

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

December 12, 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.

PRESENTATION

3. EL TORO WATER DISTRICT RESOLUTION HONORING IRWD'S 50TH ANNIVERSARY

 El Toro Water District representatives Ted Martin, Scott Goldman, and Bob Hill will present IRWD with a resolution honoring its 50th Anniversary.
4. NATIONAL PURCHASING INSTITUTE ACHIEVEMENT OF EXCELLENCE IN PROCUREMENT AWARD

 Staff will present the Achievement of Excellence in Procurement Award given to IRWD by the National Purchasing Institute for the 11th consecutive year. The award is achieved by those organizations that demonstrate excellence in procurement by obtaining a high score on a rating of standardized criteria.

CONSENT CALENDAR

Next Resolution No. 2011-51

Items 3-17

5. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the November 28, 2011 Regular Board Meeting be approved as presented.

6. NOVEMBER 2011 FINANCIAL REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report and the Monthly Interest Rate Swap Summary for November 2011; approve the November 2011 Disbursement Summary of Warrants Nos. 324666 through 325442, Workers' Compensation distributions, wire transfers, payroll direct deposit ACH payments, payroll withholding distributions and voided checks in the total amount of \$19,131,106.45.

7. PROPOSED 2012 INVESTMENT POLICY

Recommendation: That Board adopt a resolution approving investment policy and authorizing the Treasurer and Assistant Treasurer to invest and reinvest funds of the District and of each of its improvement districts and to sell and exchange securities.

Reso No. 2011-

8. FISCAL YEAR 2010/11 COMPREHENSIVE ANNUAL FINANCIAL REPORT

Recommendation: That the Board receive and file.

9. UNIVERSITY OF CALIFORNIA, IRVINE CAMPUS PLUMBING RETROFIT PROGRAM PHASE II

Recommendation: That the Board authorize the General Manager to enter into an agreement with University of California, Irvine (UCI) to provide \$139,000 from a combination of tactical incentive and supplemental funding for water use efficiency upgrades; direct staff to develop and implement the UCI Campus Plumbing Retrofit Program Phase II; and authorize an increase of \$78,600 to the Fiscal Year 2011-12 Operating Budget from undesignated over-allocation revenues to fund the program.

CONSENT CALENDAR – Continued

Next Resolution No. 2011- 51

Items 3-17

10. UNIVERSITY OF CALIFORNIA, IRVINE STUDENT HOUSING
AMENDMENT TO WATER USE EFFICIENCY PILOT PROGRAM

Recommendation: That the Board authorize the General Manager to execute an amended agreement with University of California, Irvine and Niagara Conservation to remove the specification to conduct the program at Arroyo Vista housing complex, increase the total number of installations by 30 additional high efficiency toilets, showerheads and faucet aerators, and authorize the increase of \$6,000 to the Fiscal Year 2011-12 Operating Budget from undesignated over-allocation revenues.

11. SANTIAGO CANYON AREA BOOSTER PUMP STATION PERMANENT
GENERATORS PROJECT FINAL INITIAL STUDY/MITIGATED
NEGATIVE DECLARATION

Recommendation: That the Board find on the basis of the whole record before it (including the initial study and the comments received), that there is no substantial evidence that the project will have a significant effect on the environment and that the negative declaration reflects IRWD's independent judgment and analysis, adopt the proposed negative declaration for the Santiago Canyon area booster pump station permanent generators project and approve Phase I of the project; direct staff to post and file a Notice of Determination, and submit payment for the California Department of Fish and Game filing fee.

12. JEFFREY ROAD SOUTH RECLAIMED WATER AND DOMESTIC WATER
MAINS – FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Jeffrey Road South Reclaimed Water and Domestic Water Mains (Irvine Center Drive to the Meadows), projects 10283 (1073) and 30189 (1592); authorize filing of a Notice of Completion; and authorize release of retention 35 days after the filing of the Notice of Completion.

13. OPERATIONS CENTER FACILITIES EXPANSION PROJECT PHASE I
STORAGE BUILDING - FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Operations Center Facilities Expansion Project Phase I Storage Building, projects 11422 (1388), 21422 (1120), and 31422 (1156); authorize the General Manager to file a Notice of Completion; and authorize the payment of the retention 35 days after the date of recording the Notice of Completion.

CONSENT CALENDAR – Continued

Next Resolution No. 2011-51

Items 3-17

14. TUSTIN LEGACY WELL NO. 1 ALTERNATIVE CONTRACT CHANGE ORDER - FINAL ACCEPTANCE

Recommendation: That the Board authorize the General Manager to execute Contract Change Order No. 1 with Bakersfield Well and Pump Company in the credit amount of \$3,893; accept construction of Tustin Legacy Well No.1 alternative, project 11419 (1356); authorize the General Manager to file a Notice of Completion; and authorize the release of retention 35 days after filing of the Notice of Completion.

15. LONG-TERM DISABILITY, LIFE, AND DEPENDENT LIFE INSURANCE COVERAGE FOR CALENDAR YEAR 2012

Recommendation: That the Board authorize the General Manager to execute a contract for the calendar year 2012 with principal financial for life, dependent life and long-term disability coverage and to terminate the split dollar life insurance program with Pacific Life effective January 1, 2012.

