

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

February 28, 2011

PLEDGE OF ALLEGIANCE

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

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

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.

<u>CONSENT CALENDAR</u>	<u>Next Resolution No. 2011-3</u>	<u>Items 5-11</u>
--------------------------------	--	--------------------------

- | | |
|--|--|
| <ol style="list-style-type: none">5. <u>MINUTES OF REGULAR BOARD MEETINGS</u>

Recommendation: That the minutes of the February 14, 2011 Regular Board Meeting be approved as presented.6. <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, Mary Aileen Matheis, Douglas Reinhart, Peer Swan and John Withers.7. <u>UPCOMING PROJECTS STATUS REPORT</u>

Recommendation: Receive and file. | |
|--|--|

CONSENT CALENDAR - Continued

Next Resolution No. 2011-3

Items 5-11

8. JANUARY 2011 FINANCIAL REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report and the Monthly Interest Rate Swap Summary for January 2011; approve the January 2011 Summary of Wire Transfers and ACH payments in the total amount of \$14,709,616.53; and approve the January 2011 Warrants Nos. 317040 through 317698, Workers' Compensation Distributions and voided checks in the total amount of \$4,717,512.38.

9. DISTRICT STRATEGIC MEASURES DASHBOARDS

Recommendation: That the Board receive and file the Strategic Measures Dashboards and Information items.

10. MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION AND FLOOD PROTECTION IMPROVEMENTS-CONTRACT CHANGE ORDER NO. 33

Recommendation: That the Board approve Contract Change Order No. 33 with J. R. Filanc Construction Co., in the amount of \$282,840, for the MWRP Phase 2 Expansion and Flood Protection Improvements, projects 20214, 20542, 30214, and 30542.

11. EAST IRVINE ZONE 3 RESERVOIR COMPLEX SECURITY LIGHTING PROJECT

Recommendation: That the Board authorize an increase to the fiscal year 2010-11 Capital Budget in the amount of \$110,000, from \$2,032,800 to \$2,142,800; approve an Expenditure Authorization in the amount of \$110,000, and authorize the General Manager to execute a Contract Change Order with Halcyon Electric in the amount of \$85,700 for the East Irvine Zone 3 Reservoir Complex Lighting, project 11367.

ACTION CALENDAR

12. **VARIANCE REQUEST FOR STRAND RANCH CONSTRUCTION MANAGEMENT**

Recommendation: That the Board approve Variance No. 6 to the Professional Services Agreement with Dee Jaspar and Associates in the amount of \$171,550 for additional well drilling construction oversight, groundwater flow modeling and construction management of steel work modifications to an existing transfer structure.

13. **OPERATIONS CENTER FACILITIES EXPANSION PHASE 1 MEZZANINE CONVERSION CONSTRUCTION AWARD**

Recommendation: That the Board approve a budget reduction in the amount of \$1,876,000 each from \$3,015,200 to \$1,139,200 for projects 11422, 21422, and 31422; approve Expenditure Authorizations in the amount of \$496,400 each for projects 11422, 21422, and 31422; authorize the General Manager to execute a Sole-Source Professional Services Agreement with Malcolm Pirnie, in the amount of \$92,748, for construction management and inspection services; and authorize the General Manager to execute a construction contract with Snyder Langston in the amount of \$722,361 for the Operations Center Facilities Expansion Phase I Mezzanine Conversion, projects 11422, 21422 and 31422.

14. **SAN JOAQUIN MARSH REGIONAL NATURAL TREATMENT SYSTEM (NTS) FACILITY NO. 62 AND SMALL AREA MITIGATION SITE 1 CONSULTANT SELECTIONS**

Recommendation: That the Board approve an Expenditure Authorization in the amount of \$528,000 for project 10835; authorize the General Manager to execute a Professional Services Agreement in the amount of \$301,677 with CH2M Hill for the preparation of construction plans and specifications; and authorize the General Manager to execute a Professional Services Agreement in the amount of \$145,994 with Dudek for the permitting and environmental compliance of the San Joaquin Marsh Regional NTS Facility No. 62 and Small Area Mitigation Site 1, project 10835.

15. **ORANGE PARK ACRES SEWER CONNECTION FEES**

Recommendation: That the Board approve setting connection fees of \$24,500 For Improvement District 256; designate the Ridgeline property as the Planning Area OPA1 and setting the connection fees for OPA1 at \$4,200, effective immediately; adopt a resolution by title making changes to connection fees; and approve a future escalation of such fees in the amount that is effective July 1 of each fiscal year based on the Engineering News Record's Construction Cost Index for Los Angeles, unless the Board acts to adjust the connection fees differently.

Reso No. 2011-

ACTION CALENDAR - Continued

16. 2011 REFUNDING BONDS AND INTEREST RATE MODE CHANGE FOR THE 1995 AND 2008-A BOND ISSUES

Recommendation: That the Board approve the retention of Orrick Herrington & Sutcliffe, and Bowie, Arneson, Wiles and Giannone as co-bond counsel, and adopt the following two resolutions: Declaring intention to issue consolidated refunding bonds of said District (Refunding Series 2011A-1 and 2011A-2); and Authorizing conversion of interest rate mode (Series 1995 and 2008-A Refunding Bonds)

Reso No. 2011-

Reso No. 2011-

17. MODJESKA CANYON STORM DAMAGE REPAIR GRANT OF EASEMENT AND COMPROMISE AND RELEASE AGREEMENT

Recommendation: That the Board authorize the addition of project 11585 in the amount of \$90,200 to the Fiscal Year 2010-11 Capital Budget; approve an Expenditure Authorization for project 11585 in the amount of \$90,200; and authorize the General Manager to execute a Grant of Easement and Compromise and Release Agreement with Mr. Mark Andrews, the property owner of 28612 Markuson Road, Modjeska, California.

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.

18. A. General Manager's Report

B. Directors' Comments

1)

2)

OTHER BUSINESS

18. B. Directors' Comments - Continued

3)

4)

5)

C. CLOSED SESSION WITH LEGAL COUNSEL RELATIVE TO:

- a) Existing litigation - Government Code Section 54956.9(a) – SEMA Construction vs. the City of Tustin and City of Tustin vs. IRWD; and
- b) Existing litigation – Government Code 54956.9(a) - United States, States of California, et al., ex rel. Hendrix v. J-M Manufacturing Company, Inc. et al.

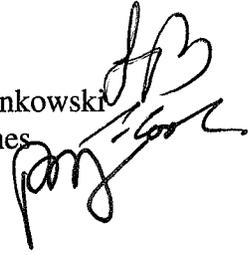
D. Adjourn.

* * * * *

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.

February 28, 2011
Prepared and
Submitted by: L. Bonkowski
Approved by: P. Jones



CONSENT CALENDAR

MINUTES OF REGULAR BOARD MEETING

SUMMARY:

Provided are the minutes of the February 14, 2011 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 FEBRUARY 14, 2011
BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – February 14, 2011 Regular Board Meeting

EXHIBIT "A"

MINUTES OF REGULAR MEETING – FEBRUARY 14, 2011

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 LaMar on February 14, 2011 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Reinhart, Matheis, LaMar, Swan, and Withers (arrived at 5:52 p.m.)

Directors Absent: None

Also Present: General Manager Jones, Assistant General Manager Cook, Director of Planning/Water Resources Heiertz, Director of Engineering Burton, Director of Finance Cherney, Assistant Treasurer Jacobson, Director of Information Services Mossbarger, Secretary Bonkowski, Legal Counsel Arneson, Director of Public Affairs Beeman, Director of Operations Pedersen, Mr. Paul Weghorst, Ms. Kirsten McLaughlin, Ms. Fiona Sanchez, Mr. Jim Reed, Mr. Tim Romer and Mr. Simon Wirecki of Goldman Sachs, Mr. John Sheldon of Morgan Stanley, 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 C-8, C-9, 10, 12, 15 and 17 will operate in accordance with the District's annual pumping plan. Wells 2 and 11 will operate a portion of the week. Wells 1, 3, 4, 5, 6, 7, 13 and 14 will be off. The District's currently planned pumping for January is 2,940 AF. This was confirmed by Mr. Jones, General Manager of the District.

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.

CONSENT CALENDAR

On MOTION by Matheis, seconded and unanimously carried (Withers absent), CONSENT CALENDAR ITEMS 3 THROUGH 7 WERE APPROVED AS FOLLOWS:

3. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the January 24, 2011 Regular Board Meeting be approved as presented.

4. 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.

5. RATIFYING MEMORANDUM OF OFFICERS OF THE BOARD, COMMITTEE, AND OTHER ASSIGNMENTS, APPROVAL OF BOARD OF DIRECTOR ATTENDANCE AT MEETINGS/EVENTS, AND ADOPTION OF REVISED COMMITTEE ASSIGNMENTS

Recommendation: That the Board ratify the memorandum dated January 26, 2011 entitled Officers of the Board, Committee and Other Assignments, approve attendance for the meetings and events for the Board's representation for calendar year 2011 as delineated in the write-up, and adopt the following resolution by title rescinding Resolution No. 2009-10 and revising the assignment of Directors to Committees of the Board.

RESOLUTION NO. 2011 – 2

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, RESCINDING
RESOLUTION NO. 2009-10 AND REVISING THE
ASSIGNMENT OF DIRECTORS TO COMMITTEES
OF THE BOARD

CONSENT CALENDAR (CONTINUED)

6. 2011 STATE LEGISLATIVE UPDATE

Recommendation: That the Board take an OPPOSE position on AB 134 (Dickenson) and AB 157 (Jeffries) and a WATCH position on AB 148 (Smyth).

7. ADMINISTRATIVE CLAIM FOR DAMAGES – VERIZON, CMR, TPA

Recommendation: That the Board receive the claim for damages from Verizon, CMR, TPA without action.

ACTION CALENDAR

VARIABLE RATE DEBT PORTFOLIO – RESTRUCTURING STRATEGY

General Manager Jones reported that Irvine Ranch Water District (IRWD) currently has eight variable rate bond issues totaling \$385.2 million supported by letters of credit (LOCs) expiring between April and June 2011. Mr. Jones said that staff has been working with various underwriters to evaluate options for restructuring the current outstanding bond issues to provide a lower cost of debt, reduce reliance on bank LOCs, and possibly further diversify the debt portfolio.

Director of Finance Cherney requested and received proposals from 10 qualified underwriting firms to provide analysis, recommendations and pricing to restructure the variable rate portfolio that would result in a cost effective structure for the District. Ms. Cherney said that staff reviewed all of the proposals and selected four firms that best met the criteria of the Request for Proposal, provided the most thorough analysis and recommendations, and had strong underwriting teams. Bank of America Merrill Lynch (BAML), Goldman Sachs (Goldman), Stone & Youngberg, and Morgan Stanley (Morgan) were invited to participate in an interview to discuss their proposed structures. Based on the proposals received, recommended debt structures and experience in the Index Based Tender Notes (ITN) market, staff recommends engaging Goldman Sachs as lead underwriter and Morgan Stanley as co-underwriter for the refunding and reissuance of ITNs.

Ms. Cherney said that staff and underwriters have reviewed a number of options for restructuring the debt portfolio and recommends extending most of the current LOCs, adding new LOCs on three of the bond issues, and refunding and reissuing the 2008-B bond issue as ITNs. Staff also recommends that the District maintain the flexibility to increase the size of the ITNs to include the 2008-A bond issue in order to maintain leverage with the LOC banks. Ms. Cherney said staff would be bringing to the Board items for approval as the various restructuring steps move forward.

Director Swan reported that this item was reviewed by the Finance and Personnel Committee for a number of months and concurs with the staff recommendation. On MOTION by Swan, seconded and unanimously carried (Withers absent), THE BOARD APPROVED PARTIALLY RESTRUCTURING THE VARIABLE RATE DEBT

PORTFOLIO, INCLUDING REFUNDING THE 2008-B VARIABLE RATE DEMAND BONDS AND REISSUING AS INDEX TENDER NOTES, APPROVED THE RETENTION OF GOLDMAN SACHS AS LEAD UNDERWRITER AND MORGAN STANLEY AS CO-UNDERWRITER FOR THE REFUNDING AND REISSUANCE, EXTENDING THE EXISTING LETTERS OF CREDIT WITH BANK OF AMERICA AND US BANK ON THE 1989, 1991, 1993 AND 2009-A BONDS, REPLACING THE STATE STREET LETTER OF CREDIT ON THE 1995 BONDS AND REPLACING LANDESBANK BADEN-WURTTENBERG ON THE 2008-A BONDS WITH NEW LETTERS OF CREDIT FROM SUMITOMO MITSUI, AND REPLACING THE BANK OF AMERICA LETTER OF CREDIT AND JP MORGAN AS REMARKETING AGENT WITH BARCLAYS CAPITAL AS THE LETTER OF CREDIT PROVIDER AND REMARKETING AGENT FOR THE 2009-B BONDS.

ORACLE TECHNOLOGY IMPLEMENTATION VARIANCE

General Manager Jones reported that in May 2010, the Board authorized the purchase of the Oracle E-Business Suite R12 to replace IRWD's existing financial management and human resources management systems. In November 2010, the Board authorized the purchase of technology licenses that will provide for the minimum number of technology and database licenses needed for a fully-redundant, high-performance technology architecture.

Director of Finance Cherney reported that staff has requested a proposal from the District's certified Oracle system implementation consultant, AST Corporation, to perform the implementation services required for technology architecture. Staff has worked with AST to develop options for implementing the high-availability architecture that utilizes the Oracle Real Application Cluster (RAC) and Active Data Guard technology (ADG). RAC ensures high-availability of the ERP system so that system users would not be impacted by a computer failure. ADG is a comprehensive data protection, data availability, and disaster recovery solution for the Oracle Database. It provides a flexible and easy-to-manage framework that addresses both planned and unplanned outages.

Ms. Cherney said that AST proposed two alternative solutions in its assessment. The primary difference between the two alternatives, summarized below, is the timing of the work as follows: *Alternative 1*: Move forward with installing the underlying technical architecture in Wave 1 (financials and basic human resources functions, as well as associated business intelligence tools); Wave 1 would be scheduled to go live in May 2011; or *Alternative 2*: Delay installing this technical architecture until Wave 2 (advanced benefits, payroll, time and labor, and associated business intelligence tools); Wave 2 is scheduled to go live in October 2011.

Ms. Cherney said that staff has worked with AST to determine the risks and benefits of implementing RAC and ADG in the alternative waves, and recommends that the District move forward with the work immediately as part of Wave 1. This schedule will meet the District's technology architecture objectives, reduce the risk associated additional testing and rework in Wave 2, and offers high-availability protection and data protection from the first go live dates. She further said that staff sought proposals not only from AST from but from other firms to do the RAC and ADG work in conjunction with AST. Based on those proposals and an assessment of project risks and benefits, staff negotiated a contract variance with AST. AST is already on-

site and has experience in implementing RAC and ADG for public sector clients. Potential project risks will be mitigated by having only one firm be responsible for certifying the platform and applications at the conclusion of each project wave.

Director Swan reported that this item was reviewed by the Finance and Personnel Committee on February 1, 2011. He said that the Committee asked for a total package cost which will be submitted at the next meeting. On MOTION by Swan, seconded and unanimously carried (Withers absent), **THE BOARD AUTHORIZED A BUDGET INCREASE OF \$221,200 EACH FOR PROJECTS 11521 AND 21521, APPROVED EXPENDITURE AUTHORIZATIONS FOR \$221,200 FOR EACH PROJECT, AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 1 WITH AST CORPORATION FOR AN AMOUNT OF \$401,874.**

ADDITIONAL CONTRIBUTIONS FOR FISCAL YEAR 2010-11 TO THE CALIFORNIA PUBLIC EMPLOYEES RETIREMENT SYSTEM

Director of Finance Cherney reported that CalPERS employer contributions can be made in two ways: 1) a lump sum payment option made between July 1 and July 15 of the beginning of the new fiscal year, or 2) making payments based on each semi-monthly payroll total based on a payroll percentage established annually by CalPERS actuaries. In FY 2009-10, the District elected to utilize the lump sum payment option because it benefited from the assumed actuarial interest rate of 7.75%.

Ms. Cherney said that the District's approved operating budget for FY 2010-11 included \$3,498,000 for the CalPERS employer contribution rate. It anticipated using the lump sum payment option as well as making an additional contribution of approximately \$482,000 to reduce the District's unfunded liability. In July 2010, when staff recommended that the District make its lump sum payment and the budgeted additional contribution, the Finance and Personnel Committee (Committee) raised concerns centered around the unstable economy and that a loss in PERS investments could potentially negate the Board strategy to reduce the District's actuarially-determined unfunded pension liability. The safer approach was to make the semi-monthly payroll contributions and consider additional contributions throughout the year to reduce the unfunded liability. She said that at its February 1, 2011 meeting, the Committee requested that staff make the balance of the budgeted additional contributions to CalPERS. After application of the July 2010 payment of \$120,000, the balance is approximately \$362,000. The additional contribution is consistent with the District's policy principles to strategically reduce the District's actuarially-determined unfunded pension liability.

Director Swan reported that this item was reviewed by the Finance and Personnel Committee on July 6, 2010 and February 1, 2011. Following discussion, he asked that this item be reviewed at the next Board meeting along with the Special Finance and Personnel Committee meeting. On MOTION by Swan, seconded and unanimously carried (Withers absent), **THE BOARD APPROVED AN ADDITIONAL CONTRIBUTION OF \$362,000 TO REDUCE THE DISTRICT'S ACTUARIALLY-DETERMINED UNFUNDED PENSION LIABILITY.**

Director Withers arrived at 5:52 p.m.

EMERGENCY REPAIR OF 39-INCH IRVINE LAKE PIPELINE CONTRACT CHANGE ORDER

General Manager Jones reported that approximately 200 feet of the 39-inch Irvine Lake Pipeline (ILP) washed out in Santiago Creek at Irvine Park during the severe December 2010 storm events. Mr. Jones said that staff secured two bids for the emergency repair work: one from Paulus Engineering, Inc. for \$172,101.17 and the other from J. R. Filanc Construction Company, Inc. for \$209,450. He said that he authorized the low bidder, Paulus Engineering, Inc., to begin the emergency repair work. He said that following the diversion of water in Santiago Creek to allow for the repair work, it was discovered that a larger than originally estimated segment of the ILP had been exposed during the storms and was vulnerable to future storm damage. A cost proposal was requested from Paulus Engineering for the additional work, which consisted of importing backfill and installing one ton rip-rap for an additional 325 feet of the ILP.

Mr. Jones said that in accordance with the February 6, 1928 Agreement and its amendments, the cost share for construction and support work for the ILP is 75 percent IRWD and 25 percent Serrano Water District (SWD). Reimbursement for a portion of the project cost may be available from Cal EMA and FEMA. He said that staff will pursue reimbursement funding for the project and funds received will be applied pro-rata to IRWD and SWD. Mr. Jones said that this item was approved by the IRWD/SWD Ad Hoc Committee on January 26, 2011.

On MOTION by Reinhart, seconded and unanimously carried, THE BOARD AUTHORIZED A \$130,000 INCREASE TO THE FISCAL YEAR 2010-11 CAPITAL BUDGET FOR PROJECT 11571, FROM \$220,000 TO \$350,000; APPROVED AN EXPENDITURE AUTHORIZATION FOR PROJECT 11571 IN THE AMOUNT OF \$130,000; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE CONTRACT CHANGE ORDER NO. 1 FOR PROJECT 11571 WITH PAULUS ENGINEERING, INC. IN THE AMOUNT OF \$129,952.

DESTRUCTION AND REPLACEMENT OF WELL 78 CONSTRUCTION AWARD

General Manager Jones reported that Well 78 was constructed in 1993 and is nearing the end of its useful life. Mr. Jones said that staff has been coordinating the replacement of Well 78 with the Department of Navy (DON) and they have been coordinating with the regulatory agencies. The DON is aware that no water will be pumped at the Well 78 site during the destruction of the existing well and during construction of the new well. It is anticipated that pumping will cease in April 2011 and the new well will be operational by March 2012.

Director of Engineering Burton reported that the design for the destruction and replacement of the well was completed in January 2011 and the project was advertised to eight select contractors. The invited bidders were ARB, Caliagua, F.T. Ziebarth, Gateway Pacific, Schuler Engineering, Pacific Hydrotech, Pascal & Ludwig, and SS Mechanical. Although eight general contractors were invited to bid on the project, only four bids were received. Mr. Burton said that staff recommends that Gateway Pacific be awarded the contract for destruction and replacement of Well 78 with an apparent low bid of \$2,789,913 compared to the engineer's estimate of \$2,819,530. Staff has been satisfied with their past performance on other IRWD projects.

Richard C. Slade (Geohydrologist) will provide well destruction and drilling field inspection services with engineering and construction inspection assistance from Tetra Tech and IRWD staff.

Mr. Burton made a correction on the funding source on the Expenditure Authorization noting that it will be from the replacement fund. On MOTION by Reinhart, seconded and unanimously carried, THE BOARD APPROVED AN INCREASE TO THE FY 2010-11 CAPITAL BUDGET IN THE AMOUNT OF \$619,300 FROM \$3,066,200 TO \$3,685,500; APPROVED AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$3,160,500; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH GATEWAY PACIFIC IN THE AMOUNT OF \$2,789,913 FOR THE DESTRUCTION AND REPLACEMENT OF WELL 78, PROJECT 30351.

GENERAL MANAGER'S REPORT

General Manager Jones reported on the sewer lateral septic conversation legislation (Huffman). Mr. Jones said that work is continuing to add a section to the Health and Safety Code to allow for a pre-abatement concept. Also, a section may be added for a 10-year Infrastructure Plan, i.e. regulation penalties. He said that he heard that Huffman has decided to go forward with the sewer lateral septic conversation under a separate bill.

Mr. Jones said that last Friday he and Mr. Weghorst met with Ms. Lorri Gray and Mr. James Harkin of the Bureau of Reclamation in Nevada relative to Wells 21 and 22, Tustin Well 52, and the Cienega project where he asked for a nine-month extension on the Wells 21 and 22 project, a 12-month extension on the Cienega project, and requested to move the Well 52 site in Tustin. He said that the Bureau approved a nine-month extension for Wells 21 and 22 along with the Cienega project. He said he will be providing a detailed schedule at a later date. In response to Director Reinhart's comments, staff will submit an item to the March Engineering and Operations Committee on the Cienega project where Mr. Jones said it may become a diversion project with only the direct rechargers, including the City of Irvine, the Floor Control District, the City of Tustin and TIC.

Mr. Jones reported on his trip to Washington, DC along with President LaMar. He said that they had meetings with staff from the offices of Calvert, Feinstein, and Royce, attended two subcommittee meetings, and met with the US Army Corps of Engineers. He noted the huge concerns with *earmarks*.

Mr. Jones reported on his and Director Swan's meeting with Mr. Brett Sanders and three of his faculty members from UCI. He said that they would like to collaborate with IRWD having undergraduate and graduate students with internships for potential IRWD succession planning. He said that UCI will be submitting a plan in the near future for our review. Director Swan said that UCI will be emphasizing a direct value to IRWD to create specific projects. Mr. Jones said that UCI will be looking into linking classroom study for practical training.

DIRECTORS' COMMENTS

Director Swan reported on his attendance at the Association of California Cities, WACO, Newport Chamber of Commerce, a West Basin meeting with Ms. Debra Mann, a UCI collaboration meeting, an OCWD Board meeting, a tour with staff from both the Discovery Science Center and Great Park, an ACWA Region X Planning meeting, an ACWA Board meeting, a Southern California Dialogue meeting, an SWD/IRWD Ad Hoc Committee meeting relative to Irvine Lake, an Encino Plant tour on solids handling where he learned that IRWD should not start with a fuel cell process. He said that he met with Snyder Langston and that he received suggestions from them on how to save money on our real estate developments which he will bring to the next Asset Management Committee meeting. He said that he had a conversation with Kia Motors about a draining problem from a reflecting pond.

He further said that he will be attending: 1) a Newport Bay Watershed Executive Committee meeting this Wednesday where one of the items will be on the Cienega program; and 2) the monthly OCWA luncheon on south county reliability/sustainability.

Director Matheis reported on her attendance at an OCBC event, WACO, State of the City of Irvine address, a Lake Forest Chambers event with Mr. Jim Reed, and an Association of California Cities meeting. She said that on March 20 IRWD is hosting a WateReuse meeting in Dana Point.

Director Withers said that he will be briefly attending a California LAFCO workshop this Thursday at IRWD's Duck Club. He asked staff to provide him with 35 copies of the brochure on the San Joaquin Wildlife Sanctuary.

President LaMar thanked Director Swan for getting him through the first Finance and Personnel Committee meeting. He reported on his trip to Washington, DC with the General Manager. He said it was discouraging to see how they will be dealing with *earmarks* and that he is not optimistic to see funding this year.

ADJOURNMENT

There being no further business, President LaMar adjourned the meeting.

APPROVED and SIGNED this 28th day of February, 2011.

President
IRVINE RANCH WATER DISTRICT

Secretary
IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

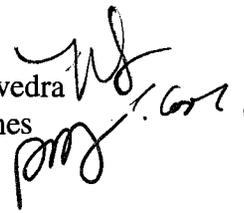
Legal Counsel - Bowie, Arneson, Wiles & Giannone

February 28, 2011

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

2/10/11 Association of California Cities – Orange County Meeting
2/16/11 ACWA Federal Affairs Committee Meeting, Sacramento, CA
2/23/11 Meeting with State legislators in Sacramento, CA
2/24/11 SCWC Regional Stormwater Task Force Meeting
3/29/11 IRWD Business Outreach Luncheon Meeting

Mary Aileen Matheis

2/10/11 Association of California Cities – Orange County Meeting
2/24/11 Meeting with Paul Jones regarding District issues
3/04/11 Public Officials for Water & Environmental Reform Conference
3/16/11 ACWA 2011 Legislative Symposium
3/29/11 IRWD Business Outreach Luncheon Meeting

Doug Reinhart

3/29/11 IRWD Business Outreach Luncheon Meeting

Peer Swan

2/10/11 Association of California Cities – Orange County Meeting
2/24/11 ACWA Water Management Committee Meeting
3/29/11 IRWD Business Outreach Luncheon Meeting

John Withers

2/10/11 Association of California Cities – Orange County Meeting
2/25/11 Meeting with Paul Jones regarding District issues
3/29/11 IRWD Business Outreach Luncheon Meeting

RECOMMENDATION:

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

LIST OF EXHIBITS:

None

February 28, 2011 *DS*
Prepared by: S. Malloy/P. Uematsu/
M. Cortez *RKM*
Submitted by: K. Burton *(K.B.)*
Approved by: Paul Jones *[Signature]*

CONSENT CALENDAR

UPCOMING PROJECTS STATUS REPORT

SUMMARY:

A status report of Irvine Ranch Water District's Upcoming Projects is presented to the Committee for information.

BACKGROUND:

The information, which is attached as Exhibit "A", is a status report submitted quarterly to the Committee and Board for their review.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee on February 15, 2011.

RECOMMENDATION:

RECEIVE AND FILE.

LIST OF EXHIBITS:

Exhibit "A" – Upcoming Projects Status Report

Exhibit "A"

IRWD UPCOMING PROJECT STATUS REPORT

Project Name	Planning	Start	Construction	Construction
	Start	Design	Award	Final Acceptance
East Irvine Zone 3 Reservoirs Photovoltaic Systems				Summer 2011
Cienega Full Scale Selenium Removal Facility			Spring 2012	Spring 2013
Facility Fire Protection Improvements - DW PS Roof Replacements				Spring 2011
Lake Forest Woods Area Sewer Rehabilitation				Spring 2011
Reservoir Recycled Water Dechlorination Stations				Spring 2011
RMS at 5 DW Reservoirs	Summer 2011			
Newport Blvd. (SAH) Waterline Relocation			Fall 2011	Spring 2013
Trabuco Road Bridge DW and RW Upsizing			Spring 2011	Fall 2011
Newport Coast Catholic Protection				Spring 2011
Operations Center Expansion - Mezzanine Conversion			Winter 2011	Winter 2012
Santiago Dam and Outlet Tower Seismic Stability Study				
SCWD BPS Generators/Walls	On-going	Winter 2011		
University Drive Pipelines Cathodic Protection			Spring 2012	Spring 2013
Alton Parkway, Commercentre to Towne Centre (City)				Spring 2012
Alton Parkway, Irvine Boulevard to Commercentre (County)				Spring 2012
16-inch ZC Relocation Lake Forest Glass Creek Sports Park (RA w/ LF)		Winter 2011	Spring 2012	Spring 2013
Barranca-Dyer Redhill Widening -Misc Relocations (RA w/ COI)				Spring 2011
IBC Ph 4 Sidewalk Improvements DW Relocations				Winter 2011
Lake Forest Rancho Parkway Extension (RA w/ LF)		Winter 2011	Spring 2012	Spring 2013
Modjeska Canyon Relocations Sites 2, 8, 11		Summer 2011		Summer 2011
PA 40 Capital Pipelines DW S RW (RA w/ ICDC)			Winter 2011	Summer 2011
PA-18 (Laguna) DW & RW Pipelines (RA w/ ICDC)				Summer 2011
PA-6 PH2 Neighborhood 3 MCAS RW Zone C 12" (RA w/ ICDC)			Summer 2012	Summer 2013
PA-9B Jeffrey Road Zones 3, A, B and C Pipelines			Summer 2012	Summer 2013
The District - Barranca Relocations - 54", 16" & 12" (RA w/ VESTAR)				Spring 2014
MWRP Biosolids			Winter 2012	Summer 2014
Jeffrey Road Grade Separation				Winter 2011
MWRP Flood Protection				Summer 2012
MWRP Phase 2 Expansion				Summer 2012
MWRP WAS & Skimming Pump Replacement				Winter 2011
Operations Center Expansion - Dept. 50 Storage Building				Fall 2011
Sand Canyon Reservoir Strainers at MWRP			Spring 2011	Fall 2011
DRWF Well Starters 10 & 16				Spring 2011
Video Security Installation		Summer 2011		
Lake Forest (LAWD) PLC Replacement and Control System Upgrades			Winter 2012	Summer 2012
Water Operations Transdyn Replacement				Spring 2012
NTS Site 62 & SAMS1		Spring 2011		
OPA 16" Pipeline Replacement				Winter 2012
OPA Phase 3 Modifications - Fire Flow Improvements			Spring 2011	Winter 2012
OPA PRVs, Turnout, and Meads Pump Station Mods			Spring 2011	Winter 2012

February 28, 2011

Prepared by: Fournier/Jacobson

Submitted by: Debby Cherney

Approved by: Paul Jones

CONSENT CALENDAR

JANUARY 2011 FINANCIAL REPORTS

SUMMARY:

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

- A. The Investment Summary Report for January 2011. This Investment Summary Report is in conformity with the 2011 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 January 31, 2011, as outlined in Exhibit "B".
- C. The Summary of Wire Transfers and ACH payments in the total amount of \$14,709,616.53, as outlined in Exhibit "C".
- D. The January 2011 tabulation of Warrant Nos. 317040 through 317698, Workers' Compensation distributions, and voided checks in the total amount of \$4,717,512.38, as outlined in Exhibit "D".

FISCAL IMPACTS:

As of January 31, 2011, the book value of the investment portfolio was \$437,135,677 with a 0.50% rate of return and a market value of \$437,544,040. Based on the District's January 31, 2011 real estate investment rate of return of 8.70%, the District's weighted average return for the fixed income and real estate investments is 1.54%.

As of January 31, 2011, the total notional amount of the interest rate swap portfolio was \$130 million of fixed payer swaps. Cash flow in January from all swaps was a negative \$615,260 and a negative \$4,316,174 fiscal year to date. The mark-to-market value of all swaps was approximately \$100.7 million at month-end.

Wire transfers, ACH payments, and checks issued for debt service, accounts payable, payroll and water purchases for January totaled \$19,427,128.91.

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:

RECEIVE AND FILE THE TREASURER'S INVESTMENT SUMMARY REPORT AND THE MONTHLY INTEREST RATE SWAP SUMMARY FOR JANUARY 2011; APPROVE THE JANUARY 2011 SUMMARY OF WIRE TRANSFERS AND ACH PAYMENTS IN THE TOTAL AMOUNT OF \$14,709,616.53; AND APPROVE THE JANUARY 2011 WARRANTS NOS. 317040 THROUGH 317698, WORKERS' COMPENSATION DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$4,717,512.38.

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"

01/31/11

DATE	DESCRIPTION	AMOUNT	YIELD	PRICE	STATUS	REMARKS	AMOUNT	YIELD	PRICE	STATUS	REMARKS					
01/31/11	01/01/11	01/31/11	02/01/11	02/01/11	LAIF	State of California Tsy.	\$44,600,000.00	0.462%			\$44,600,000.00	0.462%			44,665,175.01	65,175.01
01/14/11	01/01/11	01/31/11	02/01/11	02/01/11	LAIF-IPA	State of California Tsy.	50,000,000.00	0.462%			\$50,000,000.00	0.462%			50,073,066.15	73,066.15
01/14/11	01/01/11	01/31/11	02/07/11	02/07/11	LAIF-2009A	State of California Tsy.	15,150,248.98	0.462%			\$15,150,248.98	0.462%			15,172,388.39	22,139.41
01/14/11	01/01/11	01/31/11	02/07/11	02/07/11	LAIF-2009B	State of California Tsy.	15,150,249	0.462%			\$15,150,248.98	0.462%			15,172,388.39	22,139.41
01/14/11	01/01/11	01/31/11	02/18/11	02/18/11	LAIF-BABS	State of California Tsy.	156,031,168	0.462%			\$156,031,168.19	0.462%			156,259,180.12	228,011.93
01/31/11	01/01/11	01/31/11	02/01/11	02/01/11	B of A Tsy. Reserves	Bank of America	698,326.20	0.009%			698,326.20	0.009%			698,326.20	
04/21/10	06/08/11	11/23/11	06/08/11	11/23/11	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.000%			5,012,550.00	0.841%			5,028,050.00	21,008.18
09/22/10	06/13/11	06/13/12	06/13/11	06/13/12	FPCB - Note	Fed Farm Credit Bank	5,000,000	0.640%			5,000,000.00	0.640%			5,000,250.00	250.00
09/21/10	02/23/11	08/23/12	02/23/11	08/23/12	FPCB - Note	Fed Farm Credit Bank	5,000,000	0.550%			5,000,000.00	0.550%			5,000,250.00	250.00
12/16/10	03/17/11	09/17/12	03/17/11	09/17/12	FHLB - Note	Fed Home Loan Bank	5,000,000	0.500%			4,979,500.00	0.745%			4,997,850.00	17,817.53
09/17/10	01/25/11	10/25/12	01/25/11	10/25/12	FPCB - Note	Fed Farm Credit Bank	8,000,000	0.700%			8,000,000.00	0.700%			8,004,160.00	4,160.00
10/25/10	04/26/11	10/26/12	04/26/11	10/26/12	FHLB - Note	Fed Home Loan Bank	5,000,000	0.550%			4,997,500.00	0.750%			4,989,200.00	(8,532.56)
11/04/10	05/09/11	11/09/12	05/09/11	11/09/12	FPCB - Note	Fed Farm Credit Bank	5,000,000	0.490%			4,997,500.00	0.590%			4,990,400.00	(7,207.34)
11/09/10	02/23/11	11/23/12	02/23/11	11/23/12	FHLB - Note	Fed Home Loan Bank	5,000,000	0.500%			5,000,000.00	0.500%			4,981,450.00	(18,550.00)
01/19/11	06/28/11	12/28/12	06/28/11	12/28/12	FHLB - Note	Fed Home Loan Bank	5,000,000	0.625%			5,495,600.00	0.669%			5,476,955.00	(18,729.87)
12/28/10	03/28/11	02/03/11	03/28/11	02/03/11	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.880%			4,999,500.00	0.880%			4,997,000.00	(3,000.00)
01/14/11	04/07/11	01/07/13	04/07/11	01/07/13	FHLMC - Note	Fed Home Loan Mortgage Bank	5,000,000	0.900%			5,000,000.00	0.900%			5,004,050.00	4,547.26
01/14/11	01/11/12	01/11/13	01/11/12	01/11/13	FHLMC - Note	Fed Home Loan Mortgage Bank	5,000,000	1.000%			5,002,907.69	0.969%			5,003,400.00	492.31
01/11/11					FPCB - Note	Fed Farm Credit Bank	5,000,000	0.750%			4,992,500.00	0.826%			4,997,700.00	5,200.00
11/23/10	N/A	06/28/11	N/A	06/28/11	MIG1/SP-1/2	CA ST-RANS-A2	10,000,000	3.000%			10,073,500.00	1.751%			10,070,800.00	9.68
12/01/10	01/26/11	02/01/11	02/02/11	02/02/11	VRDO	Chino Basin Fin	11,620,000	0.260%			11,620,000.00	0.260%			11,620,000.00	
10/09/08	01/27/11	02/02/11	02/03/11	02/03/11	VRDO	CA Water Series C	2,000,000	0.300%			2,000,000.00	0.300%			2,000,000.00	
09/01/10	01/27/11	02/02/11	02/03/11	02/03/11	VRDO	Rancho California Wtd	6,700,000	0.290%			6,700,000.00	0.290%			6,700,000.00	
08/20/09	01/27/11	02/02/11	02/03/11	02/03/11	VRDO	Rancho California Wtd	3,000,000	0.260%			3,000,000.00	0.260%			3,000,000.00	
07/20/10	01/27/11	02/02/11	02/03/11	02/03/11	VRDO	Metropolitan Water	10,000,000	0.330%			10,000,000.00	0.330%			10,000,000.00	
08/16/10	01/26/11	02/01/11	02/02/11	02/02/11	VRDO	Sacramento WTR	10,000,000	0.260%			10,000,000.00	0.260%			10,000,000.00	
08/27/10	01/27/11	02/02/11	02/03/11	02/03/11	VRDO	Metropolitan Water	5,000,000	0.290%			5,000,000.00	0.290%			5,000,000.00	
08/30/10	01/27/11	02/02/11	02/03/11	02/03/11	VRDO	Orange Cnty Wtr	5,800,000	0.290%			5,800,000.00	0.290%			5,800,116.00	116.00
10/27/10	01/26/11	02/01/11	02/02/11	02/02/11	VRDO	Orange Cnty Wtr	5,000,000	0.240%			5,000,000.00	0.240%			5,000,000.00	
11/18/10	01/27/11	02/02/11	02/03/11	02/03/11	VRDO	L.A. Waste Wtr	5,000,000	0.220%			5,000,000.00	0.220%			5,000,000.00	
12/22/10	01/26/11	02/01/11	02/02/11	02/02/11	VRDO	Eastern Mun Wtr Dist CA	8,000,000	0.260%			8,000,000.00	0.260%			8,000,000.00	
SUB-TOTAL												\$432,301,142.35	\$432,293,792.16	\$432,702,155.26	\$408,363.10	
RESTRICTED CASH (Swap Collateral Deposits)																
01/03/11	01/01/10	01/31/10			Collateral Deposit	Clit-Group	\$4,841,885	0.194%			\$4,841,885.00	0.194%			4,841,885.00	
SUB-TOTAL												\$4,841,885.00	\$4,841,885.00	\$4,841,885.00	\$4,841,885.00	
TOTAL INVESTMENTS												\$437,143,027.35	\$437,135,677.16	\$437,544,040.26		
Petty Cash												3,300.00				
Bank Bal. (unrec.)												633,721,338				
												\$436,852,605.77				

Investment Portfolio	Investment Portfolio	Real Estate Portfolio (3)	Weighted Avg. Return
0.50%	0.50%	8.70%	1.54%
0.49%	0.49%	8.70%	1.73%
0.01%	0.01%		
January	December	Change	
168%			

Outstanding Variable Rate Debt \$389,955,000
Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps) \$259,955,000
Investment Balance: \$436,852,606
Investment to Variable Rate Debt Ratio: 168%
Portfolio - Average Number of Days To Maturity

(1) LAIF market value is as of the most recent quarter-end as reported by LAIF.
Security market values are determined using Bank of New York ("Trading Prices"), Bloomberg and/or broker dealer pricing.
(2) Gain (loss) calculated against carry value using the trading value provided by Bank of New York/Brokers
(3) Real estate rate of return is based on most recent quarter end return
(4) No call Notice
(5) Partial call
This Investment Summary Report is in conformity with the 2011 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures.

IRVINE RANCH WATER DISTRICT

SUMMARY OF MATURITIES
01/31/11

PORTFOLIO \$437,091,877

DATE	TOTAL	\$	LAIF	AGENCIES	MUNI	CALIF. REV. NOTES	MONEY MARKET SAVINGS & SWEEP	Collateral * Deposit
2/11	\$358,591,877	82.04%	\$280,931,666		72,120,000		698,326	\$4,841,885
3/11								
4/11								
5/11								
6/11	\$10,000,000	2.29%			10,000,000			
7/11								
8/11								
9/11								
10/11								
11/11	\$5,000,000	1.14%		5,000,000				
12/11								
1/12								
SUB-TOTAL	\$373,591,877	85.47%	\$280,931,666	5,000,000	72,120,000	10,000,000	698,326	\$4,841,885
12 Months - 2 YEARS								
2/1/2012 - 3/31/2012								
4/1/2012 - 6/30/2012	\$10,000,000	2.29%		10,000,000				
7/1/2012 - 9/30/2012	\$13,000,000	2.97%		13,000,000				
10/1/2012 - 12/31/2012	\$30,500,000	6.98%		30,500,000				
1/1/2013 - 3/31/2013	\$10,000,000	2.29%		10,000,000				
TOTALS	\$437,091,877	100.00%	\$280,931,666	68,500,000	72,120,000	10,000,000	698,326	\$4,841,885
% OF PORTFOLIO			64.27%	15.67%	16.50%	2.29%	0.16%	1.11%

* Return of posted collateral is dependent on interest rates.

IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT
INVESTMENT ACTIVITY

Jan-11

MATURITIES/SALES

PURCHASES

DATE	SECURITY TYPE	PAR	YIELD	DATE	SECURITY TYPE	PAR	YIELD
01/12/11	VRDO - East Bay MUD Due 1/12/2011	\$9,800,000	0.32%	01/11/11	FFCB Note Due 1/11/2013	\$5,000,000	0.83%
01/14/11	FAMCA Note Due 1/14/2011	\$9,900,000	1.57%	01/14/11	FHLB Note Due 1/18/2011	\$5,000,000	0.07%
01/18/11	FHLB Note Due 1/18/2011	\$5,000,000	0.71%	01/14/11	FHLMC Note Due 1/7/2013	\$5,000,000	0.97%
01/19/11	FHLB Note Due 1/19/2011	\$5,500,000	0.10%	01/18/11	FHLB Note Due 1/19/2011	\$5,500,000	0.10%
				01/19/11	FHLB Disc Note Due 11/23/2012	\$5,500,000	0.67%

LAIF ACTIVITY

01/04/11	LAIF	\$5,000,000
01/07/11	LAIF	(\$1,500,000)
01/11/11	LAIF	(\$4,500,000)
01/12/11	LAIF	\$9,700,000
01/14/11	LAIF - JPA	(\$56,892)
01/14/11	LAIF	(\$53,959)
01/14/11	LAIF - 2009A	\$17,382
01/14/11	LAIF - 2009B	\$17,382
01/14/11	LAIF - JPA	\$31,168
01/24/11	LAIF	(\$1,000,000)
01/25/11	LAIF	(\$500,000)
01/31/11	LAIF	(\$3,900,000)
	Increase/(Decrease)	<u>\$8,606,531</u>

COLLATERALIZED DEPOSIT ACTIVITY

Balance Forward	\$9,583,694
CITIGROUP	(\$4,741,809)
Balance at 1/31	<u>\$4,841,885</u>

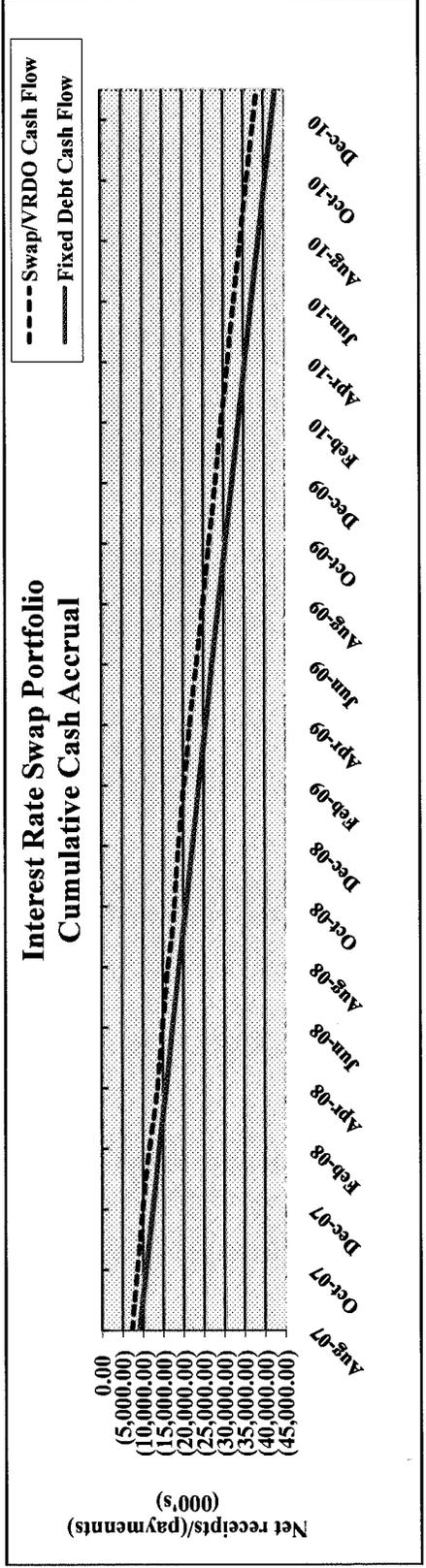
**IRVINE RANCH WATER DISTRICT
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL**
January 31, 2011

Exhibit "B"

Effective Date	Maturity Date	Years to Maturity	Counter Party	Notional Amt	Type	Base Index	Fixed Rate	LIBOR Avg %		Cash Flow		Mark to Market	Unrealized Gain/(Loss)	Ttl Rtn to Dt
								Prior Mo.	Current Mo.	Prior Mo.	Current Mo.			
Fixed Payer Swaps - By Effective Date														
6/4/2006	6/4/2019	8.3	ML	\$ 20,000,000	FXP	LIBOR	6.200%	\$ (102,229)	\$ (98,834)	\$ (693,374)	\$ (3,357,946)	\$ 13,423,609	\$ (6,576,391)	\$ (9,934,337)
6/4/2006	6/4/2019	8.3	CG	\$ 20,000,000	FXP	LIBOR	6.200%	\$ (102,229)	\$ (98,834)	\$ (693,374)	\$ (3,357,946)	\$ 13,469,598	\$ (6,530,402)	\$ (9,888,348)
6/17/2006	6/17/2019	8.4	CG	\$ 30,000,000	FXP	LIBOR	6.140%	\$ (151,986)	\$ (146,760)	\$ (1,029,672)	\$ (4,964,707)	\$ 23,140,196	\$ (6,859,804)	\$ (11,824,511)
3/10/2007	3/10/2029	18.1	ML	\$ 30,000,000	FXP	LIBOR	5.687%	\$ (140,208)	\$ (135,416)	\$ (949,877)	\$ (4,243,573)	\$ 25,334,564	\$ (4,665,436)	\$ (8,909,009)
3/10/2007	3/10/2029	18.1	CG	\$ 30,000,000	FXP	LIBOR	5.687%	\$ (140,208)	\$ (135,416)	\$ (949,877)	\$ (4,243,573)	\$ 25,343,029	\$ (4,656,971)	\$ (8,900,544)
Totals/Weighted Aves		12.9		\$ 130,000,000			5.949%	\$ (636,860)	\$ (615,260)	\$ (4,316,174)	\$ (20,167,746)	\$ 100,710,996	\$ (29,289,004)	\$ (49,456,750)
Total Current Year Active Swaps				\$ 130,000,000				\$ (636,860)	\$ (615,260)	\$ (4,316,174)	\$ (20,167,746)	\$ 100,710,996	\$ (29,289,004)	\$ (49,456,750)

Effective Date	Maturity Date	Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Cash Flow		Mark to Market	Unrealized Gain/(Loss)	Ttl Rtn to Dt
							Prior Month	Current Month			
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	Unrealized Gain/(Loss)	Ttl Rtn to Dt		
							Prior Month	Current Month					
Current Fiscal Year - Total Swaps													
							\$ (636,860)	\$ (615,260)	\$ (4,316,174)	\$ (20,167,746)	\$ 100,710,996	\$ (29,289,004)	\$ (49,456,750)
Total Current Year Active & Terminated Swaps							\$ (636,860)	\$ (615,260)	\$ (4,316,174)	\$ (20,167,746)	\$ 100,710,996	\$ (29,289,004)	\$ (49,456,750)



Cash Flow Comparison
 Synthetic Fixed vs. Fixed Rate Debt

Cash Flow to Date

Synthetic Fixed = \$38,372,848

Fixed Rate = \$42,785,415

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

**JANUARY
2011**

DATE	AMOUNT	VENDOR	PURPOSE
1/3/2011	4,930.78	HELABA	LOC FEES
1/3/2011	76,556.74	STATE STREET	LOC FEES
1/3/2011	160,253.44	LBBW	LOC FEES
1/3/2011	242,261.42	US BANK	LOC FEES
1/3/2011	16,212.34	BANK OF AMERICA	DEBT SERVICE
1/3/2011	15,678.07	US BANK	DEBT SERVICE
1/3/2011	1,700,313.92	STATE STREET	DEBT SERVICE
1/4/2011	250.00	US BANK	DRAW FEES
1/6/2011	401,320.10	BANK OF AMERICA	LOC FEES
1/7/2011	4,007.07	STATE STREET	DEBT SERVICE
1/7/2011	38,519.62	LBBW	DEBT SERVICE
1/7/2011	867.88	HELABA	DEBT SERVICE
1/7/2011	11,772.71	BANK OF AMERICA	DEBT SERVICE
1/10/2011	295.00	BANK OF AMERICA	DRAW FEES
1/10/2011	734,480.08	BANK OF AMERICA	PAYROLL 1/8/11
1/10/2011	159,152.28	BANK OF AMERICA	FEDERAL TAX LIABILITY
1/10/2011	58,188.94	BANK OF AMERICA	STATE TAX LIABILITY
1/10/2011	13,924.09	EBS	FLEX & DEPENDANT CARE
1/10/2011	29,857.55	OCFTCU	PAYROLL DEDUCTION
1/10/2011	1,215.00	OCCU	PAYROLL DEDUCTION
1/10/2011	330,030.91	CalPERS	HEALTH INSURANCE PREMIUM
1/11/2011	128,731.80	GREAT WEST	DEFERRED COMP A/O 1/8/11
1/14/2011	1,138,352.81	MWDOC	WATER PURCHASE
1/14/2011	214,343.64	CalPERS	RETIREMENT
1/20/2011	3,270.00	BANK OF AMERICA	DRAW FEES
1/24/2011	3,059,443.49	JR FILANC CONSTRUCTION	MWRP EXPANSION
1/24/2011	725,498.35	BANK OF AMERICA	PAYROLL 1/23/11
1/24/2011	159,609.64	BANK OF AMERICA	FEDERAL TAX LIABILITY
1/24/2011	57,406.12	BANK OF AMERICA	STATE TAX LIABILITY
1/24/2011	30,647.55	OCFTCU	PAYROLL DEDUCTION
1/24/2011	1,215.00	OCCU	PAYROLL DEDUCTION
1/24/2011	13,761.59	EBS	FLEX & DEPENDANT CARE
1/25/2011	215,263.60	GREAT WEST	DEFERRED COMP A/O 1/23/11
1/28/2011	214,189.95	CalPERS	RETIREMENT
1/31/2011	4,747,795.05	OCWD	SEMI-ANNUAL PUMP TAX
<u>\$14,709,616.53</u>			

Exhibit "D"

1/31/2011
14:09:18

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/07 Ended 1/31/2011Page 1
AP238R

