actual operation, maintenance, power and other costs of recovery of Banked Water incurred by IRWD by exchange in-lieu of extraction or by extraction, including applicable exchange fees charged to IRWD (not to exceed the cost of recovery by extraction) and administrative and other charges imposed by the operator of the banking program in which IRWD is storing the Banked Water being recovered, and all actual charges and costs of

transportation of the Banked Water through the Cross Valley Canal and/or other delivery facilities incurred by IRWD; provided that, in the event the Banked Water is recovered from storage in a facility or program other than the Kern Water Bank or the Strand Ranch Integrated Banking Project, or by in-lieu exchange, IRWD shall bear any portion of the cost of such recovery and delivery of the Banked Water to the initial point of delivery in the Cross Valley Canal that exceeds the cost that would be incurred if the water were stored in the Kern Water Bank or the Strand Ranch Integrated Banking Project.

Section 5. Schedule. DFC shall provide written notice to IRWD by March 1 in any calendar year during which DFC desires to take delivery of recovered Banked Water, of the amount of Banked Water DFC desires to have recovered for delivery during such calendar year. DFC may modify the quantity of water requested, based on a change in circumstances occurring after its initial notice, by giving written notice of the modified quantity to IRWD on or before April 15 of the same calendar year, but DFC acknowledges that there is no assurance that the banking operator will accommodate such modification. IRWD and DFC shall use best efforts to agree to a delivery schedule for the recovery which shall be subject to any scheduling restrictions and priorities applicable to the program from which the Banked Water is being recovered. In the use of available recovery facilities capacity and exchange capability, DFC's rights to recovery of Banked Water shall be on a par with IRWD's rights to recovery in the priority rights thereof relative to IRWD's water banking and exchange program partners; as between IRWD's recovery and DFC's recovery, IRWD's recovery shall have priority over DFC's recovery in the use of available recovery facilities capacity and exchange capability to the extent that both IRWD's and DFC's recovery cannot be accommodated concurrently.

Section 6. Liability; Indemnification. .

A. IRWD and its officers, agents, or employees shall not be liable to DFC (or DFC's officers, agents, or employees) for the control, carriage, handling, use, disposal, distribution, or change in quality of recovered Banked Water which occurs after its initial delivery to DFC or its designee ("Post-Delivery Event"), nor for any claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with a Post-Delivery Event. DFC shall indemnify IRWD and its officers, agents, and employees, and save them harmless from, and pay in full, any and all causes of action, claims, liabilities, obligations, demands, losses, judgments, damages, or expenses asserted by or owed to third parties ("Claims") (and reasonable attorney fees and costs incurred in defense of Claims) arising from or connected with a Post-Delivery Event.

B. DFC and its officers, agents, or employees shall not be liable to IRWD (or IRWD's officers, agents, or employees) for the storage, control, carriage, or handling of recovered Banked Water prior to or at the time of its initial delivery to DFC or its designee (a "Pre-Delivery Event"), nor for any claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with a Pre-Delivery Event. IRWD shall indemnify DFC and its officers, agents, and employees, and save them harmless from, and pay in full, any and all Claims (and reasonable attorney fees and costs incurred in defense of Claims), arising from or connected with a Pre-Delivery Event, or the failure of recovered Banked Water to comply with the quality standard prescribed in Section 3 at the time of its initial delivery to DFC or its designee.

Section 7. Assignment. This Agreement is assignable by DFC with prior written notice to IRWD.

Section 8. Counterparts. This Agreement may be executed in counterparts. Facsimile and other electronic signatures shall be binding for all purposes.

Section 9. Effective Date. This Agreement shall take effect if, and only if, IRWD completes the purchase of the Property, and in such event shall become effective on the Closing Date of such purchase.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first hereinabove written.

DIAMOND FARMING COMPANY

By _____
President

By _____
Secretary

APPROVED AS TO FORM:

By _____

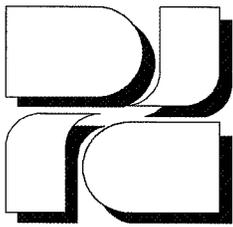
IRVINE RANCH WATER DISTRICT

By _____
General Manager

By _____
Treasurer

APPROVED AS TO FORM:

By _____



DEE JASPAR & ASSOCIATES, INC.
CONSULTING CIVIL ENGINEERS
3701 PEGASUS DRIVE, SUITE 121
BAKERSFIELD, CA 93308
PHONE (661) 393-4796
FAX (661) 393-4799

Exhibit "C"

MEMORANDUM

TO: Kellie Welch
FROM: Dee Jaspar
SUBJECT: Grimmway Property Preliminary Report
DATE: December 7, 2010

The following is a summary of the information developed on the above-referenced property. This summary is provided to Irvine Ranch Water District ("IRWD") staff for evaluating the Grimmway property for its suitability as a recharge project.