16. TWO-YEAR REIMBURSEMENT AGREEMENT BETWEEN IRWD AND THE CITY OF IRVINE FOR THE ADJUSTMENT/RELOCATION OF MISCELLANEOUS FACILITIES RELATED TO CITY STREET PROJECTS, 2012-2013

Recommendation: That the Board authorize the General Manager to execute a Two-Year Reimbursement Agreement between IRWD and the City of Irvine for the installation of miscellaneous facilities (2012-2013).

17. CHANGE ORDER TO REIMBURSEMENT AGREEMENT WITH THE CITY OF IRVINE FOR THE BARRANCA PARKWAY/RED HILL AVENUE DYER ROAD STREET INTERSECTION IMPROVEMENT PROJECT

Recommendation: That the Board authorize an increase to the Fiscal Year 2011-12 Capital Budget in the amount of \$181,500, from \$305,400 to \$486,900; approve an Expenditure Authorization in the amount of \$181,500; and approve Contract Change Order No. 2 in the amount of \$146,509.77 to the Reimbursement Agreement with the City of Irvine for the Barranca Parkway/Red Hill Avenue/Dyer Road Street intersection improvement project 11448 (2816).

ACTION CALENDAR

18. **SELENIUM AND NITROGEN DISPOSAL SYSTEM CONCEPT STUDY**

Recommendation: That the Board authorize an addition to the Fiscal Year 2011-12 Capital Budget for project 11631 (3633) in the amount of \$44,800; approve an Expenditure Authorization in the amount of \$44,800 for project 11631 (3633), and authorize the General Manager to execute a Professional Services Agreement with RBF Consulting in the amount of \$31,866 to develop a groundwater disposal system concept study (which will be reimbursed to IRWD through purchase orders issued by the City of Irvine, City of Tustin and Transportation Corridor Administration).

19. **UTILITY BILLING SOFTWARE REQUIREMENTS ANALYSIS –
CONSULTANT SELECTION**

Recommendation: That the Board approve a budget increase of \$115,000 each and approve Expenditure Authorizations in the amount of \$115,000 each for projects 11615 and 21615, and authorize the General Manager to execute a Professional Services Agreement with Five Point Partners, LLC in the amount of \$196,340 for the utility billing software requirements analysis project.

20. **GREEN ACRES PROJECT AGREEMENT**

Recommendation: That the Board authorize the President to execute the agreement entitled "Agreement for Irvine Ranch Water District interties to Orange County Water District Green Acres Project and Groundwater Replenishment System and Orange County Sanitation District Outfall" subject to non-substantive changes by the General Manager and Legal Counsel.

21. **STORAGE OPTION WITH ANTELOPE VALLEY-EAST KERN WATER
AGENCY (AVEK) AND KERN COUNTY WATER AGENCY (KCWA) FEES**

Recommendation: That the Board authorize the General Manager to exercise the option in the Pilot Exchange Program Agreement with AVEK to increase the amount of water to be delivered from 5,000 AF to up to 10,000 AF, and authorize staff to work with Legal Counsel to prepare an amendment to Pilot Exchange Program Agreements with both AVEK and Carpinteria Valley Water District for payment and reimbursement of half of the KCWA third party administration fees and authorize the General Manager to execute amendments to the Pilot Exchange Program Agreements.

ACTION CALENDAR - Continued

22. **MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION AND FLOOD PROTECTION IMPROVEMENTS CONTRACT CHANGE ORDER AND EXPENDITURE AUTHORIZATION**

Recommendation: That the Board approve an Expenditure Authorization in the amount of \$334,300 for Michelson Water Recycling Plant Biosolids and Energy Recovery Facilities, project 20847 (1617); and approve Contract Change Order No. 52 to install a 36-inch stormwater pipeline for the MWRP Biosolids and Energy Recovery Facilities Project in an amount of \$284,442, with J.R. Filanc Construction Company for the MWRP Phase 2 Expansion Project 20214 (1599) and 30214 (1706).

23. **BAKE PARKWAY AND LAKE FOREST DRIVE DOMESTIC AND RECYCLED WATER PIPELINES REIMBURSEMENT AGREEMENT WITH IRVINE COMMUNITY DEVELOPMENT COMPANY FOR PLANNING AREA 39**

Recommendation: That the Board authorize the addition of project 11622 (3585) and 30372 (3529) to the Fiscal Year 2011-12 Capital Budget in the amount of \$470,800 and \$1,052,300, respectively; approve Expenditure Authorizations for projects 10445 (1632), 11622 (3585), 30372 (3529), and 30445 (1056) in the amounts of \$581,900, \$470,800, \$1,052,300, and \$156,200 respectively; approve a potential change of work in the amount of \$275,000 to the Reimbursement Agreement with the Irvine Community Development Company (ICDC) for Planning Area 39 to construct the Bake Parkway 12-inch Zone 3 Domestic Water Pipeline, project 11622 (3585); and approve a construction contract to the Reimbursement Agreement with ICDC for Planning Area 39 for \$282,800 and \$552,951.47 for the Lake Forest Drive IRWD Capital Facilities, projects 10445 (1632) and 30372 (3529).

24. **ANNUAL BOARD OF DIRECTORS' FEES**

Recommendation: That the Board either accept or decline the 5% scheduled compensation increase for calendar year 2012.