Vendor Name	Issued	Voided	Check#	Check Amount
ASSIFI, ABDUL TAWAB	1/06/11		317040	1,560.00
BALLARD, CARL	1/06/11		317041	1,800.00
BORKMAN, CHARLES E	1/06/11		317042	1,500.00
COMILLAS, TEOFY E	1/06/11		317043	1,800.00
CRAWFORD, JOHN P	1/06/11		317044	1,320.00
DOUG WILHELMI	1/06/11		317045	1,800.00
ERVIN, CRAIG J	1/06/11		317046	1,800.00
FIDELITY INVESTMENTS	1/06/11		317047	415.00
FRANCHISE TAX BOARD	1/06/11		317048	175.00
GLENNA R ANDERSEN	1/06/11		317049	1,320.00
HABIGER, STEVE	1/06/11		317050	1,800.00
HEANEY, DAVID	1/06/11		317051	1,800.00
HOLLIDAY, MARY E	1/06/11		317052	1,200.00
KIM, SOON TAE	1/06/11		317053	1,800.00
KLOER, LUPE	1/06/11		317054	1,800.00
KNUTH, MICHAEL C	1/06/11		317055	900.00
LOOMIS, TERRELL	1/06/11		317056	1,560.00
LYNCH, JAN	1/06/11		317057	1,400.00
MCCORMICK, LESTER	1/06/11		317058	1,800.00
MUMENTHALER SYLVIA	1/06/11		317059	1,680.00
PABIS, SHARON	1/06/11		317060	840.00
PERS LONG TERM CARE	1/06/11		317061	1,826.79
PHAM, BINH T	1/06/11		317062	1,740.00
SANCHEZ, AL	1/06/11		317063	1,620.00
SCHEAFER, TOM	1/06/11		317064	1,740.00
SOUTH COAST AIR QUALITY	1/06/11		317065	1,050.19
UNITED STATES POST OFFICE	1/06/11		317066	30,000.00
VELAZQUEZ, LORETTA	1/06/11		317067	1,800.00
VILLEGAS, LINDA L	1/06/11		317068	1,140.00
WALKER, JOHN	1/06/11		317069	1,800.00
WILLIAMS JEFF	1/06/11		317070	157.70
AARP HEALTH CARE OPTIONS	1/06/11		317071	216.14
ACCURATE MEASUREMENT SYSTEMS	1/06/11		317072	6,058.20
ACTION ELECTRIC CORP	1/06/11		317073	659.59
ACWA HEALTH BENEFITS AUTHORITY	1/06/11		317074	30,488.60
ADVANTRA RX	1/06/11		317075	41.10
AGILENT TECHNOLOGIES, INC.	1/06/11		317076	1,403.65
AIRGAS-WEST, INC.	1/06/11		317077	797.08
AOSAFETY	1/06/11		317078	87.36
AQUA-METRIC SALES COMPANY	1/06/11		317079	12,431.43
AT&T	1/06/11		317080	2,511.20
AYRES HOTEL AND SUITES (DBA)	1/06/11		317081	2,266.49
BELL PIPE & SUPPLY CO	1/06/11		317082	7,034.32
BILL'S SWEEPING SERVICE INC	1/06/11		317083	1,210.00
BIOMAGIC INC	1/06/11		317084	572.57
BOWIE, ARNESON, WILES &	1/06/11		317085	45,669.08
C WELLS PIPELINE MATERIALS INC	1/06/11		317086	9,016.46
CALIFORNIA BARRICADE INC	1/06/11		317087	910.00
CAPTIVE AUDIENCE MARKETING	1/06/11		317088	85.91
CDW GOVERNMENT LLC	1/06/11		317089	106.28
CHEESMAN, ENRIQUE	1/06/11		317090	1,680.00
COASTAL TRAFFIC SYSTEMS, INC	1/06/11		317091	550.00
COMMERCIAL DOOR OF ORANGE	1/06/11		317092	966.00
COMPUCOM SYSTEMS, INC.	1/06/11		317093	1,486.60
CREDENTIAL CHECK CORPORATION	1/06/11		317094	25.00
DANBRU WIRE & CABLE, INC	1/06/11		317095	7,063.44
DEAKYNE WALTER S	1/06/11		317096	750.00

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/07 Ended 1/31/2011

Vendor Name	Issued	Voided	Check#	Check Amount
DELL MARKETING LP	1/06/11		317097	293.03
DETECTION INSTRUMENTS CORP	1/06/11		317098	244.69
DITCH WITCH EL CAJON	1/06/11	1/14/11	317099	3,806.25
DOOLEY, GEORGIA	1/06/11		317100	780.05
ENVIRONMENTAL WATER MGT	1/06/11		317101	2,450.00
ESA PWA	1/06/11		317102	9,067.50
ESRI	1/06/11		317103	26,762.83
EVOLVE MEDIA	1/06/11		317104	13,500.00
EXPRESSAIR	1/06/11		317105	63.00
FARRELL & ASSOCIATES	1/06/11		317106	492.69
FEDEX	1/06/11		317107	372.65
FIDELITY SECURITY LIFE	1/06/11		317108	5,723.16
FISERV	1/06/11		317109	8,659.36
FISHER SCIENTIFIC COMPANY LLC	1/06/11		317110	6,936.64
FLEET SOLUTIONS, LLC.	1/06/11		317111	4,141.70
FRANK LA PLACA EXTERMINATING	1/06/11		317112	175.00
GEORGE YARDLEY CO INC	1/06/11		317113	7,086.19
GLOBALSTAR INC	1/06/11		317114	167.47
GODWIN PUMPS OF AMERICA, INC.	1/06/11		317115	2,352.26
GRAINGER	1/06/11		317116	2,375.41
GRAYBAR ELECTRIC COMPANY	1/06/11		317117	191.24
HACH COMPANY	1/06/11		317118	573.43
HDR ENGINEERING INC.	1/06/11		317119	116,801.07
HILL BROTHERS CHEMICAL COMPANY	1/06/11		317120	577.10
HILLEBRECHT, WARREN K	1/06/11		317121	245.66
HOME DEPOT USA INC	1/06/11		317122	545.37
HUMANA INSURANCE COMPANY	1/06/11		317123	28.10
HYDRO-SCAPE PRODUCTS INC	1/06/11		317124	1,847.56
IDEXX DISTRIBUTION, INC	1/06/11		317125	1,781.33
INDUSTRIAL METAL SUPPLY CO	1/06/11		317126	46.12
INTERGRATED IMPRESSIONS, INC.	1/06/11		317127	3,795.38
IRVINE PIPE & SUPPLY INC	1/06/11		317128	2,359.51
IRWD-PETTY CASH CUSTODIAN	1/06/11		317129	925.92
J.G. TUCKER & SON INC	1/06/11		317130	4,029.19
J.P. MORGAN SECURITIES, INC.	1/06/11		317131	22,684.93
J.R. FILANC CONSTRUCTION	1/06/11		317132	12,500.00
JOHN CRANE, INC.	1/06/11		317133	940.78
JOHN G. ALEVIZOS D.O. INC.	1/06/11		317134	260.00
JOHN MICHAEL COVAS	1/06/11		317135	96.50
JONES & STOKES ASSOCIATES, INC	1/06/11		317136	7,517.50
KEY EQUIPMENT FINANCE	1/06/11		317137	4,076.72
KONECRANES INC	1/06/11		317138	320.00
LAB SAFETY SUPPLY, INC.	1/06/11		317139	41.30
LEE & SAKAHARA ARCHITECTS, INC	1/06/11		317140	1,462.92
LENOVO UNITED STATES INC	1/06/11		317141	2,160.92
MARVIN GARDENS LLC	1/06/11		317142	2,508.70
MBC APPLIED ENVIRONMENTAL	1/06/11		317143	2,000.00
MC MASTER CARR SUPPLY CO	1/06/11		317144	5,781.52
MERCHANTS LANDSCAPE SERVICES	1/06/11		317145	15,716.28
MOODY'S INVESTORS SERVICE INC	1/06/11		317146	5,500.00
MUNICIPAL WATER DISTRICT	1/06/11		317147	3,000.00
NATIONAL READY MIXED CONCRETE	1/06/11		317148	1,303.95
NEWPORT BEACH, CITY OF	1/06/11		317149	440.80
OBERON, GREGORY	1/06/11		317150	434,750.00
OCB	1/06/11		317151	253.37
OLIN CORPORATION	1/06/11		317152	7,877.79
ON ASSIGNMENT LAB SUPPORT	1/06/11		317153	3,305.81

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/07 Ended 1/31/2011

Vendor Name	Issued	Voided	Check#	Check Amount
ORDONEZ, CYNTHIA MARIE	1/06/11		317155	638.50
PACIFIC COAST BOLT CORP	1/06/11		317156	53.24
PARKHOUSE TIRE INC	1/06/11		317157	3,459.78
PINNACLE TOWERS LLC	1/06/11		317158	547.44
PRAXAIR DISTRIBUTION INC	1/06/11		317159	472.79
PRUDENTIAL OVERALL SUPPLY	1/06/11		317160	806.26
PTI SAND & GRAVEL INC	1/06/11		317161	1,040.26
RAINBOW DISPOSAL CO INC	1/06/11		317162	874.78
RAM AIR ENGINEERING INC	1/06/11		317163	1,246.25
RBF CONSULTING	1/06/11		317164	17,777.00
REED, JAMES D	1/06/11		317165	1,926.14
RICHARD C SLADE & ASSOCIATES	1/06/11		317166	1,262.35
RIDGE LANDSCAPE ARCHITECTS	1/06/11		317167	500.00
ROBERTS ROOFING INC	1/06/11		317168	3,740.00
SANTA ANA BLUE PRINT	1/06/11		317169	176.18
SOUTHERN CALIF GEOTECHNICAL	1/06/11		317170	6,300.00
SOUTHERN CALIFORNIA EDISON	1/06/11		317171	185,315.07
STEVEN ENTERPRISES INC	1/06/11		317172	595.97
STRATEGIC DIAGNOSTICS INC	1/06/11		317173	906.67
THE FURMAN GROUP INC	1/06/11		317174	10,140.00
THE MARLIN COMPANY	1/06/11		317175	5,598.12
TRIPAC MARKETING INC	1/06/11		317176	663.40
TROPICAL PLAZA NURSERY INC	1/06/11		317177	6,936.00
TRUGREEN LANDCARE	1/06/11		317178	1,935.00
U.S. DEPARTMENT OF EDUCATION	1/06/11		317179	794.43
UNITED PARCEL SERVICE INC	1/06/11		317180	206.11
US PEROXIDE, LLC	1/06/11		317181	5,453.00
VERIZON CALIFORNIA INC	1/06/11		317182	211.15
VERIZON WIRELESS	1/06/11		317183	12,083.96
VULCAN MATERIALS COMPANY	1/06/11		317184	2,499.38
WALDEN & ASSOCIATES	1/06/11		317185	280.00
WALTERS WHOLESALE ELECTRIC	1/06/11		317186	4,053.22
WASTE MGMT OF ORANGE COUNTY	1/06/11		317187	333.13
WAXIE SANITARY SUPPLY	1/06/11		317188	967.31
WECK LABORATORIES INC	1/06/11		317189	345.00
WELLS SUPPLY COMPANY	1/06/11		317190	162.91
WILLIAMS, TWYLA	1/06/11		317191	788.50
WIRELESS WATCHDOGS LLC	1/06/11		317192	1,288.00
ZEBRON CONTRACTING INC	1/06/11		317193	4,500.00
FEDEX	1/10/11		317194	1,278.29
ALL AMERICAN ASPHALT	1/13/11		317195	843.20
BARTHOLOMEW JESSIKA	1/13/11		317196	55.75
CALIF IRRIGATION INSTITUTE	1/13/11		317197	150.00
CHEN WAYNE	1/13/11		317198	108.02
CHOI SOON JOO	1/13/11		317199	46.76
DEACON, AMOS R.	1/13/11		317200	120.00
EARTH BASICS	1/13/11		317201	813.32
ENSIGN CURT	1/13/11		317202	43.59
ENSIGN CURT	1/13/11		317203	29.67
FINDLEY MICHAEL	1/13/11		317204	28.29
FISHER GREG	1/13/11		317205	21.41
GOSTANIAN JOHN	1/13/11		317206	29.36
HEMOCUE	1/13/11		317207	77.79
INTERNATIONAL LINE BUILDERS	1/13/11		317208	833.98
IRVINE PROPERTY MANAGEMENT	1/13/11		317209	33.13
KB HOMES	1/13/11		317210	32.26
KB HOMES	1/13/11		317211	12.94

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/07 Ended 1/31/2011

Vendor Name	Issued	Voided	Check#	Check Amount
KEMBLE SPYRO	1/13/11		317212	177.78
LIN CHERYL	1/13/11		317213	467.58
MALEENONT PRACHUM	1/13/11		317214	5,565.99
MALLONEE MICHELE D	1/13/11		317215	267.85
MOVAHED NOOSHIN	1/13/11		317216	13.87
MUNICIPAL WATER DISTRICT	1/13/11	1/26/11	317217	45,600.00
MYLER GREGORY	1/13/11		317218	33.04
NOWE DAVID	1/13/11		317219	47.67
PETRUSH ARLENE	1/13/11		317220	41.00
PINNACLE FARMS, LLC.	1/13/11		317221	822.36
POWER CHEVROLET IRVINE	1/13/11		317222	2,746.63
RAMOS JAIME	1/13/11		317223	32.22
RANCHO MADERAS APTS	1/13/11		317224	314.52
ROSS HELLER BETSY	1/13/11		317225	18.78
ROSTVOLD ROSEMARIE	1/13/11		317226	28.59
SONG HELEN	1/13/11		317227	30.71
STATE BOARD OF EQUALIZATION	1/13/11		317228	684.42
THE TUSKEGEE CORP	1/13/11		317229	30.71
TIC-RETAIL PROPERTIES	1/13/11		317230	7.25
VAN DAELE HOMES	1/13/11		317231	30.45
VELA-WHITBREAD MICHELLE	1/13/11		317232	118.41
VU THONG	1/13/11		317233	39.90
WESTERN DIGITAL CORPORATION	1/13/11		317234	84.43
WILKINSON RODNEY L	1/13/11		317235	21.21
WILLIAM LYON HOMES	1/13/11		317236	28.21
WON YOOMI	1/13/11		317237	1.82
WOODBURY SQUARE APARTMENTS	1/13/11		317238	1,612.14
WU LEO	1/13/11		317239	26.94
ZNM HOLDINGS INC	1/13/11		317240	475.68
1ST TEAM	1/13/11		317241	22.78
AMERICAN MESSAGING SERVICES	1/13/11		317242	298.50
ANALYSTS, INC.	1/13/11		317243	8,249.36
AQUATIC ECO-SYSTEMS INC	1/13/11		317244	450.79
AT&T	1/13/11		317245	1,730.11
AT&T	1/13/11		317246	542.64
AYRES HOTEL AND SUITES (DBA)	1/13/11		317247	2,988.12
BANK OF AMERICA MERRILL LYNCH	1/13/11		317248	13,944.93
BELL PIPE & SUPPLY CO	1/13/11		317249	2,269.60
BICKMORE RISK SERVICES	1/13/11		317250	2,250.00
BIOMAGIC INC	1/13/11		317251	13,582.59
BRENNTAG PACIFIC INC	1/13/11		317252	15,299.38
BYSTROM BRIAN	1/13/11		317253	1,374.67
C WELLS PIPELINE MATERIALS INC	1/13/11		317254	224.68
CALIFORNIA BARRICADE INC	1/13/11		317255	1,199.00
CALIFORNIA STATE UNIVERSITY,	1/13/11		317256	4,200.00
CALPERS	1/13/11		317257	13,478.40
CAMPBELL, THOMAS J	1/13/11		317258	30.00
CANON BUSINESS SOLUTIONS INC	1/13/11		317259	1,329.94
CANON FINANCIAL SERVICES INC	1/13/11		317260	8,556.04
CHARLES Z. FEDAK & COMPANY	1/13/11		317261	18,000.00
CHONG, YIYU	1/13/11		317262	29.50
CLA-VAL COMPANY	1/13/11		317263	1,555.59
COASTAL TRAFFIC SYSTEMS, INC	1/13/11		317264	1,700.00
CONEYBEARE INC	1/13/11		317265	440.30
CORTECH ENGINEERING, INC	1/13/11		317266	1,324.71
DATA CLEAN CORPORATION	1/13/11		317267	500.00
DAVIS, TROY J	1/13/11		317268	100.00

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/07 Ended 1/31/2011

Vendor Name	Issued	Voided	Check#	Check Amount
DEE JASPAR & ASSOCIATES, INC.	1/13/11		317269	26,826.90
DEPARTMENT OF WATER RESOURCES	1/13/11		317270	7,500.00
DUDEK	1/13/11		317271	19,194.00
EAST ORANGE COUNTY WATER	1/13/11		317272	2,091.32
ELECTRABOND	1/13/11		317273	2,325.00
EMPLOYEE BENEFIT SPECIALIST,	1/13/11		317274	665.00
ENVIRONMENTAL EXPRESS INC	1/13/11		317275	2,254.80
ENVIRONMENTAL RESOURCE	1/13/11		317276	196.15
ESA PWA	1/13/11		317277	2,698.60
FARRELL & ASSOCIATES	1/13/11		317278	87.06
FEDEX	1/13/11		317279	353.59
FERGUSON WATERWORKS	1/13/11		317280	9,134.58
FERGUSON, DAVID	1/13/11		317281	6,865.28
FIRST CHOICE SERVICES	1/13/11		317282	312.14
FISHER SCIENTIFIC COMPANY LLC	1/13/11		317283	3,261.27
G.M. SAGER CONSTRUCTION CO,INC	1/13/11		317284	10,750.00
GALION, TERENCE	1/13/11		317285	32.04
GMU GEOTECHNICAL INC	1/13/11		317286	7,575.00
GRAINGER	1/13/11		317287	1,674.33
GRAYBAR ELECTRIC COMPANY	1/13/11		317288	831.34
GRIFFIN DEWATERING CORPORATION	1/13/11		317289	2,517.50
HACH COMPANY	1/13/11		317290	2,182.14
HAMILTON, KURT	1/13/11		317291	527.07
HEARTLAND BUSINESS CREDIT	1/13/11		317292	570.58
HILL BROTHERS CHEMICAL COMPANY	1/13/11		317293	8,074.04
HOME DEPOT USA INC	1/13/11		317294	413.35
HUNSAKER & ASSOCIATES IRVINE	1/13/11		317295	2,983.79
INDUSTRIAL METAL SUPPLY CO	1/13/11		317296	409.14
INTEGRITY MUNICIPAL SERVICES	1/13/11		317297	2,100.00
IRVINE OAKS REALTY HOLDING CO	1/13/11		317298	169.57
IRVINE PIPE & SUPPLY INC	1/13/11		317299	6,260.10
JACK X-CHANGE	1/13/11		317300	260.89
JACK, MIKE	1/13/11		317301	1,525.14
JOHN CRANE, INC.	1/13/11		317302	932.20
JOHN G. ALEVIZOS D.O. INC.	1/13/11		317303	295.00
KENNEDY/JENKS CONSULTANTS, INC	1/13/11		317304	9,562.26
KIM, SOON TAE	1/13/11		317305	3,050.00
KOENIG, KRISTEN	1/13/11		317306	740.50
KOIWA, MASAMI	1/13/11		317307	55.24
LAGUNA BEACH COUNTY WATER	1/13/11		317308	3,004.47
LAMAR, STEVEN	1/13/11		317309	270.14
LEWIS OPERATING CORP	1/13/11		317310	4,950.00
MARVIN GARDENS LLC	1/13/11		317311	579.69
MC FADDEN-DALE INDUSTRIAL	1/13/11		317312	32.91
MC MASTER CARR SUPPLY CO	1/13/11		317313	381.61
MORRISON BAIRD, RANDY	1/13/11		317314	19.76
MOSS, SHELBY	1/13/11		317315	26.72
MOUSE GRAPHICS	1/13/11		317316	417.49
NEPTUNE TECHNOLOGY	1/13/11		317317	36,613.09
NJB INVESTMENT	1/13/11		317318	8.47
OBERON, GREGORY	1/13/11		317319	1,000.00
OLIN CORPORATION	1/13/11		317320	22,585.69
ON ASSIGNMENT LAB SUPPORT	1/13/11		317321	5,034.29
ONESOURCE DISTRIBUTORS LLC	1/13/11		317322	405.01
OPEN TEXT INC	1/13/11		317323	2,049.74
ORANGE COUNTY FIRE AUTHORITY	1/13/11		317324	309.00
PACIFIC BUILDING CARE INC	1/13/11		317325	704.00

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/07 Ended 1/31/2011

Vendor Name	Issued	Voided	Check#	Check Amount
PACIFIC TECHNOLOGIES INC	1/13/11		317326	3,693.56
PARKHOUSE TIRE INC	1/13/11		317327	314.53
PASCAL & LUDWIG CONSTRUCTORS	1/13/11		317328	64,679.75
PASCAL & LUDWIG CONSTRUCTORS	1/13/11		317329	7,186.64
PEYKOFF, DANNY	1/13/11		317330	62.52
PINNACLE LANDSCAPE COMPANY	1/13/11		317331	6,136.76
PRIME CONTROLS COMPANY INC	1/13/11		317332	217.85
PRINCIPAL LIFE INSURANCE	1/13/11		317333	12,110.01
PRUDENTIAL OVERALL SUPPLY	1/13/11		317334	751.25
QUALITY ENVIRONMENTAL	1/13/11		317335	1,154.22
RAINBOW NUT & BOLT INC	1/13/11		317336	3,796.71
RAM AIR ENGINEERING INC	1/13/11		317337	805.00
RAO, SHAILA	1/13/11		317338	50.00
RBF CONSULTING	1/13/11		317339	147,871.33
REACH EMPLOYEE ASSISTANCE INC	1/13/11		317340	803.40
RIDGE LANDSCAPE ARCHITECTS	1/13/11		317341	218.73
RINGCLEAR LLC	1/13/11		317342	24.16
RJS SOFTWARE SYSTEMS INC	1/13/11		317343	475.00
RMC WATER AND ENVIRONMENT	1/13/11		317344	760.00
SADDLEBACK MATERIALS CO INC	1/13/11		317345	565.05
SANTA ANA, CITY OF	1/13/11		317346	18,285.05
SANTIAGO AQUEDUCT COMMISSION	1/13/11		317347	8,094.15
SHAMROCK SUPPLY CO INC	1/13/11		317348	1,290.27
SHANAFELT SHANE	1/13/11		317349	846.98
SHIN, YOUNG	1/13/11		317350	30.10
SIMI VALLEY LANDFILL AND	1/13/11		317351	408.34
SOUTH COAST AIR QUALITY	1/13/11		317352	402.21
SOUTH COAST ANSWERING SERVICE	1/13/11		317353	799.06
SOUTHERN CALIFORNIA EDISON	1/13/11		317354	63,239.48
STANDARD & POOR'S	1/13/11		317355	47,000.00
STOUT, CLIFFORD	1/13/11		317356	33.69
SUPERMEDIA LLC	1/13/11		317357	68.25
SUPPORT PRODUCTS SERVICES	1/13/11		317358	6,675.16
SWAINS ELECTRIC MOTOR SERVICE	1/13/11		317359	1,433.50
SWAN, PEER A	1/13/11		317360	1,410.57
SWRCB	1/13/11		317361	6,970.00
T AND S LARSEN MAINTENANCE	1/13/11		317362	360.00
TEHRANI, SADROLZAMAR	1/13/11		317363	18.69
TESTAMERICA LABORATORIES, INC	1/13/11		317364	94.50
TETRA TECH, INC	1/13/11		317365	97,021.82
THE GAS COMPANY	1/13/11		317366	14.79
TRENCH SHORING COMPANY	1/13/11		317367	423.27
TRIPAC MARKETING INC	1/13/11		317368	21.24
TROPICAL PLAZA NURSERY INC	1/13/11		317369	16,887.00
TRUCPARCO	1/13/11		317370	205.21
TRUGREEN LANDCARE	1/13/11		317371	19,887.15
U.S. BANK NATIONAL ASSOCIATION	1/13/11		317372	2,850.00
ULINE INC	1/13/11		317373	134.98
UNITED SITE SERVICES OF	1/13/11		317374	134.92
US PEROXIDE, LLC	1/13/11		317375	3,875.00
USA MOBILITY WIRELESS INC	1/13/11		317376	8.70
VWR INTERNATIONAL, LLC	1/13/11		317377	964.18
WALTERS WHOLESALE ELECTRIC	1/13/11		317378	197.90
WASTE MGMT OF ORANGE COUNTY	1/13/11		317379	1,077.24
WESTERN AV	1/13/11		317380	15,760.10
WESTERN WEATHER GROUP INC	1/13/11		317381	2,395.00
WITHERS, JOHN	1/13/11		317382	839.59

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/07 Ended 1/31/2011

Vendor Name	Issued	Voided	Check#	Check Amount
YEH, YUWEN	1/13/11		317383	39.32
YORK INSURANCE SERVICES GROUP	1/13/11		317384	6,585.00
USA BLUEBOOK	1/20/11		317385	27.14
KAMINSKE, ED	1/20/11		317386	500.00
KIM SUSAN	1/20/11		317387	45.55
KNA CONSULTING ENGINEERS, INC	1/20/11		317388	3,789.47
ORANGE, COUNTY OF	1/20/11		317389	413.50
PARK WEST APTS	1/20/11		317390	3.24
SAN LEON APTS	1/20/11		317391	87.88
SAN REMO APTS	1/20/11		317392	395.76
TIC-IPG-COMMON	1/20/11		317393	147.65
TIC-OFFICE PROPERTIES	1/20/11		317394	203.18
TIC-RESORT PROPERTIES	1/20/11		317395	840.76
TIC-RETAIL PROPERTIES	1/20/11		317396	605.51
TIC-SPECTRUM OFFICE	1/20/11		317397	338.30
3PL GLOBAL, LLC	1/20/11		317398	1,236.87
ACTION ELECTRIC CORP	1/20/11		317399	5,320.65
ADT SECURITY SERVICES INC	1/20/11		317400	323.29
AMERICAN SOCIETY OF CIVIL	1/20/11		317401	510.00
ANTHEM BLUE CROSS	1/20/11		317402	5,740.00
ASHFORD, WALT	1/20/11		317403	116.46
AST CORPORATION	1/20/11		317404	10,127.45
AT&T	1/20/11		317405	31.43
AT&T LONG DISTANCE	1/20/11		317406	40.81
AYRES HOTEL AND SUITES (DBA)	1/20/11		317407	790.80
BELL PIPE & SUPPLY CO	1/20/11		317408	19.50
BIOMAGIC INC	1/20/11		317409	12,405.67
BLACK & VEATCH CORPORATION	1/20/11		317410	365,104.17
BORCHARD SURVEYING & MAPPING	1/20/11		317411	12,325.00
BOUTWELL FAY, LLP	1/20/11		317412	140.00
C WELLS PIPELINE MATERIALS INC	1/20/11		317413	213.15
CAL WATER PURIFICATION	1/20/11		317414	80.00
CALIFORNIA BARRICADE INC	1/20/11		317415	1,355.00
CAMERON WELDING SUPPLY	1/20/11		317416	28.98
CANON BUSINESS SOLUTIONS INC	1/20/11		317417	7,704.11
CEPA OPERATIONS, INC	1/20/11		317418	290.00
CITIGROUP GLOBAL MARKETS INC.	1/20/11		317419	5,432.27
COASTAL TRAFFIC SYSTEMS, INC	1/20/11		317420	1,825.00
COMMERCE ENERGY INC	1/20/11		317421	549.41
COMPUCOM SYSTEMS, INC.	1/20/11		317422	117,632.88
CONYBEARE INC	1/20/11		317423	761.60
CORELOGIC SPATIAL SOLUTIONS	1/20/11		317424	1,500.00
CORRPRO COMPANIES INC	1/20/11		317425	1,140.00
CORTECH ENGINEERING, INC	1/20/11		317426	1,313.80
CR & R INCORPORATED	1/20/11		317427	49.51
CURT PRINGLE & ASSOCIATES	1/20/11		317428	6,000.00
DENGER, LOUIS	1/20/11		317429	1,200.00
DEVISE ENGINEERING INC	1/20/11		317430	7,250.64
DIRECTV INC	1/20/11		317431	83.99
DISCOVERY SCIENCE CENTER	1/20/11		317432	6,228.60
DURANCEAU CONSULTING SERVICES,	1/20/11		317433	337.50
ENVIRONMENTAL ENGINEERING	1/20/11		317434	5,920.70
ENVIRONMENTAL EXPRESS INC	1/20/11		317435	454.58
EVANS-HYDRO INC	1/20/11		317436	49,797.19
EXPRESSAIR	1/20/11		317437	201.50
FEDEX	1/20/11		317438	1,610.88
FIDELITY INVESTMENTS	1/20/11		317439	440.00

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/07 Ended 1/31/2011

Vendor Name	Issued	Voided	Check#	Check Amount
FIRE EXTINGUISHING SAFETY	1/20/11		317440	641.60
FIRST AMERICAN CORELOGIC INC	1/20/11		317441	30.00
FRANCHISE TAX BOARD	1/20/11		317442	175.00
GMU GEOTECHNICAL INC	1/20/11		317443	1,884.50
GODWIN PUMPS OF AMERICA, INC.	1/20/11		317444	2,388.15
GRAINGER	1/20/11		317445	146.24
HACH COMPANY	1/20/11		317446	1,727.51
HARMSWORTH ASSOCIATES	1/20/11		317447	4,880.00
HILL BROTHERS CHEMICAL COMPANY	1/20/11		317448	7,984.01
HOME DEPOT USA INC	1/20/11		317449	870.71
HUNSAKER & ASSOCIATES IRVINE	1/20/11		317450	3,111.24
HYDRO-SCAPE PRODUCTS INC	1/20/11		317451	1,930.46
H2O RESOURCES ENGINEERING INC	1/20/11		317452	8,700.00
II FUELS INC	1/20/11		317453	24,002.76
IRON MOUNTAIN INFORMATION	1/20/11		317454	1,641.87
IRVINE PIPE & SUPPLY INC	1/20/11		317455	1,167.52
IRWD-PETTY CASH CUSTODIAN	1/20/11		317456	1,168.48
KLEINFELDER WEST INC	1/20/11		317457	2,343.20
LAGUNA BEACH COUNTY WATER	1/20/11		317458	3,664.20
LAYNE CHRISTENSEN COMPANY	1/20/11		317459	4,290.00
LEWIS OPERATING CORP	1/20/11		317460	27,293.35
MARKET-THINK, LLC	1/20/11		317461	3,675.00
MC MASTER CARR SUPPLY CO	1/20/11		317462	661.58
MOUSE GRAPHICS	1/20/11		317463	1,086.61
NATIONAL READY MIXED CONCRETE	1/20/11		317464	2,388.96
NEWAGE INDUSTRIES INC	1/20/11		317465	283.00
NINYO & MOORE	1/20/11		317466	23,296.00
NMG GEOTECHNICAL INC	1/20/11		317467	773.90
OLIN CORPORATION	1/20/11		317468	23,212.88
ON ASSIGNMENT LAB SUPPORT	1/20/11		317469	2,309.97
ORDONEZ, CYNTHIA MARIE	1/20/11		317470	638.50
PACIFIC BUILDING CARE INC	1/20/11		317471	10,663.42
PACIFIC TECHNOLOGIES INC	1/20/11		317472	4,275.00
PAI SYSTEMS INC	1/20/11		317473	540.00
PALMER PRODUCTS INC	1/20/11		317474	585.00
PAPER DEPOT DOCUMENT	1/20/11		317475	532.44
PAUL E BRADLEY INC	1/20/11		317476	12,600.00
PBS&J	1/20/11		317477	5,142.00
PERS LONG TERM CARE	1/20/11		317478	1,826.79
PIPER, G DAVID	1/20/11		317479	35.52
PRAXAIR DISTRIBUTION INC	1/20/11		317480	1,556.83
PRODATA COMPUTER SERVICES INC	1/20/11		317481	695.00
PRUDENTIAL OVERALL SUPPLY	1/20/11		317482	836.44
PTI SAND & GRAVEL INC	1/20/11		317483	4,040.70
RAM AIR ENGINEERING INC	1/20/11		317484	2,866.93
RBF CONSULTING	1/20/11		317485	58,828.91
RED WING SHOES	1/20/11		317486	8,940.28
SANTA ANA BLUE PRINT	1/20/11		317487	235.72
SANTA ANA CITY OF	1/20/11		317488	43.95
SANTA MARGARITA WATER DISTRICT	1/20/11		317489	130.39
SIEMENS INDUSTRY INC	1/20/11		317491	2,759.15
SOUTH COAST WATER	1/20/11		317492	40.00
SOUTH COAST WATER DISTRICT	1/20/11		317493	2,286.75
SOUTH COAST WATER DISTRICT	1/20/11		317494	71.92
SOUTHERN CALIFORNIA EDISON	1/20/11		317495	17,410.71
STATE BOARD OF EQUALIZATION	1/20/11		317496	792.00
STEEL UNLIMITED INC	1/20/11		317497	788.44

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/07 Ended 1/31/2011

Vendor Name	Issued	Voided	Check#	Check Amount
STERIS CORPORATION	1/20/11		317498	3,995.41
SUPPORT PRODUCTS SERVICES	1/20/11		317499	683.12
TEKDRAULICS	1/20/11		317500	9,950.63
TESTAMERICA LABORATORIES, INC	1/20/11		317501	56.70
THE GAS COMPANY	1/20/11		317502	5,877.33
TRUGREEN LANDCARE	1/20/11		317503	31,505.92
UNDERGROUND SERVICE ALERT OF	1/20/11		317504	522.00
UNITED PARCEL SERVICE INC	1/20/11		317505	116.60
US PEROXIDE, LLC	1/20/11		317506	19,588.55
WATERLINE TECHNOLOGIES INC	1/20/11		317507	5,016.06
WAXIE SANITARY SUPPLY	1/20/11		317508	301.56
WESTERN EXTERMINATOR COMPANY	1/20/11		317509	285.00
WILLIAMS, TWYLA	1/20/11		317510	788.50
WORKFLOWONE	1/20/11		317511	2,200.28
AMERICA'S BEST VALUE INN	1/27/11		317512	878.00
DECOCK JAMES	1/27/11		317513	41.17
DUNCAN ELECTRONICS	1/27/11		317514	34.48
ENVIRONMENTAL AUDIT INC	1/27/11		317515	1,000.00
HSU MEI HWA	1/27/11		317516	26.47
JACKSON HOLLY	1/27/11		317517	3,266.40
JOHNSON ALICE P	1/27/11		317518	40.82
O'CONNOR TIMOTHY	1/27/11		317519	266.26
ORANGE COUNTY COASTKEEPER INC	1/27/11		317520	17,049.50
ORANGE COUNTY SANITATION	1/27/11		317521	1,570.00
PARK JONATHAN	1/27/11		317522	1,311.73
PRECISE PROPERTIES	1/27/11		317523	28.24
R SHERMAN SMITH	1/27/11		317524	15.00
REED THOMAS CO INC	1/27/11		317525	2,044.20
RICHARDSON HEATHER	1/27/11		317526	32.76
ROLFZEN CHERYL	1/27/11		317527	17.55
SALEHPOUR NEDA	1/27/11		317528	35.55
SONG KRIS	1/27/11		317529	32.83
STAR REAL ESTATE	1/27/11		317530	15.00
TOM BISTLINE & COMPANY	1/27/11		317531	653.88
VAN DAELE HOMES	1/27/11		317532	33.82
VAN DAELE HOMES	1/27/11		317533	31.85
VERANDA HOMES	1/27/11		317534	105.76
VU LONG	1/27/11		317535	25.56
WALTON CWCA SPECTRUM 56, LLC	1/27/11		317536	1,400.00
ACTION ELECTRIC CORP	1/27/11		317537	280.57
AERO COMPRESSOR CO	1/27/11		317538	108.00
AFLAC	1/27/11		317539	5,052.56
AIRGAS-WEST, INC.	1/27/11		317540	325.71
ALEXANDER CONTRACT SERVICES	1/27/11		317541	93,387.60
ANALYSTS, INC.	1/27/11		317542	361.23
ARBUCKLE, PAUL	1/27/11		317543	37.27
AT&T	1/27/11		317544	5,866.15
AT&T	1/27/11		317545	5,036.34
AT&T ADVERTISING SOLUTIONS	1/27/11		317546	175.63
AT&T INTERNET SERVICES	1/27/11		317547	1,124.00
AT&T TELECONFERENCE SERVICES	1/27/11		317548	642.80
ATHENS SERVICES	1/27/11		317549	896.56
AYRES HOTEL AND SUITES (DBA)	1/27/11		317550	2,471.25
BANK OF AMERICA MERRILL LYNCH	1/27/11		317551	18,526.03
BARRAK, JOSEPH	1/27/11		317552	68.63
BEAMAN CONCRETE PUMPING	1/27/11		317553	208.00
BELL PIPE & SUPPLY CO	1/27/11		317554	1,722.60

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/07 Ended 1/31/2011

Vendor Name	Issued	Voided	Check#	Check Amount
BODY THERAPEUTIC PRODUCTS INC	1/27/11		317555	122.06
BOWIE, ARNESON, WILES &	1/27/11		317556	40,398.55
BRENNTAG PACIFIC INC	1/27/11		317557	13,615.47
BRITHINEE ELECTRIC	1/27/11		317558	13,817.81
BUTIER ENGINEERING INC	1/27/11		317559	42,156.00
CALIFORNIA BARRICADE INC	1/27/11		317560	1,710.00
CANON BUSINESS SOLUTIONS INC	1/27/11		317561	1,012.50
CDW GOVERNMENT LLC	1/27/11		317562	401.78
COASTAL TRAFFIC SYSTEMS, INC	1/27/11		317563	3,400.00
COILMEN PLUS INC	1/27/11		317564	4,192.31
COLONIAL LIFE & ACCIDENT	1/27/11		317565	2,721.62
CONEYBEARE INC	1/27/11		317566	1,898.05
CONTROLLED KEY SYSTEMS INC	1/27/11		317567	329.00
COX COMMUNICATIONS	1/27/11		317568	117.48
CYNN, KRISTINE	1/27/11		317569	27.64
DCSE, INC	1/27/11		317570	3,450.00
DISCOVERY SCIENCE CENTER	1/27/11		317571	11,074.80
DJ NELSON & SON POOL SERVICE	1/27/11		317572	3,018.05
DOUGLAS ENVIRONMENTAL GROUP	1/27/11		317573	1,150.00
DUDLEY RIDGE WATER DISTRICT	1/27/11		317574	15,640.38
EAGLE AERIAL IMAGING	1/27/11		317575	1,000.00
ENVIRONMENTAL ENGINEERING	1/27/11		317576	6,923.71
ENVIRONMENTAL EXPRESS INC	1/27/11		317577	878.30
ENVIRONMENTAL RESOURCE	1/27/11		317578	231.50
EQUIPCO SALES & SERVICE	1/27/11		317579	7,658.62
FARMERS INSURANCE AS SUBROGEE	1/27/11		317580	3,386.80
FARRELL & ASSOCIATES	1/27/11		317581	86.96
FEDEX	1/27/11		317582	189.70
FEDEX NATIONAL LTL, INC	1/27/11		317583	323.50
FERGUSON WATERWORKS	1/27/11		317584	1,261.50
FIRST AMERICAN CORELOGIC INC	1/27/11		317585	6.00
FIRST CHOICE SERVICES	1/27/11		317586	329.86
FISERV	1/27/11		317587	489.00
FISHER SCIENTIFIC COMPANY LLC	1/27/11		317588	1,668.12
FOX, SAUL	1/27/11		317589	109.02
FT ZIEBARTH COMPANY	1/27/11		317590	1,234.80
FULLER RICHARD A., CONSULTING	1/27/11		317591	2,081.25
GANAHL LUMBER CO.	1/27/11		317592	848.25
GENTERRA CONSULTANTS INC	1/27/11		317593	821.25
GOLDMAN, SACHS & CO	1/27/11		317594	40,652.41
GOOGLE INC.	1/27/11		317595	991.80
GRAINGER	1/27/11		317596	3,366.91
HACH COMPANY	1/27/11		317597	1,095.28
HARRINGTON INDUSTRIAL PLASTICS	1/27/11		317598	619.16
HARTFORD LIFE AND ACCIDENT	1/27/11		317599	202.65
HEARTLAND BUSINESS CREDIT	1/27/11		317600	628.58
HILL BROTHERS CHEMICAL COMPANY	1/27/11		317601	10,190.09
HOME DEPOT USA INC	1/27/11		317602	1,098.89
HYDRO-SCAPE PRODUCTS INC	1/27/11		317603	210.55
IDEXX DISTRIBUTION, INC	1/27/11		317604	6,198.75
INDUSTRIAL SHOE CO	1/27/11		317605	1,117.41
INSITUFORM TECHNOLOGIES INC	1/27/11		317606	7,385.82
IRVINE PIPE & SUPPLY INC	1/27/11		317607	3,483.35
IRWD-PETTY CASH CUSTODIAN	1/27/11		317608	356.06
ISDOC	1/27/11		317609	200.00
JONES & STOKES ASSOCIATES, INC	1/27/11		317610	712.50
KENNEDY/JENKS CONSULTANTS, INC	1/27/11		317611	46,749.51

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/07 Ended 1/31/2011

Vendor Name	Issued	Voided	Check#	Check Amount
LAKE FOREST CHAMBER OF	1/27/11		317612	418.50
LAMBERT, PETER	1/27/11		317613	38.51
LAWSON PRODUCTS, INC.	1/27/11		317614	318.07
LAYNE CHRISTENSEN COMPANY	1/27/11		317615	108,909.22
LEATHERWOOD CONSTRUCTION INC	1/27/11		317616	173,958.93
LEATHERWOOD CONSTRUCTION INC	1/27/11		317617	25,453.77
LEHIGH OUTFITTERS	1/27/11		317618	2,232.00
LENOVO UNITED STATES INC	1/27/11		317619	269.70
LEWIS OPERATING CORP	1/27/11		317620	1,400.00
LU, YANPING	1/27/11		317621	25.56
MATHEIS, MARY AILEEN	1/27/11		317622	313.72
MBC APPLIED ENVIRONMENTAL	1/27/11		317623	1,000.00
MBF CONSULTING, INC.	1/27/11		317624	1,614.44
MC MASTER CARR SUPPLY CO	1/27/11		317625	923.56
MCR TECHNOLOGIES, INC.	1/27/11		317626	1,220.00
MERRIT RENTAL	1/27/11		317627	15.00
MOBILE MODULAR MANAGEMENT	1/27/11		317628	1,119.04
MORTON SAFETY CO	1/27/11		317629	2,010.39
MOUSE GRAPHICS	1/27/11		317630	552.56
MUNICIPAL WATER DISTRICT	1/27/11		317631	36,430.28
NALCO COMPANY	1/27/11		317633	3,783.20
NATIONAL READY MIXED CONCRETE	1/27/11		317634	828.85
NEWPORT BEACH, CITY OF	1/27/11		317635	440.80
NEWPORT REAL ESTATE SERVICES	1/27/11		317636	2,955.33
OCWA	1/27/11		317637	30.00
OLIN CORPORATION	1/27/11		317638	11,600.07
ON ASSIGNMENT LAB SUPPORT	1/27/11		317639	2,084.12
ONESOURCE DISTRIBUTORS LLC	1/27/11		317640	2,666.07
ORANGE COUNTY FIRE AUTHORITY	1/27/11		317641	234.00
ORANGE COUNTY HOSE CO.	1/27/11		317642	216.41
ORANGE, COUNTY OF	1/27/11		317643	210.00
PACIFIC HYDROTECH CORPORATION	1/27/11		317644	61,106.45
PACIFIC HYDROTECH CORPORATION	1/27/11		317645	6,789.61
PACIFIC PARTS & CONTROLS INC	1/27/11		317646	1,701.58
PALMER PRODUCTS INC	1/27/11		317647	532.09
PAULUS ENGINEERING INC	1/27/11		317648	9,488.80
PERKINELMER HEALTH SCIENCES	1/27/11		317649	932.61
PETRUSH, ARLENE	1/27/11		317650	20.50
PRAXAIR DISTRIBUTION INC	1/27/11		317651	1,174.20
PRE-PAID LEGAL SERVICES INC	1/27/11		317652	1,965.62
PRUDENTIAL OVERALL SUPPLY	1/27/11		317653	745.20
QUINN POWER SYSTEMS	1/27/11		317654	12,389.40
R&B AUTOMATION INC	1/27/11		317655	6,507.44
RAND MCNALLY	1/27/11		317656	8,568.00
RBF CONSULTING	1/27/11		317657	9,756.09
REINHART DOUGLAS J	1/27/11		317658	1,439.17
RESPONSE ENVELOPE, INC	1/27/11		317659	3,358.20
RJ NOBLE COMPANY	1/27/11		317660	380.08
RJS SOFTWARE SYSTEMS INC	1/27/11		317661	2,850.00
SANTA ANA BLUE PRINT	1/27/11		317662	1,589.99
SCOTT-MARRIN, INC.	1/27/11		317663	12.40
SECURTEC DISTRICT PATROL INC	1/27/11		317664	3,500.00
SHAMROCK SUPPLY CO INC	1/27/11		317665	3,564.44
SHOETERIA INDUSTRIAL	1/27/11		317666	5,345.70
SIGMA-ALDRICH INC	1/27/11		317667	1,706.28
SOUTH COAST WATER	1/27/11		317668	151.74
SOUTHERN CALIFORNIA EDISON	1/27/11		317669	236,663.69

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/07 Ended 1/31/2011

Vendor Name	Issued	Voided	Check#	Check Amount
SOUTHERN CALIFORNIA SECURITY	1/27/11		317670	55.14
SOUTHERN COUNTIES LUBRICANTS	1/27/11		317671	1,602.46
SPARKLETTES	1/27/11		317672	187.63
SS MECHANICAL CORPORATION	1/27/11		317673	12,449.25
STANTEC CONSULTING SERVICES	1/27/11		317674	44,811.24
STATE WATER POLLUTION CLEANUP	1/27/11		317675	26,049.50
STATE WATER RESOURCES CONTROL	1/27/11		317676	636.00
STEVEN ENTERPRISES INC	1/27/11		317677	13,987.40
SUNNYHILLS RESTORATION	1/27/11		317678	9,147.15
TESTAMERICA LABORATORIES, INC	1/27/11		317679	105.00
TETRA TECH, INC	1/27/11		317680	11,161.08
THE GAS COMPANY	1/27/11		317681	1,357.07
THE GAS COMPANY	1/27/11		317682	366.60
THE PRINTERY INC	1/27/11		317683	1,340.62
TRANSCAT, INC	1/27/11		317684	913.88
TRUGREEN LANDCARE	1/27/11		317685	31,505.92
TUCCI RONALD	1/27/11		317686	1,300.57
US BANK NAT'L ASSOC N.DAKOTA	1/27/11		317687	64,185.41
VERIZON CALIFORNIA INC	1/27/11		317688	144.93
VWR INTERNATIONAL, LLC	1/27/11		317689	3,052.61
WALTERS WHOLESALE ELECTRIC	1/27/11		317690	164.66
WASTE MGMT OF ORANGE COUNTY	1/27/11		317691	1,071.53
WATERLINE TECHNOLOGIES INC	1/27/11		317692	4,306.68
WECK LABORATORIES INC	1/27/11		317693	265.00
WESTERN EXTERMINATOR COMPANY	1/27/11		317694	447.00
WESTON SOLUTIONS INC	1/27/11		317695	2,500.00
WHITAKER, TODD	1/27/11		317696	54.04
WHITE CAP	1/27/11		317697	432.43
WITHERS, JOHN	1/27/11		317698	354.59
A/P Check Total ←				4,740,878.92 ✓
YORK INSURANCE SERVICES GROUP	1/04/11		9010411	1,568.28
YORK INSURANCE SERVICES GROUP	1/10/11		9011011	19,013.21
YORK INSURANCE SERVICES GROUP	1/11/11		9011111	365.40
YORK INSURANCE SERVICES GROUP	1/19/11		9011911	3,422.57
YORK INSURANCE SERVICES GROUP	1/26/11		9012611	1,718.97
Workers Compensation Total				26,088.43 ✓
JAYNE CAMILLE	9/30/10	1/06/11	314620	49.71-
FERNANDEZ PEDRO	12/02/10	1/06/11	316204	15.22-
MOLONEY CHRIS	12/09/10	1/13/11	316393	41.60-
DITCH WITCH EL CAJON	1/06/11	1/14/11	317099	3,806.25-
MUNICIPAL WATER DISTRICT	1/13/11	1/26/11	317217	45,600.00-
Total Voids				49,512.78- ✓
PARSONS JOHN	6/17/10		311886	31.64
REDDY SRIDHAR	6/30/10		312327	26.17
Cashed Voids Total				57.81 ✓

1/31/2011
14:09:18

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2011/07 Ended 1/31/2011 ✓

Page 13
AP238R

Vendor Name	Issued	Voided	Check#	Check Amount
ORANGE COUNTY SANITATION	1/06/11		317154	
SHAMROCK SUPPLY CO INC	1/20/11		317490	
NALCO COMPANY	1/27/11		317632	
		A/P Corrections/Adjustments		✓
		Report Total		<u>4,717,512.38</u> ✓

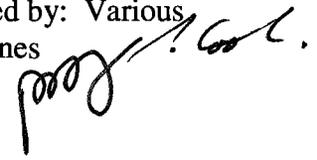
Report Includes Checks numbers from 317040 to 317698 ✓

Reviewed by
[Signature]
Feb-11-2011

February 28, 2010

Prepared and Submitted by: Various

Approved by: Paul Jones



CONSENT CALENDAR

STRATEGIC MEASURES DASHBOARDS

SUMMARY:

Provided as Exhibits "A", "B", "and C" are the Strategic Measures Dashboards and informational items for Board review.

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE STRATEGIC MEASURES DASHBOARDS AND INFORMATION ITEMS.

EXHIBITS:

Exhibit "A" – Strategic Measures Dashboards

Exhibit "B" – Dyer Road Wellfield Status

Exhibit "C" – Reservoir Data

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES DASHBOARD

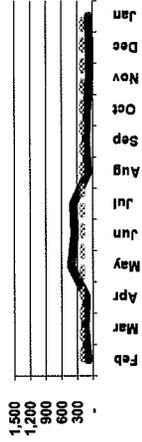
Exhibit "A"

January 2011

Note: The more blue area displayed on the dial, the more favorable the measure.

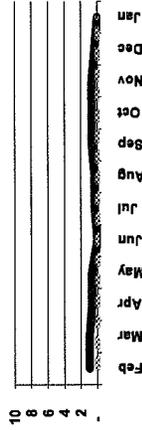
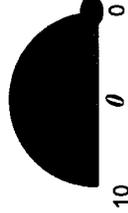
Reliability-Potable/Nonpotable

Target = 200 customer hours out of service this month



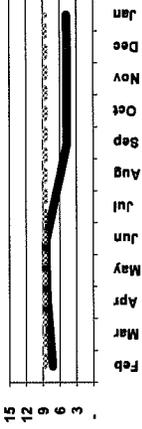
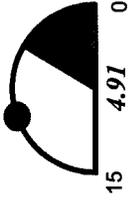
Sewer Spills

Target = 0 Spills this month



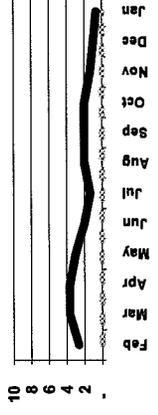
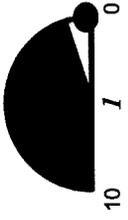
OCSD CORF Flows

Target = 8.80 MGD CORF flow to OCSD this month



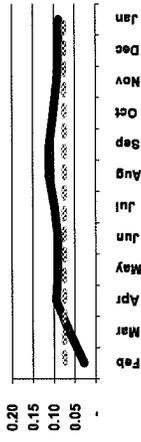
OSHA Recordables

Target = 0 reportable accidents this month



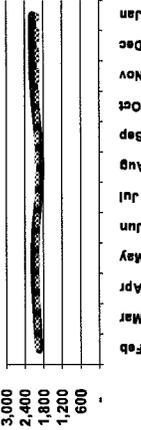
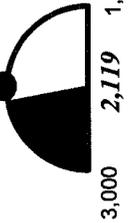
MWRP Energy Cost per kWh

Target = .0792 cost per kWh this month



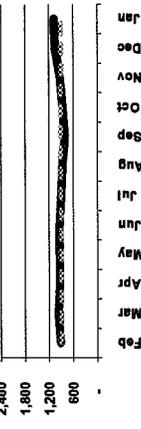
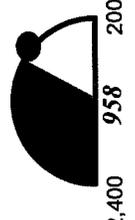
Wastewater Cost

Target = \$1,997/MG processed this month



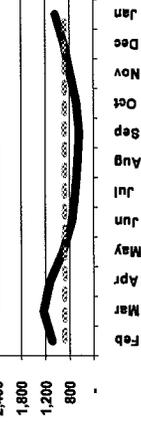
Water System Cost--Potable

Target = \$903/ac-ft delivered this month



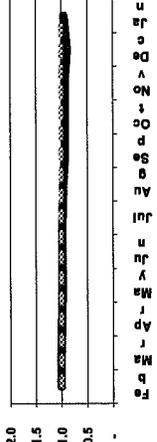
Water System Cost--Nonpotable

Target = \$723/ac-ft delivered this month



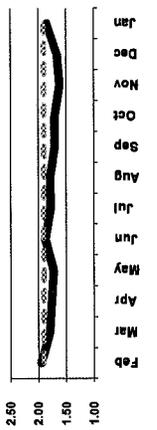
Enterprise Return

Target = 1.0 (net income/goal) last month



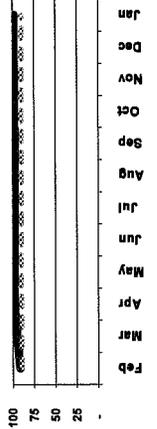
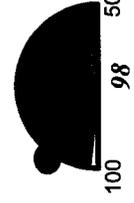
Overhead Ratio

Target = 1.95 (G&A expenses/direct labor) this month



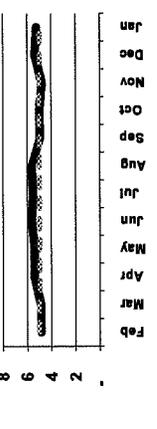
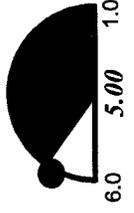
Customer Satisfaction

Target = 90% satisfaction this month



Employee Satisfaction

Target = 5.0 score this month



● Target shown on gauge
 00.00 Figure for Current Month

Target shown on trend graph
 3-month rolling average

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Reliability-Potable/Nonpotable

MONTHLY STATUS REPORT

Metric Owner: Water Ops

Definition of Measure:

The relative magnitude of system outages due to failures or scheduled maintenance for Potable and Non Potable Water.