General Overview

- The property is west of and adjacent to IRWD's Strand Ranch project. Farmed lands are adjacent to the west property line. The property is bounded on the north by Stockdale Highway and on the south by undeveloped lands of the Kern Water Bank and is situated north of the Pioneer and Cross Valley Canals. A PG&E electrical substation is located adjacent to the northeast corner of the property.
- Topography and surface geology is similar to that of the Strand Ranch property.
- Zoning and General Plan is agricultural.

Phase 1 Environmental Assessment

- The Environmental Assessment was performed by Kleinfelder, Inc. Kleinfelder enlisted Environmental Data Services to review Federal and State regulatory data lists for references to the site and any listings within the appropriate ASTM minimum search distances to the site. The findings show that the site did not appear on any of the listings.
- Records of the Kern County Environmental Health Division were reviewed and these did not reveal evidence that the site was listed with the Agency. There exists a Hazardous Material Business Plan for the PG&E substation located adjacent to the

northeast corner of the site. The PG&E substation site is graded to provide for containment of water that is generated on the site.

- Topographic maps dating back to 1912 and aerial photographs dating back to 1946 were reviewed. It appears that the site has been used exclusively for agriculture over the period of record. The Pioneer Canal appears on the 1912 topographic map. The 1946 photo shows several irrigation distribution canals on the property related to the Pioneer Canal. The easements for these canals have not been extinguished - however the distribution laterals that appear in the 1967 photos appear to have been backfilled in the 1975 photos.
- Interview with Mr. Carl Voss of Grimmway Enterprises, Inc., indicate that Grimmway acquired the property in 1997 and Grimmway has grown vegetables and field crops on the property. The Fanucci family farmed the property prior to the Grimmway acquisition. The subsurface irrigation system identified at the site has not been utilized since Grimmway acquired the property. Grimmway crops are irrigated by an above-ground sprinkler system fed by the agricultural well near the southeastern corner of the property. Some minor soil staining was observed at the location of the well, likely from lubrication oil. No staining was observed under the pole-mounted transformer at the well site. Mr. Voss provided Kleinfelder with a list of agricultural chemicals that were used at the site from October 2008 to August 2009.
- Kleinfelder's assessment has revealed no evidence of recognized environmental conditions in connection with the property. However, Kleinfelder lists two concerns:
 1. The site has been used for agricultural purposes since the 1940's. The application of agricultural chemicals has assuredly occurred on the site. The condition of soils at areas of the site formerly used for storage, mixing, or rinsing of containers, is not known. Soils assessment was beyond the scope of the Phase 1 assessment. Further assessment for the presence of persistent agricultural chemical residues can be done if IRWD so desires.
 2. The old irrigation piping may contain asbestos. There may be some residual agricultural chemicals in the backfilled prisms of the old irrigation canals. However, these chemicals are not generally considered a recognized environmental condition. Assessment of neither of these issues was included in the scope of the Phase 1. However, these issues can be explored at a later date if IRWD desires to pursue them.

Suitability of the Site for Recharge

- Kleinfelder explored the site with cone penetration tests. These were done at ten locations on the property and at one location off the property at Monitoring Well SROW-4 on the adjacent Strand Ranch facility. Preliminary geologic cross sections have been prepared to show the shallow subsurface conditions to depths of 30 to 56

feet. Penetration test were driven to refusal. Based on correlation to the Strand Ranch monitoring well SROW-4, this refusal was in very dense silty sand to sand. This very dense material appears to underlie the entire Grimmway property at depths of 23 to 44 feet.

- Results reveal that the southern portion of the property is better suited to recharge than the northern portion.
 1. The northern portion of the property is predominantly underlain by fine grained soils at the surface to depths of about 18 feet or more, interspersed with thin sand lenses. These fine grained soils are not homogeneous for any significant thickness. The unit is comprised of relatively thin lenticular lenses.
 2. About midway between the north and south property lines there appear lenses and layers of sand near the surface, overlying deeper sand lenses. The lenses appear to be connected and should provide a pathway to the deeper sediments and the water table. Sand lenses are separated by layers of finer material about four to 12 feet thick. These fine layers are not homogeneous. They are comprised of relatively thin interbeds of clay, silt, and fine sand that will retard, but not stop infiltration.
 3. The southern portion of the property is underlain by nearly continuous sand layers, four to 15 feet thick, separated by thin lenses of finer material. These sands appear to overly dense sands/silty sands material at a depth of 30 to 35 feet. Likely these sand layers are connected and connect to sands southerly of the property.
- It is estimated that the northern portion of the property will exhibit initial infiltration rates of about 0.50 feet per day which will rapidly reduce and stabilize at about 0.15 feet per day. The southern portion of the property should exhibit initial infiltration rates of 1.5 to 2.0 feet per day, stabilizing at about 0.50 feet per day. Average steady state infiltration rates for the property may be on the order of 0.4 feet per day.