25. **ELECTION OF OFFICERS FOR 2012**

Recommendation: That an election be conducted of the President and Vice President of the Board of Directors.

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.

26. A. General Manager's Report

B. Directors' Comments

1)

2)

3)

4)

5)

OTHER BUSINESS - Continued

26. C. CLOSED SESSION – Relative to PUBLIC EMPLOYEE APPOINTMENT/EMPLOYMENT/PERFORMANCE EVALUATION (Government Code Section 54957). Title: Staff position title changes

D. OPEN SESSION:

- 1) Reporting of any Action(s) as determined in Closed Session:
- 2) Addition of positions to FY 2011-12 operating budget, approve changes to the Salary Grade Schedule effective January 1, 2012, and adopt the following resolution by title:

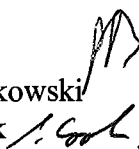
RESOLUTION NO. 2011-

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE IRVINE RANCH WATER DISTRICT RESCINDING
RESOLUTION NO. 2011-49 AND ESTABLISHING
A REVISED SCHEDULE OF POSITIONS AND SALARY
RATE RANGES

* * * * *

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

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

December 12, , 2011
Prepared and
Submitted by: L. Bonkowski
Approved by: P. Cook 

CONSENT CALENDAR

MINUTES OF REGULAR BOARD MEETING

SUMMARY:

Provided are the minutes of the November 28, 2011 Regular Board Meeting.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE NOVEMBER 28, 2011 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" - Regular Board Meeting Minutes

EXHIBIT "A"

MINUTES OF REGULAR MEETING – NOVEMBER 28, 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 November 28, 2011 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

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

Directors Absent: None.

Also Present: General Manager Cook, Senior Director of Finance Cherney, Senior Director of Operations Pedersen, Director of Engineering Burton, Treasurer Jacobson, Secretary Bonkowski, Legal Counsel Arneson, Director of Water Resources Heiertz, Director of Public Affairs Beeman, Director of Human Resources Wells, Director of Wastewater Operations Posey, Director of Water Quality Hills, Ms. Kirsten McLaughlin, Mr. Paul Weghorst, Ms. Fiona Sanchez, Mr. Mike Hoolihan, Mr. Dean Kirk, Ms. Shannon Reed, Ms. Debby Kanoff, Ms. Terri Isaacs, Mr. Jim Reed, Mr. Bruce Newell, and other members of the public and staff.

WRITTEN COMMUNICATION: None.

ORAL COMMUNICATION:

Mrs. Joan Irvine Smith's assistant addressed the Board of Directors with respect to the Dyer Road Wellfield. He said it was his understanding that currently wells C-8 and C-9 will operate in accordance with the District's annual pumping plan. Wells, 1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 16, 17 and 18 will be off. This was confirmed by Mr. Cook, 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. Cook.

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, 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. Cook.

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. Cook.

ITEMS RECEIVED TOO LATE TO BE AGENDIZED: None.

PRESENTATION

PARTNER COMMENDATION

General Manager Cook presented a Certificate of Commendation to Ms. Lyn McAfee, Executive Director of the Nature Reserve of Orange County (NROC), in celebration of the District's 50th anniversary recognizing one of the District's key partners in service. Ms. McAfee thanked the District for the recognition as well as involvement in NROC over the last 10 years.

PUBLIC HEARING

ORDINANCE AMENDING REGULATIONS FOR WASTEWATER DISCHARGES TO IRWD SEWERAGE FACILITIES TRIBUTARY TO SOCWA - SECOND READING AND ADOPTION

General Manager Cook reported that IRWD is required by state and federal laws and regulations to control the discharge of non-domestic wastewater to its collection and treatment systems to prevent pollutants from upsetting the treatment systems or passing through to the environment. Mr. Cook said to comply with these requirements, IRWD retained the Pretreatment and Source Control Program (Program) that was established by the former Los Alisos Water District (LAWD) through Ordinance No. 96-12-1 for the portions of its wastewater collection and treatment systems that are tributary to South Orange County Wastewater Authority (SOCWA). He said that IRWD adopted Resolution No. 2001-7 on January 22, 2001 to affirm its intention to retain the Program in effect following the IRWD-LAWD consolidation. As periodic amendments to the Program are needed to incorporate the requirements of new state and federal pretreatment regulations and to address changes in administrative procedures, IRWD recently worked cooperatively with SOCWA to incorporate the necessary changes to the Program which are provided in the exhibit.

Mr. Cook said that the Ordinance will repeal Ordinance No. 96-12-1 and amend regulations for the discharge of wastewater to sewerage facilities of IRWD that are in the SOCWA service area. The adoption of the Ordinance is a two-step process that requires: (1) a first reading and

introduction, which were completed at the November 14, 2011 Board meeting, and (2) a public hearing, second reading and adoption.

President LaMar declared this to be the time and place for the hearing on the Ordinance and requested the Secretary to report the manner by which the Notice of Hearing was given.

Secretary Bonkowski said that the Notice of this hearing was published in the Orange County Register on November 14, 2011 and was posted on November 14, 2011 within the IRWD service area tributary to the South Orange County Wastewater Authority service area. She said that the notice was also posted in the District office on November 14, 2011. She then presented an Affidavit of Posting and Proof of Publication for the Board to receive and file.