Method:

Summation of the time any part of the system was out of service times the number of customers affected by the given outage during the month.

Data Collection

Data was derived from the CSR database for customer based reports of "no water" and from the work order database for scheduled maintenance requiring the shut down of water service during repairs.

Current Issues

1. 8" mainline break on Main Street.

MONTHLY DATA

<u>Month</u>	<u>Value</u>	<u>Goal</u>	From: February 2010
February 2010	133.80		Thru: January 2011
March 2010	208.50		Goal: 200.00
April 2010	26.20		
May 2010	1,026.25		
June 2010	0		
July 2010	106.10		
August 2010	184.00		
September 2010	95.80		
October 2010	57.80		
November 2010	65.83		
December 2010	69.17		
January 2011	103.20		

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Sewer Spills

MONTHLY STATUS REPORT

Metric Owner: Gregory Springman

Collection System Manager

Definition of Measure:

Number of sewer overflows of any quantity, regardless of cause, in IRWD's sanitary sewer collection system. This does not include spills from private sewers within IRWD's service area. IRWD has no control over private spills and is not responsible for them. However, it should be noted that IRWD will assist the County Health Care Agency in responding to and cleaning up private spills in the interest of the community.

Method:

Total number of IRWD sewer spills

Data Collection

Data is obtained from the California State Water Boards CIWQS data base for reporting SSO's.

Current Issues

1. March 2010 - 1) Newport Coast-Pelican Hills Golf Course, 8" VCP. 274 gals SSO with 100% of wastewater contained and recovered. Caused by root intrusion. 2) Irvine, 8" VCP. 1,750 gals SSO with 100% of wastewater contained and recovered. Caused by residential grease.
2. July 2010 - Newport Coast Lift Station, 12" PVC forcemain failure. 26,725 gals SSO with 5850 gals of wastewater contained and recovered. Caused by pipe structural failure.
3. September 2010 - Irvine, 8" VCP. 100 gals SSO with 100% gals of wastewater contained and recovered. Caused by root intrusion.
4. October 2010 - Irvine, 8" VCP. 200 gals SSO with 100% of wastewater contained and recovered. Caused by root intrusion.

MONTHLY DATA

<u>Month</u>	<u>Value</u>	<u>Goal</u>	From: February 2010
February 2010	0		Thru: January 2011
March 2010	2.00		Goal: 0
April 2010	0		
May 2010	0		
June 2010	0		
July 2010	1.00		
August 2010	0		
September 2010	1.00		
October 2010	1.00		
November 2010	0		
December 2010	0		
January 2011	0		

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

OCSD CORF Flows

MONTHLY STATUS REPORT

Metric Owner: Wayne Posey

Director of Wastewater Operations

Definition of Measure:

Estimated CORF flow for current FY. CORF flow ownership as of the end of FY 2009/2010 was 8.62 MGD.

Method:

IRWD's CORF flow is derived by using the actual Main Street Flume Meter flow and subtracting the MWRP biosolid discharge flow and all non Revenue Area 14 (IRWD) flows tributary to the Main Street Flume meter/MWRP and adding in the San Joaquin Hills Planned Community flow and flow discharges from the Gas Recovery System (Formerly Laidlaw) for the FY four calendar months with the highest flow totals multiplied by three, averaging the result thereof with the same result of the same calculation for the preceding two fiscal years and adding in the current IBC transfer flow.

Note: All of the Newport Coast flows with the exception of the San Joaquin Hills Planned Community and Gas Recovery System flow are excluded from IRWD's CORF flow calculation. The OCSD's 1988 Downcoast Area Agreement only requires for IRWD to provide local wastewater collection service and requires OCSD to provide wastewater regional collection, transmission, treatment and disposal for that area.

Data Collection

The OCSD's Monthly Gallonage Flow Summary Report provides the actual flows used in calculating IRWD's CORF flow. This includes the Main Street Flume Meter actual monthly flow. All non Revenue Area 14 (IRWD) flows that are tributary to the Main Street Flume Meter is adjusted every year based on the results of OCSD's Flow Verification Study. The San Joaquin Hills Planned Community flow is adjusted every year based on the results of IRWD's Flow Verification Study. The Gas Recovery System flow is the actual monthly meter flow. The IBC transfer flow is adjusted every five years based on the results of OCSD's Flow Verification Study.

Current Issues

1. None

MONTHLY DATA

<u>Month</u>	<u>Value</u>	<u>Goal</u>	<i>From:</i> February 2010
February 2010	8.00		<i>Thru:</i> January 2011
March 2010	8.41		<i>Goal:</i> 8.62
April 2010	8.42		
May 2010	8.43		
June 2010	8.43		
July 2010	4.68		
August 2010	4.68		
September 2010	4.69		
October 2010	4.68		
November 2010	4.70		
December 2010	4.78		
January 2011	4.91		

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

OSHA Recordables

MONTHLY STATUS REPORT

Metric Owner: Ken Erwin

District Safety & Security Manager

Definition of Measure:

OSHA Recordables are a monthly measure of injuries and illnesses that occurred and must be entered on the OSHA 300 (Log of Work Related Injuries and Illnesses), in conformance with OSHA requirements. This measure is standardized not only in the water/wastewater industry, but throughout industries nationwide.

Method:

OSHA Recordables = Number of OSHA Recordable cases occurring during the subject month.

Data Collection

All injuries/illnesses and near-misses are reported to the District Safety & Security Manager immediately when they occur. All are investigated and cases meeting the recordable definition are logged. This measure simply reports the number of accidents whose occurrence date is within the calendar month.

Current Issues

1. office specialist I dept 12 was rear ended car accident while on district business, shoulder strain, cervical/thoracic strain

MONTHLY DATA

<u>Month</u>	<u>Value</u>	<u>Goal</u>	<i>From:</i> February 2010
February 2010	2.00		<i>Thru:</i> January 2011
March 2010	5.00		<i>Goal:</i> 0
April 2010	4.00		
May 2010	0		
June 2010	2.00		
July 2010	2.00		
August 2010	2.00		
September 2010	2.00		
October 2010	2.00		
November 2010	0		
December 2010	1.00		
January 2011	1.00		

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

MWRP Energy Cost per kWh

MONTHLY STATUS REPORT

Metric Owner: Richard Kelly

Plant Operations Analyst

Definition of Measure:

Actual MWRP Cost per kWh used at MWRP with new generating facility.

Method:

MWRP cost per kWh is calculated by the monthly total energy purchased from imported SCE electricity, purchased natural gas for the generators from Coral Energy, and SCG natural gas transportation charge divided by the total monthly kWh generated and imported from SCE. We then add in actual maintenance costs, including g/a.

Data Collection

Data collected from actual monthly SCE, Coral Energy and SCG Invoices. Total kWh is collected from the two generator kWh meters and SCE main electric meter.

Current Issues

1. January 2011: Net Savings: \$5,478 ; Total Savings: \$2,269,914

MONTHLY DATA

<u>Month</u>	<u>Value</u>	<u>Goal</u>	<i>From:</i> February 2010
February 2010	.09		<i>Thru:</i> January 2011
March 2010	.10		<i>Goal:</i> .08
April 2010	.09		
May 2010	.07		
June 2010	.11		
July 2010	.12		
August 2010	.11		
September 2010	.10		
October 2010	.09		
November 2010	.09		
December 2010	.09		
January 2011	.09		

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Wastewater Cost

MONTHLY STATUS REPORT

Metric Owner: Richard Kelly

Plant Operations Analyst

Definition of Measure:

Total cost of collection and treatment (primary, secondary, and solids disposal) of wastewater, on a unit basis (\$/million gallons) for this month.

Method:

(MWRP cost of collections(G/L #530) + MWRP cost of treatment(G/L #551,552,565) + OCSD cost(G/L #535,555) + SMWD cost(G/L #531,556)) divided by the total sewage flows emanating from OCSD District #14 (Includes MWRP flow + OCSD flow + SMWD flow)

Data Collection

Data used for this measure are collected from the general ledger and from Orange County Sanitation District (OCSD) and Santa Margarita Water District (SMWD) staff. Costs and flows from OCSD District #7 are not included in the calculation.

Current Issues

1. None

MONTHLY DATA

<u>Month</u>	<u>Value</u>	<u>Goal</u>	
February 2010	2,053.00	2,019.00	From: February 2010
March 2010	2,086.00	2,014.00	Thru: January 2011
April 2010	2,092.00	2,017.00	Goal: 1,997.00
May 2010	2,096.00	2,014.00	
June 2010	1,962.00	2,017.00	
July 2010	1,797.00	1,985.00	
August 2010	1,950.00	1,984.00	
September 2010	2,128.00	2,002.00	
October 2010	2,128.00	1,998.00	
November 2010	2,166.00	2,004.00	
December 2010	2,148.00	2,000.00	
January 2011	2,119.00	1,997.00	

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Water System Cost--Potable

MONTHLY STATUS REPORT

Metric Owner: Denise To-Nguyen

Accountant

Definition of Measure:

Total cost of potable water delivered to IRWD's customers this month, on a unit basis (\$/acre-foot). These monthly costs can vary greatly due to variation in water sales and power cost billing cycles. Thus, monthly expenses do not match up with their corresponding water sales.

Method:

Sum of all potable water costs accrued this month divided by the quantity of potable water sold this month.

Data Collection

Potable water costs collected from current month general ledger. This cost includes labor, power, distribution, and other costs. The quantity of water sold is collected from the Water Usage Variance Report, which summarizes metered water sales. Wide fluctuations in this measure may occur due to the billing delays for such expenses as electrical power (ie, bills are not paid in the same month as the water is sold).

Current Issues

1. None

MONTHLY DATA

<u>Month</u>	<u>Value</u>	<u>Goal</u>	From: February 2010
February 2010	968.43	829.05	Thru: January 2011
March 2010	1,021.44	820.93	Goal: 903.00
April 2010	824.78	822.90	
May 2010	988.17	839.59	
June 2010	1,018.23	870.57	
July 2010	701.23	880.40	
August 2010	906.37	814.86	
September 2010	834.75	837.90	
October 2010	857.34	868.51	
November 2010	1,109.19	862.36	
December 2010	1,172.08	878.12	
January 2011	957.53	902.95	

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Water System Cost--Nonpotable

MONTHLY STATUS REPORT

Metric Owner: Denise To-Nguyen

Accountant

Definition of Measure:

Total cost of nonpotable water delivered to IRWD's customer this month, on a unit basis (\$/acre-foot). These monthly costs can vary greatly due to variation in water sales and power cost billing cycles. Thus, monthly expenses do not match up with their corresponding water sales.

Method:

Sum of all nonpotable water costs accrued this month divided by the quantity of nonpotable water sold this month.

Data Collection

Nonpotable water costs collected from current month general ledger. This cost includes labor, power, distribution, and other costs related to tertiary treatment and reclaimed water distribution. The quantity of water sold is collected from the Water Usage Variance Report, which summarizes metered water sales. Wide fluctuations in this measure may occur due to the billing delays for such expenses as electrical power (ie, bills are not paid in the same month as the water is sold).

Current Issues

1. None

MONTHLY DATA

<u>Month</u>	<u>Value</u>	<u>Goal</u>	From: February 2010
February 2010	1,513.67	1,025.20	Thru: January 2011
March 2010	1,178.32	904.71	Goal: 723.00
April 2010	577.80	788.59	
May 2010	535.78	546.32	
June 2010	510.12	604.98	
July 2010	326.47	383.34	
August 2010	376.24	397.83	
September 2010	393.78	405.18	
October 2010	508.51	473.71	
November 2010	840.22	547.10	
December 2010	854.69	597.27	
January 2011	1,186.35	722.95	

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Enterprise Return

MONTHLY STATUS REPORT

Metric Owner: Jayne George

Debt and Investment Analyst

Definition of Measure:

This is a monthly measure of performance by IRWD's various enterprise activities, including residential and commercial real estate, Strawberry Farms Golf Course, and wireless communications leases.

Method:

Enterprise Return = Actual Net Income/Budgeted Net Income x 100

Data Collection

The various enterprise activities generate revenues and expenses at different frequencies through the year. Except for the real estate projects, the enterprise projects are primarily revenue generating activities with relatively little associated expenses. The measure reflects a comparison between the actual and budgeted net income of the various projects on a monthly basis.

Current Issues

1. The January measure is above budget at 1.17. This is primarily due to positive NOI at Sycamore Canyon and Wood Canyon and to higher than budgeted return from the Wireless Communications.

MONTHLY DATA

<u>Month</u>	<u>Value</u>	<u>Goal</u>	<i>From:</i> February 2010
February 2010	1.03		<i>Thru:</i> January 2011
March 2010	1.01		<i>Goal:</i> 1.00
April 2010	.96		
May 2010	.99		
June 2010	1.01		
July 2010	.97		
August 2010	.93		
September 2010	.89		
October 2010	.98		
November 2010	.94		
December 2010	.76		
January 2011	1.17		

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Overhead Ratio

MONTHLY STATUS REPORT

Metric Owner: Jessica Craig

Accountant

Definition of Measure:

Overhead Ratio is a measure of general and administrative (G&A) overhead expenses compared to direct labor expenses.

Method:

Ratio of total G&A expenses to total direct labor (including regular and overtime wages).

Data Collection

G&A expenses are summarized from the general ledger and include all costs incurred that are not directly accounted to mission-critical work (charged to g/l #792). Direct labor expenses are the hourly staff charges accounted to mission-critical work (generally charged to expense codes #110 and #120). Benefits are considered G&A, not direct labor expenses.

Current Issues

1. The current month actual G&A rate is 2.13 which is higher than the projected rate of 1.95. The YTD G&A rate is 1.74, which brings the over applied G&A to \$1,894,893.50

MONTHLY DATA

<u>Month</u>	<u>Value</u>	<u>Goal</u>	<i>From:</i> February 2010
February 2010	1.84		<i>Thru:</i> January 2011
March 2010	1.55		<i>Goal:</i> 1.90
April 2010	1.88		
May 2010	1.75		
June 2010	1.99		
July 2010	1.59		
August 2010	1.79		
September 2010	1.73		
October 2010	1.58		
November 2010	1.54		
December 2010	1.87		
January 2011	2.13		

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Customer Satisfaction

MONTHLY STATUS REPORT

Metric Owner: Gina Jackson

Customer Service Manager

Definition of Measure:

Customer Satisfaction is measured by IRWD's Customer Satisfaction Index. The index is measured by sending surveys to a statistically-significant, random selection of customers that have called IRWD for some type of service. Services range from answering questions about water conservation or billing to repairing a sewer blockage in the street. The surveys allow the customer to rate IRWD's response to their request in eight categories. Each category is rated from 1 to 5, with 1 indicating the highest level of satisfaction. A total score of 100 indicates the highest level of satisfaction in all eight categories. The scores of all responses in the subject month are a weighted average for the monthly index figure.

Method:

Data Collection

Surveys are mailed at the end of each work week for the customer requests completed that week. The monthly index reflects the surveys received within the subject month.

Current Issues

1. Total Overall Satisfaction: 98%
Satisfaction: 96%
Timely: 96%
Phone: 99%
Field Contact: 100%

MONTHLY DATA

<u>Month</u>	<u>Value</u>	<u>Goal</u>	<i>From:</i> February 2010
February 2010	96.00		<i>Thru:</i> January 2011
March 2010	99.00		<i>Goal:</i> 90.00
April 2010	98.00		
May 2010	97.00		
June 2010	100.00		
July 2010	95.00		
August 2010	100.00		
September 2010	96.00		
October 2010	100.00		
November 2010	98.00		
December 2010	99.00		
January 2011	98.00		

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Employee Satisfaction

MONTHLY STATUS REPORT

Metric Owner: Gretchen Maswadeh

Human Resources Manager

Definition of Measure:

Level of employee satisfaction with employment at IRWD.

Method:

Average of all scores on surveys for performance evaluations presented this month

Data Collection

A survey is sent to each employee receiving a performance evaluation this month. The survey simply asks the employee to rate his/her overall employment satisfaction on a scale of 1 to 6 (1 being very dissatisfied and 6 being very satisfied). The ratings are compiled and averaged by Human Resources.

Current Issues

1. 5 surveys were returned of 21 surveys sent (24%). 4 of 5 respondents (80%) rated satisfaction as 5 or 6 on a scale of 1 to 6. In the 12 month period ending February 2011, 115 surveys have been returned of 304 surveys sent (38%). 97 of 115 respondents (84%) rated satisfaction as 5 or 6 on a scale of 1 to 6. 12 month average rating is 5.27%.

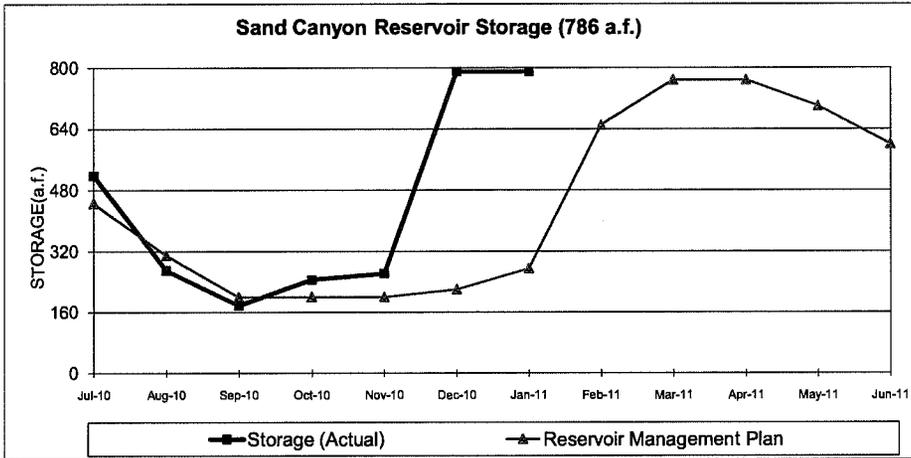
MONTHLY DATA

<u>Month</u>	<u>Value</u>	<u>Goal</u>	<i>From:</i> February 2010
February 2010	5.57		<i>Thru:</i> January 2011
March 2010	5.15		<i>Goal:</i> 5.00
April 2010	5.54		
May 2010	5.50		
June 2010	5.89		
July 2010	5.23		
August 2010	5.75		
September 2010	3.86		
October 2010	5.38		
November 2010	5.13		
December 2010	5.56		
January 2011	5.00		

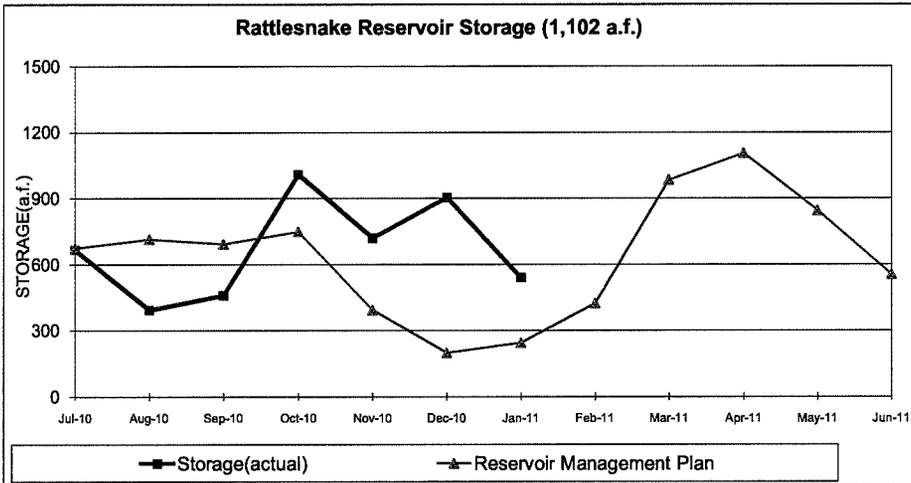
EXHIBIT "B"

DYER ROAD WELL FIELD STATUS							Jan-2011
Well Number	Production Mo./YTD	Ref. Point Elevation	Depth to Water 1/31/2011	Water Level-MSL	Depth of Bowls	Bowl Setting-MSL	Feet of Water Above Intake
1	0.0 AF 285.8 AF	34	N/A	N/A	270	-236	N/A
				Static			
2	229.3 AF 814.3 AF	37	155	-119	270	-234	115
				pumping			
3	0.0 AF 1.8 AF	55	99	-44	215	-160	116
				Static			
4	59.3 AF 687.9 AF	38	101	-63	216	-178	115
				Static			
5	82.7 AF 646.5 AF	48	248	-200	290	-242	42
				pumping			
6	89.5 AF 265.1 AF	43	143	-100	250	-207	107
				pumping			
7	72.5 AF 458.6 AF	40	211	-171	290	-250	79
				pumping			
C-8 DATS	476.7 AF 2,588.3 AF	37	134	-97	305	-268	171
				pumping			
C-9 DATS	356.8 AF 1,944.3 AF	23	131	-108	305	-282	174
				pumping			
10	362.9 AF 1,627.4 AF	47	153	-106	250	-203	97
				pumping			
11	82.6 AF 353.1 AF	40	153	-113	300	-260	147
				pumping			
12	136.2 AF 769.3 AF	51	145	-94	300	-249	155
				Static			
13	16.4 AF 209.0 AF	40	163	-123	300	-260	137
				Static			
14	60.4 AF 430.3 AF	47	110	-63	311	-264	201
				Static			
15	380.1 AF 1,760.2 AF	44	148	-104	300	-256	152
				pumping			
16	22.6 AF 301.2 AF	47	105	-58	280	-233	175
				Static			
17	291.1 AF 1,350.1 AF	52	155	-104	250	-199	95
				pumping			
18	85.9 AF 655.6 AF	45	100	-55	300	-255	200
				Static			
Clear production:	1,971.5 AF for the month						
FYTD:	10,665.7 AF						
DATS production:	833.5 AF for the month						
FYTD:	4,532.6 AF						

RESERVOIR DATA FY 10-11

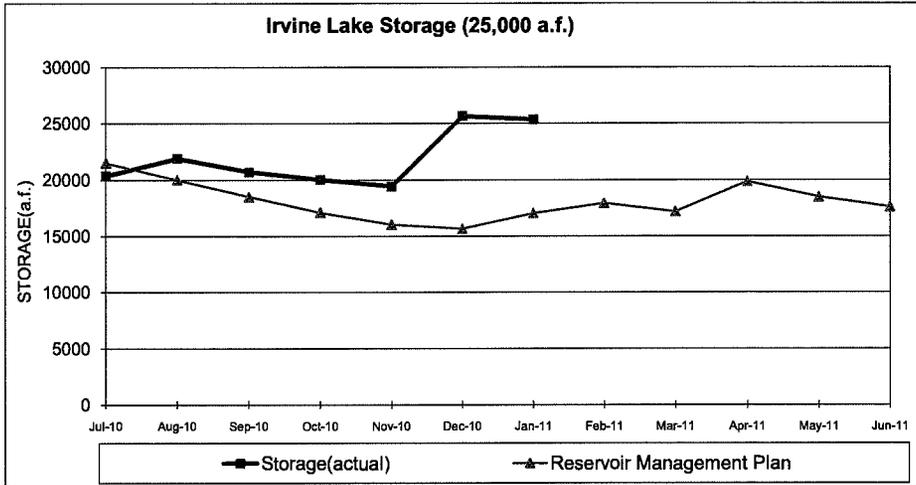


Storage will be under 200 AF by October 1 as required by Regional Board permit. Sand Canyon is currently overflowing.

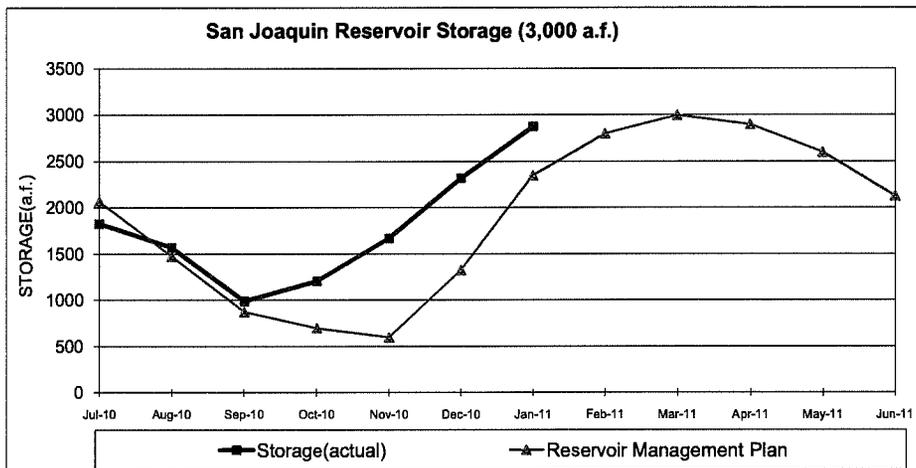


Rattlesnake storage was decreased due to the absence of rainfall events during the month of January.

RESERVOIR DATA FY 10-11



Irvine Lake is currently spilling due to December rainfall.



All Lake Forest reclaimed demand is being supplied from the East Irvine Zone B system. San Joaquin's drawdown was less than planned due to early rainfall in October.

February 28, 2011

Prepared by: W. Stewart/S. Malloy

Submitted by: K. Burton

Approved by: Paul Jones

CONSENT CALENDAR

MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION AND FLOOD PROTECTION IMPROVEMENTS – CONTRACT CHANGE ORDER NO. 33

SUMMARY:

The Michelson Water Recycling Plant (MWRP) Phase 2 Expansion and Flood Protection Improvements are currently being constructed by J. R. Filanc Construction Co. Staff recommends that the Board approve Contract Change Order (CCO) No. 33, in the amount of \$282,841, to J. R. Filanc Construction Co. for MWRP Phase 2 Expansion and Flood Protection Improvements, Projects 20214, 20542, 30214, and 30542.

BACKGROUND:

Construction of the MWRP Phase 2 Expansion and Flood Protection Improvements project was awarded to J.R. Filanc Construction Company (Filanc) in July 2009 in the amount of \$87,479,450. This project will expand the recycled water production capacity of MWRP to 28 million gallons per day and protect MWRP from flooding of San Diego Creek. A Project Overview Diagram of the MWRP Phase 2 Expansion is attached as Exhibit "A".

CCO No. 33 for Projects 20214, 20542, and 30214, and 30542:

CCO No. 33, in the amount of \$282,840, includes the following Change Requests (CR):

- Revised chlorine feed to filters (CR-038);
- Primary Effluent Pump Station meter vaults and bypass piping revisions (CR-039);
- Michelson Pump Station-2 (MPS-2) Pump Discharge Pipe Modifications (CR-040);
- Modifications to MPS-2 Building Due to Unknown Duct Banks (CR-049);
- Waste Activated Sludge/Foam Pump Revisions (CR-053);
- Floodwall Revisions per County of Orange and FEMA comments (CR-083);
- Modifications to Grating Supports at Primary Sedimentation Tank Splitter Box (CR-102);
- Change to 316 Stainless Steel Cabinets and Additional Taps for Ultraviolet Disinfection Transformers Added by CCO No. 16 (CR-104);
- Miscellaneous Time & Material Items (CR-100, CR-107, CR-108, CR-109, CR-110, and CR-113); and
- Non-compensable time extension of Milestone 4.

A staff report, Exhibit "B", provides more details on CCO No. 33. CCO No. 33 is attached as Exhibit "C".

Staff reviewed Filanc's cost proposals, negotiated changes, and mutually agreed with Filanc on the final cost.

As of February 1, 2011, 50% of the construction time has elapsed and 32.8% of the revised construction contract has been invoiced. A Construction Change Order Summary is attached as Exhibit “D”. The total contract change order amount is only 0.1% of the original construction contract.

For informational purposes, the current status of consultant contracts and invoices is attached as Exhibit “E”.

FISCAL IMPACTS:

Projects 20214, 20542, 30214, and 30542 are included in the FY 2010-11 Capital Budget. The existing budgets and Expenditure Authorizations are sufficient to fund CCO No. 33 with J.R. Filanc Construction Co.

ENVIRONMENTAL COMPLIANCE:

The Michelson Water Recycling Plant Phase 2 Expansion and Flood Protection Improvements, Projects 20214, 20542, 30214, and 30542 are 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 # 2005051174, were certified by the lead agency on February 27, 2006.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee on February 15, 2011.

RECOMMENDATION:

THAT THE BOARD APPROVE CONTRACT CHANGE ORDER NO. 33 WITH J. R. FILANC CONSTRUCTION CO., IN THE AMOUNT OF \$282,840, FOR THE MWRP PHASE 2 EXPANSION AND FLOOD PROTECTION IMPROVEMENTS, PROJECTS 20214, 20542, 30214, AND 30542.

LIST OF EXHIBITS:

- Exhibit “A” – Location Map
- Exhibit “B” – Staff Report - Contract Change Order No. 33
- Exhibit “C” – Contract Change Order No. 33
- Exhibit “D” – Construction Change Order Summary
- Exhibit “E” – Status of Consultant Contract and Invoices

Overview of MWRP Phase 2 Expansion



1. North and South Influent Interceptors
2. Primary Sedimentation
3. Primary Effluent Pump Stn-1
4. Flow Equalization Basins
5. Aeration Basins
6. Membrane Bioreactors (MBR)
7. High Rate Clarifier (HRC)
8. Spent Backwash
9. Ultraviolet (UV) Disinfection and Chlorine Contact Modifications
10. Chemical Systems
11. Odor Control
12. Central Electrical Building
13. Sodium Hypochlorite System
14. Flood Protection Improvements
- 15.

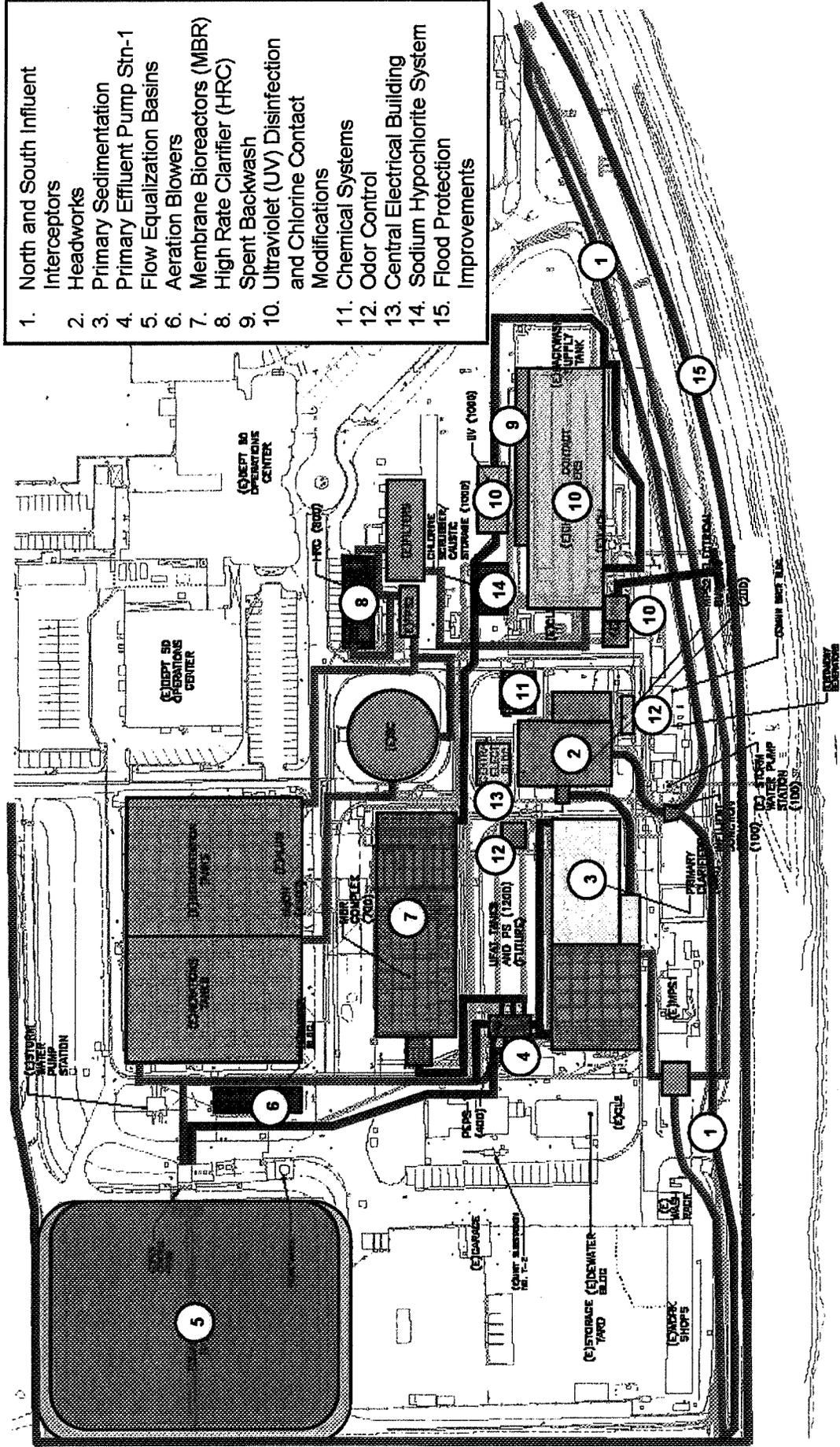


Exhibit "B"

Staff Report for Michelson Water Recycling Plant Phase 2 Expansion and Flood Protection Improvements

Michelson Water Recycling Plant Phase 2 Expansion and Flood Protection Improvements is currently being constructed by J. R. Filanc Construction Co. The purpose of this staff report is to summarize Change Order No. 33.

Contract Change Order No. 33:

CCO No. 33, in the amount of \$282,840, includes the following items:

Revised chlorine feed to filters (CR-038): The chlorine feed to the filters was modified to a less costly location that allows better access. The modifications included (1) deletion of 30-inch steel pipe spool; (2) deletion of a segment of a buried ¾-inch sodium hypochlorite double-walled containment piping; (3) deletion of injection quill assembly; (4) routing of exposed ¾-inch single-walled piping and (5) coring of an existing wall. This item resulted in a credit of \$3,510.68.

PEPS meter vaults and bypass piping revisions (CR-039): The Engineer reviewed the original design of the valving and piping at the PEPS meter vaults. The review resulted in (1) a change from a 24-inch gate valve to a 24-inch plug valve; (2) a change from a 36-inch gate valve to a 36-inch plug valve; (3) deletion of two 24-inch gate valves; (4) deletion of two 36-inch gate valves; and (6) deletion of associated piping, fittings, and couplings. This item results in a credit of \$165,696.50.

MPS-2 Pump Discharge Pipe Modifications (NOPE #003/CR-040): Settlement has occurred at the MPS-2 and has caused significant misalignment of the MSP-2 discharge manifold. The addition of flexible couplings to the four existing effluent pumps and two new effluent pumps would allow for the proper alignment. The cost of this item is \$54,005.58.

Modifications to MPS-2 Building Due to Unknown Duct Banks (CR-049): The Contractor discovered existing electrical duct banks near the new MPS-2 Building. The duct banks were not shown in the Contract Documents. The modifications included (1) enlarging and thickening the floor slab, (2) increasing the size of reinforcing steel in the floor slab, and (3) increasing the excavation. The cost of this activity was negotiated with the Contractor. The cost of this item is \$16,500.00.

WAS/Foam Pump Revisions (CR-053): Review of existing and future MWRP demands resulted in the revision of the design of the WAS/Foam pumps. The capacity of the WAS/Foam pumps was lowered from 300 gpm to 120 gpm. The pumps' TDH was also raised from 30 feet to 53 feet. The pump motor was changed from 30 hp to 10 hp. These revisions result in a credit to IRWD. This item results in a credit of \$5,695.40

Floodwall Revisions per County of Orange and FEMA comments (CR-083): Design revisions from County of Orange and FEMA comments resulted in (1) widening of Riparian View, (2) additional backfill at the existing Gate 11 ramp, (3) construction of a new ramp near the MWRP Phase 2 construction trailers, (4) relocation of an existing catch basin, and (5) deletion of two removable flood gates. The cost of this item is \$350,685.85.

Modifications to Grating Supports at PST Splitter Box (CR-102): The grating supports were modified to avoid conflicts with the operation of wall mounted gates. This item reflects the labor and materials to make the modifications to the grating supports. The cost of this item is \$5,266.73.

Change to NEMA 3R SS 316 Cabinets and Additional Taps for UV Disinfection Transformers Added by CCO No.16 (CR-104): Since the transformers that were added through CCO No. 16 are to be installed outside, IRWD staff decided that the painted steel transformer cabinets should be changed to 316 stainless steel, which provides for additional protection against the elements for the transformers. The additional taps provide flexibility for IRWD staff in the future. The cost of this item is \$12,003.29.

Miscellaneous Time & Material Items (CR-100, CR-107, CR-108, CR-109, CR-110, CR-113): The total cost of these items is \$19,282.28.

Demolish Oversized Footing on Existing Retaining Wall Behind the Paint Shop (CR-100) - The Contractor encountered an oversized footing on the existing retaining wall behind the paint shop. The size of the footing was not shown in the Contract Documents. The Contractor had to remove the footing to allow for the installation of electrical conduit. The cost of this item is \$5,391.41.

Removal of Unknown Concrete at the North Influent Interceptor (CR-107) – The Contractor discovered unknown buried concrete at the area where the interceptor is to be installed. The concrete was not shown in the Contract Documents. The Contractor had to remove the concrete to allow for the construction of the interceptor. The cost of this item is \$2,917.38.

Thrust Block on 24" Storage Line at HRC Valve Vault (CR-108) – The Contractor discovered an unknown 24-inch pipeline with a thrust block when they were excavating for the High Rate Clarifier (HRC) Valve Vault structure. The pipeline was not shown in the Contract Documents. To make room for the HRC vault, the Contractor had to remove the thrust block, cut out a section of the pipe and pour a new thrust block. Additionally, the Contractor had to temporarily support this pipe for a portion of the work. The cost of this item is \$3,638.22.

Removal of Unknown Buried Pipe and Abandoned Manhole (CR-109) – During the Pile Driving operation in the MBR area, the Contractor drilled into unknown concrete 20-30 ft below grade. The Contractor excavated the area and removed a section of an abandoned manhole and concrete encased pipe. The cost of this item is \$2,756.79.

Repair to Damaged MBR Pile 7-779 (CR-110) – An unknown encased pipe was removed so that two piles (Piles 7-780 and 7-784) in the MBR area could be installed (CR-109). During the excavation and removal of the encased pipe, Pile 7-779 was damaged during the removal process. The Contractor repaired the damaged pile for the negotiated price of \$1,320.33.

Install Hydrophilic Waterstops at Primary Sedimentation Tanks (PST) Launder Troughs (CR-113) – For added protection of the reinforcing steel, IRWD staff directed the Contractor to install hydrophilic waterstops at the PST launder troughs. The cost of this item is \$3,258.14.

Non-compensable Time Extension of Milestone 4: Coordination issues with Southern California Edison and MWRP Operations impacted the construction of the High Rate Clarifier Valve Vault. With this Change Order, Milestone 4 is extended by 57 days to September 28, 2011.

Staff reviewed Filanc's cost proposal, negotiated changes, and mutually agreed with Filanc on the final cost. CCO No. 33 is attached as Exhibit "B." Construction Change Order Summary is attached as Exhibit "C".

CONTRACT CHANGE ORDER

Exhibit "C"

IRVINE RANCH WATER DISTRICT

15600 Sand Canyon Avenue
Irvine, California 92618
(949) 453-5300



C.O. No. 33
 Final

Project No. 20214, 30214,
20542, 30542

MWRP Phase 2 Expansion and Flood Protection Improvements

Project Title

Date: February 4, 2011

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
1. Revised chlorine feed to filters (CR-038) [PR 20214, 30214]	\$0	\$3,510.68	0
2. PEPS meter vaults and bypass piping revisions (CR-039) [PR 20214, 30214]	\$0	\$165,696.50	0
3. MPS-2 Pump Discharge Pipe Modifications (NOPE #003/CR-040) [PR 20214, 30214]	\$54,005.58	\$0	0
4. Modifications to MPS-2 Building Due to Unknown Duct Banks (RFI 160) (CR-049) [PR 20214, 30214]	\$16,500.00	\$0	0
5. WAS/Foam Pump Revisions (CR-053) [PR 20214, 30214]	\$0	\$5,696.40	0
6. Floodwall Revisions per County of Orange and FEMA comments (CR-083) [PR 20542, 30542]	\$350,685.85	\$0	0
7. Modifications to Grating Supports at PST Splitter Box (CR-102) [PR 20214, 30214]	\$5,266.73	\$0	0
8. Change to NEMA 3R SS 316 Cabinets and Additional Taps for UV Disinfection Transformers Added by CR 047/CO 16 (CR-104) [PR 20214, 30214]	\$12,003.29	\$0	0
9. Miscellaneous Time & Material Items (CR-100, CR-107, CR-108, CR-109, CR-110, and CR-113) [PR 20214, 30214]	\$19,282.28	\$0	0
10. Non-compensable Time Extension of Milestone 4 of 57 calendar days Note 1. Milestone 4 is extended by 57 calendar days to September 28, 2011. Note 2. The project's overall completion date of August 1, 2012 is unchanged with this Change Order.	\$0	\$0	0
TOTAL	\$457,743.73	\$174,903.58	0

DAYS ±

1. NET AMOUNT THIS CHANGE ORDER	=	\$282,840.15	0
2. ORIGINAL CONTRACT AMOUNT	=	\$87,479,450.00	1,094
3. TOTAL PREVIOUS CHANGE ORDER(S)	=	(\$212,185.35)	0
4. TOTAL BEFORE THIS CHANGE ORDER (2+3)	=	\$87,267,264.65	1,094
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4)	=	\$87,550,104.80	1,094

We hereby agree to make the above change subject to the terms of this change order for the sum of: _____

-----Two Hundred Eighty-Two Thousand Eight Hundred Forty and 15/100-----Dollars

2/7/11
Date

J R Filanc Construction Co.
Contractor

[Signature]
By: Bill Hanley, Project Manager

SIGNATURE	DATE	APPROVAL LEVEL REQUIRED
<u>[Signature]</u> IRWD Engineer or Consulting Engineer	<u>2/7/11</u> Date	Department Director Approval Required <input type="checkbox"/>
<u>[Signature]</u> Principal Engineer - MWRP Construction	<u>2-7-11</u> Date	General Manager Approval Required <input type="checkbox"/>
<u>[Signature]</u> Director of Engineering and Construction	<u>2-8-11</u> Date	Committee Approval Required <input type="checkbox"/>
<u>[Signature]</u> General Manager	<u> </u> Date	Board Approval Required <input checked="" type="checkbox"/>
By _____ Date _____		
121750- _____		
Purchase Order No.		

NOTE: The documents supporting this Change Order, including any drawings and estimates of cost, if required are attached hereto and made a part hereof. This Change Order shall not be considered as such until it has been signed by the Owner and the Contractor. Upon final approval, distribution of copies will be made as required. The parties mutually agree the pricing set forth in this Change Order are complete and fair compensation for the entirety of the work authorized under this Change Order and that no additional compensation is warranted nor shall it be allowed.

CHANGES: All workmanship and materials called for by this Order shall be fully in accord with the original Contract Documents insofar as the same may be applied without conflict to the conditions set forth by this Order. The time for completing the contract will not be extended unless expressly provided for in this Change Order.

EXHIBIT "D"

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214, 20542, 30214, and 30542
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer: HDR

Change Order	Description	Category	Contract Amount							Contract Days			Original Completion Date: 8/1/2012
			Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	
1	Approved by Director of Engineering and Construction Approved on November 19, 2009			\$ 195.40	\$ -	\$ 195.40	0.0%	\$ 87,479,645.40	0	0	0	1,094	8/1/2012
1.1	Partnering Workshop - IRWD and the Contractor agreed to split equally the cost of partnering. The initial partnering workshop was held on September 3, 2009. This change request represents the Contractor's portion of the cost of that initial workshop. It is a credit to IRWD.	A	(\$6,561.60)										
1.2	Installation of Bollards - The Contractor installed bollards around the IRWD MWRP Phase 2 Field Office Trailer and K-rails around the interim sodium hypochlorite System to protect from traffic	A	\$ 3,655.72										
1.3	Relocation of 4-inch Natural Gas Pipeline	B	\$ 3,101.28										
2	Approved by Director of Engineering and Construction Approved on December 3, 2009			\$ 16,018.04	\$ 195.40	\$ 16,213.44	0.0%	\$ 87,495,663.44	0	0	0	1,094	8/1/2012
2.1	Previously Approved Change Request #4 - Tree Removal and Grinding at Flood Improvements and Duck Club	A	\$ 6,696.00										
2.2	Previously Approved NOPE #1 - Demolish Abandoned Building	D	\$ 7,641.87										
2.3	Repair of 10-inch PVC Groundwater Line at the New Headworks Area	B	\$ 1,680.17										
3	Approved by Director of Engineering and Construction Approved on December 18, 2009			\$ -	\$ 16,213.44	\$ 16,213.44	0.0%	\$ 87,495,663.44	0	0	0	1,094	8/1/2012
3.1	Construct Temporary Access Road to Staging Area 3	A	\$ -										
4	Approved by Board of Directors Approved on January 25, 2010			\$ 143,950.10	\$ 16,213.44	\$ 160,163.54	0.2%	\$ 87,639,613.54	0	0	0	1,094	8/1/2012
4.1	Upsize Area 600 Aeration Blower from 350 to 500 hp	C	\$ 66,355.57										
4.2	Upsizing Soft Starters for Area 700 Blowers from 350 to 450 hp	C	\$ 41,529.75										
4.3	Infrared Windows to Measure Stray Currents	A	\$ 36,064.78										
5	Approved by Director of Engineering and Construction Approved on December 29, 2009			\$ 5,081.52	\$ 160,163.54	\$ 165,245.06	0.2%	\$ 87,644,695.06	0	0	0	1,094	8/1/2012
5.1	Relocation of K-rail to Allow Construction Equipment access for pond maintenance (PR 10942)	D	\$ 5,081.52										
6	Approved by Engineering & Operations Comm Approved on January 19, 2010			\$ 77,478.00	\$ 165,245.06	\$ 242,723.06	0.3%	\$ 87,722,173.06	0	0	0	1,094	8/1/2012
6.1	WAS and Skimming Pumps Replacement (PR 20779)	D	\$ 77,478.00										

MWRP Phase 2 Expansion and Flood Protection Improvements
 PR 20214, 20542, 30214, and 30542
 Construction Summary

Contractor: J R Filanc Construction
 Design Engineer: HDR

Change Order	Description	Category	Contract Amount										Contract Days		Original Completion Date:
			Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Original Days:	Original Completion Date:	
7	Approved by AGM Approved on February 9, 2010 7.1 Relocation and Repair of Unknown Utilities. The Contractor relocated a 1-inch air line and repaired a 2-inch chlorine line, both of which were not shown on the Plans. (CCR #10) 7.2 Removal and Disposal of Unknown Electrical Ductbanks at future Sodium Hypochlorite Feed Facility. (CCR #12) 7.3 Non-compensable Weather-Related Delay 7.4 Non-compensable Time Extension Due to Change Order No. 4 7.5 Addition of Manways on Sodium Hypochlorite Tanks (CCR #23)	B B B C A	\$ \$ \$ \$ \$	2,588.36 2,216.31 - - 5,410.20	\$ \$ \$ \$ \$	10,214.87 1,135,820.75 1,135,820.75 1,135,820.75 1,135,820.75	\$ \$ \$ \$ \$	242,723.06 252,937.93 252,937.93 252,937.93 252,937.93	0.3% -1.0% -1.0% -1.0% -1.0%	\$ \$ \$ \$ \$	0 0 0 0 0	0 0 0 0 0	1,094 1,094 1,094 1,094 1,094	8/1/2012 8/1/2012 8/1/2012 8/1/2012 8/1/2012	
8	Approved by Board of Directors Approved on February 22, 2010 8.1 Delete Bid Item A.28 - System Integration 8.2 System Integration Coordination and SCADA Hardware Procurement	A A	\$ \$	(1,624,460.00) 488,639.25	\$ \$	(1,135,820.75) 1,135,820.75	\$ \$	252,937.93 252,937.93	-1.0% -1.0%	\$ \$	0 0	0 0	1,094 1,094	8/1/2012 8/1/2012	
9	Approved by AGM Approved on March 18, 2010 9.1 Deletion of Change Order 4, Line Item 3 - Installation of Infrared Windows.	A	\$	(36,064.78)	\$	(36,064.78)	\$	(882,882.82)	-1.1%	\$	0	0	1,094	8/1/2012	
10	Approved on March 23, 2010 10.1 Removal of 18-inch pipe and installation of 24-inch blind flange at Sodium Hypochlorite System excavation (CR #24) 10.2 Addition of 24-inch side manway for Manganese Hydroxide tanks (CR #27) 10.3 Relocation of 54" Primary Effluent Line (CR #29) 10.4 Change in PVC C900/C905 Manufacturer. (CR #30)	B A A A	\$ \$ \$ \$	2,708.66 5,667.83 (15,928.00) 14,514.96	\$ \$ \$ \$	6,963.45 6,963.45 6,963.45 6,963.45	\$ \$ \$ \$	(918,947.60) (918,947.60) (918,947.60) (918,947.60)	-1.0% -1.0% -1.0% -1.0%	\$ \$ \$ \$	0 0 0 0	0 0 0 0	1,094 1,094 1,094 1,094	8/1/2012 8/1/2012 8/1/2012 8/1/2012	

MWRP Phase 2 Expansion and Flood Protection Improvements
 PR 20214, 20542, 30214, and 30542
 Construction Summary

Contractor: J R Filanc Construction
 Design Engineer: HDR

Change Order	Description	Category	Contract Amount							Contract Days			Original Completion Date:
			Change Order Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	
11	Approved by Director of Engineering and Construction Approved on April 26, 2010 11.1 Abandoned 24-inch line at high rate clarifier location (CR #026)	B	\$15,782.97	\$21,033.73	\$ (911,984.15)	\$ (890,950.42)	-1.0%	\$ 86,588,499.58	0	0	0	1,094	8/1/2012
	11.2 Exploratory Excavation for Duct Bank at MPS-2 electrical building	B	\$3,035.98						0				
	11.3 Provide chain operators and chain, and grease fittings for plug valves for the WAS/Skimming Pumps Replacement Project (PR 20779) (CR #036)	D	\$2,214.78						0				
12	Approved by Director of Engineering and Construction Approved on April 28, 2010 12.1 Relocation of Existing 10-inch and 6-inch GW line (CR #014)	B	\$17,121.47	\$17,121.47	\$ (890,950.42)	\$ (873,828.95)	-1.0%	\$ 86,605,621.05	0	0	0	1,094	8/1/2012
13	Approved by AGM Approved on April 28, 2010 13.1 Modifications in Checkered Aluminum Plates at the Headworks Area (CR 037)	C	\$34,095.00	\$34,095.00	\$ (873,828.95)	\$ (839,733.95)	-1.0%	\$ 86,639,716.05	0	0	0	1,094	8/1/2012
14	Approved by Director of Engineering and Construction Approved on May 4, 2010 14.1 Electrical Substation Work (Two additional 5-inch Conduits and Connection bwn IRWD and SCE) (CR 028)	A	\$16,655.10	\$16,655.10	\$ (839,733.95)	\$ (823,078.85)	-0.9%	\$ 86,656,371.15	0	0	0	1,094	8/1/2012
15	Approved by AGM Approved on May 21, 2010 15.1 Credit for Not Relocating the 18-inch diameter drain line at HRC (CR #019) 15.2 Credit for Slab Penetration Modifications, Detail P17 (RFI 0102) (CR #032)	A	(\$42,262.00) (\$6,745.95)	(\$49,007.95)	\$ (823,078.85)	\$ (872,086.80)	-1.0%	\$ 86,607,363.20	0	0	0	1,094	8/1/2012
16	Approved by Director of Engineering and Construction Approved on May 25, 2010 16.1 Abandonment of 6" Pipes at MBR Screen Area (CR 042) 16.2 Addition of Three Transformers at UV Disinfection Facility (RFI 0149) 16.3 Remove encasement on existing utilities to allow construction of future Primary Sedimentation Tanks (CR 051)	B C B	\$2,536.36 \$18,633.63 \$1,188.43	\$22,358.42	\$ (872,086.80)	\$ (849,728.38)	-1.0%	\$ 86,629,721.62	0	0	0	1,094	8/1/2012

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214, 20542, 30214, and 30542
Construction Summary**