Water Supply Options for the Property

There are four options to supply water to the property. These are summarized following paragraphs. Infiltration rates for the property are based on limited exploratory work and must be considered as estimates. Therefore the water supply options are based on an assumed flow requirement of 100 cfs, judged to be conservative, and suitable for this level of feasibility work.

1. Utilize the Rosedale-Rio Bravo Water Storage District ("RRBWSD") intake canal.

This option requires the modification of the existing RRBWSD outlet structure from the CVC to the RRBWSD canal, installation of a check structure in the canal, raising the liner and installation of an outlet structure in the canal. The flow in the canal would need to be increased from 100 cfs to 200 cfs, minimum to input about 0.4 - 0.6 feet per day to the Grimmway recharge area. To discharge an additional 100 cfs the structure would have to be modified to accommodate about 200 cfs. The District would then share the canal with RRBWSD. The estimate for this option is \$1,500,000.

2. Install a new 100 cfs turnout in the CVC dedicated to IRWD, parallel to the RRBWSD turnout. Route the flow through the southwest corner of the Strand Ranch property and install a siphon under the RRBWSD canal.

This option involves installation of a new turnout on the downstream (high) side of CVC Pumping Plant 2, installation of about 1,000 feet of 72 inch RCP and a siphon under the RRBWSD canal. The flow is by gravity to the property. The estimate for this option is \$2,000,000.

3. Install a new 100 cfs turnout a pumping plant on the upstream (low) side of CVC Pumping Plant 2 and pump directly to the project.

This option involves installation of two low lift pumps, 400 feet of 72 inch RCP and a turn in to the property. The estimate for this option is \$3,000,000.

4. Utilize the existing CVC Strand Ranch North Turnout and route the water through the Strand Ranch facility.

This option takes advantage of the existing 100 cfs turnout for Strand Ranch. The major disadvantage is that water will only be available when the Strand Ranch north basins are operating a steady state and excess capacity is available from Strand Ranch. The Strand facility must be operated for a time long enough to establish the anticipated steady state infiltration rates, at which time water could be supplied to the Grimmway property through the Strand Ranch facility.

It involves the construction of a siphon under the RRBWSD canal, and inlet and outlet transitions. It is the most economical option for provision of a water supply at an estimated cost of \$800,000. However, the benefits are uncertain.

ALTA Survey of the Property and Title Report

The following is a summary of the results of the ALTA survey.

- Gross land area is 322.58 acres.
- Zoning is A - Exclusive Agriculture.
- General Plan Designation is 8.1 - Intensive Agriculture

- Flood Hazard - Zone X
- Ingress and Egress is via Stockdale Highway (County Road No. 696)
- There is no Williamson Act contract on this property.
- Title report indicates that there are a number of old canal easements in favor of the Pioneer Canal Company. These are noted in the previous section on the Phase 1 Environmental Assessment. These remain of record.
- The Title Report shows one exemption for an access easement to Southern California Edison, however, this does not affect the subject land and can be extinguished.

Wells and Pumps

There is one agricultural well on the property. Although the drill log was not available, the owner believes the well may be 704 feet deep. It appears that there is 20 inch casing from the surface to 198 feet deep and 16 inch casing from 198 to 704 feet. Perforations are from 199 feet deep to 704 feet deep. Based on pump test, the yields appear to be good up to 3,100 gpm.

Conclusion

- The Phase 1 Environmental Assessment indicates that there are no serious environmental issues with the property. The property has been utilized exclusively for agriculture.
- The property is underlain by sands, silty sands and lenses of silty clays. Surface soils vary from silts to silty sands. There appears to be adequate connectivity to the deeper sand layers underlying the property. Steady state recharge rates may on the order of 0.4 feet per day.
- There are four options for supplying water to the property from the Cross Valley Canal. Detailed feasibility studies will determine the most suitable option.
- The property contains 322.58 gross acres. Zoning and General Plan designations are appropriate for the contemplated recharge and recovery project.
- There is no Williamson Act contract on this property.
- The property appears to be suitable for the contemplated recharge and recovery project.

December 13, 2010

Prepared and

Submitted by: N. Savedra

Approved by: Paul Jones



ACTION CALENDAR

ELECTION OF OFFICERS FOR 2011

SUMMARY:

The Bylaws of the District provide that the President and Vice President shall be elected by the Board from among its members. The term of office of the President and Vice President is one year, or until the election and qualification of their successors. On December 14, 2009, Director Reinhart was elected to the office of President and Director Swan was elected to the office of Vice President.

While there are no formal election procedures set forth in the Bylaws, it is suggested that the General Manager be appointed temporary Chairman to conduct the election of President. The temporary Chairman would open nominations, accept nominations which need not be seconded, accept a motion to close the nominations, and conduct the balloting by voice vote. The President would then conduct the election of the Vice President in a similar manner.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT AN ELECTION BE CONDUCTED OF THE PRESIDENT AND VICE PRESIDENT OF THE BOARD OF DIRECTORS OF THE IRVINE RANCH WATER DISTRICT.

LIST OF EXHIBITS:

None.