On MOTION by Swan, seconded and unanimously carried, THE AFFIDAVIT OF POSTING THE PROOF OF PUBLICATION PRESENTED BY THE SECRETARY WAS RECEIVED AND FILED.

President LaMar inquired of the Secretary whether there have been any written communications. Secretary Bonkowski said that there were none.

President LaMar inquired whether anyone is present who wishes to address the Board concerning the amended Ordinance. There were none. President LaMar inquired whether there are any comments or questions from members of the Board of Directors. There were none.

On MOTION by Swan seconded and unanimously carried, 1) THE HEARING WAS CLOSED, THE SECRETARY READ THE ORDINANCE BY TITLE AND FURTHER READING OF THE ORDINANCE WAS WAIVED. On MOTION by Swan, seconded and unanimously carried, THE ORDINANCE WAS ADOPTED BY TITLE AS FOLLOWS:

ORDINANCE 2011-1

ORDINANCE OF THE BOARD OF DIRECTORS OF IRVINE
RANCH WATER DISTRICT REPEALING ORDINANCE NO. 96-12-1
AND ADOPTING AMENDED REGULATIONS FOR THE DISCHARGE
OF THE WASTEWATER TO SEWERAGE FACILITIES OF THE IRVINE
RANCH WATER DISTRICT THAT ARE IN THE SOUTH ORANGE COUNTY
WASTEWATER AUTHORITY SERVICE AREA

CONSENT CALENDAR

On MOTION by Reinhart, seconded and unanimously carried, CONSENT CALENDAR ITEMS 5 THROUGH 10 WERE APPROVED AS FOLLOWS:

5. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the November 14, 2011 Regular Board Meeting be approved as presented.

CONSENT CALENDAR (CONTINUED)

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

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

7. STRATEGIC MEASURES DASHBOARD

Recommendation: That the Board receive and file the Strategic Measures Dashboard and information items.

8. OCTOBER 2011 FINANCIAL REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report and the Monthly Interest Rate Swap Summary for October 2011; approve the October 2011 Disbursement Summary of Warrants Nos. 323976 through 324665, Workers' Compensation distributions, wire transfers, payroll direct deposit ACH payments, payroll withholding distributions and voided checks in the total amount of \$29,379,035.74.

9. 2011 PROJECT MANUAL

Recommendation: That the Board adopt the following resolution by title rescinding Resolution No. 2010-28 and revising standard form construction contract documents.

RESOLUTION NO. 2011 -50

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY,
CALIFORNIA, RESCINDING RESOLUTION NO. 2010-28
AND REVISING STANDARD FORM CONSTRUCTION
CONTRACT DOCUMENTS

10. UPCOMING PROJECTS STATUS REPORT

Recommendation: Receive and file.

WORKSHOPS

WATER DEMAND FACTOR STUDY

General Manager Cook said that as part of the Water Resources Master Plan (WRMP) update, staff has been working with RBF Consulting to complete a Water Demand Factor Study. Mr. Cook said that the Water Demand Factor Study focuses predominately on the top 15 future demand factors for IRWD's service area for the period from 2010 to 2035.

Using a PowerPoint presentation, Principle Engineer Hoolihan provided an overview of the Water Demand Factor Study. Using charts, he reviewed residential local water factors, irrigation water factors, and commercial local water use factors. He said that the methodology for this analysis included utilizing: 1) IRWD billing data from the last 20 years; 2) meter GIS/GPS data to locate meters; 3) overlaid IRWD GIS land use information; 4) matched tracts in billing data to tract information in land use information; and 5) summarized billing data by land uses.

Mr. Hoolihan said that the recommended demand factors will be input into IRWD's Demand Forecasting Tool and a final calibration of the factors will be completed. He said that staff will also be calibrating the factors to the entire IRWD billing database and water purchase history files. Through this process, staff anticipates making further minor adjustments to the recommended factors. He said that the final demand factors will be published in the WRMP update and used in on-going IRWD planning studies including water supply assessments, recycled water use estimates, and seasonal storage analysis.

Director Reinhart reported that this item was reviewed by the Engineering and Operations Committee. Mr. Kirk, who was in the audience, said that staff has been working with TIC, and they will continue this work effort on this matter. Following discussion with the Board, Mr. Hoolihan said that additional work will be performed including future supplies and revisions of regional allocation assumptions. Director Matheis thanked staff for their efforts.

UPDATE ON RETIREMENT AND HEALTH BENEFITS

General Manager Cook reported that as a continuation of the workshop discussions from the Board Strategic Planning Workshop on October 7, 2011 and the Finance and Personnel Committee (Committee) meetings on November 1 and November 22, 2011, staff and consultants from Aon Hewitt (Aon) will update the Board on the CalPERS valuations and alternative valuations using different discount rates. Mr. Cook said that staff and Aon will also review the retirement program objectives articulated by the Board at its Strategic Planning Workshop.