Contractor: J. R. Filanc Construction
Design Engineer: HDR

Change Order	Description	Category	Contract Amount						Contract Days			Original Completion Date:		
			Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days		Revised Total Contract Days	
17	Approved by Engineering & Operations Committee Approved on June 15, 2010 17.1 Demolition of Old Clarifier Bottoms (CR 013)	B		(\$55,420.00)	\$ (849,728.38)	\$ (905,148.38)	\$ (905,148.38)	-1.0%	\$ 86,574,301.62	0	0	0	1,094	8/1/2012
18	Approved by Director of Engineering and Construction Approved on July 28, 2010 18.1 Water Control Gate Revisions (CR #034) 18.2 Repair of Existing Vault west of High Rate Clarifier (CR #057) 18.3 Additional Demolition at Abandoned Aerobic Digester Area (CR #063)	C B B	\$17,923.23 \$1,451.75 \$5,507.26	\$24,882.24	\$ (905,148.38)	\$ (880,266.14)	\$ (880,266.14)	-1.0%	\$ 86,599,183.86	0	0	0	1,094	8/1/2012
19	Approved by Director of Engineering and Construction Approved on July 30, 2010 19.1 Platform modifications at Sodium Hypochlorite Feed System (CR 025) 19.2 Pothole of existing 36-inch filter influent pipe (CR 043) 19.3 Delete 6" knife gate valve and add 6" plug valve at Primary Sedimentation (CR 046) 19.4 Repair of reclaimed water leak near old control room (CR 054) 19.5 MBR fine screen cover plates modifications (CR 064)	A A A B B	\$2,478.67 \$4,503.99 \$662.31 \$1,173.07 \$7,240.64	\$16,058.68	\$ (880,266.14)	\$ (864,207.46)	\$ (864,207.46)	-1.0%	\$ 86,615,242.54	0	0	0	1,094	8/1/2012
20	Approved by Assistant GM Approved on August 26, 2010 20.1 Area 600 Blower Discharge Modifications (CR 050)	A	\$34,622.27	\$34,622.27	\$ (864,207.46)	\$ (829,585.19)	\$ (829,585.19)	-0.9%	\$ 86,649,864.81	0	0	0	1,094	8/1/2012
21	Approved from Board of Directors Approved on August 23, 2010 21.1 Valve Vaults Modifications (CR 020)	A	\$277,384.97	\$277,384.97	\$ (829,585.19)	\$ (552,200.22)	\$ (552,200.22)	-0.6%	\$ 86,927,249.78	0	0	0	1,094	8/1/2012
22	Approved by Director of Engineering and Construction Approved on August 26, 2010 22.1 Site Cleanup Due to Existing Filter Overflow (CR 065) 22.2 Hollow shaft motor modifications to Vertical Turbine & Vertical Propeller Pumps (CR 069)	B A	\$4,271.51 \$18,845.55	\$23,117.06	\$ (552,200.22)	\$ (529,083.16)	\$ (529,083.16)	-0.6%	\$ 86,950,366.84	0	0	0	1,094	8/1/2012
23	Approved by Director of Engineering and Construction Approved on September 9, 2010 23.1 MBR Anoxic Wall Modifications (CR 061) 23.2 Repair Existing 6-inch GW near SCE Station (CR 067) 23.3 Unforeseen Conditions at SCE Conduit Installation (CR 075)	C B B	\$6,399.86 \$3,449.83 \$13,719.91	\$23,569.60	\$ (529,083.16)	\$ (505,513.56)	\$ (505,513.56)	-0.6%	\$ 86,973,936.44	0	0	0	1,094	8/1/2012

MWRP Phase 2 Expansion and Flood Protection Improvements
 PR 20214, 20542, 30214, and 30542
 Construction Summary

Contractor: J. R. Filanc Construction
 Design Engineer: HDR

Change Order	Description	Category	Contract Amount										Contract Days			Original Completion Date: 8/1/2012		
			Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Original Days: 1,094	Revised Total Contract Days					
														Change Order Amount	Change Order Amount		Change Order Amount	Change Order Amount
24	Approved by Engineering and Operations Committee Approved on September 21, 2010	A																
24.1	UVE Piping Modifications at Chlorine Contact Tanks (CR 056)	A	(\$52,172.00)	(\$52,172.00)														
25	Approved by Board of Directors Approved on September 27, 2010	A																
25.1	Modifications to Campus Drive Entrance (CR 022)	A	\$186,651.45	\$186,651.45														
26	Approved by Director of Engineering and Construction Approved on October 20, 2010	A	\$1,539.18	\$19,392.74														
26.1	Change of Strut Material from FRP to Stainless Steel 316/Install CAT5 Cable from PLC 1600 to PLC 9 (CR 074) [PR 20214, 30214]	A	\$1,539.18	\$19,392.74														
26.2	Existing Primary Sludge Pump Room Demolition and Modifications (CR 076) [PR 20214, 30214]	C	\$3,909.94															
26.3	Fence Repair at SCE Substation (CR 078) [PR 20214, 30214]	B	\$1,957.62															
26.4	SHC Electrical and Controls and Milestone Revisions (CR 079) [PR 20214, 30214]	B	\$324.07															
26.5	Change to more Energy Efficient Air Conditioning Units (Five Total) (Submittal 15604-001) (CR 081) [PR 20214, 30214]	A	\$9,101.41															
26.6	Grouting of the Sodium Hypochlorite Tanks at their Permanent Site (CR 084) [PR 20214, 30214]	A	\$2,560.52															
27	Approved by Engineering & Operations Committee Approved on November 4, 2010	A																
27.1	Primary Sedimentation Tanks Flo-Clip Baffles Value Engineering (CR 080)	A	(\$58,157.82)	(\$58,157.82)														
28	Approved by GM Approved on November 24, 2010	A																
28.1	Ducts for Future Phase 3 MBR (RFI 44) (RFI 016)	A	\$32,021.80															
28.2	Sodium Hypochlorite LCP Modifications (CR 071)	A	\$7,503.44															
29	Approved by Director of Engineering & Construction Approved on December 22, 2010	A																
29.1	MBR Aeration Piping Access Platforms (CR-066)	A	\$14,074.73															
29.2	Electrical Conduit Installation near MWRP Phase 2 Trailers (Unforeseen Conditions) (CR 077)	B	\$9,889.88															

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214, 20542, 30214, and 30542
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer: HDR

Change Order	Description	Category	Contract Amount						Contract Days			Original Completion Date:	
			Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days		Revised Total Contract Days
30	Approved by Assistant GM Approved on December 22, 2010 30.1 Pipe Support (20-PE and 18-ML) Modifications per Submittal 15090-003 (CR 073) 30.2 Material Change to SS 316 for Dry Type Transformer Submittal 16460-001 and Panelboard Submittal 16441-002 (CR 093) Pending Approval from Engineering & Operations Committee Approval scheduled for January 18, 2011 31.1 Modifications at Campus Drive Access	C A A	\$20,880.97 \$27,803.13 \$61,136.74	\$48,684.10	\$ (346,309.34)	\$ (297,625.24)	-0.3%	\$ 87,181,824.76	0	0	0	1,094	8/1/2012
32	Approved by Director of Engineering & Construction Approved on January 31, 2011 32.1 Delete Grout Fillet and Add Embeds at Headworks Grit Chambers (CR 090) 32.2 LCPs for Vertical Recirculating Chopper Pumps and Sump Pumps (CR 097) 32.3 Install Additional "Pipe Below Ground" Warning Tape (CR-099)	A C A	\$8,156.20 \$15,000.00 \$1,146.95	\$ 24,303.15	\$ (236,488.50)	\$ (212,185.35)	-0.2%	\$ 87,267,264.65	0	0	0	1,094	8/1/2012
33	Pending Approval from Board of Directors 33.1 Pending Approval on February 28, 2011 33.2 Revised chlorine feed to filters (CR-038) 33.3 PEPS meter vaults and bypass piping revisions (CR-039) 33.4 MPS-2 Pump Discharge Pipe Modifications (NOPE #003/CR-040) 33.5 Modifications to MPS-2 Building Due to Unknown Duct Banks (RFI 160) (CR-049) 33.6 W.A.S./Foam Pump Revisions (CR-053) 33.7 Floodwall Revisions per County of Orange and FEMA comments (CR-083) 33.8 Modifications to Grating Supports at PST Splitter Box (CR-102) 33.9 Change to NEMA 3R SS 316 Cabinets and Additional Taps for UV Disinfection Transformers Added by CR 047/CO 16 (CR-104) 33.9 Miscellaneous Time & Material Items Demo Oversized Footing/Rebar on Existing Retaining Wall behind Paint Shop (CR-100) Removal of Unknown Concrete at the North Interceptor (CR-107) Thrust block on storage line at HRC vault (CR-108) Removal of encased pipe for pile driving at MBR (CR-109) Repair pile damaged when performing CR-109 (CR-110) Install hydrophilic waterstop at PST launders (CR-113)	C C D B C A C A B B B B B B	-\$3,510.68 -\$165,696.50 \$54,005.58 \$16,500.00 -\$5,696.40 \$350,685.85 \$5,266.73 \$12,003.29 \$5,391.41 \$2,917.38 \$3,638.22 \$2,756.79 \$1,320.34 \$3,258.14	\$ 282,840.15	\$ (212,185.35)	\$ 70,654.80	0.1%	\$ 87,550,104.80	0	0	0	1,094	8/1/2012

EXHIBIT "E"

STATUS OF CONSULTANT CONTRACT AND INVOICES

Consultant	Scope	Purchase Order		Variance		Total Invoice to Date	Percent of Total
		Number	Amount	Total Number	Amount		
HDR	Engineer of Record	117518-03	\$5,672,465.00	4	\$ 2,162,664.00*	(12/10) \$2,502,626.17	31.9%
Malcolm Pirnie	Construction Management	117279-02	\$1,684,108.00	1	\$ 466,492.24+	(01/11) \$1,172,930.88	54.5%
DLT&V	SCADA Programming	123872-00	\$1,131,041.13	1	\$ 98,389.00#	(02/02) \$ 340,706.95	27.7%
Ninyo & Moore	Geotechnical – Piles	122073	\$ 304,944.00	0	\$ -	(12/10) \$ 146,548.50	48.0%
NMG	Geotechnical – Materials	122086	\$ 379,530.00	0	\$ -	(12/10) \$ 94,070.00	24.7%
Borchard Surveying	Surveying	122035	\$ 187,740.00	0	\$ -	(01/11) \$ 96,882.00	51.6%
VA Consulting	Flood Improvements	108149-11	\$ 78,662.00	1	\$ 49,500^	(02/11) \$ 71,641.12	55.8%
Harper	Coating	123714	\$ 30,000.00	0	\$ -	(01/11) \$ 5,909.25	19.6%
R. W. Beck	Cost Estimating	123677	\$ 30,000.00	0	\$ -	(04/10) \$ 5,497.50	18.3%
SGS	Blower Inspection	124695-00	\$ 16,225.00	0	\$ -	(09/10) \$ 7,956.25	49.0%
Stork Material Technology	Materials Testing	123928-00	\$ 5,000.00	0	\$ -	(12/10) \$ 1,000.00	20.0%
Total			\$9,519,715.13	7	\$ 2,777,045.24	\$12,296,760.37	36.2 %

* Variance 1 is for System Integration Management Support (\$249,800); Variance 2 is for Additional Design Services, Public Relations Assistance, and Supplemental Field Engineering Services (\$831,288); Variance 3 is for Additional Construction Inspection (\$476,616); Variance 4 is for Additional Engineering Services During Construction (\$604,960); + Variance 1 is for Additional Construction Inspection ^Variance 10 is for Additional Engineering Services during Construction #Variance 1 is for Additional SCADA Programming

February 28, 2011

Prepared by: T. Bonkowski/M. Cortez

Submitted by: K. Burton

Approved by: Paul Jones

CONSENT CALENDAR

EAST IRVINE ZONE 3 RESERVOIR COMPLEX SECURITY LIGHTING PROJECT

SUMMARY:

There have been multiple security breaches recently at the East Irvine Zone 3 Reservoir Complex. The proposed Security Lighting Project at this site consists of the installation of power and a site lighting system around the existing pump station, reservoirs, and trailer storage area. Staff recommends that the lighting project be constructed under a Contract Change Order to the existing construction contract with Halcyon Electric for the East Irvine Zone 3 Reservoir Photovoltaic System Project. Staff recommends that the Board:

- Approve an increase to the FY 2010-11 Capital Budget for Project 11367 in the amount of \$110,000, from \$2,032,800 to \$2,142,800;
- Approve an Expenditure Authorization in the amount of \$110,000 for Project 11367; and
- Authorize the General Manager to execute a Contract Change Order with Halcyon Electric in the amount of \$85,700.

BACKGROUND:

Over the past year there were several security breaches at the East Irvine Zone 3 Reservoir Complex that resulted in property theft and vandalism. In addition to key IRWD water system facilities, a portion of this site is also utilized for the storage of trailers and other equipment that were the target of the security breaches. With the installation of numerous photovoltaic panels at this site, staff recommends implementation of added security measures to deter break-ins to the site.

A number of security improvements, including the removal and trimming of trees along the perimeter fence, repair of damaged sections of fence, and the placement of fill material along the bottom of the perimeter fence in eroded areas, were completed in recent months. As an additional security improvement, staff recommends the installation of a lighting system for the East Irvine Zone 3 Reservoir Complex to provide better protection for the water system facilities, the stored trailers, and the new photovoltaic panels. The proposed lighting system, developed in consultation with the City of Irvine, includes eight 30-foot tall light poles. A plan of the proposed lighting system is included in Exhibit "A".

Construction Bid Process:

Staff requested bids from two firms, Halcyon Electric and West & Sylvester Electric, for the proposed site lighting system and bids were received from both firms. Halcyon's bid amount was \$85,700 and West & Sylvester Electric's bid amount was \$120,143. A Bid Summary is provided as Exhibit "B".

Staff has reviewed the bids and recommends that the project be awarded to the low bidder, Halcyon Electric. Halcyon Electric is currently working at the site installing the photovoltaic system at the East Irvine Zone 3 Reservoir. Halcyon Electric's bid was very competitive because they did not need to include costs for mobilization to the site. Staff has been very satisfied with Halcyon's performance on the East Irvine Zone 3 Reservoir Photovoltaic System Project and other projects performed by Halcyon, including the installation of the photovoltaic system and the IRWD Sand Canyon Headquarters building. Staff recommends that Halcyon be authorized to install the proposed site lighting system as a change order to their existing construction contract for the East Irvine Zone 3 Reservoir Photovoltaic System Project. The Contract Change Order is attached as Exhibit "C".

FISCAL IMPACTS:

Project 11367 is included in the FY 2010-11 Capital Budget. Staff requests a Capital Budget increase and an Expenditure Authorization to fund the Contract Change Order and additional 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
11367	\$2,032,800	\$110,000	\$2,142,800	\$2,032,800	\$110,000	\$2,142,800

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations Title 14, Chapter 3, Sections 15301 which provides exemption for minor alterations of existing public or private structures, facilities, mechanical equipment or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee on February 15, 2011.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE AN INCREASE TO THE FISCAL YEAR 2010-11 CAPITAL BUDGET IN THE AMOUNT OF \$110,000, FROM \$2,032,800 TO \$2,142,800; APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$110,000, AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONTRACT CHANGE ORDER WITH HALCYON ELECTRIC IN THE AMOUNT OF \$85,700 FOR THE EAST IRVINE ZONE 3 RESERVOIR COMPLEX LIGHTING, PROJECT 11367.

LIST OF EXHIBITS:

- Exhibit "A" – Site Lighting Layout Map
- Exhibit "B" – Bid Summary
- Exhibit "C" – Contract Change Order
- Exhibit "D" – Expenditure Authorization

CONTRACT CHANGE ORDER

Exhibit "C"

IRVINE RANCH WATER DISTRICT
 15600 Sand Canyon Avenue
 Irvine, California 92618
 (949) 453-5300



C.O. No. 2, Page 1 of 1

Final

Project No. 11367

East Irvine Zone 3 Photovoltaic System (Lighting)

Project Title

Date: February 8, 2011

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
1. Lump sum quote for the electrical work required for the East Irvine Zone 3 Reservoir Complex Lighting project.	\$85,700.00	\$-0-	0
TOTAL	\$85,700.00		5

DAYS ±

1. NET AMOUNT THIS CHANGE ORDER	=	\$85,700.00	0
2. ORIGINAL CONTRACT AMOUNT	=	\$1,400,000	270
3. TOTAL PREVIOUS CHANGE ORDER(S)	=	\$4,953.51	0
4. TOTAL BEFORE THIS CHANGE ORDER (2+3)	=	\$1,404,953.51	270
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4)	=	\$1,490,653.51	275

We hereby agree to make the above change subject to the terms of this change order for the sum of: 85,700.00

EIGHTY FIVE THOUSAND SEVEN HUNDRED SEVEN AND 00/100 ----- Dollars

2/9/2011
Date

Halcyon Electric, Inc.
Contractor

By:

SIGNATURE	DATE	APPROVAL LEVEL REQUIRED
	Date	Department Director Approval Required <input type="checkbox"/>
	<u>2/9/11</u>	General Manager Approval Required <input checked="" type="checkbox"/>
	<u>2/9/11</u>	Committee Approval Required <input type="checkbox"/>
Director of Engineering and Construction	Date	Board Approval Required <input type="checkbox"/>
General Manager	Date	By _____ Date _____
		Purchase Order No. _____

NOTE: The documents supporting this Change Order, including any drawings and estimates of cost, if required are attached hereto and made a part hereof. This Change Order shall not be considered as such until it has been signed by the Owner and the Contractor. Upon final approval, distribution of copies will be made as required. The parties mutually agree the pricing set forth in this Change Order are complete and fair compensation for the entirety of the work authorized under this Change Order and that no additional compensation is warranted nor shall it be allowed.

CHANGES: All workmanship and materials called for by this Order shall be fully in accord with the original Contract Documents insofar as the same may be applied without conflict to the conditions set forth by this Order. The time for completing the contract will not be extended unless expressly provided for in this Change Order.

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: EAST IRVINE ZN 3 RESERVOIRS PHOTOVOLTAIC SYSTEM

Project No: 11367 **EA No:** 4

ID Split: Miscellaneous

Improvement District (ID) Allocations

Project Manager: CORTEZ, MALCOLM

Project Engineer: BONKOWSKI, THOMAS

Request Date: February 8, 2011

ID No. Allocation % Source of Funds

<u>ID No.</u>	<u>Allocation %</u>	<u>Source of Funds</u>
112	.7	BONDS YET TO BE SOLD**
113	1.1	BONDS YET TO BE SOLD**
121	3.4	BONDS YET TO BE SOLD**
130	2.6	BONDS YET TO BE SOLD**
135	4.8	PREVIOUSLY SOLD BONDS
140	.9	BONDS YET TO BE SOLD**
150	7.5	BONDS YET TO BE SOLD**
161	1.7	BONDS YET TO BE SOLD**
182	.6	BONDS YET TO BE SOLD**
184	.8	BONDS YET TO BE SOLD**
186	.2	BONDS YET TO BE SOLD**
188	.1	BONDS YET TO BE SOLD**
199	75.6	CAPITAL FUND ENHANCEMENT**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$2,032,800
This Request:	\$110,000
Total EA Requests:	\$2,142,800
Previously Approved Budget:	\$2,032,800
Budget Adjustment Requested this EA:	\$110,000
Updated Budget:	\$2,142,800
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 OUTSIDE	0	0	0	0	0	0	8/10	12/10
ENGINEERING DESIGN - IRWD	0	25,000	25,000	0	25,000	25,000	11/08	3/10
ENGINEERING DESIGN - OUTSIDE	0	150,000	150,000	0	150,000	150,000	1/10	3/10
DESIGN STAFF FIELD SUPPORT	0	5,000	5,000	0	5,000	5,000	1/10	3/10
ENGINEERING - CA&I IRWD	0	30,000	30,000	0	30,000	30,000	4/10	7/11
ENGINEERING - CA&I OUTSIDE	0	25,000	25,000	0	25,000	25,000	4/10	7/11
CONSTRUCTION FIELD SUPPORT	0	10,000	10,000	0	10,000	10,000	4/10	7/11
CONSTRUCTION	100,000	1,600,000	1,700,000	100,000	1,600,000	1,700,000	4/10	7/11
LEGAL	0	3,000	3,000	0	3,000	3,000	11/08	7/11
Contingency - 10.00% Subtotal	\$10,000	\$184,800	\$194,800	\$10,000	\$184,800	\$194,800		
Subtotal (Direct Costs)	\$110,000	\$2,032,800	\$2,142,800	\$110,000	\$2,032,800	\$2,142,800		
Estimated G/A - 195.00% of direct labor*	\$0	\$136,600	\$136,600	\$0	\$136,600	\$136,600		
Total	\$110,000	\$2,169,400	\$2,279,400	\$110,000	\$2,169,400	\$2,279,400		
Direct Labor	\$0	\$70,000	\$70,000	\$0	\$70,000	\$70,000		

*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: _____

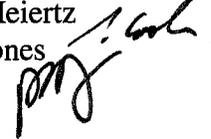
** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$2,325,000. The above-captioned project is further described in the attached staff report and additional 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.

February 28, 2011

Prepared by: K. Welch/P. Weghorst

Submitted by: G. P. Heiertz

Approved by: Paul Jones



ACTION CALENDAR

VARIANCE REQUEST FOR STRAND RANCH CONSTRUCTION MANAGEMENT

SUMMARY:

Staff has requested additional work from Dee Jasper and Associates (DJA) and its subconsultant Wildermuth Environmental, Inc. (WEI) for the Strand Ranch Water Banking Project (Project). This work includes additional well drilling oversight, groundwater flow modeling to be used in the design of the Project well field and construction oversight for modifications to one of the Project transfer structures. Staff has prepared Variance No. 6 to DJA's Professional Services Agreement and requests the Board approve the work in the amount of \$171,550.

BACKGROUND:

In October 2008, the Board approved a contract in the amount of \$214,300 with DJA for construction management of the Strand Ranch Recharge Facilities. Several variances to the contract have been approved including:

- Variance No. 1 in the amount of \$5,240 and Variance No. 2 in the amount of \$9,340 for demolition and destruction of additional wells found on Strand Ranch;
- Variance No. 3 in the amount of \$28,816 to provide on-site inspection services and support for pilot hole drilling and completion of monitoring wells;
- Variance No. 4 in the amount of \$649,528 to provide construction management services for the Strand Ranch Recovery Facilities including subcontracting with WEI for well drilling, well construction and testing oversight; and
- Variance No. 5 in the amount of \$57,590 to provide groundwater modeling for Addendum No. 1 to the Strand Ranch Integrated Banking Project Final Environmental Impact Report (FEIR) and for Cross Valley Canal water level monitoring support services from WEI as a requirement of the FEIR.

Additional work has been requested of DJA and WEI in support of the construction of the Project recovery and recharge facilities. DJA has prepared a variance in support of this additional work for a total of \$171,550. A summary of the requested work items are as follows:

- WEI's additional well construction oversight is needed as a result of sequencing changes in the Strand Ranch well drilling. The original cost estimate and schedule was based on two wells being drilled simultaneously with well construction oversight being performed with one geologist observing two drill and/or development rigs. The well driller was unable to mobilize and begin drilling the first two wells at the same time because of conditions out of their control. As a result, WEI was required to spend more time on oversight of the construction of these two wells for a total additional cost of \$99,000.

Action Calendar: Variance Request for Strand Ranch Construction Management

February 28, 2011

Page 2

- Additional construction management work was required from DJA to provide daily inspection services that include reporting, project coordination, maintenance of records, progress payment preparation and quality control inspections during the processes of bore hole reaming, well construction and pump development. DJA's requested cost is \$23,400.
- WEI was requested to perform groundwater flow modeling in support of the well field design and to assist the District with responses to comments received from the Kern Water Bank Authority and Kern County Water Agency related to Addendum No. 1 of the FEIR. The cost of this additional work is \$37,000.
- DJA will also perform additional construction management in the modification of one of the transfer structures used to move water between the supply channel and recharge basins on the north side of the Cross Valley Canal. This transfer structure was constructed per the designs and specifications for the Project. However, there was an error in the design that does not allow enough head to be developed behind the structure to efficiently move water into the recharge basin on the discharge end. A revised design was prepared for the structure that requires additional steel work to be performed with the structure in place. A change order for Wood Bros to complete this steel work has been executed within the contracting authorities of the General Manager. DJA prepared the change order and will provide construction inspection and testing services for the work for a cost of \$11,050.

DJA has submitted a scope of work for the above work items. The scope of work is included as Exhibit "A". Variance No. 6 to DJA's Professional Services Agreement to perform this work for the amount of \$171,550 is attached as Exhibit "B".

FISCAL IMPACTS:

The Strand Ranch Recovery Facilities, Project 11289, is included in the FY 2010-11 Capital Budget, and staff has determined that sufficient funds exist in the budget contingency to include all of the proposed work in the amount of \$171,550.

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
11289	\$13,162,700	\$0	\$13,162,700	\$11,401,300	\$0	\$11,401,300

ENVIRONMENTAL COMPLIANCE:

A Final Environmental Impact Report has been prepared, certified and the project approved in compliance with the California Environmental Quality Act (CEQA) 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.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee on February 15, 2011.

RECOMMENDATION:

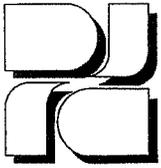
THAT THE BOARD APPROVE VARIANCE NO. 6 TO THE PROFESSIONAL SERVICES AGREEMENT WITH DEE JASPAR AND ASSOCIATES IN THE AMOUNT OF \$171,550 FOR ADDITIONAL WELL DRILLING CONSTRUCTION OVERSIGHT, GROUNDWATER FLOW MODELING AND CONSTRUCTION MANAGEMENT OF STEEL WORK MODIFICATIONS TO AN EXISTING TRANSFER STRUCTURE.

LIST OF EXHIBITS:

Exhibit "A" – Dee Jaspar & Associates Cost Proposal

Exhibit "B" – Variance No. 6 for Dee Jaspar & Associates Professional Services Agreement

Exhibit "A"



DEE JASPAR & ASSOCIATES, INC.
CONSULTING CIVIL ENGINEERS
3701 PEGASUS DRIVE, SUITE 121
BAKERSFIELD, CA 93308
PHONE (661) 393-4796
FAX (661) 393-4799

MEMORANDUM

PREPARED FOR: Paul Weghorst, Principal Water Resources Manager
c/o Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

PREPARED BY: Curtis Skaggs, P.E.
Dee Jaspar & Associates, Inc.
3701 Pegasus Drive, Ste 121
Bakersfield, CA 93308

DATE: January 17th, 2011

PROJECT: Strand Ranch Recharge Facilities Project – Project No. 11289

SUBJECT: Additional Engineering & Construction Management Services
Scope of Work

Additional work has been requested for the Strand Ranch Recharge and Recovery projects. A variance has been prepared for the Extraction Well Construction Oversight as a result of the sequencing of well drilling (Task 1), additional modeling work performed by Wildermuth (Task 2), and the raising of Transfer Structure No. 13 (Task 3). See the scope of work breakdown below.

	<u>Scope of Work</u>	<u>Est. Man Hrs</u>	<u>Hourly Rate</u>	<u>Budget</u>
Task 1:	Provide daily District inspection services as well as inspection during the bore hole reaming and pump development.	180 hrs	\$130/hr	\$23,400
	Wildermuth construction oversight for well drilling, see attached work breakdown and fee schedule.			\$99,700

Task 2:	Wildermuth numerical groundwater flow modeling work related to additional meetings, additional model runs, support meetings, and letter report, see attached work breakdown and fee schedule.			\$37,400
Task 3:	Facilitate drawings to Contractor for raising Transfer Structure No. 13, correspondence with Contractor, preparation of Contract Change Order, and construction inspection and testing.	85 hrs	\$130/hr	\$11,050

The total contract variance is estimated as \$171,550.00. Please let me know if you have any questions or wish to make revisions to the scope of work outlined above.



WILDERMUTH™
ENVIRONMENTAL INC.

January 12, 2011

WEI Project No. 079-001-003

Dee Jaspar & Associates, Inc.
Attn: Dee Jaspar
3701 Pegasus Drive, Ste.121
Bakersfield, CA 93308

Subject: Variance No. 1 for Extraction Well Construction Oversight, Strand Ranch Water Bank

Dear Mr. Jaspar:

We appreciate the opportunity to provide this request for variance concerning the subject project. This variance is a result of the sequencing of well drilling at the Strand Ranch and our commitment to well construction oversight. Our original cost estimate and schedule were based on two wells being drilled simultaneously, with well construction oversight being performed with one geologist observing two drill and/or development rigs. Because the drilling contractor, Bakersfield Well and Pump, were not able to mobilize and begin drilling the first two wells (SREX-3 and SREX-4) at the same time, WEI was required to spend more time on well construction oversight than originally estimated.

We have prepared a variance to the original estimate, dated March 26, 2010, to cover the cost of this additional labor. This variance will cover the additional cost of the original overrun, and provides for the construction oversight of the next two wells regardless of when the wells are drilled. The total requested variance is approximately \$99,000. Details of the cost breakdown are provided in the attached work breakdown structure and fee schedule. Again, WEI appreciates the opportunity to work on this project and please feel free to contact Mark or me with any questions.

Sincerely,

Mark J. Wildermuth, PE
President

Bill Leever, PG, CHG
Project Manager

Enclosure: Variance No. 1 Work Breakdown Structure and Fee Schedule



WILDERMUTH™
ENVIRONMENTAL INC.

January 12, 2011

WEI Project No. 079-002-001

Dee Jaspar & Associates, Inc.
Attn: Dee Jaspar
3701 Pegasus Drive, Ste.121
Bakersfield, CA 93308

Subject: Variance No. 1 for the Development of a Groundwater Flow Model of the Strand Ranch Water Bank

Dear Mr. Jaspar:

We appreciate the opportunity to provide this request for variance concerning the subject project. This variance is for services related to the numerical groundwater flow modeling performed for the Strand Ranch Water Bank extraction facilities design. The variance covers labor and meetings not originally included in the Scope of Work, including:

- 1) Modeling of drawdown under the influence of all extraction wells (including ag and domestic) within one mile of the Strand Ranch.
- 2) Additional meetings with IRWD to discuss the modeling results
- 3) Addition of modeling scenarios and analysis for multiple Strand Ranch extraction well layouts.

Additionally, this variance includes the addition of the following tasks, as requested by IRWD:

- 1) Updating and re-running the drawdown analysis using newly derived aquifer hydraulic properties derived from the development and testing of the new Strand Ranch extraction wells (SREX-3, -4, -5 and -7).
- 2) One additional model run, as needed.
- 3) Preparing response to comments from the KWBA on the EIR Addendum No. 1.
- 4) Support IRWD in meetings with the KWBA and KCWA on the EIR Addendum No. 1.
- 5) Prepare a letter report on the results of the modeling performed under Item 1.

We have prepared a variance to the original estimate, dated October 6, 2010, to cover the cost of this additional labor. The total requested variance is approximately \$37,000. Details of the cost breakdown are provided in the attached work breakdown structure and fee schedule. Again, WEI appreciates the opportunity to work on this project and please feel free to contact Mark or me with any questions.

Sincerely,

Mark J. Wildermuth, PE
President

Bill Leever, PG, CHG
Project Manager

Enclosure: Variance No. 1 Work Breakdown Structure and Fee Schedule

Table 1: Work Breakdown Structure and Fee Estimate

Variance No. 1 Develop a Numerical Groundwater Flow Model, Strand Ranch Water Bank, Irvine Ranch Water District

Description	Labor			Total Program Costs	
	Principal III	Principal I, II	Staff	Task	Project
	Daily Rate	\$1,800	\$1,640	\$1,440	
Variance to Original Scope of Work (already completed)				\$11,660	
1		2		\$3,280	
2	0.1	2		\$3,460	
3		3		\$4,920	
New Scope of Work Items (to be completed)				\$25,740	
1		2		\$3,280	
2		1		\$1,640	
3		4	1	\$8,000	
4		2		\$3,280	
5		3	1	\$6,360	
6		0.5		\$820	
7		1	0.5	\$2,360	
Total Variance to Contract				\$37,400	

Exhibit "B"

IRVINE RANCH WATER DISTRICT PROFESSIONAL SERVICES VARIANCE

Project Title: Strand Ranch Recharge Facilities Project File No.: _____
 Date: January 17, 2011
 Variance No.: _____
 Project No.: 11289 Project No. 11289
 Purchase Order No.: _____

Originator: IRWD ENGINEER/CONSULTANT Other (Explain) _____

Description of Variance (attach any back-up material):
Additional work related to Strand Ranch Extraction Well Drilling Construction oversight, Strand Ranch numerical groundwater flow modeling, and modifications to Transfer Structure No. 13.

Engineering & Management Cost Impact:

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
Well Drilling Construction Oversight	180	\$130.00	\$23,400.00		\$99,700.00	\$123,100.00
Groundwater Flow Modeling					\$37,400.00	\$37,400.00
Modifications to Transfer Struct. #13	85	\$130.00	\$11,050.00			\$11,050.00
Total \$ =						\$171,550.00

Schedule Impact:

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule

Required Approval Determination:

Total Original Contract	\$ <u>214,300.00</u>	<input type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000.
Previous Variances	\$ <u>750,514.00</u>	<input type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000.
This Variance	\$ <u>171,550.00</u>	<input type="checkbox"/> Board: Single Variance greater than \$60,000.
Total Sum of Variances	\$ <u>922,064.00</u>	<input type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher.
New Contract Amount	\$ <u>1,136,364.00</u>	
Percentage of Total Variances to Original Contract	<u>530.27 %</u>	

ENGINEER/CONSULTANT: Dee Jasper & Assoc., Inc.
 Company Name

IRVINE RANCH WATER DISTRICT

Christina M. Allyn 1/18/11
 Project Engineer/Manager Date
[Signature] 1/18/11
 Engineer's/Consultant's Management Date

 Department Director Date

 General Manager/Comm./Board Date

February 28, 2011

Prepared by: J. Smyth/M. Cortez

Submitted by: K. Burton

Approved by: Paul Jones

ACTION CALENDAR

OPERATIONS CENTER FACILITIES EXPANSION PHASE 1 MEZZANINE CONVERSION CONSTRUCTION AWARD

SUMMARY:

This project will convert the existing warehouse mezzanine within the Michelson Operations Center to office space and install seismic upgrades to the warehouse. The project was advertised for construction in December 2010 and bids were received from three contractors. In addition, staff negotiated a scope and fee with Malcolm Pirnie for construction management and inspection services. Staff recommends that the Board:

- Approve a budget reduction in the amount of \$1,876,000 each from \$3,015,200 to \$1,139,200 for Projects 11422, 21422, and 31422;
- Approve Expenditure Authorizations for Projects 11422, 21422, and 31422 in the amount of \$496,400 each;
- Authorize the General Manager to execute a sole-source Professional Services Agreement with Malcolm Pirnie, in the amount of \$92,748, for construction management and inspection services; and
- Authorize the General Manager to execute a construction contract with Snyder Langston in the amount of \$722,361.

BACKGROUND:

RRM Design Group (RRM) was retained to develop plans and specifications for additional office space within the Michelson Operations Center by converting storage space at the warehouse mezzanine into offices. RRM's design also included seismic upgrades to the existing warehouse. The mezzanine conversion will provide an additional 2,246 square feet of office space to accommodate present and future operations staffing levels. A Location Map is attached as Exhibit "A".

Construction Phase Consulting Services:

This project requires extensive coordination to minimize disruption to the Purchasing Department's office space, the IRWD warehouse, and administrative areas of the Michelson Operations Center. The project will also require ongoing coordination with the other current construction projects at MWRP, namely the Phase 2 Expansion and Operation Center Facilities Expansion Phase 1 Storage Building.

Staff requested a proposal from Malcolm Pirnie to provide construction management and inspection services for this project. Malcolm Pirnie is currently providing key personnel for construction management and inspection to augment the MWRP Phase 2 Expansion team. Malcolm Pirnie was selected for the MWRP Phase 2 Expansion team following an extensive

competitive consultant selection process in 2008. Malcolm-Pirnie’s on-site staff has exhibited extensive knowledge of building inspection and will be an asset to the Mezzanine Conversion project. Staff recommends awarding a sole-source Professional Services Agreement to Malcolm Pirnie in the amount of \$92,748 to provide construction management and inspection for the project. Staff has reviewed Malcolm Pirnie’s proposal, provided as Exhibit “B”, and finds their scope and fee to be reasonable.

Mezzanine Conversion Construction Award:

The mezzanine conversion construction project was advertised for bid on December 2, 2010 to a select list of five contractors: Philco Construction, Snyder Langston, Spectra Company, Miller Contracting, and Lacy Construction. Four contractors, Philco Construction, Snyder Langston, Miller Contracting, and Lacy Construction, attended the mandatory pre-bid meeting on December 13, 2010. Lacy Construction subsequently declined to bid stating they were not able to meet the bonding requirements. The bid opening was held on February 2, 2011 with bids received from Philco Construction, Snyder Langston, and Miller Contracting. Snyder Langston is the apparent low bidder with a bid amount of \$722,361. The engineer’s estimate was \$741,735. A Bid Summary is attached as Exhibit “C”.

FISCAL IMPACTS:

Projects 11422, 21422 and 31422 are included in the FY 2010-11 Capital Budget. Staff requests budget reductions and approval of Expenditure Authorizations to fund the construction 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
11422	\$3,015,200	<\$1,876,000>	\$1,139,200	\$ 642,800	\$ 496,400	\$1,139,200
21422	\$3,015,200	<\$1,876,000>	\$1,139,200	\$ 642,800	\$ 496,400	\$1,139,200
31422	\$3,015,200	<\$1,876,000>	\$1,139,200	\$ 642,800	\$ 496,400	\$1,139,200
Total	\$9,045,600	<\$5,628,000>	\$3,417,600	\$1,928,400	\$1,489,200	\$3,417,600

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 which provides exemption for minor alterations of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. A Notice of Exemption for the project was filed on February 15, 2011.

COMMITTEE STATUS:

The Construction Phase Consulting Services section of this item was reviewed at the Engineering and Operations Committee on February 15, 2011. Construction awards are not routinely taken to Committee prior to submittal for Board approval.

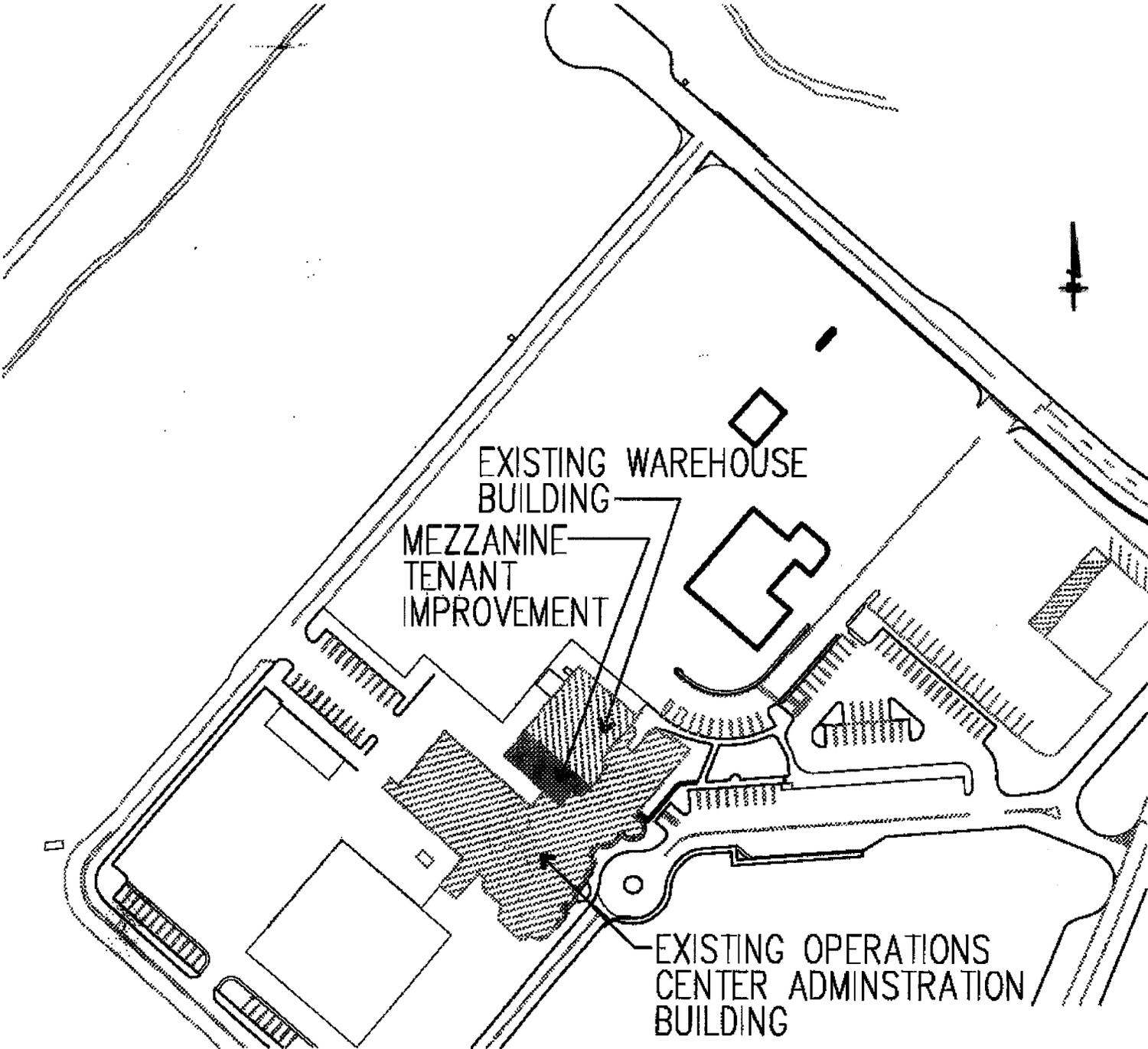
RECOMMENDATION:

THAT THE BOARD APPROVE A BUDGET REDUCTION IN THE AMOUNT OF \$1,876,000 EACH FROM \$3,015,200 TO \$1,139,200 FOR PROJECTS 11422, 21422, AND 31422; APPROVE EXPENDITURE AUTHORIZATIONS IN THE AMOUNT OF \$496,400 EACH FOR PROJECTS 11422, 21422, AND 31422; AUTHORIZE THE GENERAL MANAGER TO EXECUTE A SOLE-SOURCE PROFESSIONAL SERVICES AGREEMENT WITH MALCOLM PIRNIE, IN THE AMOUNT OF \$92,748, FOR CONSTRUCTION MANAGEMENT AND INSPECTION SERVICES; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH SNYDER LANGSTON IN THE AMOUNT OF \$722,361 FOR THE OPERATIONS CENTER FACILITIES EXPANSION PHASE I MEZZANINE CONVERSION, PROJECTS 11422, 21422 AND 31422.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Malcolm Pirnie Proposal for Construction Phase Services
- Exhibit "C" – Bid Summary
- Exhibit "D" – Expenditure Authorizations

Exhibit "A"



LOCATION MAP

Exhibit "B"



The Water Division of ARCADIS

ARCADIS U.S., Inc.
8001 Irvine Center Drive
Suite 1100
Irvine
California 92618
Tel 949.450.9901
Fax 949.450.9902

February 9, 2011

Mr. Malcolm Cortez
Principal Engineer
Irvine Ranch Water District
3512 Michelson Drive
Irvine, CA 92612

Subject: Proposal - Construction Inspection Services for Operations Center Expansion Project Phase I – Mezzanine Conversion (PR 11422, 21422, and 31422)

Dear Mr. Cortez:

It is my pleasure to submit to you this letter proposal to provide construction inspection and construction management services for the Operations Center Expansion Project Phase I – Mezzanine Conversion (PR 11422, 21422, and 31422). We propose Glenn Suchor, Sr. Construction Inspector, to perform the inspection services and Ron Esmilla, Sr. Resident Engineer, to perform the construction management services. Glenn and Ron are currently providing inspection services for the MWRP Phase 2 Expansion and Flood Protection Improvements project (PR 20214, 20542, 30214, and 30542).

The inspection and construction management services will include:

1. Providing daily construction observation and inspection services to determine if the work performed is in substantial conformance with the Construction Contract Documents.
2. Recording and reporting any deviations from the Construction Contract Documents.
3. Preparing observer's daily reports and submitting them on a regular, timely basis.
4. Coordinating construction activities with the Irvine Ranch Water District staff, contractor, public agencies, and other pertinent parties.
5. Assisting in the review of construction progress payments.
6. Taking construction photos.
7. Attending construction meetings.
8. Processing submittals and RFIs.

We propose to use the same hourly rates and schedule as MWRP Phase 2 Expansion and Flood Protection Improvements to perform the work.

For Glenn Suchor, we assumed 1.5 hours a day. His rates and schedule are:

1. From April 1, 2011 to August 31, 2011, a rate of \$135.83 for a cost of \$17,318.33, and
2. From September 1, 2011 to March 31, 2012, a rate of \$141.61 for a cost of \$37,172.63.

Use or disclosure of information contained on this sheet is subject to the restriction and disclaimer located on the signature page of this document.

February 9, 2011

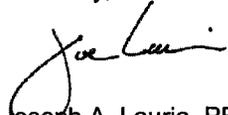
For Ron Esmilla, we assumed 4 hours a week. His rate and schedule are:

1. From April 1, 2011 to March 31, 2012, a rate of \$183.93 for a cost of \$38,257.44.

The total cost of this proposal is \$92,748.40.

Should you have any questions, please do not hesitate in contacting me at (949) 450-7900.

Sincerely,



Joseph A. Lauria, PE
Vice President

This proposal and its contents shall not be duplicated, used or disclosed — in whole or in part — for any purpose other than to evaluate the proposal. This proposal is not intended to be binding or form the terms of a contract. The scope and price of this proposal will be superseded by the contract. If this proposal is accepted and a contract is awarded to ARCADIS as a result of — or in connection with — the submission of this proposal, ARCADIS and/or the client shall have the right to make appropriate revisions of its terms, including scope and price, for purposes of the contract. Further, client shall have the right to duplicate, use or disclose the data contained in this proposal only to the extent provided in the resulting contract.

Page:

2/2

Bid Opening: Wednesday, February 2, 2011
@ 2:00 P.M.

Irvine Ranch Water District Bid Summary For
Operations Center Expansion Project Phase 2- Mezzanine Conversion
PR 11422, 21422, 31422

Entered By: J.K. Irely

Item No.	Description	Engineer's Estimate			1 Snyder Langston Irvine, CA			2 Miller Contracting Co. Irvine, CA			3 PhilCo Construction Inc. Orange, CA		
		Qty	Unit	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	
31	Fire Suppression Piping	1	LS	\$23,000.00	\$23,000.00	\$15,877.00	\$15,877.00	\$25,488.00	\$25,488.00	\$19,400.00	\$19,400.00		
32	Ventilation and Air Conditioning	1	LS	\$188,240.00	\$188,240.00	\$201,762.00	\$201,762.00	\$236,085.00	\$236,085.00	\$249,770.00	\$249,770.00		
33	Electrical power and lighting	1	LS	\$29,813.00	\$29,813.00	\$53,124.00	\$53,124.00	\$34,510.00	\$34,510.00	\$50,630.00	\$50,630.00		
34	Final record drawings	1	LS	\$5,000.00	\$5,000.00	\$0.00	\$0.00	\$1,840.00	\$1,840.00	\$2,300.00	\$2,300.00		
35	Startup, testing, and commissioning	1	LS	\$2,400.00	\$2,400.00	\$0.00	\$0.00	\$615.00	\$615.00	\$6,200.00	\$6,200.00		
36	Demobilization and restoration of temporary facilities/staging area to	1	LS	\$7,800.00	\$7,800.00	\$2,092.00	\$2,092.00	\$3,310.00	\$3,310.00	\$6,300.00	\$6,300.00		
A-1	Subtotal, Base Bid Items 1 thru 19			\$738,235.00		\$719,861.00		\$756,395.00		\$849,077.00			
	Alternative Item: Builder's "All-			\$3,500.00		\$2,500.00		\$1,500.00		\$3,500.00			
	Sub-Total, Bid Items 1 thru 19 + A1			\$741,735.00		\$722,361.00		\$757,895.00		\$852,577.00			
	Adjustment (+ or -)			\$0.00		\$0.00		\$15,662.00		\$14,300.00			
	Total Amount of Bid			\$741,735.00		\$722,361.00		\$773,557.00		\$866,877.00			
						Item Delivery Dates:		Item Delivery Dates:		Item Delivery Dates:			
						Trane Air Handling unit: 56 days		Won-Door Fire Accordion Door		Simpson Hardware: 5 days			
						Structural Steel Ramp: 14 days		Pallet Racks: 49 days		Hardware: 5 days			
						Exterior Stairs: 21 days		Trane Air Handler: 63 days		Hilti Epoxy: 5 days			
						Folding Fire Partition Door: 70		Balco Expansion Joint Assy: 21		Lumber: 5 days			
								Carpet Tiles: 70 days		Stairs: 13 days Fab/4 days Ere			
										Mezz Steel/Deck: 3 day Fab/7			
										Strength & Retro: 1 day Fab/5			
										Shop Drawings & FM: 8-10 W			
										Carpet Tiles: 8-10 Weeks			
										Base & Rubber: 5 Days			
										Electrical Fixture Pkg: 4-6 W			
										Manufacturers:			
										Hardware: Simpson Strong-Tie			
										ART, MB, Nuts & Washers:			
										Epoxy HIT-HY-IJO: Hilti Corp.			
										Lumber: Reliable Lumber			
										Misc. Steel: Scheu Steel			
										Structural Steel: Macsteel			
										Bolts: Cordova Bolts			
										Galvanizing: L.A. Galvanizing			
										Fortune Carpet Tiles: Fortune			
										Base: Johnsonite or Burke			
										Paint: Frazee			
										Cast Iron Pipe: Tyler			

IRVINE RANCH WATER DISTRICT

EXHIBIT "D"

Expenditure Authorization

Project Name: OPS CENTER IMPROVEMENTS PH1 (50 STORAGE, MEZZ)

Project No: 11422 EA No: 4

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

Improvement District (ID) Allocations

Project Manager: CORTEZ, MALCOLM

Project Engineer: SMYTH, JEFFREY

Request Date: February 16, 2011

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:	\$642,800
This Request:	\$496,400
Total EA Requests:	\$1,139,200
Previously Approved Budget:	\$3,015,200
Budget Adjustment Requested this EA:	(\$1,876,000)
Updated Budget:	\$1,139,200
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 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	11/10
ENGINEERING DESIGN - OUTSIDE	0	255,000	255,000	0	255,000	255,000	12/08	11/10
DESIGN STAFF FIELD SUPPORT	0	2,500	2,500	0	2,500	2,500	12/08	11/10
ENGINEERING - CA&I IRWD	18,000	22,000	40,000	0	40,000	40,000	1/11	6/13
ENGINEERING - CA&I OUTSIDE	54,000	46,000	100,000	0	100,000	100,000	2/11	6/13
CONSTRUCTION FIELD SUPPORT	1,000	9,000	10,000	0	10,000	10,000	2/11	6/13
ENGINEERING - GIS IRWD	3,000	2,000	5,000	0	5,000	5,000	7/13	6/14
CONSTRUCTION	345,000	255,000	600,000	(1,836,000)	2,436,000	600,000	3/11	6/13
LEGAL	2,500	3,000	5,500	0	5,500	5,500	2/11	6/13
Contingency - 10.00% Subtotal	\$72,900	\$30,800	\$103,700	(\$40,000)	\$143,700	\$103,700		
Subtotal (Direct Costs)	\$496,400	\$642,800	\$1,139,200	(\$1,876,000)	\$3,015,200	\$1,139,200		
Estimated G/A - 195.00% of direct labor*	\$42,900	\$103,400	\$146,300	\$0	\$146,300	\$146,300		
Total	\$539,300	\$746,200	\$1,285,500	(\$1,876,000)	\$3,161,500	\$1,285,500		
Direct Labor	\$22,000	\$53,000	\$75,000	\$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: Jeff Smith 2/17/11

Department Director: Kevin J. B... 2/18/11

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 \$1,312,000. TI additional documents, if any, which are hereby incorporated by reference to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: OPS CENTER IMPROVEMENTS PH1 (50 STORAGE, MEZZ)

Project No: 21422 EA No: 4

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

Improvement District (ID) Allocations

Project Manager: CORTEZ, MALCOLM

Project Engineer: SMYTH, JEFFREY

Request Date: February 16, 2011

ID No. Allocation % Source of Funds

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:	\$642,800
This Request:	\$496,400
Total EA Requests:	\$1,139,200
Previously Approved Budget:	\$3,015,200
Budget Adjustment Requested this EA:	(\$1,876,000)
Updated Budget:	\$1,139,200
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 DESIGN - IRWD	0	17,500	17,500	0	17,500	17,500	12/08	6/11
ENGINEERING DESIGN - OUTSIDE	0	255,000	255,000	0	255,000	255,000	12/08	6/11
DESIGN STAFF FIELD SUPPORT	0	2,500	2,500	0	2,500	2,500	12/08	6/11
ENGINEERING - CA&I IRWD	18,000	22,000	40,000	0	40,000	40,000	7/11	6/13
ENGINEERING - CA&I OUTSIDE	54,000	46,000	100,000	0	100,000	100,000	8/11	6/13
CONSTRUCTION FIELD SUPPORT	1,000	9,000	10,000	0	10,000	10,000	9/11	6/13
ENGINEERING - GIS IRWD	3,000	2,000	5,000	0	5,000	5,000	7/13	6/14
CONSTRUCTION	345,000	255,000	600,000	(1,836,000)	2,436,000	600,000	9/11	6/13
LEGAL	2,500	3,000	5,500	0	5,500	5,500	7/11	6/13
Contingency - 10.00% Subtotal	\$72,900	\$30,800	\$103,700	(\$40,000)	\$143,700	\$103,700		
Subtotal (Direct Costs)	\$496,400	\$642,800	\$1,139,200	(\$1,876,000)	\$3,015,200	\$1,139,200		
Estimated G/A - 195.00% of direct labor*	\$42,900	\$103,400	\$146,300	\$0	\$146,300	\$146,300		
Total	\$539,300	\$746,200	\$1,285,500	(\$1,876,000)	\$3,161,500	\$1,285,500		
Direct Labor	\$22,000	\$53,000	\$75,000	\$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 \$1,312,000. additional documents, if any, which are hereby incorporated by reference into this authorization. The intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: OPS CENTER IMPROVEMENTS PH1 (50 STORAGE, MEZZ)

Project No: 31422 EA No: 4

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

Improvement District (ID) Allocations

Project Manager: CORTEZ, MALCOLM

Project Engineer: SMYTH, JEFFREY

Request Date: February 16, 2011

ID No. Allocation % Source of Funds

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:	\$642,800
This Request:	\$496,400
Total EA Requests:	\$1,139,200
Previously Approved Budget:	\$3,015,200
Budget Adjustment Requested this EA:	(\$1,876,000)
Updated Budget:	\$1,139,200
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 DESIGN - IRWD	0	17,500	17,500	0	17,500	17,500	12/08	6/11
ENGINEERING DESIGN - OUTSIDE	0	255,000	255,000	0	255,000	255,000	12/08	6/11
DESIGN STAFF FIELD SUPPORT	0	2,500	2,500	0	2,500	2,500	12/08	6/11
ENGINEERING - CA&I IRWD	18,000	22,000	40,000	0	40,000	40,000	7/11	6/13
ENGINEERING - CA&I OUTSIDE	54,000	46,000	100,000	0	100,000	100,000	8/11	6/13
CONSTRUCTION FIELD SUPPORT	1,000	9,000	10,000	0	10,000	10,000	9/11	6/13
ENGINEERING - GIS IRWD	3,000	2,000	5,000	0	5,000	5,000	7/13	6/14
CONSTRUCTION	345,000	255,000	600,000	(1,836,000)	2,436,000	600,000	9/11	6/13
LEGAL	2,500	3,000	5,500	0	5,500	5,500	7/11	6/13
Contingency - 10.00% Subtotal	\$72,900	\$30,800	\$103,700	(\$40,000)	\$143,700	\$103,700		
Subtotal (Direct Costs)	\$496,400	\$642,800	\$1,139,200	(\$1,876,000)	\$3,015,200	\$1,139,200		
Estimated G/A - 195.00% of direct labor*	\$42,900	\$103,400	\$146,300	\$0	\$146,300	\$146,300		
Total	\$539,300	\$746,200	\$1,285,500	(\$1,876,000)	\$3,161,500	\$1,285,500		
Direct Labor	\$22,000	\$53,000	\$75,000	\$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 expenses incurred by IRWD in a maximum principal amount of \$1,312, additional documents, if any, which are hereby incorporated by project is made under Treasury Regulation Section 1.150-2.

D-3

to be reimbursed with proceeds of future debt to be further described in the attached staff report and fiscal intent to reimburse costs of the above-captioned

February 28, 2011
Prepared by: J. McGehee/P. Uematsu
Submitted by: K. Burton
Approved by: Paul Jones

Handwritten initials and signatures:
J.M. RKM
K.B.
P.U.
P.J.

ACTION CALENDAR

**SAN JOAQUIN MARSH REGIONAL NATURAL TREATMENT SYSTEM
FACILITY NO. 62 AND SMALL AREA MITIGATION SITE 1
CONSULTANT SELECTIONS**

SUMMARY:

The Preliminary Design Report for the San Joaquin Marsh Regional Natural Treatment System (NTS) Facility No. 62 and Small Area Mitigation Site 1 (SAMS 1) has been completed by CH2M Hill and a viable project alternative has been determined. Staff has worked with CH2M Hill to develop an acceptable final design scope and budget. Staff also completed a review of proposals submitted by three consultants for the permitting and environmental compliance requirements for the project. Staff recommends that the Board:

- Approve an Expenditure Authorization for Project 10835 in the amount of \$528,000;
- Authorize the General Manager to execute a Sole Source Professional Services Agreement in the amount of \$301,677 with CH2M Hill for the preparation of construction plans and specifications the San Joaquin Marsh Regional NTS Facility No. 62 and SAMS 1; and
- Authorize the General Manager to execute a Professional Services Agreement in the amount of \$145,994 with Dudek for the permitting and environmental compliance requirements for the San Joaquin Marsh Regional NTS Facility No. 62 and SAMS 1, Project 10835.

BACKGROUND:

The proposed San Joaquin Marsh Regional NTS Site 62 is located within the City of Irvine, west of Campus Drive and southwest of the existing San Joaquin Marsh water quality treatment wetlands (Site 46) operated by IRWD. Site 62 is also located adjacent to SAMS 1, an existing riparian habitat created by the Irvine Company (TIC) in June 1990 as a consolidated 16.9 acre mitigation site to address impacts for several of TIC's projects. The planting scheme and water delivery system for SAMS 1 are in a state of decline and require rehabilitation to achieve the original site mitigation goals. Surrounding land uses also include the San Diego Creek Channel (SDCC) to the southeast and the University of California Natural Reserve System (UCNRS) to the west. A Location Map is attached as Exhibit "A."

The IRWD Board approved the execution of a Professional Services Agreement with CH2M Hill in February 2010 to complete a Preliminary Design Report (PDR) for the project. The objective of the PDR was to analyze the existing site conditions, the basis for the preliminary design, and the final design criteria for the proposed NTS facility. This included technical engineering issues, construction requirements, regulatory requirements, operational and maintenance considerations, and community concerns.

The purpose of the proposed project is to improve the quality of surface water runoff within the San Diego Creek watershed. By improving the water quality of San Diego Creek, NTS Site 62 will help meet the established Total Maximum Daily Load (TMDL) objectives for the watershed including nitrogen, sediment, phosphorus, pathogens, pesticides, and selenium. Additional goals of the project are to enhance the habitat and ecosystem of the existing SAMS 1 site and provide aesthetic improvement of the area for the community. The SAMS 1 is an area of interest for the permitting resource agencies due to its current deteriorated condition and need for an improved watering system.

The recommended NTS Site 62 project will result in NTS wetland that would treat SDCC flow during storm events and provide additional treatment to Site 46 outflow during dry conditions. Depending on flow conditions in SDCC, either Site 46 outflow or storm flow from SDCC would be pumped to the site and first flow through SAMS 1 in a small channel. Flows would then be directed to variable depth wetlands on Site 62. During dry conditions, up to 2 cfs of Site 46 outflow would be pumped to the wetlands through a new pipeline along SDCC. This would establish continual low-flow wetlands at SAMS 1/Site 62. Under storm conditions, up to 10 cfs could be pumped to the site from the SDCC by the existing pump station through the same pipeline used to convey outflow from Site 42. In the event of a long duration storm, water could be backed up into SAMS 1, inundating greater portions of the site. Water would eventually drain back to SDCC by gravity through the outlet structure at the southeast corner of Site 62.

SAMS 1 is anticipated to provide considerable benefit from these proposed improvements, combining the seasonal flood hydrology favored by cottonwood-willow woodlands, with the perennial wet conditions favored by riparian willow forests along the low-flow channel. The entire site would benefit from the regular inundation, and a corridor of riparian willow would benefit along the low-flow channel. The benefit to Site 62 would be a perennial wetland with emergent vegetation and established open water.

The project will provide important water quality and habitat benefits and offer potential treatment performance similar in magnitude to that measured at other IRWD NTS facilities. The recommended alternative was found to remove the greatest mass of nitrate and selenium and would appear to offer the greatest benefit to Newport Bay. The PDR Executive Summary is included as Exhibit "B".

EPA Grant Funding:

Grant funding has been approved from the EPA for a 46.70% cost-share of the total project cost, up to \$992,800. This amount can be applied to the preliminary design, final design, and construction of the South San Joaquin Marsh Natural Treatment System for dry-weather flows diverted from San Diego Creek. The total project cost is estimated at \$2,350,000, and it is anticipated that the full \$992,800 EPA grant will be utilized.

Schedule:

A Notice of Award for the EPA Grant Funding was received in July 2007, and a project extension was granted in October 2009. The current EPA Grant Schedule requires billing for the project to be complete by December 2012. If approved by the Board this month as recommended, design and permitting for the project will commence in March 2011 and will take approximately ten months to complete. Construction is expected to begin no later than March 2012 and take eight months to complete, which is within the EPA's grant funding stipulation.

Final Design Consultant Selection:

CH2M Hill was selected out of four consultants, based upon qualifications, for the PDR phase of the project in February 2010. Staff worked closely with CH2M Hill during the development of the PDR, and CH2M Hill developed several innovative design solutions. Their design utilized the existing San Diego Creek and San Joaquin Marsh pump stations, thus eliminating the costly expense of bringing power to the NTS site. Their understanding of the native biology is providing an improved SAMS 1 hydration system which will improve the existing habitat. Their wetlands design criteria for the new NTS Site 62 were reviewed and found acceptable by the resource agencies. They were also very proactive in completing the preliminary design, which included early coordination with all permitting resource agencies and the UCNRS. Staff believes the design experience and skilled resource agency coordination staff that CH2M Hill possesses are unique to completing the final design of the project within the schedule stipulated by the EPA grant funding requirements. Staff recommends awarding Sole Source Professional Services Agreement to CH2M Hill in the amount of \$301,677, based on their understanding of the project, excellent qualifications, and performance in the PDR phase. CH2M Hill's Scope of Work is included in Exhibit "C".

Environmental Compliance and Permitting Consultant Selection:

Staff requested proposals to provide environmental compliance and permitting services from three consultants; ICF International (ICFI), LSA, and Dudek, with ICFI declining to submit. Staff's evaluation of the proposals is summarized in the Consultant Ranking Matrix attached as Exhibit "D". Staff recommends awarding the project to Dudek in the amount of \$145,994, based on their outstanding proposal, knowledge and understanding of key issues, and excellent qualifications of their project team. Dudek's proposed scope of work is included in Exhibit "E".

FISCAL IMPACTS:

Project 10835 is included in the FY 2010-11 Capital Budget. Funds are requested for the preparation of construction plans and specifications and project management by CH2M Hill and for permitting and environmental compliance by Dudek. An Expenditure Authorization is requested as shown in the table below and in Exhibit "F".

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
10835	\$2,249,500	\$-0-	\$2,249,500	\$280,500	\$528,000	\$808,500

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, the appropriate environmental document (Categorical Exemption or Mitigated Negative Declaration) will be prepared when additional project information becomes available.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee on February 15, 2011.

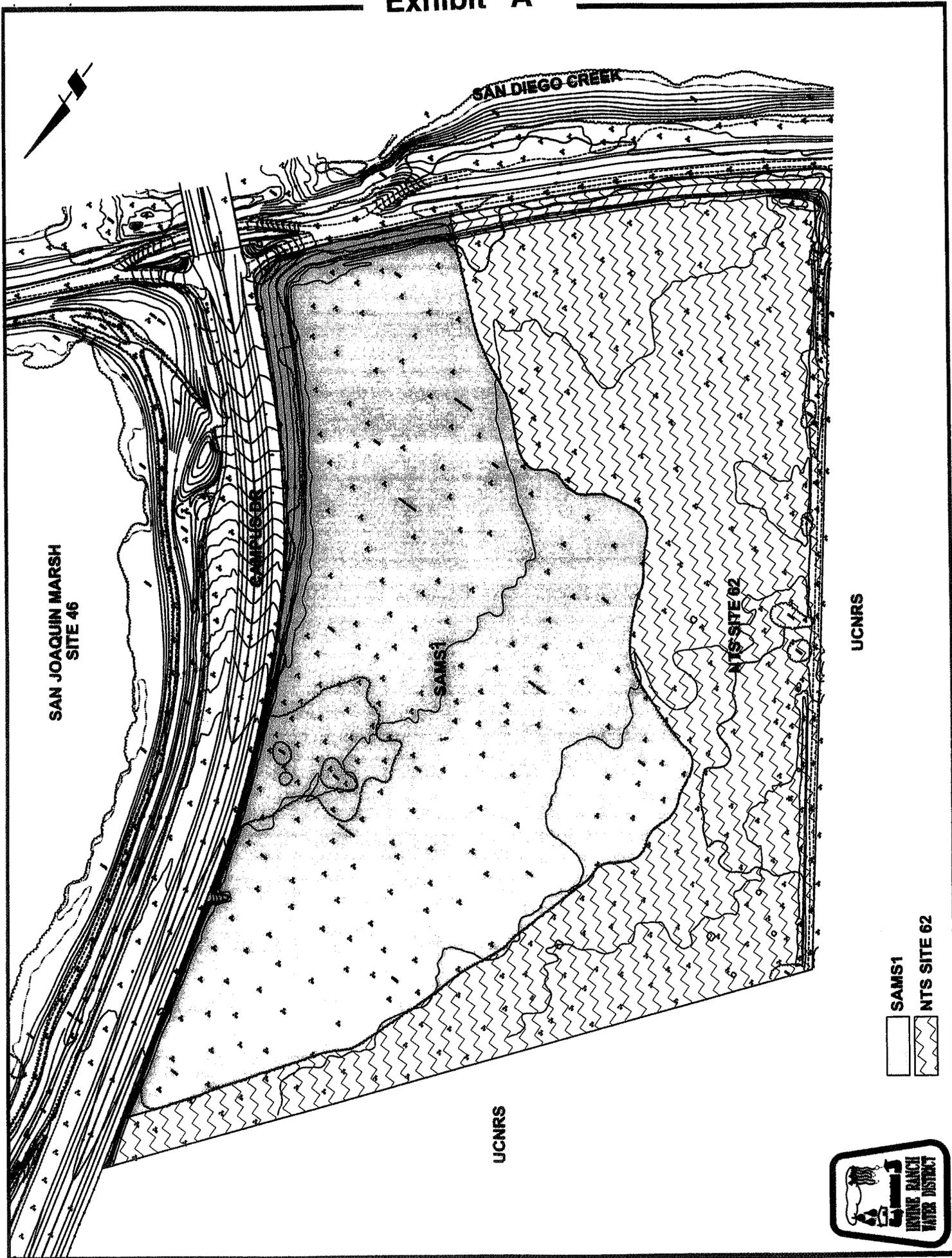
RECOMMENDATION:

THAT THE BOARD APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$528,000 FOR PROJECT 10835; AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT IN THE AMOUNT OF \$301,677 WITH CH2M HILL FOR THE PREPARATION OF CONSTRUCTION PLANS AND SPECIFICATIONS; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT IN THE AMOUNT OF \$145,994 WITH DUDEK FOR THE PERMITTING AND ENVIRONMENTAL COMPLIANCE OF THE SAN JOAQUIN MARSH REGIONAL NTS FACILITY NO. 62 AND SMALL AREA MITIGATION SITE 1, PROJECT 10835.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – PDR Executive Summary
- Exhibit "C" – CH2M Hill Scope of Work
- Exhibit "D" – CEQA/Permitting Consultant Ranking Matrix
- Exhibit "E" – Dudek Scope of Work
- Exhibit "F" – Expenditure Authorization

Exhibit "A"



SAN JOAQUIN MARSH
SITE 46

SAN DIEGO CREEK

SAMS1

NTS SITE 62

UCNRS

UCNRS

SAMS1

NTS SITE 62



Executive Summary

Project Description and Purpose

The Irvine Ranch Water District (IRWD) is evaluating the feasibility and benefits of developing a wetland system composed of the San Joaquin Marsh Regional Natural Treatment System (NTS) Facility Number 62 (Site 62) and Small Area Mitigation Site 1 (SAMS1), as identified conceptually in the **District's Natural Treatment System Master Plan** (NTS Master Plan). CH2M HILL has been retained to prepare a Preliminary Design Report (PDR), utilizing information available from previously completed studies and factoring in IRWD's existing and future needs. **Site conditions and constraints were evaluated**, conceptual alternatives were developed and compared, and a recommended alternative was selected and refined.

The purpose of the project is to improve the quality of surface water runoff within the San Diego Creek watershed. By improving the water quality of San Diego Creek the NTS Facility is assisting in meeting the established Total Maximum Daily Loads (TMDL) for the watershed including nitrogen, sediment, phosphorus, pathogens, pesticides, organochlorine compounds and selenium. Additional goals of the project are to enhance the habitat and ecosystem of the SAMS1 site and provide aesthetic improvement of the area for the community.

IRWD received a grant dated July 20, 2007 in the amount of \$992,800 from the Environmental Protection Agency (EPA) for the project. The grant is a cost share grant whereby EPA will pay for 46.70% of all approved costs incurred up to and not to exceed total federal funding of \$992,800.

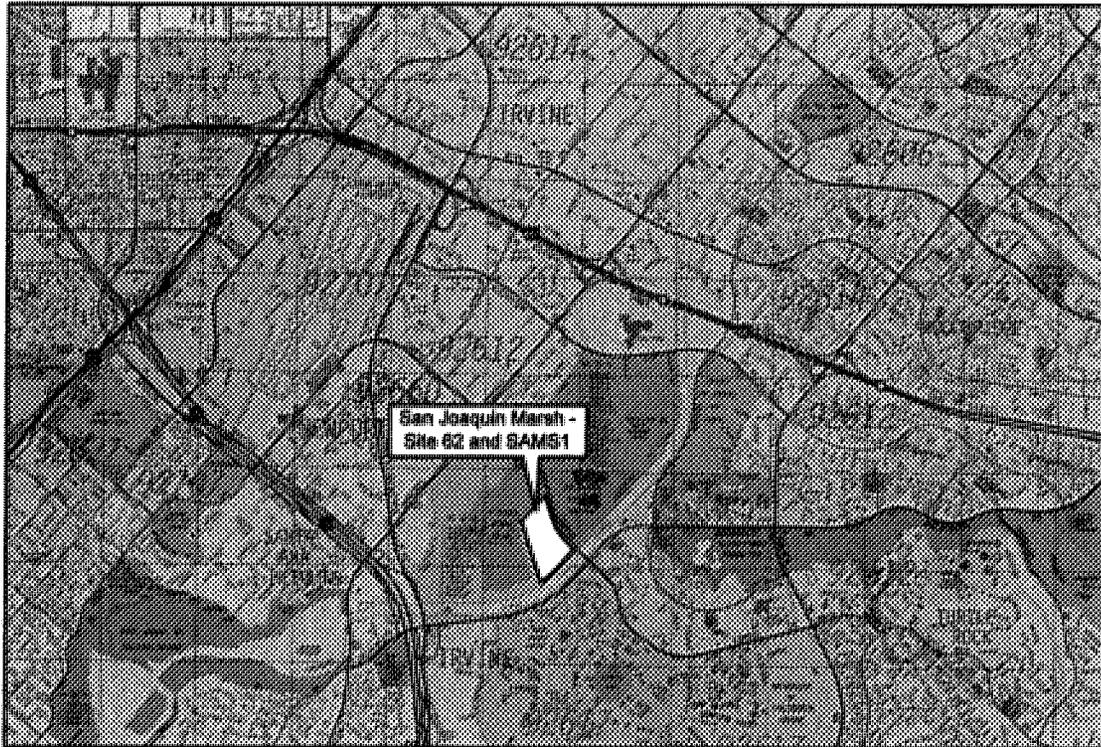
Site Conditions and Constraints

Site Description

Site 62 and SAMS1 are located in the City of Irvine, southwest of Campus Drive and the San Joaquin Marsh Site No. 46 (Site 46) and northwest of San Diego Creek Channel (SDCC) (Figure ES-1). Both sites are owned by IRWD. The sites are adjacent to the University of California Natural Reserve System (UCNRS), consisting of a series of fresh water ponds operated for research purposes. SAMS1 is an offsite habitat mitigation project constructed in 1990 by The Irvine Company (TIC), which was the beneficiary of 16.92 acres of mitigation credits on the site. The site is dominated by a relatively open native riparian woodland consisting of willow (*Salix Gooddingii*), Fremont cottonwood (*Populus Fremontii*), and stands of mulefat (*Baccharis salicifolia*). The understory is generally well developed, consisting of non-native ruderal plants. The woodland is generally not robust and appears to lack suitable hydrology to support this type of riparian woodland (Denger, pers. comm. 2010). Site 62 is approximately 15 acres in size, and is currently unused. Most of the site has been graded and altered in the past. The site is covered largely by disturbed ruderal vegetation dominated by

field mustard (*Brassica rapa*), an exotic invasive plant species. Additional areas of alkali meadow persist, dominated by alkali heath (*Frankenia salina*).

FIGURE ES-1
SAMS1/Site 62 Vicinity Map



Water Sources

A number of potential water sources for the wetland were reviewed. The potential water sources identified include SDCC water, storm water, sheet flow, well water, reclaimed water and potable water. In some cases, water from a single source could be intercepted for use at multiple locations. Each of these intercept points was considered independently since the potential treatment and additional benefits vary based on the intercept point.

Upon review, many of the water sources and intercept points were determined to be infeasible or inconsistent with project objectives and not considered further (see Appendix A, Potential Water Sources). The water source that was deemed most viable for Site 62 and SAMS1 is SDCC water intercepted as San Joaquin Marsh outflow or as storm water that currently bypasses the marsh in a storm event or during wet weather season.

Biology

An analysis of biological resource considerations for the proposed Project was performed and is presented in the Biology Technical Memorandum in Appendix B. The technical memorandum summarizes the biological permit and regulatory requirements and the

results of a field reconnaissance survey which was conducted on April 19, 2010, by staff biologists at CH2M HILL.

The results of the field reconnaissance are summarized below.

- The site is dominated by a relatively open native riparian woodland consisting of willow (*Salix Gooddingii*), Fremont cottonwood (*Populus Fremontii*), and stands of mulefat (*Baccharis salicifolia*). However, this community is not robust and contains many unhealthy trees and snags. The understory is generally well developed, consisting of mulefat (*Baccharis salicifolia*) and non-native ruderal plants. Small pockets of bulrush (*Scirpus* sp.) were noted along the margins of the riparian habitat, particularly to the north and northwest as the site intergrades with channels draining adjacent lands. The site is covered largely by disturbed ruderal vegetation dominated by field mustard (*Brassica rapa*) with some areas also containing poison hemlock (*Conium maculatum*). A more complete description of on-site habitat types is provided below.
- Five special-status species are present on the site, primarily concentrated in the SAMS1 area and San Diego Creek Channel. They include **least Bell's vireo, northern harrier, white-tailed kite, yellow-breasted chat, and yellow warbler. Of these species, least Bell's vireo is federally and state listed as endangered, white-tailed kite is a California Fully Protected species, and northern harrier, yellow-breasted chat, and yellow warbler are all state Species of Special Concern.**
- Waters of the U.S. and wetlands jurisdictional under the U.S. Army Corps of Engineers (USACE) are present within San Diego Creek Channel, and may be present on Site 62 and SAMS1. The final disposition of jurisdictional waters of the U.S. and wetlands would be determined during the formal delineation and in coordination with the USACE.
- Stream bed and bank jurisdictional under California Department of Fish and Game (CDFG) are present within San Diego Creek Channel, and may be present on Site 62 and SAMS1. The final disposition of jurisdictional CDFG stream bed and bank would be determined during the formal delineation and in coordination with CDFG.

Cultural Resources

The general area in which Site 62 is located is known to possess high sensitivity for archaeological resources. At least 22 known sites are documented within one mile of Site 62. Many of these sites represent important archaeological resources, both locally and nationally. The brief field reconnaissance visit on April 28, 2010 noted the presence of dense vegetation, precluding the possibility of conducting a pedestrian survey of the site.

Based on the results of archival research and the field reconnaissance site visit, as well as a general assessment of the project areas sensitivity for cultural resources, several of these constraints have been previously documented in the vicinity of Site 62 and their potential presence is of high probability within the site. Given the local topography, short distance to permanent water sources and the Pacific Ocean and other archaeologically sensitive conditions, and the presence of at least 22 previously identified archaeological sites within one mile, the sensitivity for significant archaeological resources within Ste 62 is considered high.

Given the high sensitivity for significant buried archaeological resources to be present, and the relatively undisturbed condition of the western portion of Site 62, all ground disturbing activities at Site 62, including initial grubbing and clearing, should be monitored by an archaeologist who meets the Secretary of Interior standards for archaeology.

In addition, because of the high archaeological sensitivity surrounding Site 62, and, therefore, the presumed sensitivity of Site 62, CH2M HILL recommends that IRWD consider commissioning a simple pre-construction subsurface testing plan that would attempt to better characterize the subsurface stratigraphy of the site and obtain geoarchaeological data that would aid in understanding subsurface potential for archaeological material. Also, development of a cultural resources awareness training program should be delivered to all construction personnel prior to conducting work at the site.

Conservation Easement

A Conservation Easement (CE) is required for establishment on the SAMS1 site by TIC for IRWD (the Grantor in the CE) with the California Department of Fish and Game as a part of TIC's mitigation requirements for the site (IRWD, 2005). The draft CE was developed by TIC in 2005 and will protect in perpetuity the conservation values of the site, deemed to be **wildlife habitat. The draft CE has stated that the "Grantor has operated and maintained, and desires to continue to operate and maintain, the Conserved Lands together with its adjacent lands for purposes of (i) a sanctuary for the viewing, study and enjoyment of the habitat areas and the wildlife residing therein ("Educational Uses") and (ii) a system of ponds over a portion of the Conserved Lands for water quality enhancement and waterfowl use."**

Based on review of the draft CE, it is not anticipated that there would be any significant restrictions on habitat restoration activities on SAMS1 associated with the proposed enhancements contained within this document. This would include minor grading, site flooding and hydrology enhancements, and infrastructure as necessary to achieve habitat enhancements. This would be consistent with statements which allow for modifications, including grading, for any "restoration activity."

Regulatory Permits and Approvals

The regulatory permits and agency approvals that will be required for the project were identified. Permits are required from CDFG, RWQCB, USACE, USFWS, Orange County Flood Control District (OCFCD) and the City of Irvine. Obtaining permits is estimated to take 4 to 6 months.

CEQA and NEPA Documentation

On April 26, 2004, the Irvine Ranch Water District (IRWD) approved the Final Environmental Impact Report (FEIR) for the NTS Master Plan in accordance with the California Environmental Quality Act (CEQA). The FEIR analyzed the environmental impacts of the NTS Master Plan, including potential impacts associated with implementation of Site No. 62. The FEIR included project design features and mitigation measures to minimize potential environmental impacts associated with implementing the NTS Master Plan.

The Environmental Protection Agency (EPA) and the Bureau of Reclamation (BOR) are authorized to provide Federal funds to IRWD for the NTS Master Plan. The EPA, as a cooperating agency with the BOR, completed an Environmental Assessment under NEPA, dated August 2009, to evaluate the potential environmental consequences associated specifically with implementation of Site No. 62. The EA incorporated the FEIR by reference. As a result of the EA, EPA determined the proposed action at Site No. 62 will not have a significant impact on the quality of the human environment and a FONSI, dated March 2, 2010, was prepared. The FONSI incorporated mitigation measures and monitoring requirements from the EIR and EA.

Supplemental EIR (CEQA):

Since approval of the FEIR, the potential addition of SAMS1 and the placement of the inlet location adjacent to SAMS1 are being considered for incorporation into the project. In this regard, a Supplemental EIR, which evaluates only the addition of SAMS1 and the placement of the inlet location adjacent to SAMS1, would satisfy the CEQA requirement for additional environmental review. The Supplemental EIR would be subject to CEQA compliance requirements.

Supplemental EA (NEPA):

Since preparation of the EA/FONSI, the potential addition of SAMS1 and the placement of the inlet location adjacent to SAMS1 are being considered for incorporation into the project. IRWD should notify BOR of these potential changes so BOR can determine if they require additional NEPA documents. In this respect, the Supplemental EA would evaluate only the addition of SAMS1 and the placement of the inlet location adjacent to SAMS1.

Conceptual Alternatives

Three alternatives were evaluated that integrate Site 62 and the SAMS1 area to yield a total approximate area of 27 acres for habitat improvement and contaminant reduction consistent with the NTS Master Plan objectives and SAMS1 development plans. Because the natural treatment of common water quality contaminants of concern is directly proportional to area, combining the areas of Site 62 and SAMS1 would have the greater treatment potential than if only Site 62 was considered. The constraints in developing SAMS1 for treatment and habitat improvement were also evaluated. An option which includes only Site 62 was also considered to determine what costs would be involved for using just this site and not SAMS1.

Alternative 1 – Storm Water Treatment Wetland

The primary goal of Alternative 1 would be to utilize Site 62 and SAMS1 as a storm water treatment wetland to capture and treat water from the SDCC during storm events. Under current operations, the existing SDCC pump station typically pumps water from the SDCC to Site 46 during dry conditions but is shut off during storm events to prevent sediment from entering Site 46. In this alternative, the existing SDCC pump station would be modified to allow for the pumping of up to 10 cfs of storm flows to SAMS1, which would discharge into a new constructed storm water wetland treatment system at Site 62. Storm flows would be first delivered to the site from the existing SDCC pump station through a new pipeline and routed through SAMS1 in a small, naturalized channel. Water would then

flow into the new constructed storm water treatment wetland on Site 62 and discharge by gravity through an outflow structure near the southeast corner of Site 62. In the event of a long duration storm, water would back up into SAMS1, flooding portions of the site before draining back to SDCC. Water levels would extend into SAMS1 by varying amounts depending upon elevation and provide beneficial seasonal hydration.

Alternative 2 – Site 46 Extension Treatment Wetland

Alternative 2 uses SAMS1 and Site 62 as an extension wetland to provide additional treatment to SDCC water that has gone through Site 46. The flow path for this alternative would be similar to the flow path described in Alternative 1, however, instead of pumping water from the SDCC, the existing return pump station would be modified to divert Site 46 outflow to SAMS1 and subsequently Site 62 for further treatment. Currently the return pump station is configured to pump a portion of Site 46 outflow to support irrigation of the existing Carlson Marsh site to the north of Site 46 while the remaining outflow is pumped back to the SDCC. The extension wetland in this alternative would be designed to treat up to 2 to 3 cfs of this remaining Site 46 outflow. Flows on this magnitude could flow via a shallow channel through SAMS1 and could sustain a healthy riparian habitat, as described under Alternative 1.

Alternative 3 – Storm Water Treatment Wetland with Site 46 Extension Wetland

A combination of Alternatives 1 and 2 is the third option that was developed for SAMS1 and Site 62. In this alternative, the proposed wetland would be used to treat SDCC flow during storm events and to provide additional treatment to Site 46 outflow during dry conditions. As a dual function wetland, the concept for this option consists of the key elements that make up Alternatives 1 and 2. Depending on flow conditions in SDCC, either Site 46 outflow or storm flow from SDCC would be pumped to the site and first flow through SAMS1 in a small channel, as described under Alternative 1. Flows would then be directed to variable depth wetlands on Site 62. During dry conditions, up to 2 cfs of Site 46 outflow would be pumped to the wetlands through a new pipeline along SDCC. This would establish continual low-flow wetlands at SAMS1/Site 62. Under storm conditions, up to 10 cfs could be pumped to the site from the SDCC by the existing pump station through the same pipeline used to convey outflow from Site 42. In the event of a long duration storm, water could be backed up into SAMS1, inundating greater portions of the site. Water would eventually drain back to SDCC by gravity through the outlet structure at the southeast corner of Site 62.

Optional Site 62 Wetland Only

If SAMS1 cannot be used as an intermediate conveyance (while at the same time obtaining habitat benefit from an additional water source) between San Diego Creek or the San Joaquin Marsh and the new proposed constructed treatment wetland, then an additional pipeline as shown in Figure 3-9 will need to be constructed to convey water to Site 62. The pipeline would be constructed between the edge of SAMS 1 and Campus Drive to convey water approximately 2,000 feet around the northwest side of the site to the 24-inch or 18-inch inlet end of the constructed treatment wetland. Water will flow to the constructed treatment wetland and discharge through a pipe into San Diego Creek about 350 feet downstream of the Campus Drive bridge. Additionally, two flap gates or similar water

control structures are proposed as an option in the berm separating the constructed treatment wetland from the northwest side of SAMS 1. These gates would be used to allow high flows in the treatment wetland to back into SAMS 1 to provide seasonal flooding on the lower portion of the site, enhancing riparian habitat. If this option is pursued it would add additional cost to the other alternatives.

Preliminary Cost Estimates

Construction cost estimates commensurate with the initial planning-level design for the habitat creation/constructed treatment wetland system are summarized in Table ES-1 for each of the three alternatives. If SAMS 1 cannot be used as a conveyance channel then additional costs for piping the water along Campus Drive will be incurred. These costs have been shown as an optional cost to each of the alternatives.

TABLE ES-1
Preliminary Cost Estimates

Item Description	Alt. 1	Alt. 2	Alt. 3
Sitework and Grading	\$279,000	\$279,000	\$279,000
Planting and Vegetation	\$236,000	\$236,000	\$236,000
Piping	\$205,000	\$155,000	\$205,000
Site 46 Pump Station Control Modifications	-	\$50,000	\$50,000
SDCC Pump Station Modifications	\$50,000	-	\$50,000
Water Control Structures and Instrumentation	\$54,000	\$54,000	\$54,000
Subtotal	\$824,000	\$774,000	\$874,000
Contractor Overheads	\$44,000	\$44,000	\$44,000
Contractor Profit	\$44,000	\$44,000	\$46,000
Contingency, Escalation, & Local Adj Factor	\$380,000	\$380,000	\$400,000
Total Construction Cost	\$1,292,000	\$1,242,000	\$1,364,000
Preliminary Design Report	\$180,000	\$180,000	\$180,000
Supplemental EIR	\$35,000	\$35,000	\$35,000
Permitting	\$45,000	\$45,000	\$45,000
Wetlands Delineation Report	\$22,000	\$22,000	\$22,000
Habitat Mitigation and Monitoring Plan	\$18,000	\$18,000	\$18,000
Long-term Site Monitoring and Reporting (5 yrs.)	\$60,000	\$60,000	\$60,000
Biological Memorandum	\$15,000	\$15,000	\$15,000
Cultural Resources Subsurface Testing	\$50,000	\$50,000	\$50,000
Final Design	\$310,000	\$310,000	\$310,000
Total Permitting and Engineering	\$735,000	\$735,000	\$735,000
Construction Services, Commissioning, Startup	\$168,000	\$168,000	\$176,000

TOTAL PROJECT COST	\$2,195,000	\$2,145,000	\$2,275,000
Optional Site 62 Wetlands Only – Additional Cost	\$320,000	\$320,000	\$320,000
Total with Site 62 Only	\$2,515,000	\$2,465,000	\$2,595,000

Comparison of Alternatives

Alternatives 1 and 2 present fundamentally different approaches towards water quality improvement at the Site 62/SAMS1 site. Alternative 1, particularly under the 6 and 10 cfs higher flow conditions, treats large volumes of water with relatively low water quality over short durations and provides a hydrology more similar to seasonal wetlands characteristic of California's Mediterranean climate. Alternative 2 provides a more consistent, year-round base flow of water already treated by a natural treatment system (San Joaquin Marsh).

Figure ES-2 compares estimated annual mass removal rates for the three Alternative 1 flow scenarios and Alternative 2. Because the mass of any contaminant removed in a treatment wetland system is dependent upon both the inflow concentration and hydraulic loading rate, and the water quality and treated volumes of water vary significantly between the two alternatives, neither alternative provides consistently greater removal for all contaminants. However, for many of the selected contaminants, both alternatives provide a roughly similar treatment benefit on an annual basis. Nitrate is an exception, since the outflow from the San Joaquin Marsh is already relatively low in nitrate compared to the San Diego Creek watershed and additional treatment in a natural treatment system provides a marginal additional treatment benefit for this contaminant. Conversely, potential mass removals of selenium are more pronounced with Alternative 2. Because selenium in the San Diego Creek watershed is predominantly derived from groundwater sources, and is present in higher concentrations during base flow than storm flows (where groundwater is diluted with rainwater), there is more potential treatment benefit realized for this contaminant with year-round, base flow treatment.

Figure ES-3 compares concentration reductions for the three Alternative 1 flow scenarios and Alternative 2. Consistent with expectations, the lowest hydraulic loading scenario for Alternative 1 yields the greatest concentration reduction for all parameters. Alternative 2 yielded generally comparable lower concentration reductions in metals for the high flow Alternative 1 scenario but greater reductions in nutrient concentrations.

Alternative 3 combines the benefits of both Alternative 1 and 2, with expected low-flow removal rates and improvement in concentration, with significant mass removal rates from storm flow.

Based upon this preliminary analysis, the SAMS1/Site 62 system appears to yield the greatest value to downstream waters as a mass load reduction facility, particularly when viewed in context of the District's Natural Treatment System Master Plan, where an accumulation of relatively small systems is recognized as yielding useful benefits. Table ES-2 provides a summary of key benefits and engineering requirements associated with each alternative. While all alternatives are projected to provide important water quality and habitat benefits, Alternative 3 removes the greatest mass of nitrate and selenium and would

appear to offer the greatest benefit to Newport Bay. Alternative 3 also includes the greater number of site modifications and has the greatest cost of all alternatives.

FIGURE ES-2
Mass Reduction by Alternative

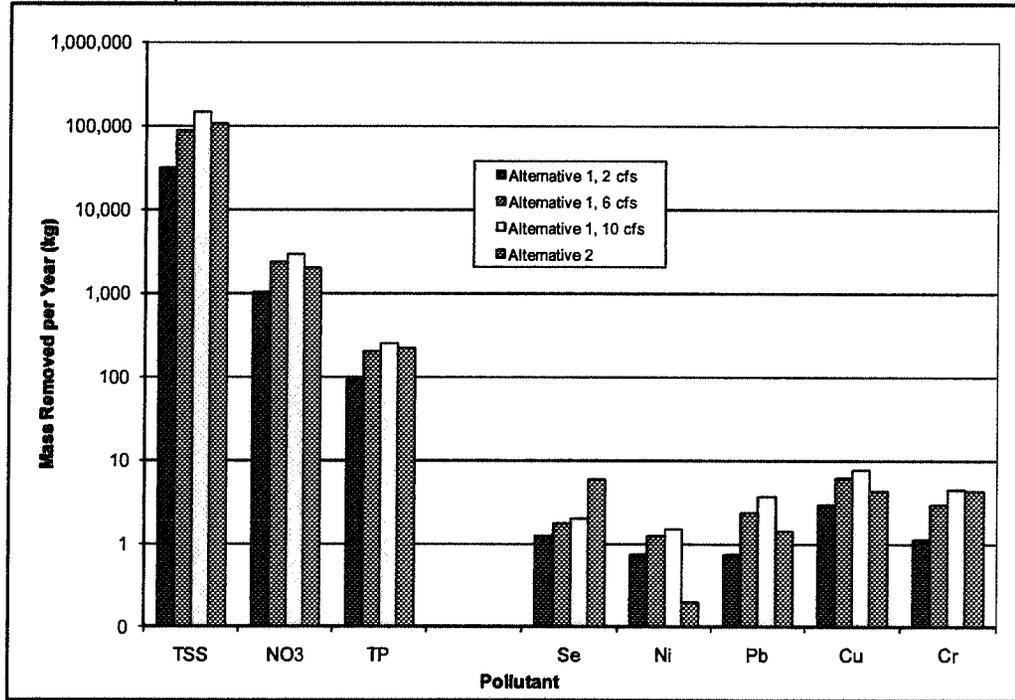


FIGURE ES-3
Concentration Reduction by Alternative

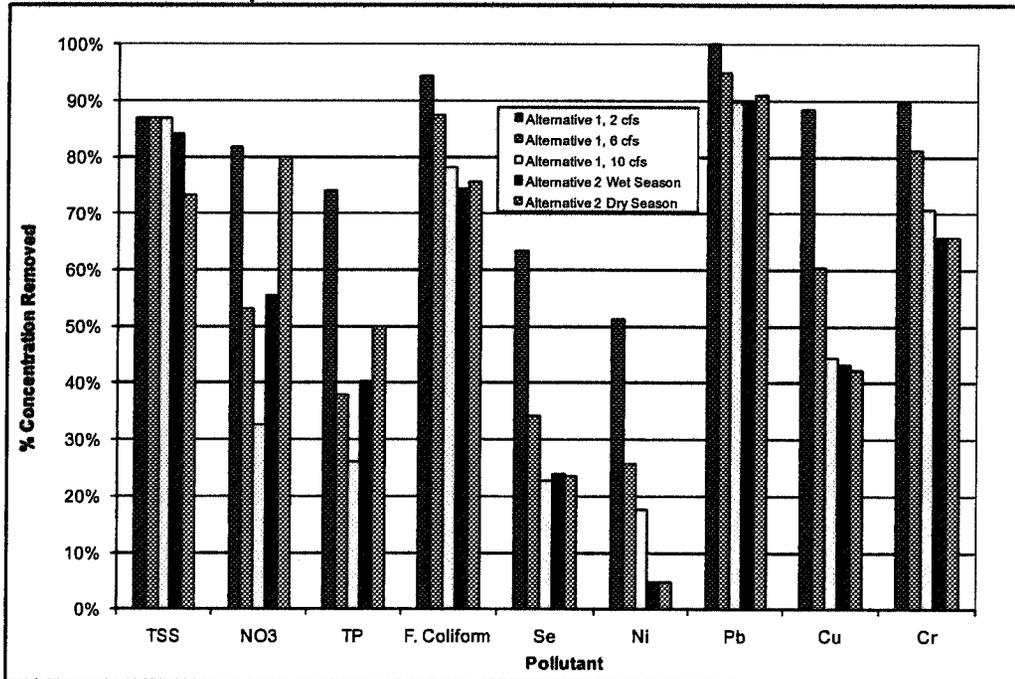


TABLE ES-2
Conceptual Alternatives for Site 62 and SAMS1

Alternative	Description	Benefits	Engineering Requirements
1	Storm water Treatment Wetland	Significant mass removal Riparian habitat creation Seasonal marsh creation	Minor modifications to SDCC pump station controls 2,900 feet of new 24-inch pipe Grading of SAMS1 channel Grading to Site 62 5-foot berm construction Outlet drainage return to SDCC
2	Site 46 Extension Treatment Wetland	Less mass removal than Alt 1 Less riparian habitat creation than Alt 1 Perennial marsh habitat	Minor modifications to Site 46 pump station controls Connection to SJMPS outflow pipeline with valve 2,900 feet of new 18-inch pipe Grading of SAMS1 channel Grading Site 62 Berm construction Outlet drainage to SDCC
3	Storm water Treatment Wetland with Site 46 Extension Treatment Wetland	Greatest mass removal Riparian habitat creation of Alt 1 Perennial marsh habitat of Alt 2	Minor modifications to Site 46 pump station controls Minor modifications to SDCC pump station controls Connection to SJMPS outflow pipeline with valve 2,900 feet of new 24-inch pipe Grading Berm construction Grading Site 62 Taller water control structure

Comparison of Treatment Performance with Existing IRWD NTS Facilities

Available data from monitoring of existing IRWD NTS systems were analyzed to determine central tendencies of pollutant concentration removal efficiency and annual pollutant mass removed per unit area. Figure ES-4 compares pollutant concentration removal and Table ES-3 compares pollutant mass removal rates across all available NTS sites and modeling for the selected Alternative for nitrogen, phosphorus, fecal coliforms, and selenium. This comparison serves to highlight the similarities between predicted treatment wetland performance at Site 62 and performance of similar systems already in operation in the San Diego Creek watershed.

FIGURE ES-4
Pollutant Concentration Removal Comparison

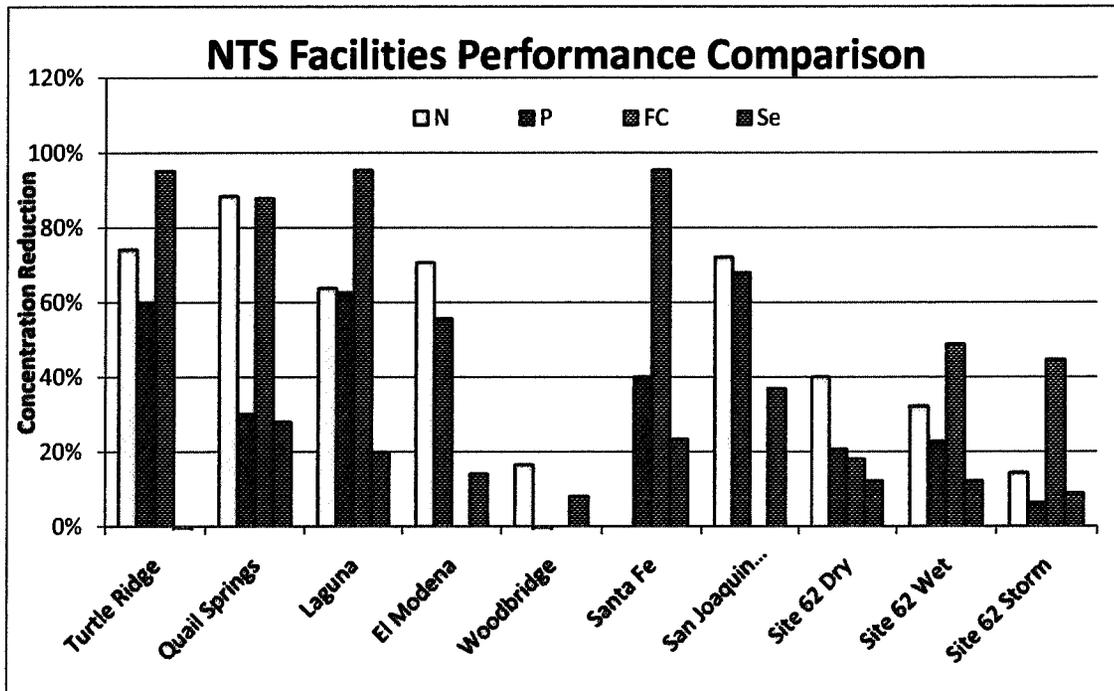


TABLE ES-3
Pollutant Mass Removal Rates (kg/ha/yr)

Site	TIN/NO ₃	OP	Se
Santa Fe	0	5	0.04
Woodbridge	2,308	-23	0.38
Turtle Ridge	149	22	-0.12
Quail Springs	93	2.1	0.01
Laguna	319	12	0.07
San Joaquin Marsh	1,035	36	0.81
Site 62/SAMS1 Model	180	17	0.77

Comparison of Cost of this Project with Existing IRWD NTS Facilities

Approximate construction costs obtained from IWRD for NTS Master Plan systems were compared to cost estimates for the selected alternative for Site 62/SAMS 1. Costs were compared by initial capital cost per acre, initial capital cost per 1,000 gallons treated, and initial capital cost per pound of inorganic nitrogen (or nitrate) and selenium removed as shown in Table ES-4.

TABLE ES--4
Cost Comparison

	Area (ac)	Cost	Cost per ac	Cost per 1000 gal	Cost per lb N	Cost per lb Se
Turtle Ridge	1.9	\$201,950	\$106,289	\$12.72	\$798.77	NA
Quail Springs	9.1	\$1,622,500	\$178,927	\$109.47	\$2,153.33	\$20,102,834
Laguna	2.5	\$550,585	\$220,234	\$48.72	\$774.41	\$3,398,809
El Modena	2.6	\$1,360,000	\$523,077	NA	NA	NA
Woodbridge	2.23	\$145,000	\$65,022	\$0.76	\$31.63	\$189,810
Santa Fe	2.30	\$278,000	\$120,870	\$20.34	NA	\$3,649,109
Site 62 Wetlands	17	\$1,485,000	\$87,353	\$3.33	\$545.03	\$122,749

NA: Not Available

Comparison between cost per acre and cost per 1,000 gallons treated reveal the economies of scale of natural treatment system construction; the proposed project for Site 62/SAMS 1 is within the range of less expensive systems. Costs per pound of nitrogen removed show more comparable results, with differences that are explained by nitrogen loading. Systems that are more heavily loaded like that at Woodbridge and the higher flow options in Alternatives 1 and 3 exhibit lowest costs per pound of nitrogen removed. Sufficient data to calculate cost per pound of selenium removed were available for four NTS Master Plan sites, and both were higher than those calculated for the proposed alternatives at Site 62/SAMS 1. Cost per pound of selenium removed at Site 62 was lower than those for the NTS sites; a likely reason is that all are seasonal systems that are not removing selenium year-round. The selected alternative, which treats flows year-round, exhibits reduced cost per pound of selenium removed due to the greater volume of flow treated throughout a year of operation.

Agency Review Meetings

A meeting with the Resource agencies was held on July 1, 2010. A presentation was made about the project and then discussion of the project commenced. The Resource Agency representatives from USACE, USFWS, CDFG and the RWQCB were generally supportive of the idea to channel the flow through SAMS1 to improve the site.

A meeting with the UCNRS to discuss the project in relation to their Freshwater Marsh Reserve was held on October 7, 2010. UCNRS asked that the adjoining road on UCNRS property be blocked from the public. They were also concerned about radio tagged pond turtles straying into site 62. UCNRS does want water but have no money for infrastructure on their side.

Alternatives Selection

Based on discussion with IRWD and reviews with the Resource Agencies Alternative 3 was selected as the recommended alternative.

Alternative 3 was selected as the recommended alternative based on the following.

1. Alternative 3 combines a year-round operational approach to treat wet season and dry season flows.
2. Alternative 3 was found to remove the greatest mass of nitrate and selenium and would appear to offer the greatest benefit to Newport Bay.
3. Although Alternative 3 includes the greater number of site modifications and is anticipated to have the greatest cost and operational effort of all alternatives, the costs fall within the established budget and the operational efforts are within the experience range of the IRWD NTS management experience.
4. Alternative 3 also provides considerable potential for habitat benefit to SAMS1; resulting in perennial hydrology adjacent to the supply channel, and seasonal flooding hydrology during the wet season, benefiting existing riparian habitat.

Recommended Alternative

The recommended alternative includes conveying a portion of San Joaquin Marsh effluent in a pipe underneath Campus Drive, along the west side of Campus Drive for approximately 500 feet, and on to the SAMS 1 mitigation site. A new small, meandering channel will be constructed on the northern half of SAMS 1 to convey this flow to Site 62 and create additional riparian habitat on SAMS 1. A new treatment wetland system will be constructed on Site 62 consisting of alternating open water pools (deep zones) and freshwater marsh vegetation communities (emergent marsh zones). Flow will generally cross Site 62 from north to south, with an outflow structure discharging the water through the San Diego Creek levee and into San Diego Creek.

During storm events, when flow in San Diego Creek is elevated above base flow stage (approximately 6 feet of depth or +8.3 feet NAVD 1988), water would be pumped out of the creek into the conveyance pipeline to SAMS 1. For this PDR, eight cfs has been selected as the design flow rate during storm events as this is the maximum flow currently expected to be able to be pumped through existing infrastructure without additional modification and with current conservative assumptions. During final design, when the existing pump infrastructure is more closely evaluated, this flow may be able to be expanded to the full 10 cfs originally proposed.

Storm flows would be conveyed across SAMS 1 in the same meandering channel as low flows, and be retained in the Site 62 treatment wetland. A valved pipe connecting Site 62 and SAMS 1 would allow back flow flooding of portions of SAMS 1 for a few days, depending on the length of the storm event. Once the stage in San Diego Creek returns to base flow conditions both sites would drain through the Site 62 wetlands effluent structure back into San Diego Creek.

Facility Layout

The proposed facility begins with pump stations to draw either San Diego Creek flows or San Joaquin Marsh effluent (depending on base flow or storm flow condition) located near Campus Drive and shown on Figure ES-5. A pipeline will convey flow under Campus Drive, run adjacent to Campus Drive running northwest, and then enter the SAMS 1 mitigation site at approximately the midway point on the eastern edge. The constructed meandering channel on SAMS 1 will flow northwestwards towards the initial deep zone of the Site 62 treatment wetland. The location of this channel has been modified from the concept designs based on more detailed hydraulic analysis. This location allows for developing a gravity flow wetlands while minimizing grading requirements, thus reducing costs. In addition, the revised channel location minimizes impacts to sensitive habitats on SAMS1; specifically Southern Cottonwood-Willow Riparian Woodland, Riparian Willow, or Mulefat Scrub. Rather, the new proposed channel location is predominantly within Riparian Herb, Riparian Savannah, and Non-native Grassland.

Site 62 will be separated from SAMS 1 by a 12-foot wide berm completely encircling its perimeter. A pipe extending through this berm will convey effluent from the channel on SAMS 1 into the initial deep zone of the Site 62 treatment wetland. From here, flow will proceed south through the treatment wetland towards the terminal deep zone at the southeast corner. A water control structure with an adjustable weir will direct flows into a pipe that extends through the perimeter berm and the San Diego Creek levee to discharge into San Diego Creek. A valved pipe will be installed in the perimeter berm separating Site 62 from SAMS 1 at the second deep zone (DZ2). This location corresponds to the lowest point on SAMS 1 and will accomplish both backwards flooding of storm flows from Site 62 to SAMS 1 as well as drainage from SAMS 1 back into Site 62.

Hydraulic Profile

A preliminary hydraulic profile for the entire facility has been calculated from the pipe outlet on SAMS 1 through the Site 62 effluent structure for both low flow (two cfs) and storm event (8 cfs) conditions. The preliminary design has been developed to create an adequate gradient in the SAMS 1 channel to convey both 2 cfs and 8 cfs flows at a desired depth, ensure an appropriate drop across the Site 62 perimeter berm to convey flows into the treatment wetland, and adequate freeboard in Site 62 to accommodate friction losses through emergent vegetation.

Hydraulic profiles for both base flow and storm flow conditions are included as Figures ES-6 and ES-7.