Mr. Cook said that focusing exclusively on retirement benefits at the Board workshop on October 7, 2011, the Board identified a series of high-level objectives and asked Aon to model a variety of options that may meet those objectives. He said that these objectives included the following: 1) any changes to the retirement plans must be explained to employees and ratepayers in the context of: A) appropriate pay and benefits package, and a well understood competitive position, and B) the need to provide exceptional water and wastewater service at competitive prices; 2) develop retirement income program with a sustainable cost structure including an ongoing contribution level around 10 to 15% of payroll, a mechanism to control year-to-year cost volatility, and maintain a healthy funded position based on reasonable market expectations; 3) deliver adequate retirement benefits including: A) providing opportunity for employees to accumulate sufficient retirement income; B) District-paid benefits should target no more than 65% income replacement for a full career employee; C) target replacement income at age 65; and D) providing ability to retire early (through a supplemental benefit for field employees under certain circumstances; 4) retirement program should encourage employee savings; 5) employer should bear a portion of the investment and longevity risks and the program should have a defined benefit component; 6) the District will be fair and equitable to current and former

employees; and 7) the District ideally should maintain a single retirement structure for all current and future employees.

Mr. Cook said that as part of the Board workshop, Aon will review these estimated valuations and impacts. Using a PowerPoint presentation, Mr. Gagne of Aon provided an overview of retirement and health benefits package. Mr. Gagne reviewed three different philosophies for discount rates including expected return of assets, bond rates and termination rates. Using a chart, he reviewed the CalPERS pension projections valuation, target asset allocations, and benchmark returns on key market indices. Mr. Gagne then reviewed key principles to Governor Brown's pension reform proposals issued in later October 2011.

Director Reinhart said that it is important for our Board to address these issues and commended the Finance and Personnel Committee along with staff for their efforts. Director Withers said while this issue is complicated, he said that the District's greatest assets are the employees at the District, and that the Board needs to do what is the best for them. President LaMar said that the Board will work with staff to come up with changes over time that will be in the best interest of the employees. In response to Director Swan's comment, General Manager Cook will provide employees with an update of the evaluation on these matters. Ms. Debby Kanoff and Ms. Terry Isaacs, employees in the audience, provided comments relative to the retirement study.

GENERAL MANAGER'S REPORT

General Manager Cook reported on a client/consultant project with UCI relative to students identifying the District's water banking project in Kern County. He said that he and the Board will be attending ACWA's fall conference this week in Anaheim.

DIRECTORS' COMMENTS

Director Reinhart reported on his attendance at a MWDOC Board meeting, a Southern California Water Committee annual meeting, and an EOCWD meeting with President LaMar and General Manager Cook relative to the District's OPA wells.

Director Swan reported on his attendance at a WACO meeting, an ACWA Board meeting, a Delta Task Force meeting at MWD today, a CORO meeting, and a workshop on water banking.

Director Matheis reported that she received a book from the Irvine Historical Society and read a note thanking the District for its support over the years. She also said that she received a book from the Water Education Foundation relative to the Delta Plan.

Director LaMar reported on his attendance at MWDOC's PAMO meeting and a Board meeting, an NROC Executive meeting, and a Southern California Water Committee meeting.

Former LAWD Board member Mr. Jim Reed said that Mr. Richard Dixon, former Council Member from the City of Lake Forest, had passed away, and that his Celebration of Life is being held on December 10.

CLOSED SESSION

President LaMar that that the following Closed Sessions will be held: (1) Anticipated litigation – significant exposure to litigation pursuant to Government Code Section 54956.9(b) (one or more potential cases) – Conference with Legal Counsel), and (2) Anticipated litigation – initiation of litigation pursuant to Government Code Section 54956.9(c) (one or more potential cases) – Conference with Legal Counsel).

OPEN SESSION

Following the Closed Session, the meeting was reconvened with Directors Swan, LaMar, Reinhart, Withers, and Matheis present. No action was reported.

ADJOURNMENT

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

APPROVED and SIGNED this 12th day of December, 2011.

President, IRVINE RANCH WATER DISTRICT

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Legal Counsel - Bowie, Arneson, Wiles & Giannone

December 12, 2011
Prepared by: Tanja Fournier/Rob Jacobson
Submitted by: Debby Cherney
Approved by: Paul Cook

CONSENT CALENDAR

NOVEMBER 2011 FINANCIAL REPORTS

SUMMARY:

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

- A. The Investment Summary Report for November 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 November 30, 2011, as outlined in Exhibit "B".
- C. The November 30, 2011 Disbursement Summary of the tabulation of Warrant Nos. 324666 through 325442, Workers' Compensation distributions, payroll withholding distributions, payroll direct deposit ACH payments and voided checks in the total amount of \$19,131,106.45.

FISCAL IMPACTS:

As of November 30, 2011, the book value of the investment portfolio was \$366,967,029 with a 0.41% rate of return and a market value of \$367,393,262. Based on the District's September 30, 2011 quarterly real estate investment rate of return of 11.37%, the District's weighted average return for the fixed income and real estate investments was 2.01%.

As of November 30, 2011, the total notional amount of the interest rate swap portfolio was \$130 million of fixed payer swaps. Cash accrual in November from all swaps was negative \$596,411 and negative \$3,102,574 fiscal year to date.

Wire transfers, ACH payments, and checks issued for debt service, accounts payable, payroll and water purchases for November totaled \$19,131,106.45.

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 NOVEMBER 2011; APPROVE THE NOVEMBER 2011 DISBURSEMENT SUMMARY OF WARRANTS NOS. 324666 THROUGH 325442, WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL DIRECT DEPOSIT ACH PAYMENTS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$19,131,106.45.