FIGURE ES-6
Hydraulic Profile at 2 cfs

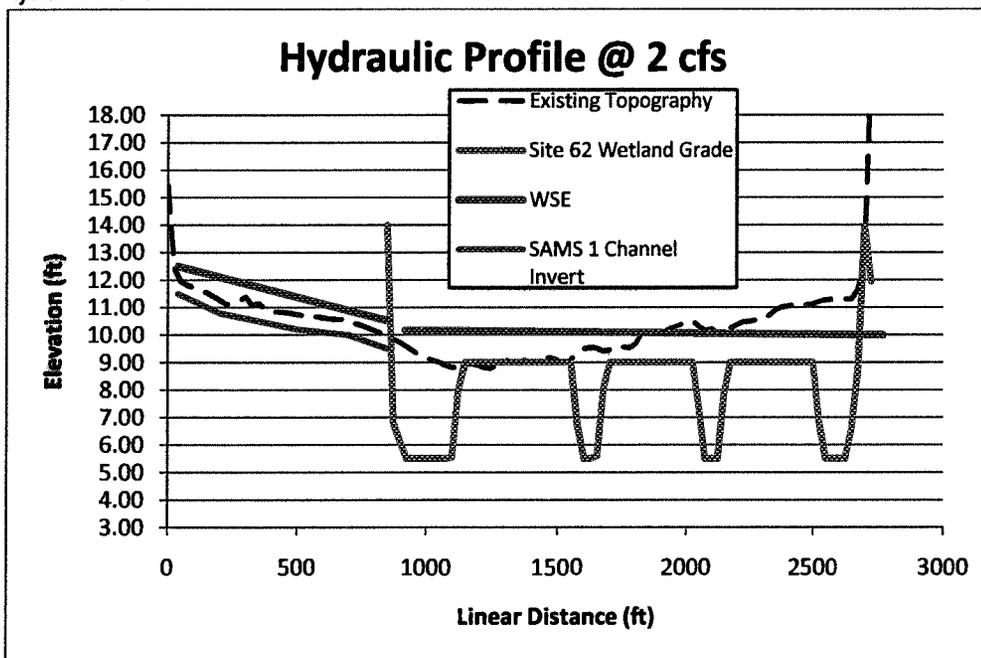
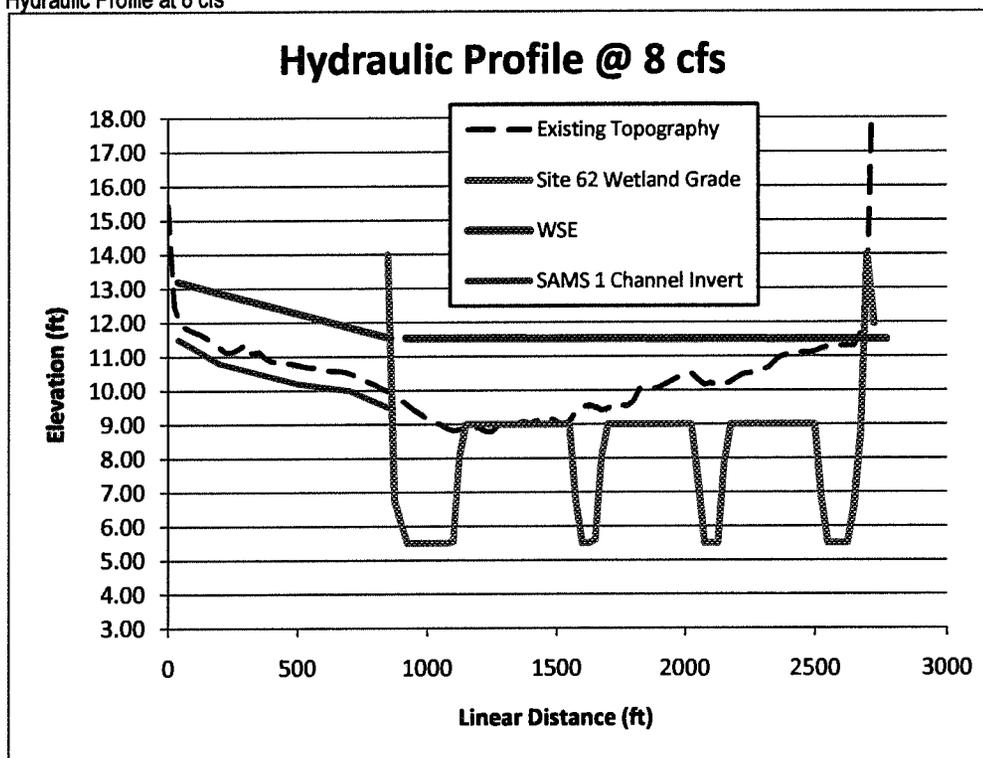


FIGURE ES-7
Hydraulic Profile at 8 cfs



Utilities

A utility search was performed for the project. Dig Alert was contacted to identify 12 agencies that could potentially maintain utilities within the vicinity of the project. Each of these agencies was contacted and three of them have buried utilities in Campus Drive that will be crossed by the infrastructure pipeline required for this project, AT&T, Southern California Gas Co. and IRWD. None of these utilities are anticipated to restrict the wetland development. It is recommended that potholing be conducted during final design to confirm utility depths at all key crossings.

Planning Level Cost Estimate

Construction cost estimates commensurate with the preliminary design for the habitat creation/constructed treatment wetland system are summarized in Table ES-5. Costs are estimated for site preparation and grading, wetland planting, piping, pump station control modifications and other hydraulic structures. Percentage-added markups are included for overhead, permitting, engineering, services during construction, and commissioning and startup. Construction cost opinions are based on takeoffs from the developed concept layouts and are best considered preliminary costs, subject to change depending on material prices, labor costs, construction timing, and other unspecified factors.

TABLE ES-5
Preliminary Cost Estimate

Item Description	Cost
Sitework and Grading	\$350,000
Planting and Vegetation	\$55,000
Piping, valves and Flow Control Structures	\$550,000
Water Control Structures and Instrumentation	\$85,000
Subtotal	\$1,040,000
Contractor Overheads	\$60,000
Contractor Profit	\$70,000
Subtotal	\$1,170,000
Contingency (20%)	\$235,000
Escalation (5.5%)	\$80,000
Total Construction Cost	\$1,485,000
Preliminary Design Report	\$180,000
Supplemental EIR	\$35,000
Permitting	\$45,000
Wetlands Delineation Report	\$22,000
Habitat Mitigation and Monitoring Plan	\$18,000
Long-term Site Monitoring and Reporting (5 yrs.)	\$60,000
Biological Memorandum	\$15,000
Cultural Resources Subsurface Testing	\$50,000
Final Design	\$310,000
Total Permitting and Engineering	\$735,000
Construction Services, Commissioning, Startup	\$130,000
TOTAL PROJECT COST	\$2,350,000

Although the selected alternative provides the greatest water quality improvement potential for San Diego Creek and creation of the most amount of riparian habitat on SAMS 1, the 90% Preliminary Design cost estimate exceeds the \$2 million funding and grant amount available to Irvine Ranch Water District for this project. Two potential project alternatives are included that reduce the estimated cost to be closer to the available grant funding. The first is the original Alternative 2, which would treat only flow from the San Joaquin Marsh at the new Site 62 treatment wetland facility. Based on the 90% Preliminary Design refinements, the total construction cost (including permitting, engineering, and services during construction) is estimated to be approximately \$2.02 million. The second is a phased implementation of the selected alternative, which would initially construct only the facilities required to treat effluent from San Joaquin Marsh, but would include the capacity for future

upgrade to enable treatment of storm flows from San Diego Creek. The total initial construction cost estimate for this phased implementation approach is estimated to be approximately \$2.11 million

Operations and Maintenance Cost Estimate

A planning-level cost estimate (see Table ES-6) for annual operations and maintenance costs has been prepared based on the expected activities described above and input from IRWD staff (Denger 2010). Two operations and maintenance cost schedules are provided for both the initial period of establishment (approximately 3-5 years) and for ongoing long-term maintenance after the establishment period. Vegetation maintenance is expected to be significantly more intensive and therefore expensive during the initial establishment period.

TABLE ES-6
Operations and Maintenance Costs

Item Description	Establishment Period Cost	Operational Period Cost
Landscape Maintenance	\$ 62,000	\$ 20,500
Infrastructure Maintenance	\$ 3,000	\$ 3,000
Lab Costs	\$ 7,200	\$ 7,200
Pumping	\$ 5,000	\$ 5,000
Annual Total	\$ 77,200	\$ 35,700

Design and Construction Schedule

It is anticipated that final design would begin in January 2011 after approval of the Preliminary Design Report and authorization to proceed with final design is obtained from the IRWD Board of Directors. Design is expected to take eight to ten months. This would put bid advertisement in September 2011 with construction beginning in December 2011 and lasting eight months. However, this construction time frame conflicts with part of the February to July bird nesting season. In order to proceed with construction in December 2011 consultation with the USFWS will need to take place to discuss and agree upon mitigation measures such as providing sound barriers or nest monitoring for the federally **endangered least Bell's vireo**. **Additional nesting** surveys during the 2011 nesting season would determine if nesting is in fact occurring. The other option is to delay the construction schedule and advertise in March 2012 and begin construction in July 2012.

Conclusions

The San Joaquin Marsh Regional NTS Site 62 and SAMS1 were evaluated for developing a treatment wetlands facility as identified conceptually in the NTS Master Plan. Site conditions and constraints were identified; including water sources, biology, cultural resources, regulatory and agency permits and approvals, and CEQA and NEPA documentation. It was determined that the site conditions and constraints are compatible with developing a treatment wetland.

Three alternatives were then evaluated: Alternative 1- a storm water treatment wetland receiving storm flows from SDCC, Alternative 2 - a Site 46 Treatment Extension wetland and Alternative 3 - a combination of Alternatives 1 and 2. Based on analysis of the alternatives, Alternative 3 was identified as the preferred alternative and was selected by IRWD as the recommended alternative. Reasons for selecting Alternative 3 include:

1. Alternative 3 combines a year-round operational approach to treat wet season and dry season flows.
2. Alternative 3 was found to remove the greatest mass of nitrate and selenium and would appear to offer the greatest benefit to Newport Bay.
3. Although Alternative 3 includes the greater number of site modifications and is anticipated to have the greatest cost and operational effort of all alternatives, the costs fall within the established budget and the operational efforts are within the experience range of the IRWD NTS management experience.
4. Alternative 3 also provides considerable potential for habitat benefit to SAMS1, resulting in perennial hydrology adjacent to the supply channel, and seasonal flooding hydrology during the wet season, benefiting existing riparian habitat.

The recommended alternative was further developed and refined to a preliminary design level. The facility layout was developed, preliminary grading of the wetland was performed, and pipeline and flow control conditions were determined. The total project cost of \$2.35 million was calculated and annual O&M costs were determined to be \$77,200 for the establishment period and \$35,700 for the operational period. A preliminary design and construction schedule was identified with design beginning in January 2011 and construction in December 2011.

CH2M HILL Scope of Work and Fee Estimate for San Joaquin Marsh Regional NTS Facility No. 62 and SAMS1 Final Design

Project Description

This scope of work describes the services to be rendered by CH2M HILL for the design of San Joaquin Marsh Regional NTS Facility No. 62 and Small Area Mitigation Site 1. The new facilities are as described in the *Preliminary Design Report – San Joaquin Marsh Regional NTS Facility No. 62 and Small Area Mitigation Site 1, November 2010* and shall include the following:

- New 16-inch pipeline from the existing San Diego Creek Pump Station.
- Flow control structures
- Sitework and Grading of conveyance channel and wetlands site
- Planting and Vegetation
- Outlet structures

CH2M HILL will provide project management, geotechnical, surveying, and final design, services in accordance with the scope of work outlined below. Environmental permitting and environmental documentation will be performed by others. Two sub-consultants have been added; NMG for geotechnical and Borchard Surveying for survey work.

Scope of Work

Task 1 - Project Management

CH2M HILL will provide project management tasks consisting of the following:

- Prepare and maintain a set of procedures in the form of project instructions to facilitate management of the Project. Including updating CAD/CAE software and graphic standards to comply with IRWD CAD deliverable standards.
- Prepare and provide periodic updates to the Project Schedule (in a bulleted Milestone list format) showing preliminary dates for deliverables and anticipated dates for workshops, QC reviews, meetings, and submittals.
- **Status Reporting – Monitor budget, progress, and schedule.** Monitor work efforts and evaluate actual versus planned progress. Supervise the Project team and identify actions needed to maintain the Project schedule. Changes in scope will be communicated to IRWD and will be in accordance with the change management plan. Provide verbal progress reports to IRWD's project manager, as necessary. Meet with IRWD's project manager in conjunction with scheduled workshops and review meetings. Prepare and submit weekly e-mail status update.

- Coordinate with EPA on the grant. A total of 50 hours is included for this task.
- **Administration – Maintain Project records**, manage and process Project communications, coordinate Project administrative matters, and prepare monthly invoice and progress report letter.
- **Coordination – Coordinate tasks/subtasks with IRWD** and project staff, to complete authorized work on schedule and within budget.
- **Staff Management – Supervise and control activities** of staff assigned to the Project. Coordinate and schedule appropriate staffing to meet Project requirements.
- Prepare a change management plan that addresses the schedule and budget impacts of additional efforts required to complete the deliverables for this Project. When necessary, this plan will be implemented to review with IRWD proposed additional work associated with engineering scope modifications, with authorization to proceed with the modifications after agreement by both parties as to the schedule and budget impacts.
- **Workshop and Meeting Preparation – Make arrangements** for and coordinate the scheduled Project workshops and Project team meetings. Prepare and distribute agenda and meeting summary notes for each workshop.
- Submit plans to utility companies, the City of Irvine and the County of Orange for review and comment. Permit Applications for the City of Irvine and the County of Orange will be submitted. (\$5,000 for permit fees is included in the scope). 40 hours has been budgeted for this task. Work beyond 40 hours will need additional approval.

Workshop

- **Project Kickoff Workshop – Conduct a Project kickoff workshop** prior to commencement of final design engineering activities. Included in the kickoff meeting will be key Project team members of CH2M HILL and IRWD. Present and discuss the proposed Project and the scope of work items to prepare the final design for this project. Preferences for Project design elements and other information will be solicited. It is anticipated that the workshop will last up to 3 hours and be held at IRWD's offices.

Deliverables

- Milestone Schedule
- Workshop Agenda
- Workshop Meeting Summary Notes
- Monthly Progress Report and Invoice

Subtask 1.1—Quality Control Review, Coordination, and Response

Implement and carry out an effective quality assurance/quality control (QA/QC) program. Coordinate the participation of senior reviewers at appropriate points in the Project. CH2M HILL will perform internal QA/QC review activities with the senior review team during the progress of the Project. Typically, task deliverables will be sent to IRWD for review a few days in advance of the next workshop, where the deliverables will be discussed in detail with IRWD.

Subtask 1.2: Agency Meetings

This task includes meetings with the U.S. Army Corps of Engineers (USACE), California Department of Fish and Game (CDFG), the U.S. Fish and Wildlife Service (USFWS), and

Regional Water Quality Control Board (RWQCB) as requested by the environmental consultant. This task will include field and/or office meetings to include: (1) up to one on-site meeting at Site 62 with agency personnel; and (2) up to one additional meeting at office locations in Orange County. This task cost estimate is based on a total of two face to face meetings with the regulatory agencies for two people to attend.

Task 2 - Soil and Geotechnical Investigation

CH2M HILL will complete a geotechnical investigation at the project site. CH2M HILL will subcontract this task out to NMG Geotechnical as outlined in the attached scope of work.

Task 3 - Supplemental Survey and Potholing

CH2M HILL will utilize the AutoCAD topographical base map survey provided by IRWD for the project. This survey will be supplemented by ground survey by Borchard Surveying as outlined in the attached scope of work. In addition, potholing of utilities in Campus Drive will also be needed. A total of 4 potholes are included in the scope.

Task 4 - Final Design

WORK APPROACH

The project design work will be carried out using a phased design delivery approach to assure a logical and progressive completion of the design work. Each phase of design will include a specific list of work products and deliverables, which are identified in the individual sections. Design review workshops will be conducted with the IRWD's personnel, key individuals from the CH2M HILL project team and others as needed; the design review workshops will be conducted at critical design milestones as identified in the following section.

All drawings will be prepared using Auto CAD and IRWD's title block. Each plan sheet will be printed on IRWD standard size, 24-inch by 36-inch sheet. The project Manual will be prepared in standard IRWD format and using IRWD's technical specification sections when applicable.

Subtask 4.1: 50% Design Phase

In this phase, the Design Criteria developed and documented in the Preliminary Design Report will start to be implemented. General, site plan, grading plans, mechanical, electrical and planting drawings will be developed during this phase to allow final detailing during the next phase of design (i.e., the project design will be developed to the extent that all significant design concepts are finalized at the conclusion of this phase). The 50 percent review submittal is intended to show the major design concepts and features of the Project.

50 Percent Submittal

The 50% submittal will include the following sheets:

1. Title Sheet

2. Construction Notes, Legends, and Abbreviations
3. General Site Plan
4. Grading Plan Sheet 1
5. Grading Plan Sheet 2
6. Mechanical Legend
7. Overall Pipe Plan
8. Partial Plans
9. Partial Plans
10. Electrical Legend
11. Single Line
12. Control Diagrams
13. I&C Legend
14. SAMS1 Water Supply P&ID
15. Planting Plan Sheet 1
16. Planting Plan Sheet 2

Workshop

- 50 Percent Submittal Review Workshop: CH2MHILL will conduct one review workshop with IRWD staff to present and discuss the major concepts and findings of the 50 percent submittal. CH2MHILL will receive IRWD's consolidated review comments at the workshop and will discuss outstanding issues. Major action items and decisions will be documented in minutes that will be distributed to IRWD and CH2MHILL's design team. It is anticipated that the workshop will last up to 6 hours and be held at IRWD's offices.

Deliverables

- 50 Percent Submittal: 8 copies of the 50 percent submittal to IRWD; half size drawings (11-inch by 17-inch). Full size PDF files submitted via email.
- Workshop Agenda
- Workshop Meeting Summary Notes

Subtask 4.2 - 90% Submittal

CH2MHILL will prepare 90 percent complete Contract Documents, which will be the basis for the final review submittal. This submittal will include the General Requirements and Technical Specifications (Divisions 1 through 49), Drawings, and Standard Details necessary for bidding the construction contract. The Contract Documents will include the general, site civil, structural, mechanical, electrical and planting design drawings, standard details, and technical specifications necessary for bidding and construction.

During this phase of the project, CH2MHILL will complete the work required to identify the construction sequencing and constraints for the project and include the applicable requirements in the appropriate Division 1 specification section.

90 Percent Submittal

- Construction Drawings consisting of:
 1. Title Sheet

2. Construction Notes, Legends, and Abbreviations
 3. General Site Plan
 4. Grading Plan Sheet 1
 5. Grading Plan Sheet 2
 6. Mechanical Legend
 7. Overall Pipe Plan
 8. Partial Plans
 9. Partial Plans
 10. Piping Sections
 11. Piping Sections
 12. Site 62 Inlet Structure Detail
 13. Site 62 -- SAMS 1 Connection Structure Detail
 14. Site 62 Pipeline Outlet Plan
 15. Site 62 Outlet Structure Detail
 16. Miscellaneous Details
 17. Electrical Legend
 18. Single Line
 19. Control Diagrams
 20. I&C Legend
 21. SAMS1 Water Supply P&ID
 22. Planting Plan Sheet 1
 23. Planting Plan Sheet 2
 24. Planting Plan Details
 25. Miscellaneous Details
 26. Miscellaneous Details
 27. Traffic Control Plan at Campus Drive
- General Requirements Specifications
 - Technical Specifications
 - **Engineer's Estimate** -- CH2M HILL will furnish IRWD with an "Engineer's Estimate" of construction costs after completion of this phase of design

Workshops

- **90 Percent Submittal Review Workshop:** CH2MHILL's Project Manager will conduct a review workshop with IRWD staff to present and discuss the major concepts and findings of the 90 percent submittal. CH2MHILL will receive IRWD's consolidated review comments at the workshop and will discuss outstanding issues. Major action items and decisions will be documented in minutes that will be distributed to IRWD and CH2MHILL's design team. It is anticipated that a maximum of one 4-hour workshop, held at IRWD's offices, will be required for this subtask.

Deliverables

- **90 Percent Submittal:** 8 copies of the 90 percent submittal to IRWD, including half-size drawings (11-inch by 17-inch), standard details (8-1/2-inch by 11-inch), and front ends and technical specifications. Full size PDF files submitted via email.,

- 90 Percent Construction Cost Estimate: CH2MHILL will furnish IRWD with a Class 2 estimate of construction costs approximately 2 weeks after delivery of the 90 percent submittal
- Workshop Agenda
- Workshop Meeting Summary Notes

Subtask 4.3 - 100 Percent Submittal

Following receipt of IRWD's consolidated review comments and completion of CH2MHILL's internal QC review, CH2MHILL will incorporate final review comments, as appropriate, and prepare the final, Bid-ready, 100 percent complete Project Manual and Contract Drawings.

Deliverables

- One set of 24-inch by 36-inch original, unbound, PE stamped and signed, 24-pound bond paper Drawings (black ink only) one set of 24-inch by 36-inch mylars, and one electronic submittal in PDF.
- Original signed Project Manual for IRWD signatures (size 8.5" by 11")
- Engineer's Estimate – electronic submittal in PDF

Assumptions.

- The project will be based on the Preliminary Design Report dated November 2010.
- The total number of sheets is 26 sheets.
- The schedule for final design is from January 2011 to September 2011.

Task 5: SWPPP Preparation

A SWPPP is required in accordance with Construction General Permit (2009-0009 DWQ) for construction projects where the construction area is greater than one acre. This entails submission and tracking of a Notice of Intent (NOI) to the Regional Water Quality Control Board (RWQCB), the completion of a SWPPP to be implemented by the general contractor, and the submission and tracking of a Notice of Termination (NOT) at project completion.

One draft copy of the SWPPP will be submitted electronically to IRWD for comments and revisions. After incorporation of one round of consolidated comments, five copies of the final plan will be provided to IRWD. CH2M HILL will prepare the NOI and NOT (permit fees up to a total of \$5,000 for the project are included). In addition, CH2M HILL will upload the SWPPP to the SWRCB's database for public access. The project falls under Category 3 of the permit and will require construction monitoring. Construction monitoring is not included in this scope at this time.

Fee Estimate

CH2M HILL proposes to complete the aforementioned scope on a time and materials basis as outlined below for a not-to-exceed fee of \$301,677.

Fee Estimate

Task	Hours	Labor		Expense	Subs	Subtotal
		Subtotal				
FD.01 - Project Management	254	\$ 46,118	\$ 5,300	\$ -	\$ -	\$ 51,418
FD.02 - Geotechnical	16	\$ 3,868	\$ 225	\$ 21,131	\$ -	\$ 25,224
FD.03 - Survey	8	\$ 800	\$ -	\$ 18,000*	\$ -	\$ 18,800
FD.04 - Design PS&E	1,393	\$ 187,495	\$ 2,000	\$ -	\$ -	\$ 189,495
FD.05 - SWPPP Preparation	120	\$ 16,684	\$ 56	\$ -	\$ -	\$ 16,740
Total	1,701	\$ 254,965	\$ 7,581	\$ 39,131	\$ -	\$ 301,677

*Includes \$5,000 for potholing services

EXHIBIT "D"

CEQA and Permitting Services for the San Joaquin Marsh Natural Treatment System Site 62 and Small Area Mitigation Site 1 Project

Item	Description	Weights	Dudek	LSA	ICFI	
A TECHNICAL APPROACH						
1	Project Understanding	35.0%	1	2	Declined to Submit	
2	Project Approach	35.0%	1	2		
3	Scope of Work/ Level of Effort	30.0%	2	1		
Weighted Score (Technical Approach)		60.0%	1.30	1.70		
B QUALIFICATION AND EXPERIENCE						
1	Project Manager	15.0%	Vipul Joshi 12 years exp	Art Homrighausen No information		
			2	1		
2	Permitting NTS 62 Lead	15.0%	Vipul Joshi 12 years exp	Art Homrighausen No information		
			2	1		
3	Permitting SAMS 1 Lead	15.0%	Vipul Joshi 12 years exp	Art Homrighausen No information		
			2	1		
4	CEQA NTS 62 Lead	15.0%	Shawn Shamlou AICP, 15 years exp	Deborah Pracillio No information		
			1	2		
5	CEQA SAMS 1 Lead	15.0%	Shawn Shamlou AICP, 15 years exp	Debrah Pracillio No information		
			1	2		
6	Firm's Relevant Experience	15.0%	1	2		
Weighted Score (Experience)		40.0%	1.35	1.35		
Combined Weighted Score		100.0%	1.32	1.56		
C SCOPE OF WORK						
1	Project Kickoff		\$ 5,240.00	\$ -		
2	Biological Assessment					
	Biological Resources Technical Report and habitat restoration/mitigation assement. (NTS 62)		\$ 23,640.00	\$ 7,000.00		
	Biological Resources Technical Report and habitat restoration/mitigation assement. (SAMS 1)		Included	\$ 7,000.00		
	Jurisdictional Delineation (NTS 62)		Included	\$ 6,500.00		
	Focused Plant Survey (NTS 62)		Included	\$ 3,000.00		
	Focused Burrowing Owl Survey (NTS 62)		\$ 720.00	\$ 3,000.00		
	Focused Riparian Bird Survey (NTS 62)		Optional Task	\$ 3,500.00		
	Focused Plant Survey (SAMS 1)		Included	\$ 3,000.00		
	Focused Burrowing Owl Survey (SAMS 1)		Included	\$ 3,000.00		
	Focused Riparian Bird Survey (SAMS 1)		Optional Task	\$ 3,500.00		
TOTAL TASK 2			\$ 24,360.00	\$ 39,500.00		
3	Cultural Resources					
	NTS 62		Included	\$ 3,000.00		
	SAMS 1		Included	\$ 8,120.00		
TOTAL TASK 3			\$ -	\$ 11,120.00		

4	CEQA		
	IS/MND Preparation	\$ 38,410.00	\$ 25,000.00
	Addendum	\$ 7,450.00	\$ 15,000.00
	TOTAL TASK 4	\$ 45,860.00	\$ 40,000.00
5	Regulatory Permitting		
	NTS 62	\$ 46,650.00	\$ 12,000.00
	SAMS 1	Included	\$ 12,000.00
	Regulatory Agency Coordination		
	NTS 62	Included	\$ 4,700.00
	SAMS 1	\$ 12,160.00	\$ 4,700.00
	TOTAL TASK 5	\$ 58,810.00	\$ 33,400.00
6	Project Administration		
	SAMS 1	\$ -	\$ 7,500.00
	NTS 62	\$ -	\$ 4,000.00
	TOTAL TASK 6	\$ -	\$ 11,500.00
7	Reimbursables		
	NTS 62	Included	\$ 5,000.00
	SAMS 1	Included	\$ 6,000.00
	CADFG Fee (NTS 62) (\$2044.00)	Included	Included
	TOTAL TASK 7	\$ -	\$ 11,000.00
8	Direct Costs	\$ 4,044.00	
	TOTAL	\$ 138,314.00	\$ 146,520.00
9	<u>OPTIONAL TASKS</u>		
	Least Bell's Vireo (LVB) Protocol Surveys	\$ 7,180.00	\$ -
	LBV Direct Cost	\$ 500.00	\$ -
	Grand Total	\$ 145,994.00	\$ 146,520.00
	Total Hours	1038.00	No information
D	<u>OTHER</u>		
	Multiplier	N/A	N/A
	Sub Consultants	N/A	N/A
	Exeptions taken to IRWD Std. contract	N/A	N/A
	Insurance (General Liability)	N/A	N/A
	Insurance (Professional)	N/A	N/A
FORCED RANKINGS (Lowest score selected)		1	2
			N/A

Declined to Submit

DUDEK

MAIN OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 T 800.450.1818 F 760.632.0164

February 1, 2011

Christian Kessler
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92619-7000

Subject: Proposal for Environmental Services for the San Joaquin Marsh Natural Treatment System 62 and Small Area Mitigation Site 1 Project

Dear Chris,

Dudek appreciates your solicitation of our services for the Irvine Ranch Water District (IRWD) for the proposed San Joaquin Natural Treatment System 62 NTS 62) and Small Area Mitigation Site 1 (SAMS 1). We believe we have the right team and value-oriented approach to provide the necessary surveys, documentation, and agency coordination to successfully complete the project while achieving the maximum cost savings.

This proposal includes 1) a brief statement of qualifications, with reference to key staff that will handle the project; 2) our specific understanding of the project, including key assumptions relevant to our scope of work; 3) a scope of work that includes optional tasks for potential additional work that may be needed; and 4) a cost estimate that specifically identifies where cost savings have been derived based on combining documents and surveys for the two sites where appropriate.

Statement of Qualifications

Dudek is a recognized expert in biological analysis and regulatory permitting related to sensitive wetland and upland habitats. Our knowledge and familiarity of the project area, local issues, and agency staff is extensive due to past work for IRWD, as well as our work for other water districts throughout Orange County and private landowners, such as The Irvine Company (TIC) and Rancho Mission Viejo. Our team has successfully negotiated complex agreements with resource agencies, including amendments to the Central Coastal Natural Communities Conservation Plan/Habitat Conservation Plan (HCP) and modifications to conservation easements. We were also the lead consultant during preparation and processing of the Southern Subregion Master Streambed Alteration Agreement/HCP.

Dudek's project team will be led by Vipul Joshi, our senior regulatory specialist. Vipul secured permitting for the IRWD San Joaquin Reservoir Project and is currently providing regulatory compliance services for Santa Margarita Water District (SMWD) and IRWD's Syphon Reservoir Project. He has worked for over 12 years with resource agency staff, including key staff covering projects in Orange County. He has also performed biological surveys on over 20,000 acres of TIC land, The Irvine Ranch Conservancy, and other public and private properties in Orange County, with a focus on wetlands delineations and aquatic species surveys.

Shawn Shamlou, AICP, will handle California Environmental Quality Act (CEQA) tasks and, if necessary, National Environmental Policy Act (NEPA) portions of the project. As a CEQA senior project manager with over 15 years of experience, Shawn has worked with a number of Orange County water districts and is familiar with projects that have particularly complex biological resource issues.

Christian Kessler

Subject: *Proposal for Environmental Services for the San Joaquin Marsh Natural Treatment System 62 and Small Area Mitigation Site 1 Project*

Vipul and Shawn are supported by an array of technical experts at Dudek with dozens of years of experience each in the areas of regulatory permitting, CEQA/NEPA, habitat restoration, water quality, and hydrogeology. In addition, Dudek's technical editorial and publications department uses efficient, accurate styles and agency templates, when applicable, to produce high quality documents done right the first time. Our in-house counsel reviews legal defensibility of deliverables. Dudek's geographic information systems (GIS) staff helps clients and regulators quickly evaluate complex project issues with topological modeling, infrastructure mapping and modeling, and spatial analyses. When hiring Dudek, you get a depth of staff that has the experience, expertise, and commitment to quality that will guide your project to successful completion.

Understanding of the Projects

IRWD would like to develop and improve NTS 62 and SAMS 1, which are located immediately next to each other in the City of Irvine, southwest of Campus Drive and northwest of the San Diego Creek Channel. A description of each project is provided below, along with rationale for the required level of CEQA review for each. Key to both projects is the understanding that the IRWD Board of Directors previously certified the San Diego Creek Watershed Natural Treatment System (NTS) Final Environmental Impact Report (EIR) (SCH No. 2002021120) in 2004. The EIR analyzed the environmental impacts of the NTS Master Plan. The EIR included project design features and mitigation measures to minimize potential environmental impacts associated with implementing the NTS Master Plan. An Environmental Assessment (EA)/Finding of No Significant Impact under NEPA was also completed.

NTS 62: IRWD owns NTS 62, and the NTS EIR addressed the proposed implementation of a natural treatment system at this site. Since the time of EIR certification, the design of NTS 62 has changed beyond what was described in the final NTS EIR; thus, an addendum will be prepared to address design changes as well as necessary regulatory support. Per Section 15164 of the CEQA Guidelines, this would be the appropriate course of action (as opposed to a supplemental or subsequent EIR). Typically, a subsequent EIR is not required unless there is a substantial change in the project that would require major changes to the final EIR, substantial changes occur in the circumstances under which the project is being undertaken that will require major revisions in the document, or new information of substantial importance to the project 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 (CEQA Guidelines Section 15162).

Based on the above understanding, two CEQA actions (one for each project) will be made by IRWD as the CEQA lead agency; Dudek will be responsible for preparing two separate CEQA documents. However, while these are two projects with separate CEQA documents and regulatory requirements, an economy of scale can be achieved in addressing both at once, especially given the adjacency of the two sites. To this effect, all site surveys will be conducted jointly for both sites, the Biological Resources Technical Report (BTR) and wetlands permit applications will be combined for both projects, and management of the project will be performed such that significant cost savings are achieved, as discussed in more detail below.

SAMS 1: This site was the location of a mitigation project constructed by TIC in 1990 but is currently owned by IRWD. The mitigation achieved necessary success to be deemed complete by the resource agencies. However, currently, the site is not self-supporting, and habitat quality ranges from moderate to poor. IRWD now proposes to utilize the site to achieve additional water quality improvements that cannot be achieved through use of the NTS 62 site alone. As part of the project, IRWD is proposing rehabilitation

Christian Kessler

Subject: *Proposal for Environmental Services for the San Joaquin Marsh Natural Treatment System 62 and Small Area Mitigation Site 1 Project*

and conservation of the mitigation site in order to mitigate impacts associated with Natural Treatment System Site 67 and SAMS I infrastructure improvements and to retain the mitigation value of the site, as established through TIC's original mitigation requirements.

The NTS EIR did not directly analyze the SAMS I site because it was owned by another entity and was an active mitigation site. Thus, a new CEQA document is required because this proposed site was not previously evaluated in the NTS EIR.

Scope of Work

TASK 1 KICKOFF MEETING AND SITE VISIT

To establish lines of communication between all team members during this initial phase, Dudek's project manager and biology and regulatory lead, Vipul Joshi, and CEQA task manager, Shawn Shamlou, will meet with IRWD and CH2M Hill upon receipt of a notice to proceed. The purpose of this meeting is to meet the key team members and clarify roles, establish data exchange procedures, verify project schedules, and collect any additional available data and documentation pertaining to the site. Dudek will coordinate with IRWD to define the two projects and confirm assumptions. Dudek will also visit the site and take digital site photographs for use in the documentation. This scope includes receiving and cataloging all information available for the two projects, including GIS mapping and engineering drawings.

Total Estimated Cost for Task 1 \$5,240.00

TASK 2 BIOLOGICAL RESOURCES TECHNICAL REPORT INCLUDING JURISDICTIONAL DELINEATION AND HABITAT RESTORATION/MITIGATION ASSESSMENT

Dudek will prepare a single BTR to address both the NTS 62 and SAMS I projects. The BTR will support the CEQA documents for the projects and include all the necessary jurisdictional delineation information to support permit applications for the wetlands regulatory agencies. This scope includes biological and habitat restoration field investigations that will supply the necessary information to complete the BTR and provide the project team with detailed biological constraints and an evaluation of mitigation opportunities that will ensure the final design of the project is the most effective from a permitting perspective.

Dudek will review and incorporate all previous biological surveys conducted for the site, including information provided in CH2M Hill's May 14, 2010, Biology Technical Memorandum. Due to the recent date of this biological survey, Dudek believes that much of the vegetation mapping and habitat sampling already conducted can be used for preparation of the BTR. The primary field effort needed is limited to a jurisdictional delineation with some extra effort to confirm previous upland vegetation mapping and habitat assessments for wildlife species and to evaluate habitat restoration opportunities.

A jurisdictional delineation of "waters of the United States," including wetlands, under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), California Department of Fish and Game (CDFG), and Regional Water Quality Control Board (RWQCB), will be conducted within both the NTS 62 and SAMS I sites. The ACOE jurisdictional wetlands delineation will be conducted in accordance with the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual (TR Y-87-1) and the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (ACOE 2006). Hydrology, vegetation, and soils

Christian Kessler

Subject: Proposal for Environmental Services for the San Joaquin Marsh Natural Treatment System
62 and Small Area Mitigation Site 1 Project

will be examined at potential wetland sites and will be recorded on wetland determination data forms. A predominance of hydrophytic vegetation, where associated with a stream channel, will be used to define CDFG-regulated wetlands. The limits of areas under the jurisdiction of RWQCB generally match those areas delineated as ACOE-jurisdictional. However, stream channels with evidence of an ordinary high water mark that lack connectivity to waters of the U.S. may be considered to be under the jurisdiction of RWQCB and CDFG but not under the jurisdiction of ACOE. The extent of wetland features will be determined in the field by collecting data using a global positioning system unit with sub-meter accuracy; these shapes will be transferred to topographic base, and a GIS coverage will be created.

Concurrent with the jurisdictional delineation, Dudek will confirm previous mapping of upland vegetation communities and overall characterization of the site in terms of habitat quality related to prior mitigation installed on the SAMS 1 site and suitability for wildlife, particularly the state and federally listed least Bell's vireo (*Vireo bellii pusillus*). A single pass riparian bird survey will be conducted during the least Bell's vireo breeding season to determine relative suitability of the site for vireo or if vireo are present, relative population size occupying the sites. Dudek biologists completing the jurisdictional delineation will also map any special-status plant species encountered during the site visit, which will be timed during the spring to optimize detection of special-status plants. In particular, the NTS EIR requires mapping of southern tarplant (*Centromadia parryi* ssp. *australis*) which can be detected from approximately March through August; it is presumed that the delineation will occur during this period to optimize efficiencies with required surveys. A habitat restoration specialist will also visit the site, following consultation with IRWD and CH2M Hill, to evaluate the mitigation opportunities that would exist on the site following completion of the project. Together, the restoration evaluation and biological constraints mapping will help to determine methods to avoid and minimize impacts while maximizing mitigation success.

The BTR will include a comprehensive discussion of the survey methodology according to the appropriate protocol and adequacy of the surveys. Vegetation communities and special-status biological resources will be described in terms of their regional significance and presence on site, including an estimate of observed special-status species' population size and condition. All biological resources observed or with potential to occur on site with any reasonable potential to constrain the project will be addressed in the report. A table summarizing the special-status species that occur in the project vicinity, but have no reasonable potential to occur or otherwise constrain the project, will be included but not discussed further.

Also included in the report will be an assessment of existing conditions, an impacts analysis, and an assessment of the significance of impacts in accordance with state and federal environmental regulations, including CEQA, NEPA, state and federal Endangered Species Act, and wetlands regulations. Direct, indirect, and within-project cumulative effects for both short-term and long-term effects of the proposed project will be evaluated. For impacts identified, Dudek will recommend specific avoidance, minimization, and mitigation measures that reduce impacts to a level below significance, if possible. Proposed mitigation requirements for potential impacts to sensitive or special-status resources will be discussed in terms of regional planning and city, state, and federal laws and guidelines to comply with all existing biological resource laws, regulations, and court precedent, including NEPA, CEQA, and the federal Migratory Bird Treaty Act. Graphics will be prepared to illustrate the location of the site, the existing biological conditions, and the proposed project impacts.

All plant and wildlife species encountered and identified will be recorded for inclusion in an appendix to the BTR. Any focused survey report for wildlife species will also be included as an appendix to the BTR.

Christian Kessler

Subject: *Proposal for Environmental Services for the San Joaquin Marsh Natural Treatment System 62 and Small Area Mitigation Site 1 Project*

Two versions of the report are anticipated to satisfy the various review cycles. Dudek will provide up to two copies of each version of the report, including maps and figures. The final version of the report will be submitted as both hard copy and electronic document accessible in Microsoft Word.

Total Estimated Cost for Task 2 \$23,640.00

TASK 3 PREPARE AND PROCESS SAMS I INITIAL STUDY/MITIGATED NEGATIVE DECLARATION AND NTS 62 ADDENDUM

Task 3A Small Area Mitigation Site 1 Initial Study/Mitigated Negative Declaration

For the SAMS I project, Dudek will prepare an Initial Study (IS) checklist and EA. The results of the EA will be used by IRWD (as lead agency) to determine the appropriate CEQA documentation. For purposes of this scope of work, we assume a mitigated negative declaration (MND) will be prepared.

Dudek will prepare an IS checklist using the most recent version (2010) of Appendix G of the CEQA Guidelines. Dudek will prepare the document in accordance with the requirements of CEQA Guidelines, Section 15063 (Public Resources Code 21080). The document will focus on the key topics of biology, hydrology, cultural resources, land use, and aesthetics, and will include brief analysis of all remaining CEQA topics (see the "Key Issues" section below for details). This task will include review of relevant planning and environmental documents, including the NTS final EIR (2004) and the Preliminary Design Report (PDR), San Joaquin Marsh Regional NTS Facility No. 62 and Small Area Mitigation Site 1 (2010). Since the NTS EIR contains a robust analysis of the adjacent NTS 62 site, we will utilize the information to the degree feasible in the MND in an effort to reduce preparation time. This task will also include the preparation of key report graphics.

The document will identify any potentially significant environmental effects and, in consultation with SMWD, Dudek will identify all feasible measures to mitigate those effects to a less-than-significant level. The draft IS/MND will be circulated for a mandatory 30-day public review period. After the draft IS/MND has been circulated for public review, a final IS/MND will be prepared that includes responses to comments and incorporates applicable revisions.

Dudek will provide up to 10 copies of the screencheck IS/MND for review and SMWD's determination that an MND is the appropriate document. Once the SMWD has provided Dudek with comments, comments will be incorporated, and the draft MND would be released for a 30-day public comment period. In addition to preparing the MND for public review, Dudek will prepare the Notice of Completion and Notice of Availability, which will accompany the public review documents. It is assumed that no more than 30 copies of the MND would be required to meet SMWD's required/desired public distribution list.

Once the comment period is completed, Dudek would assist SMWD in responding to any comments received on the project during the public review period. Dudek assumes no more than 30 comments would be submitted and necessitate responses. One comment letter may contain several comments. The comment letters, draft responses, a final MND preface, and, if applicable, a discussion of any edits made to the MND as a result of public review would constitute the final MND. Dudek will provide SMWD with one screencheck of the final MND for review. Once SMWD has provided comments, Dudek will incorporate them into the final MND. Dudek assumes that no more than 10 copies of the final MND would be required. This task does not include fees for publication of notices

Christian Kessler

Subject: *Proposal for Environmental Services for the San Joaquin Marsh Natural Treatment System 62 and Small Area Mitigation Site 1 Project*

in local newspapers or Notice of Determination/CDFG filing fees. This task does include attendance by the CEQA task leader at up to two meetings during preparation and approval of the MND.

Should federal funding be used for the SAMS 1 project, a scope and cost to prepare a supplemental EA under NEPA will be provided, including coordination with the Bureau of Reclamation and Environmental Protection Agency (EPA). The supplemental EA would evaluate only the addition of SAMS 1 and the placement of the inlet location adjacent to SAMS 1. If federal funding is utilized and a supplemental EA is required, we recommend preparing the CEQA and NEPA documents simultaneously to reduce overlap and reduce the potential for the technical report and analyses to become outdated. Dudek will closely coordinate with IRWD during this process. A cost estimate for the potential NEPA document cannot be estimated without additional information regarding the federal lead agency.

Key Issues

Biological Resources. We will summarize the results of the Dudek-prepared BTR identified in Task 2, focusing on impacts to wetlands and special-status species and the post-project restoration design as mitigation for project impacts.

Cultural Resources. Based on our review of the final NTS EIR and the 2010 PDR, no new technical report is needed to sufficiently analyze this topic. The pedestrian survey and literature search previously conducted in April 2010 will suffice and be referenced in the MND. The NTS EIR indicated that the NTS 62 site is located within one mile of 22 recorded archaeological sites, and the area possesses a high sensitivity for archaeological resources. The 2010 PDR confirmed these conclusions. Also in the 2009 EA, the EPA conducted a cultural resources assessment and consulted the California State Historic Preservation Office. The consultation concluded with a determination that the proposed undertaking would not affect historic properties and that project construction at NTS 62 will be monitored by a professional archaeologist who meets the Secretary of the Interior's standards for archaeology. Hence, the EIR and EA required mitigation by a qualified archaeologist during ground disturbing activities to ensure that potential buried resources are not significantly affected. The 2010 PDR recommended that IRWD consider commissioning a simple pre-construction subsurface testing plan that would attempt to better characterize the subsurface stratigraphy of the site and obtain geoarchaeological data that would aid in understanding subsurface potential for archaeological material. Also, the PDR recommended the development of a cultural resources awareness training program to be delivered to all construction personnel prior to conducting work at the site. The MND will need to incorporate similar mitigation.

Landform Modification and Aesthetics. The final NTS EIR determined that the amount of proposed earthwork activity and landform modification is not considered significant (approximately 3,240 cubic yards [cy] of cut and 17,000 cy of fill) since it would occur within an existing area that is already disturbed. Dudek will confirm the cut and fill quantities for the project for use in the MND impact analysis. For potential visual impacts, the visual character of NTS 62 would change from its existing character, which is disturbed vacant land. The NTS EIR determined that implementation of NTS 62 would require construction activities over a

Christian Kessler

Subject: Proposal for Environmental Services for the San Joaquin Marsh Natural Treatment System
62 and Small Area Mitigation Site 1 Project

period of approximately 22 weeks. Dudek will confirm the construction schedule, construction equipment to be used, and staging area in the MND analysis.

In addition, visual effects to users of the adjacent Peters Canyon Trail, motorists, and users of Campus Drive will be assessed. The long-term benefit of visual improvements of the site will be disclosed. Overall, the impacts would likely be the same as concluded in the EIR—less than significant.

Land Use. The site has a City of Irvine General Plan land-use designation and zoning designation of "Preservation." The NTS EIR concludes that the proposed NTS 62 project is consistent with existing applicable planning programs/documents, and the MND will make a similar case for the proposed SAMS 1 project.

Hydrology. Construction impacts would be temporary in nature and, as indicated in the NTS EIR, would be prevented from occurring through required compliance with the National Pollution Discharge Elimination System general construction activity storm water permit, applicable stormwater pollution prevention program provisions, and best management practices (BMPs) IRWD requires as part of standard conditions and requirements during construction to protect water quality. Long-term effects are anticipated to be less than significant, consistent with the NTS EIR.

Other CEQA Topics. The topics analyzed in the Effects Not Found to be Significant section of the EIR will also be analyzed in the MND, including traffic, geology and soils, noise, minerals, public services, paleontology, and noise.

Estimated Cost for Task 3A..... \$38,410.00

Task 3B. NTS 62 Addendum

Dudek will prepare an addendum to clarify minor changes to the final NTS EIR and explain why proposed changes would not result in new impacts or an increase in the severity of impacts addressed in the final NTS EIR. The addendum will focus on the changed project conditions, that is, the addition of SAMS 1 and the placement of the inlet location adjacent to it. We will summarize the results of the BTR described in Task 2. Additionally, due to changes in 2010 to Appendix G of the CEQA Guidelines, we will include in the addendum brief discussions for greenhouse gas emissions, forestry resources, and traffic.

Our project team will ensure that the addendum has been drafted with the correct language and description to support the addendum process. We will draft the addendum to specifically provide a rationale within the administrative record that will support IRWD's determination that a subsequent or supplemental EIR was not needed and the appropriate choice of document was the addendum. Courts will uphold a lead agency's decision that a further EIR is not required as long as the decision is supported by substantial information in the record of proceeding. Moreover, only the sections within Appendix G of the CEQA Guidelines that were revised will be evaluated and documented within the addendum. The addendum need not be circulated for public review, but may simply be attached to the final NTS EIR.

Estimated Cost for Task 3B..... \$7,450.00

Total Estimated Cost for Task 3 (Tasks 3A and 3B) \$45,860.00

Christian Kessler

Subject: *Proposal for Environmental Services for the San Joaquin Marsh Natural Treatment System
62 and Small Area Mitigation Site 1 Project*

TASK 4 JOINT PROJECTS REGULATORY PERMITTING

The jurisdictional impacts related to the project are associated with the outfall to the San Diego Creek Channel and possibly with some of the improvements on the SAMS 1 site. It is anticipated that the project would qualify for a Nationwide Permit (NWP) from ACOE. ACOE may require formal or informal consultation with the U.S. Fish and Wildlife Service (USFWS) to address potential impacts to the federally listed least Bell's vireo; Dudek assumes, based on past experience that an informal consultation will occur. Additional regulatory permits that would be required include a Section 1602 Streambed Alteration Agreement with CDFG, pursuant to the state Fish and Game Code, and a Section 401 Water Quality Certification from the RWQCB.

Application requirements of each of the agencies differ, but there is a great deal of overlap, such as provision of a project description, discussion of avoidance and minimization measures, etc. As such, a joint permit application will be prepared to include cover letters individually addressing each agency, forms required by each agency, necessary filing fees, and supporting documents, such as the CEQA document and project BTR. To the extent feasible, processing with the agencies will be done concurrently; for example, if a site visit is required, Dudek will attempt to coordinate a single meeting attended by all agencies rather than three separate meetings.

This scope of work assumes a 9-month processing period following submittal of the permit applications. During this time, up to three meetings with the resource agencies are included in this cost estimate. Below is a more detailed description of individual agency permit requirements.

ACOE 404 Pre-Construction Notification Permit

Dudek will complete and submit a pre-construction notification (PCN) under NWP 7 to ACOE in compliance with Section 404 of the federal Clean Water Act (CWA). NWP 7 authorizes the discharge of dredge/fill within waters of the U.S. in association with an outfall or intake structure. The PCN may also include an application for NWP 12 for authorization of utility lines, including access roads and/or NWP 27 for authorization of habitat restoration activities.

The PCN will include a project description, a discussion of avoidance and minimization of impacts, a wetland delineation, a draft mitigation memo, a copy of the CEQA document, all associated figures (vicinity maps, project site map, construction/grading cross section, mitigation location, etc.), and copies of the wetlands permit applications submitted to RWQCB and CDFG. Certain engineering graphics will be required from the project engineers and hydrologist in order to complete this application.

USFWS Section 7 Informal Consultation

As discussed above, the presence of suitable habitat for least Bell's vireo indicates that potential impacts to these species will need to be evaluated by ACOE to determine if a consultation is required. Upon request by ACOE, Dudek will prepare a technical memorandum discussing potential impacts to least Bell's vireo, including documentation of vireo life history, status, population trends, regional breeding status, etc., as well as project-specific avoidance measures. In most cases, ACOE provides this memorandum to USFWS, and through discussions with the consultant, USFWS confirms that the avoidance measures are adequate, and the informal consultation is concluded. It should be noted that Dudek assumes that protocol surveys to determine the population size of vireo occupying the site will not be required since impacts will be avoided and a wildlife survey will have been completed during the least Bell's vireo season, as part of the Biological Technical Report. However, an optional task is included below in case ACOE or USFWS require such a survey.

Christian Kessler

Subject: Proposal for Environmental Services for the San Joaquin Marsh Natural Treatment System
62 and Small Area Mitigation Site 1 Project

If a formal consultation is required, an additional scope for preparation of a biological assessment and processing of a biological opinion by USFWS would be needed. Typical additional consultant costs for processing of a Section 7 Formal Consultation range from \$40,000-\$60,000.

RWQCB 401 Water Quality Certification

Section 401 of the federal CWA requires that either the EPA or a state water quality agency certify that authorization for dredge/fill by ACOE does not result in adverse water quality impacts. Thus, a 401 Water Quality Certification is required before ACOE can issue the NWP authorization discussed above. Dudek will complete and submit an application for a Section 401 Water Quality Certification to the RWQCB. The application will include a project description, wetland delineation, discussion of avoidance and minimization of impacts, impacts analysis, proposed mitigation, discussion of beneficial uses, identification of pollutants of concern and short- and long-term BMPs to minimize discharge of pollutants (with identification of BMP effectiveness percentages), a copy of the CEQA document, all associated figures (vicinity maps, project site map, construction/grading cross sections, etc.), and copies of the wetland permit applications submitted to CDFG and ACOE. Dudek assumes that the project engineer will provide all necessary hydraulic and BMP evaluation requirements. Dudek will coordinate with RWQCB staff following the submission of the application, particularly with responding to public comments during the 21-day public notice period, if applicable.

CDFG 1600 Streambed Alteration Agreement

Dudek will submit an application for a Section 1602 Streambed Alteration Agreement to CDFG. The application would include a project description, wetlands delineation, impacts analysis, discussion of avoidance and minimization of impacts, draft mitigation plan, a copy of the CEQA document and filing fee receipt, all associated figures (vicinity maps, project site map, construction/grading cross sections, mitigation area, etc.), and copies of the wetland permit application submitted to ACOE and RWQCB.

Habitat Mitigation and Monitoring Plan

Dudek assumes that CH2M Hill, as a participant in the final design of the projects, will provide a habitat mitigation and monitoring plan (HMMP) to address planning, installation, and monitoring of mitigation. The HMMP must specifically address restoration/mitigation of temporary impacts associated with construction and development of habitat on the SAMS I site resulting from infrastructure improvements on that site. If necessary and appropriate, Dudek can provide the HMMP at an additional cost (typically \$12,000-\$15,000), based on hydraulic and soils information provided by CH2M Hill. The HMMP must be prepared according to ACOE standards and would include a description of the project, relevant jurisdictional impacts, methods of mitigation, maintenance and management plan, success criteria, and a detailed monitoring and reporting program.