LIST OF EXHIBITS:

- Exhibit "A" - Investment Summary Report
- Exhibit "B" - Monthly Interest Rate Swap Summary
- Exhibit "C" - Monthly Summary of District Disbursements

IRVINE RANCH WATER DISTRICT
SUMMARY OF MATURITIES

11/30/11

PORTFOLIO \$366,904,645

DATE	TOTAL	%	LAIF	AGENCIES	MUN	CALIF. MONEY MARKET NOTES	SAVINGS & SWEEP	Collateral * Deposit
12/11	\$291,904,645	79.56%	\$194,879,294		71,880,000	2,000,000	1,818,210	\$21,327,141
1/12								
2/12								
3/12								
4/12								
5/12								
6/12								
7/12								
8/12								
9/12								
10/12								
11/12								
SUB-TOTAL	\$291,904,645	79.56%	\$194,879,294	-	71,880,000	2,000,000	1,818,210	\$21,327,141
13 Months - 1 YEARS								
12/1/2012 - 12/31/2012								
1/1/2013 - 3/31/2013	\$15,000,000	4.09%					15,000,000	
4/1/2013 - 6/30/2013	\$10,000,000	2.73%					10,000,000	
7/1/2013 - 9/30/2013	\$5,000,000	1.36%					5,000,000	
10/1/2013 - 12/31/2013	\$10,000,000	2.73%					10,000,000	
4/1/2014 - 6/30/2014	\$10,000,000	2.73%					10,000,000	
7/1/2014 - 9/30/2014	\$20,000,000	5.45%					20,000,000	
10/1/2014 - 12/31/2014	\$5,000,000	1.36%					5,000,000	
TOTALS	\$366,904,645	100.00%	\$194,879,294	75,000,000	71,880,000	2,000,000	1,818,210	\$21,327,141
% OF PORTFOLIO			53.11%	20.44%	19.59%	0.55%	0.50%	5.81%

* Return of posted collateral is dependant on interest rates.

IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT
INVESTMENT ACTIVITY
 Nov-11

MATURITIES/SALES

PURCHASES

DATE	SECURITY TYPE	PAR	YIELD	DATE	SECURITY TYPE	PAR	YIELD
11/23/2011	FNMA Note Due 11/23/2011	\$5,000,000	1.00%	11/29/2011	FNMA Note Due 11/29/2013	\$5,000,000	0.60%
11/23/2011	FHLMC Note Due 5/23/2013	\$5,000,000	0.65%				
11/23/2011	FHLMC Note Due 5/23/2014	\$5,000,000	1.27%				
11/28/2011	FHLMC Note Due 5/28/2014	\$5,000,000	1.25%				

LAIF ACTIVITY

11/01/11	LAIF - JPA	(\$2,000,000)
11/02/11	LAIF	\$2,000,000
11/08/11	LAIF - JPA	(\$1,500,000)
11/09/11	LAIF	\$2,000,000
11/15/11	LAIF	(\$1,500,000)
11/23/11	LAIF	\$11,500,000
11/28/11	LAIF	\$5,500,000
11/29/11	LAIF	<u>(\$9,000,000)</u>
	Increase/(Decrease)	<u>\$16,000,000</u>

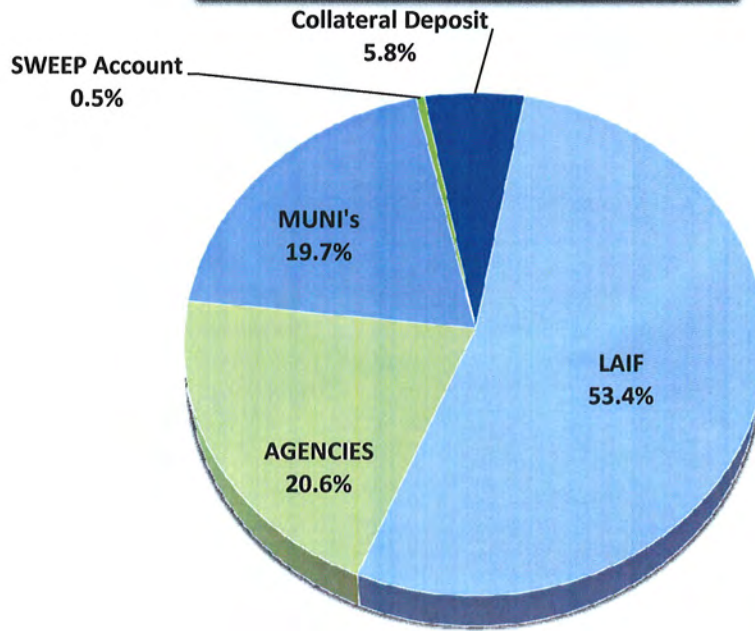
COLLATERALIZED DEPOSIT ACTIVITY

Balance Forward	\$22,916,610
CITIGROUP	(\$1,589,468)
Balance at 11/30	<u>\$21,327,142</u>