Total Estimated Cost for Task 4 \$46,650.00

TASK 5 ADDITIONAL AGENCY COORDINATION REGARDING THE FAILED MITIGATION AT SAMS I

Dudek will provide additional agency coordination to address the mitigation installed at the SAMS I site by TIC. This mitigation, constructed in 1990, provided 16.92 acres of mitigation credit and was completed and signed off on by the resource agencies. Additional coordination is anticipated to provide the resource agencies with justification as to why the SAMS I site can be now used for limited infrastructure improvements. It is anticipated

Christian Kessler

Subject: Proposal for Environmental Services for the San Joaquin Marsh Natural Treatment System
62 and Small Area Mitigation Site 1 Project

that the water quality, habitat, and conservation easement benefits that will be derived from the project will outweigh any concerns about impacting this previous mitigation site; however, it will be important to demonstrate that the 16.92 acres of mitigation previously completed will be sustained along with any additional mitigation required for the NTS 62 and SAMS 1 project improvements. This scope of work includes up to two meetings with the resource agencies and as-needed coordination to establish an agreement to allow the SAMS 1 site to be utilized for infrastructure improvements by IRWD. It is expected that this task will run concurrent with Task 4 over an approximately 9-month period.

Total Estimated Cost for Task 5 \$12,160.00

TASK 6 PRE-CONSTRUCTION BURROWING OWL SURVEY

Dudek will conduct a single pass burrowing owl survey within 30 days of initiation of construction, as per NTS EIR Mitigation Measure BIO-3. The pre-construction survey will be completed by a qualified biologist that will walk the site under conditions (timing, weather, etc.) that are suitable for detection of burrowing owl. A letter report will be provided following the survey describing the methods and results of the survey. If burrowing owls are detected within the proposed impact area, recommendations will be made to relocate the owls in accordance with the NTS EIR mitigation and standards of practices in the industry.

Total Estimated Cost for Task 6 \$720.00

OPTIONAL TASK A LEAST BELL'S VIREO PROTOCOL SURVEYS

As discussed above, the project sites support suitable habitat for the state and federally listed endangered least Bell's vireo. However, it is expected that the project can be designed to avoid impacts to vireo habitat and that work can be done with sufficient avoidance measures to prevent "take" of vireo or vireo habitat. Ordinarily, the resource agencies do not require protocol surveys if the applicant presumes that vireo utilize the areas and adopts sufficient avoidance measures to prevent take of the species. However, in certain situations, the resource agencies may require surveys to quantify the potential effect of the project. If necessary, Dudek will conduct focused surveys for least Bell's vireo in areas supporting suitable habitat within the project area in accordance with USFWS-approved survey protocol (USFWS 2001). The combined project area supports approximately 10 acres of potential habitat. This scope assumes that surveys are only required to address direct impacts of the project and, therefore, additional survey of suitable habitat within buffer areas are anticipated.

For the least Bell's vireo, a recovery permit pursuant to Section 10(a)(1)(A) is not required to conduct presence/absence surveys provided that the January 19, 2001, survey protocol is followed and vocalization tapes are not used. A total of eight site visits to areas of suitable habitat will be conducted at minimum with 10-day intervals between each visit. Dudek will conduct surveys between April 10 and July 31, between dawn and 11:00 a.m., using a qualified biologist familiar with least Bell's vireo songs, calls, and plumage. Therefore, 8 person-days will be required to survey the project area for this species.

A focused survey letter report documenting the methods and results of this survey will be prepared in accordance with the USFWS requirements.

Total Estimated Cost for Task A \$7,180.00

DUDEK

211000-30010
February 2011

Christian Kessler

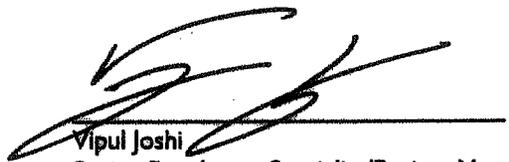
Subject: *Proposal for Environmental Services for the San Joaquin Marsh Natural Treatment System
62 and Small Area Mitigation Site 1 Project*

Dudek proposes to complete the outlined scope of work for a labor total not to exceed \$134,270.00 (without Optional Task A) or \$141,450.00. All direct costs are billed in accordance with our 2011 Standard Schedule of Charges, a copy of which is attached. For estimation purposes, a total of \$4,044 in direct costs (including CDFG Filing Fee for the MND) is anticipated (\$4,544 with authorization of Optional Task A) for a total contract fee of \$138,314 (without Optional Task A) or \$145,994 (with Optional Task A). Wetlands permit application fees are not included in this direct cost estimate. All work is billed monthly on a time-and-materials, not-to-exceed basis.

Dudek greatly appreciates the opportunity to provide services to IRWD to successfully accomplish this project. We believe there are significant cost savings provided in Dudek's approach. Specifically, the joint BTR and regulatory permitting tasks (Tasks 2 and 4), if separated for each project, would require approximately \$50,000 in additional consultant fees in addition to added application fees and potential schedule delays. Although separate CEQA documents will be prepared, the internal coordination and project management associated with those documents will largely be combined for the two projects, resulting in an additional cost savings of approximately \$8,000. In total, IRWD can expect that utilizing the approach outlined above will result in total cost savings of approximately \$58,000.

Please let us know if you have any questions or additional needs related to this proposal. You may contact me via phone at 760.479.4284 or email at vjoshi@dudek.com.

Sincerely,



Vipul Joshi
Senior Regulatory Specialist/Project Manager

Att: *2011 Dudek Standard Schedule of Charges
Cost Spreadsheet*

ATTACHMENT A
Cost Estimate

		Project Name: NTS 82 & SAMS 1													
		Client: RWDD													
		Date: January 2011													
Employee :	John Porteous	Sherri L. Miller, Mike Sweesy	Vipul R. Joshi	Shawn Shamlou	Britney Strittmater	Jennifer Longabaugh	Mark McGinnis	Lies Beraut	Becky Golden-Hatrell			Total	Estimated Direct Costs	Total Contract	
Employee Type :	Principal	Principal	Enviro Specialist / Planner VI	Senior Project Manager / Specialist II	Enviro Specialist / Planner I	Enviro Specialist / Planner I	GIS Specialist / III	Publications Assistant II	Technical Editor III			Total	Estimated Direct Costs	Total Contract	
Tasks	225	225	180	200	120	120	140	140	140	140	140	Subs	Total	Estimated Direct Costs	Total Contract
Task 1: Kickoff Meeting and Site Visit			12	12			4					28	\$5,240	\$125	
Task 2: Bio Tech Report-ID+Restoration	24		30		90		8	4	4			160	\$23,640	\$250	
Task 3a: SAMS 1 IS/MND	4			75		115	18	20	26			258	\$38,410	\$2,519	
Task 3b: NTS 82 Addendum				12		35		5	2			54	\$7,450	\$50	
Task 4: Joint Project Permitting	22		113		158		8	8	4			313	\$46,650	\$900	
Task 5: Additional SAMS 1 Permitting	4		60				2	2				68	\$12,160	\$200	
Task 6: Borrowing Owl Survey						6						6	\$720	\$50	
Total Hours w/o Optional Task	4	50	215	99	249	150	43	39	36			831	n/a	\$4,844	
Optional Task A: LBVI Protocol Surveys					56		2	2				60	\$7,180	\$500	
Total Hours	4	50	215	99	304	150	42	41	36			841	n/a	\$4,844	
Optional Task B: SAMS 1 Addendum															

IRVINE RANCH WATER DISTRICT

EXHIBIT "F"

Expenditure Authorization

Project Name: NTS: SOUTH SAN JOAQUIN MARSH (SAMS1)

Project No: 10835 EA No: 3

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

Improvement District (ID) Allocations

Project Manager: UEMATSU, PATRICIA

Project Engineer: MCGEHEE, JOSEPH

Request Date: February 1, 2011

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:	\$280,500
This Request:	\$528,000
Total EA Requests:	\$808,500
Previously Approved Budget:	\$2,249,500
Budget Adjustment Requested this EA:	\$0
Updated Budget:	\$2,249,500
Budget Remaining After This EA	\$1,441,000

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	25,000	50,000	75,000	25,000	50,000	75,000	2/10	12/11
ENGINEERING DESIGN - OUTSIDE	305,000	200,000	505,000	300,000	250,000	550,000	2/10	12/10
DESIGN STAFF FIELD SUPPORT	0	5,000	5,000	0	5,000	5,000	2/10	12/11
ENGINEERING - CA&I IRWD	0	0	0	0	60,000	60,000	3/12	10/13
ENGINEERING - CA&I OUTSIDE	0	0	0	0	60,000	60,000	3/12	10/13
CONSTRUCTION FIELD SUPPORT	0	0	0	0	10,000	10,000	3/12	10/13
CONSTRUCTION	0	0	0	(475,000)	1,600,000	1,125,000	3/12	10/13
LEGAL	0	0	0	0	10,000	10,000	6/10	12/11
ENGINEERING ENVIRONMENTAL-OUTS	150,000	0	150,000	150,000	0	150,000	2/10	12/11
Contingency - 10.00% Subtotal	\$48,000	\$25,500	\$73,500	\$0	\$204,500	\$204,500		
Subtotal (Direct Costs)	\$528,000	\$280,500	\$808,500	\$0	\$2,249,500	\$2,249,500		
Estimated G/A - 195.00% of direct labor*	\$54,300	\$101,800	\$156,100	\$48,800	\$243,800	\$292,600		
Total	\$582,300	\$382,300	\$964,600	\$48,800	\$2,493,300	\$2,542,100		
Direct Labor	\$25,000	\$55,000	\$80,000	\$25,000	\$125,000	\$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: J-mj 2/2/11

Department Director: RAW Kevin L Burt 2/3/11

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 \$2,593,000. 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.

February 28, 2011

Prepared by: M. Hoolihan

Submitted by: Greg Heiertz

Approved by: Paul Jones

[Handwritten signatures and initials: M. Hoolihan, Greg Heiertz, Paul Jones]

ACTION CALENDAR

ORANGE PARK ACRES SEWER CONNECTION FEES

SUMMARY

Staff is recommending adoption of a resolution establishing sewer connection fees in the Orange Park Acres (OPA) area, both for Improvement District (ID) 256 to facilitate customers currently seeking sewer service and for the future Ridgeline Development, as shown in Exhibit "A". The purpose of setting sewer connection fees for OPA at this time is to:

- Establish a fee for individual homeowners that are interested in connecting to the public sewer system in advance of the proposed community sewer being constructed;
- Differentiate the sewer connection fee for the future Ridgeline Development, which is expected to construct a sewer system for the development and subsequently dedicate that sewer system to IRWD; and
- Provide OPA residents with a cost basis for a sewer connection fee that can be compared to the cost obligation for a General Obligation (G.O.) bond to construct a community sewer system.

The basis for the recommended sewer connection fees is the construction cost estimate for a community sewer system in OPA (memorialized in the OPA Sub-Area Master Plan), a full buy-in into the OCSD capital outlay (CORF and Equity), and a buy-in to the IRWD sewer replacement fund. Staff recommends that there be an initial connection fee for ID 256, and a planning area established for the currently undeveloped Ridgeline Development with a separate connection fees. Staff proposes that the sewer connection fees for each area be set as follows:

ID 256	\$24,500 per dwelling unit
Planning Area OPA1 (Ridgeline Development)	\$ 4,200 per dwelling unit

Staff recommends that sewer connection fees be escalated annually based on the Engineering News Record's Construction Cost Index for Los Angeles. Should the OPA community authorize G.O. bonds to construct a community sewer system, staff recommends that the connection fees be adjusted accordingly at that time. The recommended amount of the sewer connection fees is consistent with the OPA conceptual finance plan that was presented Finance and Personnel Committee in March 2010.

BACKGROUND:

ID 256 Connection Fees:

At the March 2010 Finance and Personnel Committee, staff presented a conceptual finance plan for implementing a community sewer collection system in the OPA area served by IRWD. Since that time, a number of homeowners in the OPA area have requested immediate sewer service

from IRWD. In order to accommodate these requests, staff is recommending the establishment of sewer connection fees in ID 256 consistent with the conceptual finance plan. Staff is recommending the initial connection fee be set at \$24,500 per dwelling unit, which consists of the following three components:

Component #1 – Local Public Sewer Construction Cost: Pursuant to the OPA Sub-Area Master Plan, this includes construction costs for the recommended community sewer system and buy-in cost for conveyance capacity through the City of Orange's sewer system where necessary. This component of the connection fee could be eliminated if in the future the OPA community approves a bond authorization to complete this work.
Cost Associated with Component #1: \$20,300

Component #2 – OCSD CORF and Equity Buy-in Cost: As discussed in the March 2010 Finance and Personnel Committee meeting, this includes both an equity buy-in and future CORF for sewerage treatment capacity at OCSD. This component of the connection fee could be eliminated if in the future the OPA community approves a bond authorization that includes the costs to pay for the OCSD CORF and Equity Buy-in.
Cost Associated with Component #2: \$3,100

Component #3 – IRWD Sewer Replacement Fund: As discussed in the March 2010 Finance and Personnel Committee meeting, this cost includes a one-time payment to the IRWD sewer replacement fund based on the estimated value of the fund and OPA's proportional buy-in. This component was calculated based on the current value of the sewer replacement fund.
Cost Associated with Component #3: \$1,100

The sewer connection fees will generally be collected at the time sewer service is requested by the homeowner. Given the unique situation of the potential bond authorization within the next year, staff is recommending offering two options to OPA customers for payment of the connection fee:

Option 1 – Cash Option: This would be a onetime payment of \$24,500, consistent with IRWD's current rules and regulations for collection of a connection fee.

Option 2 – Deferred Payment Option: This option will allow the homeowner to pay only the sewer replacement fund buy-in (\$1,100) at the time service is requested and defer the payment of the remainder of the connection fee for two years. After the second year, the remainder of the connection fee (\$23,400) would be collected through 60 equal monthly payments including interest.

Option 2 would give the homeowner the opportunity to participate in a bond funding to pay the remaining \$23,400 of the connection fee if the G.O. bond authority is approved by the community to construct a sewer system in OPA. A customer choosing either Option 1 or 2 would be refunded any amount that is paid and is later determined to be reimbursable from bond proceeds. Staff is processing a separate sewer service agreement agenda item that will be presented to the Engineering and Operations Committee and the Board in March 2011.

Ridgeline Development Connection Fees:

Staff is also requesting that a separate connection fee be established for the Ridgeline Development in OPA, an area that will be referred to as Planning Area OPA1. OPA1 consists of a proposed housing development in the area at the former Ridgeline Golf and Tennis Club. The development includes 39 custom residential lots of approximately one acre each. The developer will be building a separate community sewer system for this development, which will be dedicated to IRWD at its completion.

Accordingly, staff is recommending only the second and third components of the ID 256 connection fee be applied to Planning Area OPA1. The recommended connection fee for this area would be \$4,200 per dwelling unit. The sewer connection fees will be collected at the time sewer service is requested by the developer.

This recommended approach is consistent with the methodology used to set a separate connection fee for a planning area with unique characteristics that exists within a larger improvement district. While connection fees for planning areas are typically larger than the ID's connection fees, the OPA1 connection fees would be less than the surrounding ID's fees because of the separate sewer system to be constructed. The proposed OPA1 connection fee would be set as the amount to be charged in lieu of the ID 256 connection fee.

FISCAL IMPACTS:

The collection of sewer service fees in the OPA area will facilitate the implementation of a public sewer system.

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 February 1, 2011.

RECOMMENDATION:

THAT THE BOARD APPROVE SETTING CONNECTION FEES OF \$24,500 FOR IMPROVEMENT DISTRICT 256; DESIGNATE THE RIDGELINE PROPERTY AS THE PLANNING AREA OPA1 AND SETTING CONNECTION FEES FOR OPA1 AT \$4,200, EFFECTIVE IMMEDIATELY; ADOPT THE FOLLOWING RESOLUTION BY TITLE MAKING CHANGES TO THE CONNECTION FEES; AND APPROVE A FUTURE ESCALATION OF SUCH FEES IN THE AMOUNT THAT IS EFFECTIVE JULY 1 OF EACH FISCAL YEAR BASED ON THE ENGINEERING NEWS RECORD'S CONSTRUCTION COST INDEX FOR LOS ANGELES, UNLESS THE BOARD ACTS TO ADJUST THE CONNECTION FEES DIFFERENTLY.

RESOLUTION NO. 2011-

RESOLUTION OF THE BOARD OF DIRECTORS OF IRVINE
RANCH WATER DISTRICT, ORANGE COUNTY, CALIFORNIA
ADOPTING CHANGES TO CONNECTION FEES AS SET FORTH IN
THE SCHEDULE OF RATES AND CHARGES
IN EXHIBIT "B" TO THE RULES AND
REGULATIONS OF IRVINE RANCH WATER DISTRICT
FOR WATER, SEWER, RECYCLED WATER, AND NATURAL
TREATMENT SYSTEM SERVICE

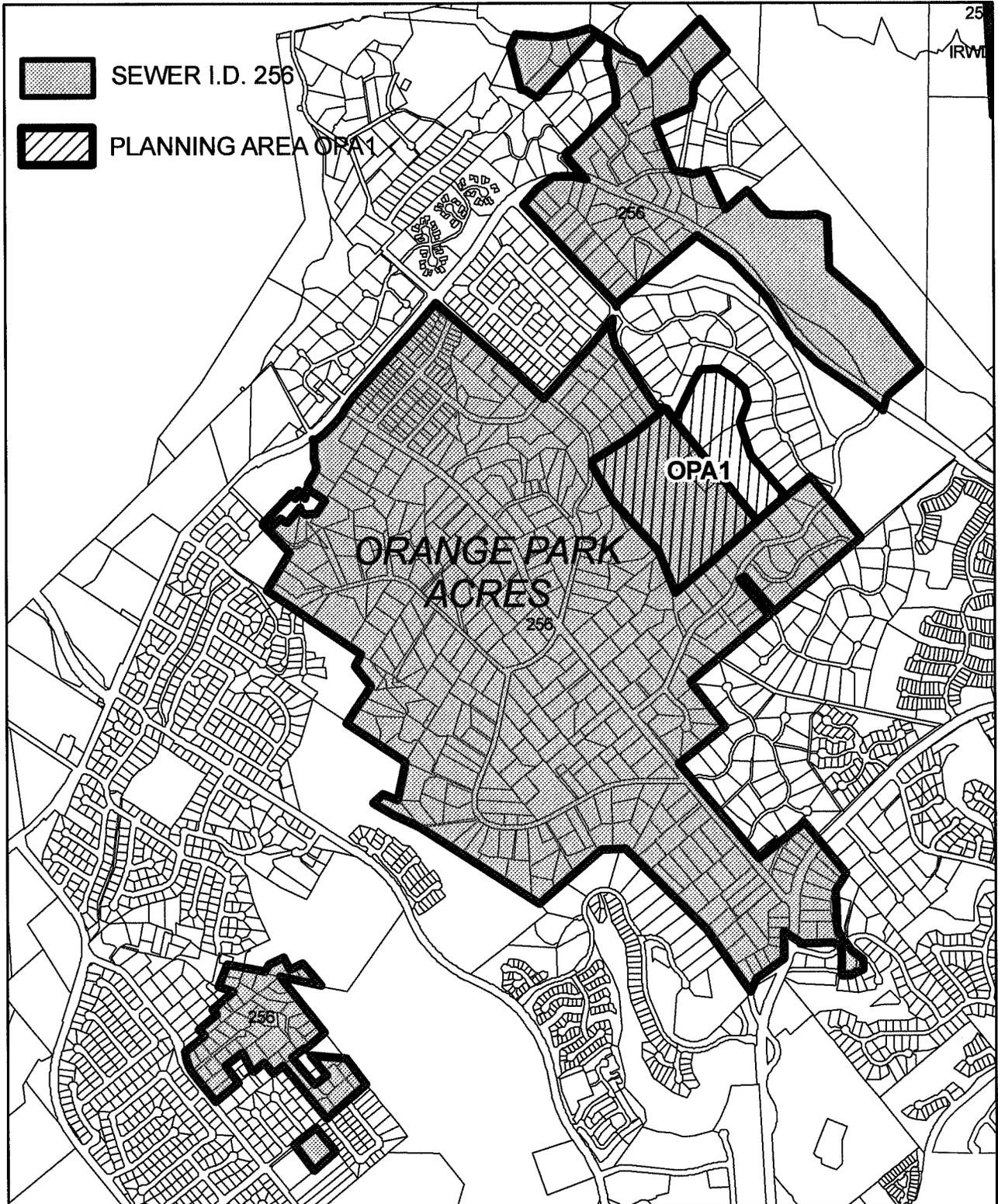
LIST OF EXHIBITS:

Exhibit "A" – Location Map

Exhibit "B" – Resolution

Exhibit "C" – Rates and Charges – Sewer Connection Fees for ID 256 and OPA1

EXHIBIT "A" LOCATION MAP



ORANGE PARK ACRES SEWER CONNECTION FEES



Exhibit "B"

RESOLUTION NO. 2011-

RESOLUTION OF THE BOARD OF DIRECTORS OF IRVINE
RANCH WATER DISTRICT, ORANGE COUNTY, CALIFORNIA
ADOPTING CHANGES TO CONNECTION FEES AS SET FORTH IN
THE SCHEDULE OF RATES AND CHARGES
IN EXHIBIT "B" TO THE RULES AND
REGULATIONS OF IRVINE RANCH WATER DISTRICT
FOR WATER, SEWER, RECYCLED WATER, AND NATURAL
TREATMENT SYSTEM SERVICE

WHEREAS, the Irvine Ranch Water District (IRWD) is a California Water District organized and existing under the California Water District Law, and all of the lands within the boundaries of said District are located in the County of Orange, State of California; and

WHEREAS, Section 35423, 35470, and Section 35501 of the California Water Code empower the District to establish, print and distribute equitable rules and regulations and prescribe and collect rates or other charges for water and sewer service, and such authority to prescribe and collect rates or other charges for water and sewer service includes connection fees for connection and service capacity; and

WHEREAS, the Board of Directors of IRWD, by adoption of Resolution No. 2009-4 approved and adopted amended "Rules and Regulations of Irvine Ranch Water District for Water, Sewer, Recycled Water, and Natural Treatment System Service effective February 9, 2009"; and

WHEREAS, Exhibit "B" of said Rules and Regulations sets forth Rates and Charges, which Exhibit "B" may be changed from time to time by adoption of changes to any of the rates and charges or any new rates and charges as may be established and set forth therein; and

WHEREAS, the Board of Directors of IRWD by adoption of Resolution No. 2010-22 on July 26, 2010 approved revisions to the connection fees set forth in the Schedule of Rates and Charges - Exhibit "B" to the Rules and Regulations; and

WHEREAS, Section 21080(b) (8) of the Public Resources Code provides that the establishment, modification, structuring, restructuring or approval of rates, tolls, fares, or other charges by public agencies are exempt from the requirements of the California Environmental Quality Act (CEQA) provided that certain findings are made specifying the basis for the claim of exemption; and

WHEREAS, Article XIII B of the Constitution of the State of California, limiting local agencies' appropriations of proceeds of taxes, excludes user charges or fees or regulatory fees from the definition of proceeds of taxes, as long as such fees and charges do not produce revenue exceeding the costs reasonably borne in providing the regulation, product or service, and further excludes appropriations for debt service and appropriations for qualified capital outlay projects from appropriations subject to limitation; and

WHEREAS, the Board of Directors of IRWD deems it advisable and finds that it would be in the best interest of the District to amend or establish connection fees, consistent with applicable constitutional and statutory requirements; and

WHEREAS, the proposed revisions to the connection fees, as set forth in Exhibit “A” to this resolution, do not modify or establish any property-related fees or charges subject to the notice and hearing procedures of Article XIII D of the Constitution of the State of California; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of IRWD as follows:

Section 1. It is hereby found and determined that the proposed changes to the Schedule of Rates and Charges are within the purposes set forth in Section 21080(b) of the Public Resources Code including but not by way of limitation, the purposes of (1) meeting operating expenses, (2) purchasing or leasing supplies, equipment or materials, (3) meeting financial reserve needs and requirements, and (4) obtaining funds for capital projects necessary to maintain service within existing areas, and therefore, that such changes are exempt from CEQA.

Section 2. It is hereby found and determined that relative to Article XIII B of the Constitution of the State of California, the charges or fees or regulatory fees established or increased hereby do not produce revenues exceeding the costs reasonably borne in providing the regulation, product or service and/or are used for debt service or qualified capital outlay projects and accordingly do not constitute proceeds of taxes and appropriation of which is limited under Article XIII B, and that the documentation used in making such determinations has been on file in the office of IRWD for not less than 15 days prior to the date hereof, pursuant to Section 7910 of the Government Code of the State of California. It is hereby further found and determined that relative to the requirements of Sections 66013 and 66016 of the Government Code of the State of California, the availability of such documentation also satisfies the requirement to make publicly available the data indicating the estimated cost and revenue sources to provide the service for which the fee is imposed at least 10 days prior to the meeting at which this resolution is adopted, and that the connection fees established or increased hereby do not exceed the estimated reasonable cost of providing the service for which they are imposed.

Section 3. The revisions to the connection fees as set forth in Exhibit “A” attached to this resolution and by this reference incorporated herein are hereby adopted, and the corresponding rate(s), fee(s) or charge(s), if any, as set forth in Rules and Regulations Exhibit “B” currently in effect, are hereby superseded. Staff is directed to incorporate the hereby adopted connection fee(s) into Exhibit “B” to the Rules and Regulations.

Section 4. That the provisions of this Resolution shall be effective upon adoption.

///
///

Section 5. That the Secretary is hereby ordered and directed to post a certified copy of this Resolution in a public place within the Irvine Ranch Water District.

ADOPTED, SIGNED and APPROVED this ____ day of _____, 2011.

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: _____

Exhibit "C"

Sewer Connection Fees

Residential

	IMPROVEMENT DISTRICT	0-5.8 <u>DUs/acre</u>	5.9-10.8 <u>DUs/acre</u>	10.9-25.8 <u>DUs/acre</u>	25.9-40.0 <u>DUs/acre</u>
Connection Fees Per Dwelling Unit	1 (201)*	\$5,375	\$4,784	\$3,937	\$3,107
	213	3,833	3,833	3,833	3,833
	2 (220), 221	740	740	740	740
	2 (230)	1,783	1,783	1,783	1,783
Total acreage for any given development shall be gross acres excluding private parks.	240	2,966	2,966	2,966	2,966
	205 (250)	1,783	1,783	1,783	1,783
	206 (260), 261	1,783	1,783	1,783	1,783
	256	24,500	24,500	24,500	24,500
	286	2,396	2,396	2,396	2,396
	LC/LCS PA	3,137	3,137	3,137	3,137
	Lambert Ranch	2,310	2,310	2,310	2,310
	Los Alisos 235	2,088	2,088	2,088	2,088
	OPA1 (Ridgeline)	4,200	4,200	4,200	4,200
	All others*				

Commercial, Industrial and Public Authority – Office Building

	IMPROVEMENT DISTRICT	Commercial	Industrial	Public Authority
Connection Fees Per Gross Acre	1 (201)*	\$30,126.00	\$52,560.00	\$32,988
	213	22,839.00	*	12,413
	2 (220), 221	6,097.00	9,208.00	6,676
	2 (230)	676.00	676.00	740
	240	13,543.00	.00	14,830
	205 (250)	8,129.00	13,489.00	8,901
	206 (260), 261	8,129.00	13,489.00	8,901
	286	4,983.00	4,983.00	5,456
	288	4,983.00	4,983.00	5,456
	Los Alisos 235	7,629.00	7,629.00	8,354
	All others*			

Parks, Churches and Commercial Recreational Facilities

	IMPROVEMENT DISTRICT	Fee
Connection Fees Per Fixture Unit	1 (201)*	\$333.30
	2 (220), 221	96.14
	2 (230)	23.13
	240	201.49
	205 (250)	127.40
	206 (260), 261	123.00
	286	54.30
	288	54.30
	All others*	

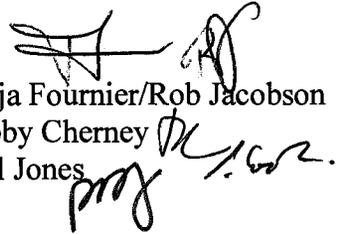
*Connection fees will be set by the Board of Directors upon request for initial service for each such improvement district.

February 28, 2011

Prepared by: Tanja Fournier/Rob Jacobson

Submitted by: Debby Cherney

Approved by: Paul Jones



ACTION CALENDAR

2011 REFUNDING BONDS AND VARIABLE RATED DEBT RESTRUCTURING

SUMMARY:

On February 14, 2011, the Board approved refunding the 2008-B bonds and reissuing as Index Tender Notes (ITN), extending the letters of credit (LOC) with Bank of America on the 1989, 1991 and 1993 issues, extending the LOC with US Bank on the 2009-A issue, and replacing the State Street LOC on the 1995 bonds and the Landesbank Baden-Wuerttemberg (LBBW) LOC on the 2008-A bonds with new LOCs from Sumitomo Mitsui (Sumitomo). Included in the restructuring was the staff recommendation and Board approval to replace Bank of America (BofA) as LOC provider and JP Morgan as remarketing agent for the 2009-B bonds with Barclays Capital for both services. Barclay's has rescinded their proposal and staff will recommend to the Finance and Personnel Committee that the 2009-B issue remain with Bank of America as LOC provider and JP Morgan as remarketing agent. Additionally, as part of the LOC proposal, Sumitomo requires the bonds be converted from daily variable rate mode to weekly variable rate mode. In connection with the refunding, LOC replacements and interest rate mode change, staff recommends the Board take the following actions:

- Adopt the Resolution of Intent to Issue Consolidated Series Refunding Bonds, which approves as to form the Resolution Providing for the Issuance of Consolidated Series Refunding Bonds;
- Adopt the Resolution authorizing the conversions of interest rate modes and extension and replacements of letters of credit ; and
- Approve the retention of Orrick, Herrington, and Bowie, Arneson as co-bond counsel

BACKGROUND:

Refunding of the 2008-B Bond Issue:

On February 14, 2011, the Board approved refunding the 2008-B bonds and reissuing as Index Tender Notes (ITN). In connection with the refunding, legal counsel has prepared a resolution declaring intention to issue the consolidated refunding bonds, setting March 28, 2011 as the date for a public hearing on the matter, and approval as to form a resolution of issuance, both of which are attached as Exhibits "A" and "B", respectively. Additionally, staff recommends that Orrick, Herrington & Sutcliffe, and Bowie, Arneson, Wiles & Giannone be retained as co-bond counsel.

Letter of Credit Extensions and Changes, and Interest Rate Mode Change:

On February 14, 2011, the Board directed staff to continue with the steps necessary to extend the existing letters of credit with Bank of America on the District's 1989, 1991, 1993 bonds, and with US bank on the 2009-A bonds, and replacing the State Street LOC on the 1995 bonds, LBBW LOC on the 2008-A bonds with new LOCs from Sumitomo, and replacing the LOC on

the 2009-B bonds with Bank of America (BofA) as LOC provider and JP Morgan as remarketing agent for the 2009-B bonds with Barclays Capital for both services. As part of Sumitomo's proposal to issue the LOCs on the bond issues, it is necessary to convert the interest rate mode from daily variable rate mode to weekly variable rate mode. Due to the requirements under the documents, the District must provide notice to the Trustee and Remarketing Agents between 30 and 40 days (depending on the bond issue) prior to the mode conversion. In order to comply with the necessary notices and market disclosure under the documents, the mode conversion for the 2008-A bonds 1995 bonds must take place between mid-April 2011 and May 2, 2011.

As noted above, included in the restructuring was the recommendation to replace BofA as LOC provider and JP Morgan as remarketing agent for the 2009-B bonds with Barclays Capital for both services. While BofA and JP Morgan have provided competitive pricing and service in their respective capacities, Barclays offered very aggressive pricing for both services in their response to a recent LOC/remarketing agent RFP. Based on their pricing, as well as the experience of their trading desk in marketing IRWD's variable rate debt, staff recommended the change in providers. Barclays was also one of the ten banks that provided proposals for other underwriting services related to the District's variable rate debt and conveyed their disappointment to staff in not being selected for that role. After the Board's approval and subsequent notification to Barclays that they were not selected for any underwriting services, Barclays notified staff that their LOC proposal had expired and they were unwilling to honor the pricing and terms that had been previously offered. All other banks providing LOC responses have confirmed their proposed pricing has not changed. Staff will provide the F&P Committee with a revised recommendation for the 2009-B bonds at its next meeting.

After the refunding and mode conversion, the \$390 million variable rate portfolio will result in \$100.4 million (26%) in ITN's, \$126.6 million (32%) in daily mode and \$163.0 million (42%) in weekly mode. Legal counsel has prepared a resolution authorizing the conversions of interest rate modes and extension and replacements of letters of credit, attached as Exhibit "C".

FISCAL IMPACTS:

Restructuring the debt portfolio will result in approximately \$836,000 in cost of issuance related to the refunding and subsequent reissuance of \$100,355,000 bonds from weekly variable rate demand bonds into Index Tender Notes. The cost of issuance consists of \$268,000 in underwriting fees and expenses, \$200,000 for co-bond counsel related to the refunding and LOC replacements, \$110,000 for rating agency fees, \$200,000 for various LOC bank counsel expenses for extending and replacing the LOCs, and \$58,000 in other miscellaneous costs of issuance expenses.

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 February 1, 2011 and the Board of Directors on February 14, 2011.

RECOMMENDATION:

THAT THE BOARD APPROVE THE RETENTION OF ORRICK HERRINGTON & SUTCLIFFE, AND BOWIE, ARNESON, WILES AND GIANNONE AS CO-BOND COUNSEL, AND ADOPT THE FOLLOWING RESOLUTIONS BY TITLE:

RESOLUTION NO. __
RESOLUTION OF THE BOARD OF DIRECTORS
OF THE IRVINE RANCH WATER DISTRICT
DECLARING INTENTION TO ISSUE CONSOLIDATED
REFUNDING BONDS OF SAID DISTRICT
(REFUNDING SERIES 2011A-1 AND 2011A-2)

RESOLUTION NO. __
RESOLUTION OF THE BOARD OF DIRECTORS OF
THE IRVINE RANCH WATER DISTRICT AUTHORIZING
CERTAIN ACTIONS IN CONNECTION WITH CONVERSIONS
OF INTEREST RATE MODES AND EXTENSIONS AND
REPLACEMENTS OF LETTERS OF CREDIT
(CONSOLIDATED SERIES 1989, CONSOLIDATED SERIES 1991,
CONSOLIDATED SERIES 1993, CONSOLIDATED SERIES 1995,
CONSOLIDATED REFUNDING SERIES 2008A, CONSOLIDATED
SERIES 2009A AND CONSOLIDATED SERIES 2009B)

LIST OF EXHIBITS:

Exhibit "A" – Proposed Resolution of Intent

Exhibit "B" – Proposed Resolution of Issuance

Exhibit "C" – Proposed Resolution Authorizing Conversion of Interest Rate Mode and Extension and Replacements of Letters of Credit

Exhibit "A"

RESOLUTION NO. 2011-_____

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE IRVINE RANCH WATER DISTRICT
DECLARING INTENTION TO ISSUE CONSOLIDATED
REFUNDING BONDS OF SAID DISTRICT
(REFUNDING SERIES 2011A-1 AND 2011A-2)

WHEREAS, the Board of Directors of Irvine Ranch Water District ("IRWD") deems it proper that bonds of Improvement District Nos. 105, 113, 213 and 250 (the "Included Improvement Districts") be issued as consolidated refunding bonds in two series (hereinafter collectively referred to as the "Bonds") pursuant to Sections 36060 and following and Sections 36447 and following of the California Water Code and Section 53541 of the California Government Code, for the purpose of refunding "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED REFUNDING SERIES 2008B" (the "Refunded Bonds"); and

WHEREAS, the Board of Directors has been presented with a proposed resolution providing for the issuance of the Bonds.

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

Section 1. The resolution providing for issuance of the Bonds, as presented to this Board of Directors concurrently herewith, is approved as to form. The total principal amount of the Bonds shall be the principal amount determined as provided in said resolution providing for issuance to be sufficient to refund the Refunded Bonds, and each series of the Bonds shall be comprised of the proportional amounts of the Included Improvement Districts determined as provided therein. The Bonds shall constitute the consolidated several general obligations of the Included Improvement Districts and shall, in addition, constitute obligations of IRWD payable from certain net revenues and secured by a pledge of revenues of IRWD as provided in said resolution providing for issuance.

With respect to each series of the Bonds, the provisions for payment of and security for the Bonds, the interest rates to be borne by the Bonds, conversion from one interest rate determination method to another, purchase, remarketing, and other features of the Bonds shall be conceptually as set forth in the proposed form of the resolution providing for issuance of the Bonds and in an indenture to be entered into in connection with the negotiated sale of each series of the Bonds. The indentures or the forms thereof shall be adopted concurrently with the adoption of the resolution of issuance.

Section 2. Monday, the 28th day of March, 2011, at the hour of 5:00 p.m. of said day (or as soon thereafter as is reasonably practicable) in the Board of Directors Room of Irvine Ranch Water District, 15600 Sand Canyon Avenue, Irvine, California, be and the same are hereby fixed by this Board of Directors as the time and place for a hearing on the proposed resolution of issuance.

Section 3. At the time and place fixed in Section 2 or at any time or place to which such hearing may be continued, any person interested, including any person owning land in the Included Improvement Districts or any person otherwise interested in the consolidated refunding bonds, may appear and be heard concerning any matter set forth in this resolution declaring intention 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 such Included Improvement District were its refunding bonds sold separately.

Section 4. The Secretary is directed to publish notice of such hearing by publishing a copy of this resolution declaring intention once a week for two successive weeks pursuant to Section 6066 of the California Government Code, in a newspaper of general circulation published in Orange County. The first publication shall be at least fourteen (14) days prior to the time fixed for the hearing. The Secretary is further directed to post a copy of this resolution declaring intention in three public places within each Included Improvement District for at least fourteen (14) days prior to the time fixed for the hearing. To the extent the Secretary has, prior to adoption hereof, accomplished any of the publications or postings directed by this Section, the same are hereby ratified.

ADOPTED, SIGNED AND APPROVED this ____ day of _____, 2011.

President/Vice President
IRVINE RANCH WATER DISTRICT
and of the Board of Directors
thereof

Secretary/Assistant Secretary
IRVINE RANCH WATER DISTRICT
and of the Board of Directors
thereof

APPROVED AS TO FORM:

BOWIE, ARNESON,
WILES & GIANNONE
Legal Counsel - IRWD

By _____

BAWG/ 00157263/ 022211

Exhibit "B"

RESOLUTION NO. __

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
(REFUNDING SERIES 2011A-1 AND REFUNDING SERIES 2010A-2)

WHEREAS, the below-recited authorized, unissued bonds of improvement districts of Irvine Ranch Water District ("IRWD") may be issued as consolidated bonds;

Improvement District No. 105

WHEREAS, pursuant to Resolution No. 1978-62 adopted by the Board of Directors of IRWD on April 17, 1978, a special election was conducted in Improvement District No. 105 of IRWD on June 19, 1978, at which election there was submitted to the qualified voters of said Improvement District the following bond proposition:

BOND PROPOSITION: Shall the Irvine Ranch Water District incur an indebtedness and issue general obligation bonds for Improvement District No. 105 thereof in the amount of \$140,827,000 at a maximum interest rate of eight percent (8%) per annum, to acquire and construct works and facilities for the acquisition, collection, storage and distribution of water and water rights, to enable said District to utilize a water supply furnished under the State Water Resources Development System (commonly known as the "State Water Project") pursuant to Section 12944.5 of the Water Code of the State of California, including dams, reservoirs, storage tanks, treatment facilities, pipes, pumping equipment and all necessary equipment and property therefor, acquiring funds to fulfill contractual commitments to carry out the powers and purposes of the District contained in contracts, including contracts with other agencies, and the payment of operating and other costs of the District and the establishment of all or part of the bond reserve fund out of the proceeds of the sale of said bonds, all in accordance with the Supplement to the Plan of Works for Improvement District No. 105?

WHEREAS, more than one-half of the votes cast at said election were cast in favor of incurring said indebtedness and issuing said general obligation bonds and IRWD was authorized to issue bonds in the amount and for the purpose set forth in said proposition;

WHEREAS, of said authorized amount of \$140,827,000, the principal amounts of \$10,960,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 1984," \$5,688,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 1991," \$5,600,000 comprising a portion of consolidated bonds

designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 1993," \$10,050,600 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 1995," \$17,000,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2006," \$37,173,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2007," \$15,250,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2009A," \$15,250,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2009B" and \$23,800,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, SERIES 2010 have been issued and sold;

Improvement District No. 113

WHEREAS, pursuant to Resolution No. 2004-21 adopted by the Board of Directors of IRWD on June 14, 2004, a special election was conducted in Improvement District No. 113 of IRWD on August 31, 2004, at which election there was submitted to the qualified voters of said Improvement District the following bond proposition:

BOND PROPOSITION: Shall the Irvine Ranch Water District incur an indebtedness and issue general obligation bonds for Improvement District No. 113 thereof in the amount of \$25,769,500 at a maximum interest rate of twelve percent (12%) per annum, to acquire and construct works and facilities for the acquisition, collection, storage, distribution and treatment of water and water rights, including dams, reservoirs, storage tanks, treatment facilities, pipes, pumping equipment, urban runoff diversion and treatment systems, and all necessary equipment and property therefor, reconstruction, replacements and additions to said facilities, acquiring funds to fulfill contractual commitments to carry out the powers and purposes of the District contained in contracts, including contracts with other agencies, all in accordance with the Plan of Works for Improvement District No. 113?

WHEREAS, more than two-thirds of the votes cast at said election were cast in favor of incurring said indebtedness and issuing said general obligation bonds and IRWD was authorized to issue bonds in the amount and for the purpose set forth in said proposition;

WHEREAS, of said authorized amount of \$25,769,500, the principal amount of \$1,500,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2006," \$5,000,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2007," \$1,500,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2009A," \$1,500,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2009B" and \$5,300,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, SERIES 2010 have been issued and sold;

Improvement District No. 213

WHEREAS, pursuant to Resolution No. 2004-22 adopted by the Board of Directors of IRWD on June 14, 2004, a special election was conducted in Improvement District No. 213 of IRWD on August 31, 2004, at which election there was submitted to the qualified voters of said Improvement District the following bond proposition:

BOND PROPOSITION: Shall the Irvine Ranch Water District incur an indebtedness and issue general obligation bonds for Improvement District No. 213 thereof in the amount of \$87,647,500 at a maximum interest rate of twelve percent (12%) per annum, to acquire and construct works and facilities for the collection, treatment and disposal of sewage and the storage and distribution of reclaimed water, including dams, reservoirs, storage tanks, treatment facilities, pipes, pumping equipment and all necessary equipment and property therefor, reconstruction, replacements and additions to said facilities, acquiring funds to fulfill contractual commitments to carry out the powers and purposes of the District contained in contracts, including contracts with other agencies, all in accordance with the Plan of Works for Improvement District No. 213?

WHEREAS, more than two-thirds of the votes cast at said election were cast in favor of incurring said indebtedness and issuing said general obligation bonds and IRWD was authorized to issue bonds in the amount and for the purpose set forth in said proposition;

WHEREAS, of said authorized amount of \$87,647,500, the principal amount of \$11,100,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2006," \$6,300,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2007," \$3,200,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2009A" and \$3,200,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2009B" have been issued and sold;

Improvement District No. 250

WHEREAS, pursuant to Resolution No. 1978-69 adopted by the Board of Directors of IRWD on April 17, 1978, a special election was conducted in Improvement District No. 250 of IRWD on June 19, 1978, at which election there was submitted to the qualified voters of said Improvement District the following bond proposition:

BOND PROPOSITION: Shall the Irvine Ranch Water District incur an indebtedness and issue general obligation bonds for Improvement District No. 250 thereof in the amount of \$286,727,000 at a maximum interest rate of eight percent (8%) per annum, to acquire and construct works and facilities for the collection, treatment and disposal of sewage, and the acquisition, storage and treatment of reclaimed water, including dams, reservoirs, storage tanks, treatment

facilities, pipes, pumping equipment and all necessary equipment and property therefor, acquiring funds to fulfill contractual commitments to carry out the powers and purposes of the District contained in contracts, including contracts with other agencies, and the payment of operating and other costs of the District and the establishment of all or part of the bond reserve fund out of the proceeds of the sale of said bonds, all in accordance with the Plan of Works for Improvement District No. 250?

WHEREAS, more than two-thirds of the votes cast at said election were cast in favor of incurring said indebtedness and issuing said general obligation bonds and IRWD was authorized to issue bonds in the amount and for the purpose set forth in said proposition;

WHEREAS, of said authorized amount of \$286,727,000, the principal amounts of \$7,590,000 of bonds designated "SEWER BONDS, ELECTION 1978, SERIES A, OF THE IRVINE RANCH WATER DISTRICT FOR IMPROVEMENT DISTRICT NO. 250," \$7,980,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 1984," \$29,526,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 1985," \$10,217,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 1991," \$9,900,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 1993," \$15,071,160 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 1995," \$19,884,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2006," \$42,000,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2007," \$15,650,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2009A," \$15,650,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED SERIES 2009B" and \$43,150,000 comprising a portion of consolidated bonds designated "BONDS OF IRVINE RANCH WATER DISTRICT, SERIES 2010 have been issued and sold;

WHEREAS, pursuant to Section 36063 of the California Water Code, the Board of Directors has determined that the prudent management of the fiscal affairs of IRWD and of the Included Improvement Districts, as defined below, requires that refunding bonds be issued to refund "BONDS OF IRVINE RANCH WATER DISTRICT, CONSOLIDATED REFUNDING SERIES 2008B" (the "Prior Bonds"), for the purpose of reducing debt service costs on the Prior Bonds;

WHEREAS, pursuant to Section 36063 of the California Water Code, refunding bonds may be issued if the total interest cost to maturity of the refunding bonds added to the principal amount of the refunding bonds will be less than the total interest cost to maturity of the bonds being refunded added to the principal amount of the bonds being refunded, which determination may consist of a finding made by the Board based on substantial evidence if any of the refunding bonds or the bonds being refunded, or both, bear or may bear interest at a variable rate, thereby

making the actual total interest cost to maturity indeterminable in advance of maturity, and when bonds have been refunded, the refunding bonds shall thereafter take the place of, and be deemed for all purposes to be, the bonds corresponding to the portion of the authorization by the voters from which the refunded bonds were originally issued and shall be payable from the same funds as those refunded bonds, and such previously issued portion of the authorization shall be deemed to be the amount of indebtedness issued from the voter authorization representing the refunding bonds;

WHEREAS, the Board of Directors has evaluated the various factors associated with the issuance of the above-described refunding bonds as consolidated bonds and has found that the sale of the bonds of the Included Improvement Districts, as defined below, as consolidated bonds will not increase the cost that any Included Improvement District will pay for its bonds over the cost it would have paid had its bonds been sold separately;

WHEREAS, the Board of Directors of IRWD deems it proper that consolidated refunding bonds of the Included Improvement Districts be issued as the consolidated several general obligations of the Included Improvement Districts pursuant to Sections 36060 *et seq.* and 36447 *et seq.* of the California Water Code, and pursuant to Section 53541 of the California Government Code, said bonds to be issued in two series;

WHEREAS, pursuant to Chapter 624 of the California Statutes of 2010, there has been added to the Water Code Section 36447.15 thereof, effective January 1, 2011, authorizing IRWD to provide credit enhancement in connection with the issuance or carrying of consolidated general obligation bonds for improvement districts by pledging and applying all or any part of the revenues of IRWD to the payment or security of any or all of the principal and redemption price of the bonds and the interest thereon in the manner and upon terms that the Board of Directors may deem advisable;

WHEREAS, it is in the interest of IRWD to secure the timely payment of the principal and redemption price of and interest on the bonds by covenanting to pledge certain revenues of IRWD;

WHEREAS, pursuant to subdivision (f) of Section 36447.15, the Board of Directors of IRWD has, by adoption of Resolution No. 2010-40, adopted criteria to govern its determinations to use pledges pursuant to Section 36447.15, including evaluation of the use of a pledge in lieu of or in combination with other credit enhancement and liquidity options available to the Board, and has duly considered such criteria in regard to the use of a pledge of certain revenues of IRWD in connection with the proposed bonds;

WHEREAS, there have been placed on file with the Secretary of IRWD the form of an indenture for each series of the bonds, pursuant to which the above-described transactions will be accomplished, as well as the form of a contract of purchase relating to each series of the bonds and this Board desires to approve the forms and authorize the execution thereof;

WHEREAS, the bonds will be offered for sale using an official statement;

WHEREAS, this Board desires to authorize the selection of the initial trustees and initial remarketing agents with respect to the bonds, and such other agents as may be required or permitted to perform the duties described under the indenture;

WHEREAS, a portion of the proceeds of the bonds will be used to refund the Prior Bonds and, if determined to be necessary for such purpose, will be deposited with an escrow agent selected pursuant to this resolution, to be held in escrow and applied to the redemption of the Prior Bonds in accordance with the provisions of an escrow agreement;

WHEREAS, the forms of the indentures and other documents on file with the Secretary as described in this resolution set forth or describe the terms of each series of the bonds and/or the sale thereof, and the terms pursuant to which the above-described transactions will be accomplished;

WHEREAS, this Board finds that the sale of each series of the bonds on such terms is in the best interest of IRWD and each of the Included Improvement Districts and finds that such sale of each series of the bonds as consolidated bonds on such terms will not cause any Included Improvement District to pay more than it would have paid had its bonds been sold separately or had its bonds been sold without such terms;

WHEREAS, this Board desires to authorize the execution and delivery of any and all documents and instruments and the performance of any and all acts and things necessary or proper for carrying out the transactions contemplated by this resolution and the indentures, including, but not limited to, any and all documents, instruments, acts and things necessary or proper for securing and maintaining a rating or ratings with respect to the bonds.

NOW, THEREFORE, the Board of Directors of IRWD DOES HEREBY RESOLVE, DETERMINE AND ORDER as follows:

Section 1. Pursuant to Division 13 of the California Water Code, consolidated bonds of IRWD in two series (hereinafter referred to individually as the "Series A-1 Bonds" and the "Series A-2 Bonds" and collectively as the "Bonds"), shall be issued in a combined aggregate principal sum determined at the time of sale to be sufficient, together with other funds available therefor, to pay the costs of issuance of the Bonds and to redeem the Prior Bonds, which will be called for redemption and redeemed on such date as may be determined by the Treasurer of IRWD (the "Treasurer") and set forth in a notice of redemption given in accordance with the indenture relating to the Prior Bonds. The Treasurer is authorized and directed to cause such notice to be given. Pursuant to Section 36447 *et seq.* of the Water Code, the Bonds of each series shall constitute the several consolidated general obligations, in the proportions determined by the Treasurer and set forth in a certificate(s) delivered by the Treasurer at the time of closing and delivery of the Bonds, of Improvement District Nos. 105, 113, 213 and 250 (collectively, the "Included Improvement Districts" and each, an "Included Improvement District"), such that each Included Improvement District's proportional share of the Series A-1 Bonds and its proportional share of the Series A-2 Bonds will equal the principal amount necessary, together with other funds available therefor, to refund that Included Improvement District's respective proportional share of the Prior Bonds. The Bonds of each series shall in addition constitute obligations of

IRWD payable from certain net revenues and secured by a pledge of revenues of IRWD as provided therein.

In accordance with Section 36063(a)(2) of the Water Code, the Board of Directors finds that the total interest cost to maturity of the Bonds added to the principal amount of the Bonds will be less than the total interest cost to maturity of the Prior Bonds added to the principal amount of the Prior Bonds. The Board hereby further finds that the foregoing finding is based on substantial evidence in the record of IRWD, including, but not limited to, evidence as to the variable interest rates that will be borne by the Bonds and the Prior Bonds. Pursuant to California Government Code Section 53550(f), the Board hereby designates the items specified in subdivisions (e)(1) and (e)(2)(A) of Government Code Section 53550 as “designated costs of issuing the refunding bonds.”

Section 2. The Series A-1 Bonds shall be designated “BONDS OF IRVINE RANCH WATER DISTRICT, REFUNDING SERIES 2011A-1” and further designated as provided in the Series A-1 Indenture (defined below), and the Series A-2 Bonds shall be designated “BONDS OF IRVINE RANCH WATER DISTRICT, REFUNDING SERIES 2011A-2” and further designated as provided in the Series A-2 Indenture (defined below), and the Bonds of each series shall be numbered as determined by the Trustee (defined below). The Series A-1 Bonds and the Series A-2 Bonds shall be of the denominations specified in the related Indenture. The Series A-1 Bonds and the Series A-2 Bonds shall be dated, bear interest at the rates, mature on the dates and in the aggregate principal amounts, be issued in the form, have such sinking fund installments, be subject to redemption, and have such other terms and be in other respects as provided in the related Indenture.

Section 3. Pursuant to Section 5050 et seq. of the Government Code, the President of the Board of Directors of IRWD is hereby authorized and directed to sign all of said Bonds by his manual or facsimile signature and the Secretary of IRWD is hereby authorized and directed to affix thereto the seal of IRWD by facsimile or otherwise and to attest thereto by her manual or facsimile signature.