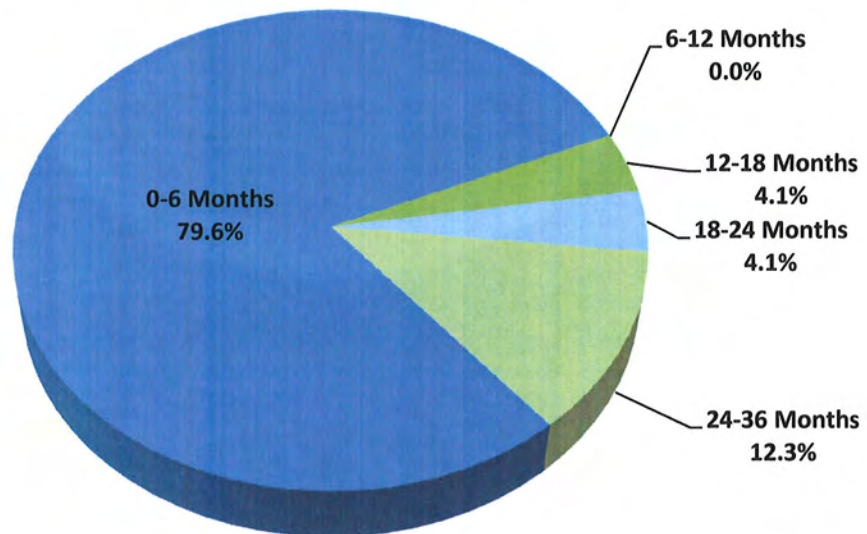
NOVEMBER 2011 INVESTMENT PORTFOLIO

As of November 30, 2011

Portfolio by Investment Type



Portfolio by Maturities



**IRVINE RANCH WATER DISTRICT
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL
November 30, 2011**

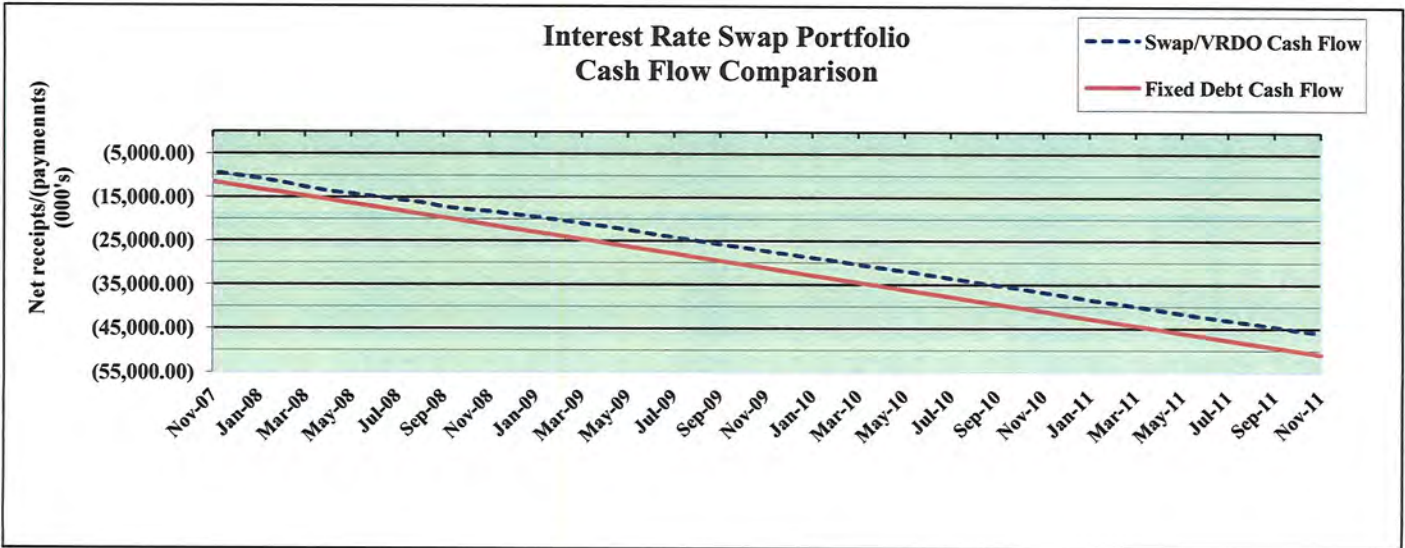
Exhibit "B"

LIBOR Avg %	Prior Mo. 0.23%	Current Mo. 0.24%	12-Mo Avg 0.23%
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Current Fiscal Year Active Swaps								Cash Flow				(Since 6/06)	Mark to Market	
Effective Date	Maturity Date	Years to Maturity	Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Prior Month	Current Month	Fiscal YTD	Cumulative Cash Flow	Current Mark to Market	Notional Difference	
Fixed Payer Swaps - By Effective Date														
6/4/2006	6/4/2019	7.5	ML	\$ 20,000,000	FXP	LIBOR	6.200%	\$ (96,239)	\$ (95,814)	\$ (498,226)	\$ (4,349,816)	\$ 13,142,257	\$ (6,857,743)	
6/4/2006	6/4/2019	7.5	CG	\$ 20,000,000	FXP	LIBOR	6.200%	(96,239)	(95,814)	(498,226)	(4,349,816)	13,148,159	(6,851,841)	
6/17/2006	6/17/2019	7.6	CG	\$ 30,000,000	FXP	LIBOR	6.140%	(142,914)	(142,209)	(739,864)	(6,438,050)	19,893,653	(10,106,347)	
3/10/2007	3/10/2029	17.3	ML	\$ 30,000,000	FXP	LIBOR	5.687%	(131,934)	(131,287)	(683,129)	(5,603,663)	16,228,806	(13,771,194)	
3/10/2007	3/10/2029	17.3	CG	\$ 30,000,000	FXP	LIBOR	5.687%	(131,934)	(131,287)	(683,129)	(5,603,663)	16,260,140	(13,739,860)	
Totals/Weighted Avgs				12.0			5.949%	\$ (599,260)	\$ (596,411)	\$ (3,102,574)	\$ (26,345,009)	\$ 78,673,016	\$ (51,326,984)	
Total Current Year Active Swaps				\$ 130,000,000				\$ (599,260)	\$ (596,411)	\$ (3,102,574)	\$ (26,345,009)	\$ 78,673,016	\$ (51,326,984)	