Section 4. The Series A-1 Bonds shall be issued pursuant to an indenture of trust (the “Series A-1 Indenture”) by and between IRWD and the Trustee, as defined herein. The Series A-2 Bonds shall be issued pursuant to an indenture of trust (the “Series A-2 Indenture”) by and between IRWD and the Trustee. The Series A-1 Indenture and the Series A-2 Indenture (collectively the “Indentures”), each including the form of the respective series of Bonds, are hereby approved in the forms on file with the Secretary upon adoption of this resolution, and the President and Secretary of IRWD are authorized and directed to execute them in such forms, with such changes, insertions and deletions as are approved by, and on the date for closing and delivery established by, the Treasurer with the concurrence of the President of IRWD, which approval will be conclusively evidenced by execution and delivery thereof. The forms of the Indentures as so executed and delivered are incorporated herein as of their dates, by this reference. This resolution, each Bond and the related Indenture shall together constitute the contract between IRWD and the owner of such Bond, and reference is hereby made to this resolution, each Bond and the related Indenture for a complete statement of such contract. The Bank of New York Mellon Trust Company, N.A., is hereby selected as the initial Trustee for the Series A-1 Bonds and the Series A-2 Bonds (the “Trustee”).

Section 5. The Bonds of each series shall be the several consolidated obligations of the Included Improvement Districts in the proportions that the respective amounts of Bonds of that series attributed to each Included Improvement District determined by the Treasurer as set forth in Section 1 hereof bear to the aggregate principal amount of Bonds of that series being issued. The Bonds of each series shall be payable from the following sources: (1) ad valorem assessments on taxable land in the Included Improvement Districts, (2) water and sewer charges which in the discretion of the Board of Directors of IRWD are fixed and collected in the Included Improvement Districts in lieu of assessments, (3) proceeds from the sale of property in the Included Improvement Districts for delinquent assessments, all such amounts referred to in clauses (1), (2) and (3) to be collected and applied as the several obligations of the Included Improvement Districts as provided herein, (4) all moneys and earnings thereon held in the funds and accounts created under the terms of the Indenture (except the Rebate Fund, as that term is defined in the Indenture), and (5) certain net revenues of IRWD as provided in Section 6.

Section 6. IRWD covenants hereby to impose and collect or cause the imposition and collection of the annual assessments in the Included Improvement Districts, or charges for water and sewer service in the Included Improvement Districts in lieu thereof, and delinquent assessments and proceeds from the sale of property therefor, in the amounts necessary to satisfy the requirements stated in the Indenture. The assessments and charges levied upon and collected within any Included Improvement District shall not exceed the amount required to pay such Included Improvement District's proportional share of the principal of and interest on each series of the Bonds, which share shall correspond to the portion of the total par value of each series of the Bonds comprised by the par value included on behalf of such Included Improvement District, as specified in Section 1 hereof. Any provision of this resolution to the contrary notwithstanding, IRWD may, to the extent permitted by law, but except as provided in the next paragraph, shall not be obligated to, apply funds of IRWD to the payment of principal of, redemption price, and premium (if any) and interest on the Bonds.

IRWD hereby further pledges certain revenues for the payment of the Bonds in accordance with the terms and conditions set forth in such forms of the Indentures.

Section 7. There shall be created and funded pursuant to each of the Series A-1 Indenture and the Series A-2 Indenture a separate general obligation bond fund designated, respectively, "2011A-1 REFUNDING BONDS OF THE IRVINE RANCH WATER DISTRICT, GENERAL OBLIGATION BOND FUND" and "2011A-2 REFUNDING BONDS OF THE IRVINE RANCH WATER DISTRICT, GENERAL OBLIGATION BOND FUND" or as otherwise provided in the related Indenture (the "General Obligation Bond Funds").

Moneys deposited in each General Obligation Bond Fund shall be apportioned within the fund according to each Included Improvement District's proportional share thereof determined as specified in Section 1 hereof. Each General Obligation Bond Fund shall be applied for the purposes provided in the related Indenture, and all taxable land within each Included Improvement District having a proportional share thereof shall be and remain liable to be assessed for such purposes. The assessments and charges levied upon and collected within any such Included Improvement District shall not exceed the amount required to pay such Included Improvement District's proportional share of the principal of and interest on each series of the

Bonds, which share shall correspond to the portion of the total par value of each series of the Bonds comprised by the par value included on behalf of such Included Improvement District. Moneys raised by each Included Improvement District for this purpose shall be deposited to the Included Improvement District's account within each General Obligation Bond Fund and shall be used solely for the purpose of paying such Included Improvement District's proportional share of the interest and principal on the related series of Bonds.

Section 8. There shall be created such other funds and accounts as are required under the Indentures. Any moneys deposited in any such fund or account that is apportioned to Included Improvement Districts shall be obtained from and apportioned within the fund or account according to each Included Improvement District's proportional share in accordance with Section 36447.1 of the Water Code. Moneys in any fund or account that is apportioned to Included Improvement Districts shall be disbursed only to the extent of the share apportioned therein to the Included Improvement District on whose behalf they are disbursed. Any charges and annual assessments used to establish any fund or account under the Indentures that is apportioned to Included Improvement Districts shall be set aside within such fund or account to the account of the Included Improvement District from which they were obtained.

Section 9. The contract of purchase for the Series A-1 Bonds, by and between IRWD and [[Goldman, Sachs & Co.]], as underwriter (the "Series A-1 Underwriter") and the contract of purchase for the Series A-2 Bonds, by and between IRWD and [[Morgan Stanley]], as underwriter (the "Series A-2 Underwriter"), each to be dated as of such date as may be established by the Treasurer of IRWD, are hereby approved in the forms on file with the Secretary upon adoption of this resolution, and the Treasurer of IRWD is authorized and directed to execute them in such form, with such changes, insertions and deletions as are approved by, and on the date for delivery established by, the Treasurer, which approval will be conclusively evidenced by execution and delivery thereof. The form of the contract of purchase relating to the Series A-1 Bonds, as so executed and delivered, and the form of the contract of purchase relating to the Series A-2 Bonds, as so executed and delivered (collectively, the "Contracts of Purchase") are incorporated herein as of their dates, by this reference.

Section 10. In accordance with Sections 36447.7 and 36447.9 of the California Water Code, and after review of the terms and provisions of each series of the Bonds (including the terms of the sale of each series of the Bonds under the proposed form of the related Contract of Purchase), the Board of Directors hereby finds that the sale of the Bonds at private sale without advertising for bids will be consistent with the prudent management of IRWD's fiscal affairs and will produce a lower interest cost on the Bonds.

Section 11. The preliminary official statement relating to the Bonds (the "Preliminary Official Statement"), in substantially the form presented to the Board at this meeting, is hereby approved with such changes, insertions and deletions as the Treasurer with the concurrence of the President of IRWD shall approve; such approval shall be conclusively evidenced by the Treasurer's execution and delivery of a "deemed final" certificate under the Securities and Exchange Act of 1934, as amended, with respect to the Preliminary Official Statement, which execution and delivery are hereby authorized and approved. The Board hereby approves the use of the Preliminary Official Statement by the Series A-1 Underwriter and Series A-2 Underwriter (the "Underwriters") in connection with the offering and sale of the Bonds. An official statement relating to the Bonds to

be dated the date determined by the Treasurer (the "Official Statement"), in substantially the form of the Preliminary Official Statement with such changes thereto as are necessary or appropriate to reflect the terms of the Bonds and satisfy the requirements of the Contract of Purchase and with such other changes as the Treasurer with the concurrence of the President shall approve (such approval to be conclusively evidenced by execution and delivery thereof), is hereby approved, and the Board hereby approves the use of the Official Statement by the Underwriters in connection with the offering and sale of the Bonds, and the Board hereby further approves the use by the Underwriters of any supplement or amendment to the Official Statement which the Treasurer shall determine is necessary so that the Official Statement does not include any untrue statement of a material fact and does not omit to state a material fact necessary to make the statements therein not misleading. The Treasurer of IRWD is hereby authorized and directed to execute the Official Statement and any amendment or supplement thereto, in the name and on behalf of IRWD and thereupon to cause the Official Statement and any such amendment or supplement to be delivered to the Underwriters.

Section 12. The distribution of the Preliminary Official Statement and the Official Statement, inclusive of the above-authorized changes, is hereby authorized.

Section 13. The Treasurer, with the concurrence of the President of IRWD, is hereby authorized and directed to select and appoint, or approve the selection and appointment of, such initial paying agents and other agents as may be required or permitted to perform the duties described under the Indenture.

Section 14. Upon the payment of the purchase price for the Bonds as provided for in the Contract of Purchase, the Trustee is hereby authorized and directed to authenticate and deliver the Bonds as provided in the Contract of Purchase, in the amounts, maturities and denominations as provided in the Indentures.

Section 15. [[Goldman, Sachs & Co.]] is hereby selected as the initial remarketing agent for the Series A-1 Bonds and [[Morgan Stanley]] is hereby selected as the initial remarketing agent for the Series A-2 Bonds. The remarketing agreement relating to the Series A-1 Bonds, by and between IRWD and [[Goldman, Sachs & Co.]], and the remarketing agreement relating to the Series A-2 Bonds, by and between IRWD and [[Morgan Stanley]], are hereby approved in the respective forms on file with the Secretary upon adoption of this resolution, and the President and Secretary of IRWD are authorized and directed to execute them in such forms, with such changes, insertions and deletions as are approved by, and on the date for closing and delivery established by, the Treasurer with the concurrence of the President of IRWD, which approval will be conclusively evidenced by execution and delivery thereof. The forms of the remarketing agreements relating to each series of the Bonds, as so executed and delivered are incorporated herein as of their date, by this reference.

Section 16. The President, the Treasurer, the Secretary and each other officer of IRWD, acting singly, be and each of them hereby is authorized and directed to execute and deliver any and all documents and instruments, and to do and cause to be done any and all acts and things necessary or proper for carrying out the transactions contemplated by this resolution, the Indenture, and the other documents and instruments approved or authorized by this resolution including, but not limited to, continuing disclosure agreements and any and all documents,

instruments, acts and things necessary or proper for securing and maintaining a rating or ratings with respect to the Bonds.

Section 16. This resolution shall take effect immediately upon its adoption.

ADOPTED, SIGNED AND APPROVED this ____ day of _____, 2011.

President/Vice President
IRVINE RANCH WATER DISTRICT
and of the Board of Directors
thereof

Secretary/Assistant Secretary
IRVINE RANCH WATER DISTRICT
and of the Board of Directors
thereof

APPROVED AS TO FORM:

BOWIE, ARNISON,
WILES & GIANNONE
Legal Counsel - IRWD

By _____

BAWGjea/ 00157137/ 021811

Exhibit "C"

RESOLUTION NO. 2011-___

RESOLUTION OF THE BOARD OF DIRECTORS OF
THE IRVINE RANCH WATER DISTRICT AUTHORIZING
CERTAIN ACTIONS IN CONNECTION WITH CONVERSIONS
OF INTEREST RATE MODES AND EXTENSIONS AND
REPLACEMENTS OF LETTERS OF CREDIT
(CONSOLIDATED SERIES 1989, CONSOLIDATED SERIES 1991,
CONSOLIDATED SERIES 1993, CONSOLIDATED SERIES 1995,
CONSOLIDATED REFUNDING SERIES 2008A, CONSOLIDATED
SERIES 2009A AND CONSOLIDATED SERIES 2009B)

WHEREAS, the Irvine Ranch Water District ("IRWD") has designated variable interest rate modes for certain series of its outstanding bonds, listed in the attached Exhibit A, and has obtained a letter of credit in connection with each of such series of bonds; and

WHEREAS, the letters of credit relating to the series of bonds listed in Exhibit A are scheduled to expire on various dates in April, May and June, 2011, and the Board of Directors believes it is in the interest of IRWD to authorize the extensions and replacements or substitutions of letters of credit as provided herein; and

WHEREAS, in connection with the letter of credit replacements or substitutions authorized herein, it may be necessary or desirable to change the interest rate modes of certain of the respective series from a daily mode or interest rate period to a weekly mode or interest rate period; and

WHEREAS, to comply with the terms of any amended reimbursement agreement, it may be necessary to amend the remarketing agreement relating to that series of bonds;

NOW THEREFORE, the Board of Directors of IRWD DOES HEREBY RESOLVE, DETERMINE and ORDER as follows:

Section 1. The Director of Finance is hereby authorized and directed to cause the extensions and replacements or substitutions of letters of credit designated in Exhibit A and is further authorized to cause the conversions of interest rate modes designated in Exhibit A.

Section 2. With respect to each extension and replacement or substitution of a letter of credit, the foregoing authorization shall include the approval of an amendment to or extension of the existing reimbursement agreement or a new or amended reimbursement agreement to be entered into with the respective letter of credit provider (inclusive of the form of the new letter of credit or provisions extending the existing letter of credit), containing covenants, representations and warranties that are substantially the same as those in the existing reimbursement agreement and letter of credit relating to that series of bonds, except for any modifications that may be made as authorized below, and such other terms and provisions as the Director of Finance shall approve. In such connection, the Director of Finance is authorized to approve any modifications of the existing covenants, representations and warranties for the purpose of (i) modifying or deleting any provision or substituting therefor another provision, the net effect of which is more

favorable to IRWD, and/or (ii) including revenue pledge and parity obligations provisions (including related definitions and other related provisions) equivalent to or consistent with those in the Indenture of Trust and First Supplemental Indenture of Trust relating to the Bonds of Irvine Ranch Water District, Series 2010B (Federally Taxable – Build America Bonds). The President and Secretary of IRWD are authorized and directed to execute any agreement or amendment so approved.

Section 3. The foregoing authorization to cause the extensions and replacements or substitutions of letters of credit and the conversions of interest rate modes or periods shall include the approval of the terms of any amendments to remarketing agreements and instruments to be delivered by and to the respective remarketing agents. The President and Secretary of IRWD are authorized and directed to execute any amendment so approved.

Section 4. The foregoing authorization to cause the extensions and replacements or substitutions of letters of credit and the conversions of interest rate modes or periods shall further include any and all of the following: preparation and/or approval, execution and delivery of any notices, instruments, disclosure or other documents to be delivered or distributed in conjunction with the authorized actions; and any other actions to implement such extensions and replacements or substitutions of letters of credit and the conversions of interest rate modes or periods in accordance with Exhibit A and the related bond documents.

Section 5. The President, Secretary and each other officer of IRWD hereby is authorized and directed to execute and deliver any and all documents and instruments and to do and cause to be done any and all acts and things necessary or proper for carrying out he transactions contemplated by this resolution.

ADOPTED, SIGNED AND APPROVED this ____ day of _____, 2011.

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 _____

EXHIBIT A

2011 Variable Rate Debt Restructuring

<u>Issue</u>	<u>Remaining Principal</u>	<u>Interest Rate Mode</u>	<u>Letter of Credit Bank</u>
Series 1989	\$9,400,000	To remain Daily	Retain existing LOC provider - Bank of America
Series 1991	\$7,500,000	To remain Weekly	Retain existing LOC provider - Bank of America
Series 1993	\$37,500,000	To remain Daily	Retain existing LOC provider - Bank of America
Series 1995	\$21,700,000	Convert to Weekly	Sumitomo LOC to replace State Street LOC
Refunding Series 2008A	\$58,800,000	Convert to Weekly	Sumitomo LOC to replace LBBW LOC
Series 2009A	\$75,000,000	To remain Weekly	Retain existing LOC provider - U.S. Bank
Series 2009B	\$75,000,000	Convert to Weekly or to remain Daily*	Retain or replace existing LOC provider - Bank of America*
TOTAL	\$284,900,000		

* The Director of Finance is authorized to retain the existing letter of credit provider, Bank of America, or replace the Bank of America letter of credit with a letter of credit furnished by U.S. Bank, Union Bank, or Sumitomo, and to convert to a weekly mode if the Director of Finance so determines in order to facilitate such selection of the letter of credit provider.

February 28, 2011

Prepared and

Submitted by: K. Burton

Approved by: Paul Jones

K. Burton
PMJ

ACTION CALENDAR

MODJESKA CANYON STORM DAMAGE REPAIR GRANT OF EASEMENT AND COMPROMISE AND RELEASE AGREEMENT

SUMMARY:

The intense rainstorms that swept through Orange County in December 2010 caused severe flooding and damage to two IRWD water pipelines within Modjeska Canyon. The pipelines have been repaired and placed back in service, but they remain vulnerable to future storm water damage. Staff has coordinated with the property owner where the pipelines were damaged and has developed a Grant of Easement and Compromise and Release Agreement to install rock protection for the pipelines and to settle all potential claims and disputes. Staff recommends that the Board:

- Authorize the addition of Project 11585 in the amount of \$90,200 to the Fiscal Year 2010-11 Capital Budget;
- Approve an Expenditure Authorization for Project 11585 in the amount of \$90,200; and
- Authorize the General Manager to execute a Grant of Easement and Compromise and Release Agreement with Mr. Mark Andrews, the property owner of 28612 Markuson Road, Modjeska, California.

BACKGROUND:

The intense rainstorms that swept through Orange County in December 2010 caused severe flooding and water system damage in the canyon and foothill areas of IRWD's service area. The 12-inch raw water supply pipeline from Harding Canyon Dam to Manning Water Treatment Plant and an adjacent 8-inch potable water main were broken in Modjeska Canyon. The pipelines were damaged when the creek washed away a substantial portion of the rear yard at 28612 Markuson Road (Andrews Property) and undermined a concrete thrust restraint block, allowing the pipe joints to pull apart. The extent of the damage caused by flood water to the Andrews Property is shown in Exhibit "A". The District completed temporary repairs to the pipelines in late January 2011 and placed the pipelines back in service, but they remain vulnerable to future storm water damage.

Staff coordinated with Mr. Andrews, the property owner where the thrust block was undermined, during construction of the temporary pipelines repairs. Mr. Andrews raised a concern with the pipelines not being installed in an easement. He also contended that inadequate design and construction of the pipelines to withstand breakage and release of water may have caused or contributed to the damage or loss of his property. Although staff found no evidence that the pipelines were improperly designed or constructed, discussions were initiated with Mr. Andrews to develop a mutually beneficial solution that would protect the pipelines and his property from future storm water damage.

Easement Dispute:

The pipelines crossing the Andrews property were constructed in 1984 by the Santiago County Water District (SCWD). The pipelines were originally planned to be installed in an easement granted to SCWD through the property adjacent to the Andrews Property, but during construction the pipelines alignment was altered to avoid several large oak trees. The revised pipelines alignment was selected with the knowledge and consent of the property owner at the time, but an easement for the revised pipelines alignment was never prepared and recorded by SCWD. In or about 1989, Mr. Andrews procured the property at 28612 Markuson Road and claimed SCWD did not have a right to have the pipelines on his property. SCWD contended that the use of the pipelines on the Andrews Property had been continuous and under a claim of right for fifteen years or more and that a prescriptive right was established after five years of continuous use. SCWD unsuccessfully attempted to resolve the easement dispute with Mr. Andrews per a letter dated August 20, 2002, attached as Exhibit "B".

Compromise and Release Agreement:

To properly protect the pipelines from future storm water damage, staff determined that approximately 200 linear feet of rock protection needed to be installed, leaving approximately 50 linear feet of slope along the Andrews Property unprotected. Staff and Mr. Andrews determined it would be mutually beneficial to install rock protection for the entire property and settle all potential claims and disputes over the easement. The Agreement developed to resolve the dispute includes the following points:

- The District will design, permit, inspect, manage and construct the installation of 250 linear feet of rock protection at an estimated project cost of \$75,000;
- The project cost will be shared on an 80/20 percentage split between the District and Mr. Andrews;
- Mr. Andrews will grant the District an easement for the two water pipelines; and
- Mr. Andrews will grant the District a full and complete waiver and release of liability for past, present and future claims related to the protection of the Andrews Property from storm water damage.

The Grant of Easement and Compromise and Release Agreement has been reviewed by IRWD legal counsel and is attached as Exhibit "C". Mr. Andrews has signed the Agreement and submitted his 20% payment in the amount of \$15,000.

Due to the desire of both the District and Mr. Andrews to rapidly install the rock protection and prevent future damage to both the pipelines and the Andrews Property, staff negotiated a sole source construction bid with Rock Structures Construction Company in the amount of \$61,200. Rock Structures has submitted low bids for numerous other similar projects recently, primarily attributable to its ability to procure the rock at a low price. The award of the contract with Rock Structures is within the General Manager's authority. If the Board approves the Agreement, construction will commence on March 7 and is estimated to take approximately ten calendar days to complete.

FISCAL IMPACTS:

The approved Fiscal Year 2010-11 Capital Budget did not include funding for emergency repair projects of this nature. Staff requests the addition of Project 11585, Modjeska Canyon Storm Damage Repair and the associated Expenditure Authorization as shown in the table below and which is attached as Exhibit “D”. The project will be funded from the replacement fund. Staff is also pursuing reimbursement from potential sources of emergency funding.

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
11585	\$-0-	\$90,200	\$90,200	\$-0-	\$90,200	\$90,200

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations Title 14, Chapter 3, Section 15302 which provides exemption for projects involving replacement or reconstruction of existing utility systems and/or facilities with negligible or no expansion of capacity.

COMMITTEE STATUS:

This item was not reviewed by the Engineering and Operations Committee due to the urgency of the installation of the pipeline protection rock.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION OF PROJECT 11585 IN THE AMOUNT OF \$90,200 TO THE FISCAL YEAR 2010-11 CAPITAL BUDGET; APPROVE AN EXPENDITURE AUTHORIZATION FOR PROJECT 11585 IN THE AMOUNT OF \$90,200; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A GRANT OF EASEMENT AND COMPROMISE AND RELEASE AGREEMENT WITH MR. MARK ANDREWS, THE PROPERTY OWNER OF 28612 MARKUSON ROAD, MODJESKA, CALIFORNIA.

LIST OF EXHIBITS:

- Exhibit “A” – Andrews Property Map
- Exhibit “B” – SCWD Easement Request Letter to Mr. Andrews
- Exhibit “C” – Grant of Easement and Compromise and Release Agreement
- Exhibit “D” – Expenditure Authorizations

Exhibit "B"

McCORMICK, KIDMAN & BEHRENS, LLP

H.L. (MIKE) McCORMICK *
ARTHUR G. KIDMAN *
RUSSELL G. BEHRENS
SUZANNE M. TAGUE*
JANET R. MORNINGSTAR*
KEITH E. McCULLOUGH *
DAVID D. BOYER*
BOYD L. HILL
SETH C. THOMPSON
EDWARD L. BERTRAND
TODD W. BLISCHKE
HENRY H. HSU
DONNA S. WOLF

LAWYERS
695 TOWN CENTER DRIVE
SUITE 400
COSTA MESA, CALIFORNIA 92626-7187
TELEPHONES (714) 755-3100
(800) 755-3125
FAX (714) 755-3110
www.mkblawyers.com

SENDER'S E-MAIL jmorningstar@mkblawyers.com

SACRAMENTO OFFICE:
980 NINTH STREET
16TH FLOOR
SACRAMENTO, CA 95814-2736
Telephone (916) 449-9533
Fax (916) 446-7104

* A Professional Corporation

August 20, 2002

Mr. Mark Andrews
14400 Newport Avenue, #49
Tustin, California 92780

Re: Waterline Easement on 28612 Markuson Road, Harding Canyon

Dear Mr. Andrews:

Santiago County Water District has completed the work to locate the waterline affecting your property at 28612 Markuson Road, and would now like to finalize and record an easement showing the correct location of the pipeline. As the District agreed to do during our initial communications with you last August, the District deferred resolving this matter until you obtained your building permits for construction of your residence at the property, during which time the District determined the exact location of the pipeline by "potholing" and surveying the pipeline visually. The District also repaired a minor leak in the drainline portion of the pipeline.

You have proposed that the District have the easement affecting your property professionally appraised and agree in advance to pay you the amount of the appraiser's valuation, in exchange for your execution of an easement formally documenting the pipeline easement. This resolution is unacceptable to the District for several reasons. Our records indicate that the pipeline facilities were constructed in their current location with the knowledge and consent of your predecessor in interest in the property, and that the previous owner and the District intended that an easement be recorded upon completion of the pipeline. While we are not sure why the finalization and recordation of the easement was not completed, you nevertheless acquired your interest in the property subject to the existing pipeline use, which had been continuous and under a claim of right for over fifteen years. The recordation of an easement merely gives public notice of the

existence of the pipeline facilities. It does not create any additional burden on your property that did not already exist at the time you acquired it. Therefore, compensation for the value of the easement is not warranted.

In view of the foregoing, the Board of Directors of the District has taken the position that no payment should be made to the property owners for executing written easements for recordation. Mr. and Mrs. Mace, your neighbors on Markuson Road have already executed an easement for the portion of the pipeline affecting their parcel, without demanding any payment. The Board does not feel that it would be appropriate to offer you compensation when your situation is the same as the Maces. In view of the Board's position on payment for the easement, there is no point in having the easement appraised. The expenditure of funds to obtain an appraisal is money, which neither serves to compensate you nor provides any benefit to the District. Therefore, the District declines your proposal.

Now that you are well into construction of your residence, it is clear that the existence of the pipeline does not interfere with the development of your property as you have planned it. The Easterly portions of the pipeline facilities are located in a floodplain, which would preclude most improvements that would interfere with the pipeline facilities. Enclosed is a draft easement form, which covers the existing facilities, for your review. The District is willing to work with you regarding the terms of the easement to ensure you that you will be able to make as full use of the property as possible without interfering with the District's facilities. Please let me know if there are any terms that you would like to add or modify, and we will try to accommodate your wishes.

The Board of Directors will have its next meeting on September 17, 2002. We look forward to hearing from you by that time. If you have any questions please do not hesitate to call.

Very truly yours,
McCORMICK, KIDMAN & BEHRENS

Janet Morningstar

Exhibit "C"

Recording Requested by and
Return to:

Leslie Bonkowski, District Secretary
Irvine Ranch Water District
15600 Sand Canyon Avenue
P. O. Box 57000
Irvine, California 92619-7000

ASSESSOR'S PARCEL NOS: _____

MAIL TAX STATEMENTS TO IRWD ADDRESS ABOVE

SPACE ABOVE THIS LINE FOR RECORDER'S USE

DOCUMENTARY TRANSFER TAX \$ None - Tax Exempt (Revenue & Taxation Code §11922)

____ Computed on full value of property conveyed:
____ Computed on full value less the value of liens or
encumbrances thereon remaining at time of sale

FREE RECORDING REQUESTED -- Essential to acquisition by Irvine Ranch Water District
(Government Code §6103)

GRANT OF EASEMENT AND COMPROMISE AND RELEASE AGREEMENT 28612 MARKUSON ROAD

This GRANT OF EASEMENT AND COMPROMISE AND RELEASE AGREEMENT ("Agreement") is entered into this ____ day of _____, 2011, by and among Mark Alan Andrews ("ANDREWS") and Irvine Ranch Water District, a California water district organized under and existing pursuant to Section 34000 et seq. of the California Water Code ("IRWD"), hereinafter sometimes individually referred to as "Party" and collectively referred to as the "Parties," directly and for and on behalf of their employees, owners, officers, directors, boards of directors, officials, partners, associates, attorneys, successors, assigns, representatives, trustees, heirs, spouses, former spouses, firms, brokers, consultants, agents, contractors, subcontractors, business entities and corporations, and each and all of them, as appropriate in context (and as further specifically referenced in the terms of this Agreement), and is based upon the following Recitals:

WHEREAS, ANDREWS owns that certain property known as 28612 Markuson Road, Modjeska, California, and also known as Tract 10186, Lot 4 (the "Property"); and

WHEREAS, IRWD, as the successor in interest to the Santiago County Water District ("SCWD"), owns and operates a domestic water transmission main and a raw water transmission main constructed in or about 1984 (the "Pipelines"), portions of which traverse the Property; and

WHEREAS, IRWD, as the successor in interest to SCWD, contends that the use of the Pipelines in their existing alignment has been continuous and under a claim of right for twenty-five years or more and that a prescriptive right was established against ANDREWS' predecessor and ANDREWS after five years of such continuous use; and

WHEREAS, ANDREWS disputes such contention and contends that ANDREWS is entitled to compensation for the granting of an easement for the Pipelines; and

WHEREAS, during the rain storms of December, 2010, heavy storm flows in the adjacent creek eroded the soil cover and support from, exposed and damaged portions of the Pipelines, requiring emergency repairs ("Temporary Repairs"); and

WHEREAS, during the same rain events of December, 2010, a portion of the Property was damaged or lost by erosion, avulsion or other earth movement, and ANDREWS contends that the inadequate design and construction of the Pipelines to withstand breakage and release of water from the Pipelines into the surrounding soil caused or contributed to such damage or loss of the Property, and IRWD disputes such contentions; and

WHEREAS, IRWD has determined that in addition to the Temporary Repairs, further work, as described herein, is necessary or desirable to protect the Pipelines, and ANDREWS has determined that it would be beneficial to the Property to contribute to the cost of the work in order to have IRWD extend the dimensions of such work; and

WHEREAS, the respective contentions and disputes of the Parties as specified in the foregoing recitals are referred to collectively as the "Dispute." The Parties wish to settle the Dispute and to resolve all issues related to such Dispute and potential disputes and differences on the terms set forth below, in exchange for the Parties' mutual waiver of any and all claims against the other Party relating to the Dispute and the Pipeline Protective Work, as defined below.

NOW, THEREFORE, in consideration of the premises and the mutual agreements herein contained, the Parties hereto agree as follows:

AGREEMENT

1. **Grant of Easement.** (a) ANDREWS, as grantor, hereby grants and conveys to, IRWD, as grantee, a perpetual, non-exclusive easement and right-of-way for domestic and raw water pipeline and access purposes. This easement shall include, but not by way of limitation, the right to construct, reconstruct, remove and replace, renew, inspect, maintain, repair, improve, and otherwise use the hereinafter described property for these purposes, together with incidental appurtenances and connections, in, over, under, upon, along, through and across the real property located in the unincorporated area of the County of Orange, State of California, as described in

Exhibit "A" and depicted in Exhibit "B," which exhibits are attached hereto and made a part hereof (the "Easement Area"), as necessary in connection with the use, operation and maintenance of the facilities lying within the Easement Area. This easement shall also include the right to construct, reconstruct, remove and replace, renew, inspect, maintain, repair, improve and otherwise use parallel or any other facilities or appurtenances of the same general type and purpose as the originally installed facilities (collectively, the originally installed Pipelines and any such parallel or other facilities, and any replacements, renewals, repairs and improvements of any of the foregoing are collectively referred to as the "Facilities"). IRWD shall execute the certificate of acceptance included herein, cause this Agreement to be recorded in the Official Records of Orange County.

(b) **Right of Use.** Subject to the provisions of Paragraph (c) of this Section, it is understood and agreed that the easements and rights-of-way acquired herein are also acquired subject to the rights of ANDREWS to use the Easement Area for any purpose whatsoever to the extent that such use does not interfere with IRWD's use of its easement. ANDREWS retains the rights which are not inconsistent with the easement. Such use by ANDREWS shall include, but not be limited to, the compatible use for streets, roadways, pipelines, fences or block walls, cuts, fills or other structures or other compatible improvements under, upon, over, and across the Easement Area.

(c) **Concurrence of IRWD.** Such use by ANDREWS of the Easement Area for landscaping purposes which do not involve the erection of structures or other improvements upon the Easement Area and which are consistent with IRWD's use of the easement may be made without notification to or concurrence of IRWD except that no trees shall be planted in said Easement Area without the prior written consent of IRWD. Further, such use by ANDREWS of the Easement Area for roadway improvements, which do not result in cuts closer than three (3) feet above the top of IRWD's Facilities or fills greater than two (2) feet above the existing ground may be made without notification to or concurrence of IRWD. It is agreed, however, that no such use for any other purposes shall be made until plans for such proposed use by ANDREWS have been reviewed with or submitted to IRWD, and IRWD has concurred that such proposed use will be consistent with IRWD's use of the Facilities. IRWD agrees that it shall not unreasonably withhold its concurrence.

(d) **Successors and Assigns.** This Grant of Easement shall be binding upon and inure to the benefit of the successors and assigns of ANDREWS and IRWD.

2. **Pipeline Protective Work.** (a) **Installation.** IRWD shall perform the following work: armoring the soil in the vicinity of the Pipelines using rock, geotechnical fabric, compacted soil and/or such other reinforcement means and methods as in the sole discretion of IRWD are suitable and necessary or desirable to protect the Pipelines from future erosion (hereinafter referred to, together with the Temporary Repairs, as the "Pipeline Protective Work"). The Parties acknowledge and agree that the Pipeline Protective Work will be configured in a strip of approximately 250 feet in length, generally between the Pipelines and the adjacent creek, and that such length has been extended to the endpoints desired by ANDREWS and is longer than IRWD would have constructed solely for its benefit in protecting the

Pipelines.

(b) **Licenses; Access; Releases.** All or substantially all of the Pipeline Protective Work will lie outside the Easement Area. ANDREWS hereby grants at no charge, to IRWD, its employees, agents, contractors and subcontractors, a license and right of entry to perform and install such work on the Property. IRWD shall have no obligation to monitor, maintain, augment or repair the Pipeline Protective Work. The performance and installation of the Pipeline Protective Work will require access from the street over a portion of the Property containing a buried leach field, by vehicles carrying heavy materials and by heavy equipment. ANDREWS hereby grants at no charge, to IRWD, its employees, agents, contractors and subcontractors, a license and right of entry for such access and assumes all risk of damage to the leach field that may occur notwithstanding the temporary placement of steel traffic plates.

(c) **Insurance.** IRWD shall require its contractors for the Pipeline Protective Work to carry insurance for general, automobile and workers' compensation liability consistent with IRWD's customary practices in contracting for work of the same general character as the Pipeline Protective Work.

(d) **Future Modification or Removal.** ANDREWS agrees not to remove or modify any of the Pipeline Protective Work without IRWD's prior written consent.

(e) **Cost Contribution.** ANDREWS shall contribute \$15,000.00 to the cost of the Pipeline Protective Work, agreed by the Parties to represent the cost of the extension included in such work to the endpoints desired by ANDREWS as described in paragraph (a) of this Section (the "Cost Contribution Payment"). The Cost Contribution Payment shall be due and payable to IRWD in full within ten (10) calendar days following execution of this Agreement. IRWD shall bear the remainder of the cost of the Pipeline Protective Work.

(f) **Schedule.** IRWD agrees to begin on-site mobilization of the Pipeline Protective Work within fifteen (15) calendar days of the execution of this Agreement by the Parties and the IRWD's receipt of the Cost Contribution Payment, as provided in paragraph (e) of this Section. IRWD agrees to complete the Pipeline Protective Work within thirty (30) calendar days after beginning the on-site mobilization. IRWD shall not be liable for any delay in performing or completing the work. The schedule in this paragraph is subject to delays resulting from weather or other causes beyond IRWD's control.

3. **Costs and Attorneys Fees.** Each Party shall bear its own costs, including but not limited to costs of investigation of the Dispute, and attorneys' fees in this matter.

4. **Incorporation of Recitals.** The recitals set forth above accurately describe the facts and disputes between the Parties, and are incorporated herein by this reference as if set forth in this Agreement in full.

5. **No Admission of Liability.** This Agreement is a compromise settlement of the Dispute. Nothing contained herein shall be construed as an admission by any Party hereto of any

liability of any kind to any other Party.

6. **Release and Waiver.** (a) Except for and subject to the obligations and covenants provided in this Agreement, and except for the rights, duties and obligations of the parties under the within Grant of Easement, each of the Parties hereby waives any claims against the other Party, of and from any and all past, present, or future suits, claims, notes, demands, obligations, liabilities, actions or causes of action, damages, judgments, executions, debts, equitable relief, contribution, indemnification, costs, charges, losses, expenses, attorneys' fees, consultants' fees and compensation, under the laws of any jurisdiction, of any kind, nature and character whatsoever, whether existing, known or unknown, or hereafter becoming known, which as of the date of this Agreement, either Party has, or had or which may be acquired by that Party against the other Party (collectively, the "Claims") growing or arising out of the subject matter of this Agreement or the Dispute. Each Party understands and agrees that this release is a full and complete waiver and release of any and all Claims, several or otherwise, past, present, or future, known or unknown, suspected or unsuspected, which can or may ever be asserted by the Party in connection with the subject matter of this Agreement or the Dispute.

(b) ANDREWS acknowledges that IRWD has not made and is not making any representation or warranty, express or implied, with respect to the Pipeline Protective Work as extended as described in Section 2(a) hereof, its suitability for the activities or purposes contemplated by ANDREWS, or any other matter related to the Pipeline Protective Work or such included extension thereof. The Parties acknowledge and agree that although the Pipeline Protective Work or such included extension thereof may incidentally provide a benefit to ANDREWS by serving to restore and protect a portion of the Property from future erosion, avulsion or other earth movement, IRWD has not undertaken to determine, and makes no representation, that either the Pipeline Protective Work or its extended length, will provide any such restoration or protection of the Property, or any existing or future improvements thereon, and IRWD assumes no responsibility or obligation therefor. In addition, and not as a limitation on the preceding sentence, the Parties acknowledge and agree that the sole purpose of the Pipeline Protective Work is to provide some measure of future protection of the Pipelines deemed practical by IRWD, and IRWD makes no representation, guarantees or warranties with respect to any degree of protection that will be provided by the Pipeline Protective Work or such included extension thereof to the Pipelines or to the Property, irrespective of any defect that may be alleged in the design, construction or materials of the Pipeline Protective Work or any included extension thereof. The Parties acknowledge that the Pipeline Protective Work is solely a field-applied measure, and neither the Pipeline Protective Work nor such included extension of its length is being engineered. The Parties further acknowledge that the Property is subject to inundation by the adjacent creek, and no representation is made by either Party that the Pipeline Protective Work or the included extension thereof will prevent the creek from assuming, or reverting to, any particular course at any time, including without limitation any temporary or other means IRWD may employ as part of the Pipeline Protective Work to redirect the creek to its former channel or otherwise for the purpose of allowing the construction of the Pipeline Protective Work and included extension to proceed in the area now or recently occupied by the creek flow. From and after the Effective Date, neither of the Parties shall have any liability or exposure whatsoever for any and all Claims based upon, arising out of or relating to the Pipeline

Protective Work or such included extension thereof, including but not limited to the construction, maintenance, repair, retrofitting, reconstruction and/or removal thereof. As a material part of the consideration for this Agreement, each Party hereby releases the other Party from all Claims against such releasing Party and agrees to indemnify, defend and hold harmless such released Party from such Claims, arising out of or relating to the Pipeline Protective Work or the included extension thereof.

(c) With respect to the releases contained in Sections 2(b), 6(a), and 6(b) of this Agreement, each Party is aware that it may hereafter discover claims or facts in addition to or different from those it now knows or believes to be true with respect to the matters related herein. Nevertheless, it is the intention of the parties in consideration for the payments herein, to fully, finally and forever settle and release all such matters, and all claims relative thereto, which presently exist, may exist, or heretofore have existed relating to the subject matter of this Agreement or the Dispute, as well as interest, penalties and damages associated with any such claims. In furtherance of such intention, the release given herein shall be and remain in effect as full and complete release of all such matters, notwithstanding the discovery or existence of any additional or different claims or facts relative thereto. Further, there is a risk that loss or damage presently known may be or become greater than any Party now expects or anticipates. The Parties hereby assume such risk. The Parties hereby acknowledge, by signing this Agreement, they are familiar with the provisions of Civil Code Section 1542, which provides as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

EACH PARTY, BEING AWARE OF SAID CODE SECTION, HEREBY EXPRESSLY WAIVES ANY RIGHTS IT MAY HAVE THEREUNDER, AS WELL AS UNDER ANY OTHER STATUTES OR COMMON LAW PRINCIPLES OF SIMILAR EFFECT.

IRWD Initials: _____ ANDREWS Initials: MAA

(d) For purposes of this Section, each reference to "Party" includes the Party and its respective predecessors and successors-in-interest, employees, owners, officers, directors, boards of directors, officials, partners, associates, attorneys, assigns, transferees, agents, representatives, trustees, heirs, spouses, former spouses, firms, brokers, consultants, lenders, insurers, underwriters, sureties, guarantors, contractors, subcontractors, present and former partners, stockholders, parent and subsidiary corporations, affiliates, volunteers, and each and all of them.

7. **Representations and Warranties.**

7.1. Each Party has received independent legal advice from its own attorneys with respect to the advisability of making the settlement provided for herein, and with respect to

the advisability of executing this Agreement, including, without limitation, the releases provided for herein. Each Party has cooperated in the drafting and preparation of this Agreement. Hence, in any construction to be made of this Agreement, the same shall not be construed against any Party.

7.2. No Party (nor any director, officer, agent, employee, representative, predecessor in interest, or attorney of or for any Party) has made any statement or representation to any other party regarding any fact relied upon in entering into this Agreement, and each Party represents and warrants that it does not rely upon any statement, representation or promise of the other Party (or of any director, officer, agent, employee, representative, predecessor in interest, or attorney for the other Party), in executing this Agreement, or in making the settlement provided for herein, except as expressly stated in this Agreement.

7.3. Each Party to this Agreement represents and warrants that it has made such investigation of the facts pertaining to this settlement and this Agreement and of all the matters pertaining thereto as it deems necessary. Each Party hereby represents and warrants that it has had access to adequate information regarding the terms of this Agreement and the scope and effect of the releases set forth herein as they pertain to such Party, in order to make an informed and knowledgeable decision with regard to entering into this Agreement. Each Party further represents and warrants (a) that it has made its own independent analysis and decision to enter into this Agreement, (b) that it has not relied on any statement, representation, promise or agreement not expressly contained in this Agreement, and (c) that it has not assigned to any other person or entity all or any portion of any Claim against any other Party to this Agreement.

7.4. Each Party represents and warrants that it or responsible officer thereof has read this Agreement and understands the contents hereof. The representative of each Party signing this Agreement warrants and represents that he/she has the full authority to execute the Agreement on behalf of the Party on whose signature he/she so executes and he/she is acting within the express scope of such authority.

7.5. In entering into this Agreement and the settlement provided for herein, each party assumes the risk of any misrepresentation, concealment or mistake. If any party should subsequently discover that any fact relied upon by it in entering into this Agreement was untrue, or that any fact was concealed from it, or that its understanding of the facts or the law was incorrect, such party shall not be entitled to any relief in connection therewith, including, without limitation on the generality of the foregoing, any alleged right or claim to set aside or rescind this Agreement.

7.6. Each Party represents and warrants that it has not heretofore assigned, transferred, or granted, or purported to assign, transfer, or grant, any of the claims, demands or rights settled by this Agreement.

8. **Execution of Additional Documents.** The Parties shall execute all such further and additional documents as shall be reasonable, convenient, necessary or desirable to carry out the provisions of this Agreement.

9. **Severability.** If any portion, provision or part of this Agreement is held, determined or adjudicated to be invalid, unenforceable, or void for any reason whatsoever, each such portion, provision, or part shall be severed from the remaining portions, provisions, or parts of this Agreement, and shall not affect the validity or enforceability of such remaining portions, provisions or parts.

10. **Entire Agreement.** This Agreement contains the entire understanding and agreement between the Parties with respect to the compromise set forth herein. No other representations, covenants, undertakings or other prior or contemporaneous oral agreements respecting such matters which are not specifically incorporated herein shall be deemed in any way to exist or bind any of the Parties. The Parties, and each of them, acknowledge that they have not executed this Agreement in reliance on any such promises, representations, or warranties.

11. **Modification of Agreement; Waiver.** This Agreement shall be amended only by a written instrument executed by the Parties hereto or their successors or assigns. All waivers of this Agreement must be in writing and signed by the authorized representatives of the Parties hereto. No failure of either Party to exercise any power given that party under this Agreement or to insist on strict compliance by the other party to its obligations, and no custom or practice of the parties in variation with the terms of this Agreement will constitute a waiver of either Party's right to demand exact compliance with the terms of this Agreement. Waiver of any one provision shall not be deemed to be a waiver of any other provision.

12. **Governing Law.** This Agreement is entered into, and shall be construed and interpreted, in accordance with the laws of the State of California.

13. **Successors and Assigns.** All of the covenants, stipulations, promises and agreements contained in this Agreement by or on behalf of, or for the benefit of, either of the Parties hereto, shall bind and inure to the benefit of the successors and assigns of the respective Party.

14. **Titles and Captions.** Paragraph titles and captions in this Agreement are inserted only as a matter of convenience and for reference and in no way define, limit, extend, or describe the scope of this Agreement or the intent of any provision thereof.

15. **Counterparts.** This Agreement may be executed in two or more counterparts. When each Party has signed and delivered at least one such counterpart, each counterpart shall be deemed an original and, when taken together with other signed counterparts, shall constitute one agreement which shall be binding upon and effective as to both Parties.

///
///
///
///

16. **No Third Party Beneficiaries.** The only parties to this Agreement are ANDREWS and IRWD. There are no third party beneficiaries and this Agreement is not intended, and, except to the extent provided in Sections 1(d), 6(d) and 13, shall not be construed to benefit or be enforceable by, any other person or entity whatsoever.

IN WITNESS WHEREOF, each of the parties hereto, has caused this Agreement to be executed as of the date first written above.

ANDREWS

By *Mark A. Carter*

*Approved as
to form:*
[Signature]

IRVINE RANCH WATER DISTRICT

By _____

Title: _____

By _____

Title: _____

EXHIBIT "A"

**WATERLINE EASEMENT TO
IRVINE RANCH WATER DISTRICT
(APN 867-011-19)**

LEGAL DESCRIPTION

Those certain strips of land situated in the unincorporated territory of the County of Orange, State of California being that portion of Lot 4 of Tract No. 10186, as shown on a map thereof filed in Book 499, Pages 38 through 42 of Miscellaneous Maps in the Office of the County Recorder of said County more particularly described as follows:

Strip 1

A strip of land of variable width, the general northeasterly, northwesterly and northerly line of which are described as follows:

COMMENCING at the northwest corner of said Lot 4; thence along the northeasterly line of said lot South 70°55'00" East 52.71 feet to the intersection with easterly line of Markuson Road (Private Street) as shown on said map, said point of intersection being the **TRUE POINT OF BEGINNING**; thence continuing along said northeasterly line and its southeasterly prolongation South 70°55'00" East 131.00 feet to a point hereinafter referred to as Point "A"; thence North 40°08'33" East 84.98 feet; thence North 52°56'38" East 41.70 feet to a point hereinafter referred to as Point "B"; thence continuing North 52°56'38" East 14.44 feet' thence South 89°02'11" East 182.45 feet to the easterly line of said Lot 4.

Said strip shall be 10.00 feet wide from the **TRUE POINT OF BEGINNING** to the hereinbefore described Point "A" and 12.50 feet wide from said Point "A" to said easterly line of Lot 4.

The sidelines of said strip shall be lengthened or shortened so as to terminate westerly in said easterly line of Markuson Road and easterly in said easterly line of Lot 4.

Sidelines shall intersect at all angle points.

Strip 2

A strip of land 12.50 feet wide, the westerly line of which is described as follows:

BEGINNING at the hereinbefore described Point "B"; thence South 01°09'02" West 89.04 feet.

SUBJECT TO: Covenants, conditions, reservations, restrictions, rights-of-way, and easements of record, if any.

EXHIBIT "B" attached hereto and by this reference made a part hereof.

Prepared by me or under my direction:

Dated: February 11, 2011



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



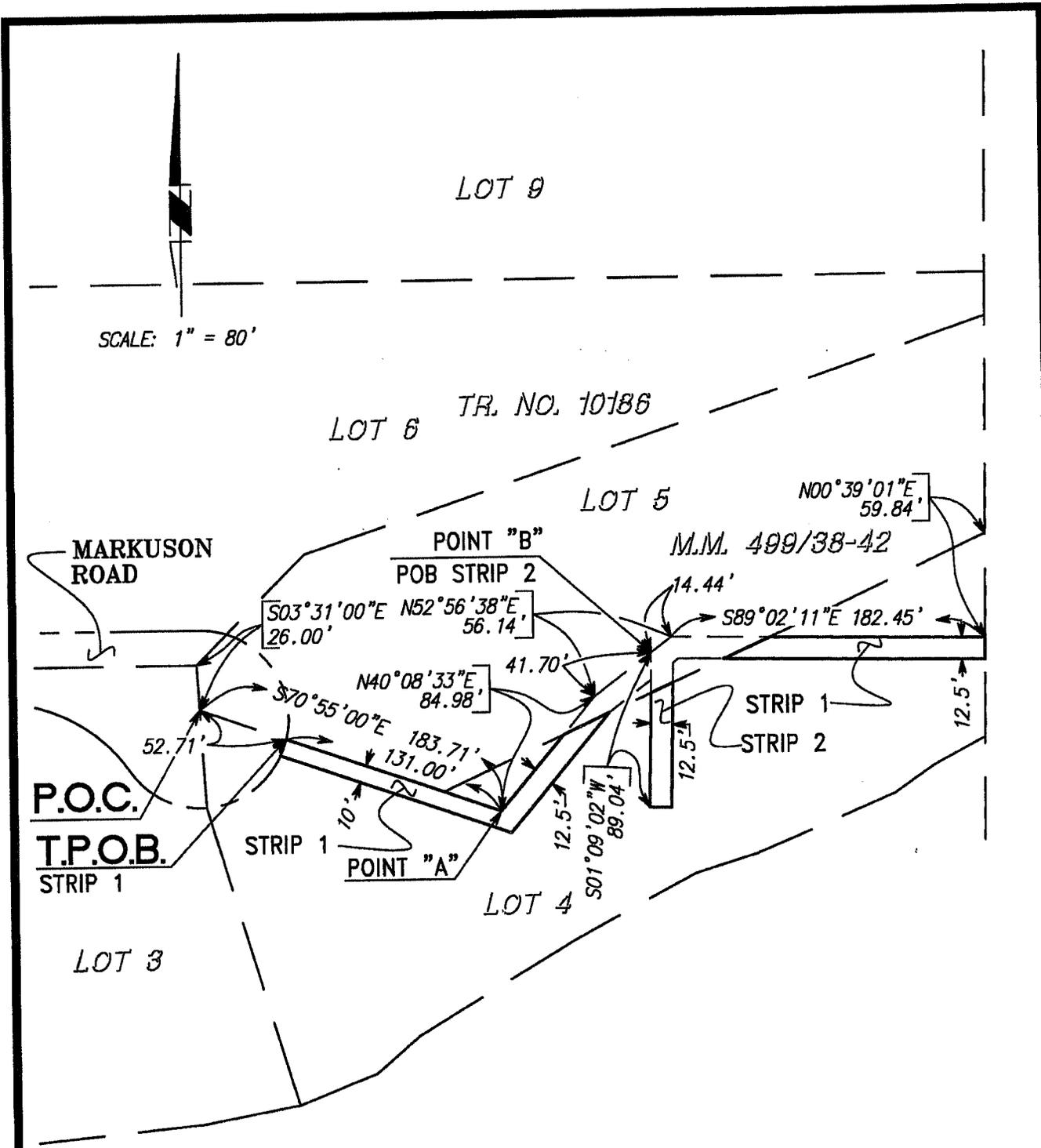


EXHIBIT "B"
 SKETCH TO ACCOMPANY A
 LEGAL DESCRIPTION FOR

WATER PIPELINE EASEMENT TO
 IRVINE RANCH WATER DISTRICT
 (APN 867-011-19)

SHEET 1 OF 1 SHEET



IRVINE RANCH WATER DISTRICT
 15600 SAND CANYON AVENUE, IRVINE, CA 92619

FEBRUARY 11, 2011 PROJECT XXXXXX

IRVINE RANCH WATER DISTRICT

CERTIFICATE OF ACCEPTANCE

This is to certify that the interest in real property conveyed by deed or grant dated _____
from Mark Alan Andrews to IRVINE RANCH WATER DISTRICT, a
California Water District, is hereby accepted by the undersigned officer on behalf of the Board of Directors pursuant
to authority conferred by Resolution 1965-36 of the Board of Directors, adopted on October 6, 1965, and the grantee
consents to recordation thereof by its duly authorized officer.

Date: _____

IRVINE RANCH WATER DISTRICT

By: _____

Leslie Bonkowski
Secretary to Board of Directors

IRVINE RANCH WATER DISTRICT

EXHIBIT "D"

Expenditure Authorization

Project Name: MODJESKA CYN STORM DAMAGE REPAIR
 Project No: 11585 EA No: 1
 Project Manager: BURTON, KEVIN
 Project Engineer: BURTON, KEVIN
 Request Date: February 14, 2011

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
101	100.0	REPLACEMENT FUND**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$90,200
Total EA Requests:	\$90,200
Previously Approved Budget:	\$0
Budget Adjustment Requested this EA:	\$90,200
Updated Budget:	\$90,200
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 DESIGN - IRWD	3,000	0	3,000	3,000	0	3,000	1/11	6/11
ENGINEERING - CA&I IRWD	2,000	0	2,000	2,000	0	2,000	1/11	6/11
ENGINEERING - CA&I OUTSIDE	10,000	0	10,000	10,000	0	10,000	1/11	6/11
CONSTRUCTION	65,000	0	65,000	65,000	0	65,000	1/11	6/11
LEGAL	2,000	0	2,000	2,000	0	2,000	1/11	6/11
Contingency - 10.00% Subtotal	\$8,200	\$0	\$8,200	\$8,200	\$0	\$8,200		
Subtotal (Direct Costs)	\$90,200	\$0	\$90,200	\$90,200	\$0	\$90,200		
Estimated G/A - 195.00% of direct labor*	\$9,800	\$0	\$9,800	\$9,800	\$0	\$9,800		
Total	\$100,000	\$0	\$100,000	\$100,000	\$0	\$100,000		
Direct Labor	\$5,000	\$0	\$5,000	\$5,000	\$0	\$5,000		

*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: Kevin J. Burton 2/18/11

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 \$102,000. 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.