Current Fiscal Year Terminated Swaps								Cash Flow				Mark to Market	
Effective Date	Maturity Date		Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Prior Month	Current Month	Fiscal YTD	Cumulative Cash Flow	Current Mark to Market	Notional Difference
Total Current Year Terminated Swaps								\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Current Fiscal Year - Total Swaps								Cash Flow				Mark to Market	
Prior Month	Current Month	Fiscal YTD	Cumulative Cash Flow	Current Mark to Market	Notional Difference								
\$ (599,260)	\$ (596,411)	\$ (3,102,574)	\$ (26,345,009)	\$ 78,673,016	\$ (51,326,984)								



Cash Flow Comparison Synthetic Fixed vs. Fixed Rate Debt	
Cash Flow to Date	
Synthetic Fixed =	\$ 46,049,961
Fixed Rate =	\$ 50,902,330
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	

IRWD Ledger Payment Register For 01-NOV-11 To 30-NOV-11 Report Date: 01-DEC-2011 17:43
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 1
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
324666		01-NOV-11	GREEN BUILDING CERTIFICATION INSTITUTE	WASHINGTON	2,000.00			Negotiable
324667		03-NOV-11	ACTION ELECTRIC CORP		825.68			Negotiable
324668		03-NOV-11	AERO COMPRESSOR CO		487.68			Negotiable
324669		03-NOV-11	AFLAC		5,440.22			Negotiable
324670		03-NOV-11	AFTABI, ARASH		24.04			Negotiable
324671		03-NOV-11	AIRGAS-WEST, INC.		1,367.15			Negotiable
324672		03-NOV-11	ALEXANDER CONTRACT SERVICES INC		97,818.98			Negotiable
324673		03-NOV-11	AMERICAN LANDSCAPE INC		808.16			Negotiable
324674		03-NOV-11	AMPRONIX INC		114.36			Negotiable
324675		03-NOV-11	ANDERSON, DAVID M		484.87			Negotiable
324676		03-NOV-11	APD CONSULTANTS INC		22,875.00			Negotiable
324677		03-NOV-11	APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC		140.42			Negotiable
324678		03-NOV-11	AQUA-METRIC SALES COMPANY		36,778.54			Negotiable
324679		03-NOV-11	AST CORPORATION		693,040.33			Negotiable
324680		03-NOV-11	AT&T		61.52			Negotiable
324681		03-NOV-11	AT&T		728.40			Negotiable
324682		03-NOV-11	AYRES HOTEL AND SUITES (DBA)		4,163.90			Negotiable
324683		03-NOV-11	BAKERSFIELD WELL & PUMP CO		209,123.80			Negotiable
324684		03-NOV-11	BATTERY SPECIALTIES		519.79			Negotiable
324685		03-NOV-11	BCGR		605.00			Negotiable
324686		03-NOV-11	BDC SPECIAL WASTE		200.00			Negotiable
324687		03-NOV-11	BIOMAGIC INC		932.90			Negotiable
324688		03-NOV-11	BIOMERIEUX INC		473.51			Negotiable
324689		03-NOV-11	BORGEN HEAVY EQUIPMENT REPAIR,		7,448.38			Negotiable
324690		03-NOV-11	BOWIE, ARNESON, WILES & GIANNONE		102,740.30			Negotiable
324691		03-NOV-11	BREEN, TESS		28.75			Negotiable
324692		03-NOV-11	BRENTAG PACIFIC INC		12,237.03			Negotiable
324693		03-NOV-11	BRITHINEE ELECTRIC		7,835.26			Negotiable
324694		03-NOV-11	BURLINGTON SAFETY LABORATORY OF CALIFORNIA INC		182.92			Negotiable

IRWD Ledger Payment Register For 01-NOV-11 To 30-NOV-11 Report Date: 01-DEC-2011 17:43
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 2
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
324695		03-NOV-11	C WELLS PIPELINE MATERIALS INC		24,172.16			Negotiable
324696		03-NOV-11	CALIFORNIA BARRICADE INC		6,362.58			Negotiable
324697		03-NOV-11	CALL, LORNA		31.93			Negotiable
324698		03-NOV-11	CHENG, HENRY		15.00			Negotiable
324699		03-NOV-11	CHU, VIVIAN		24.65			Negotiable
324700		03-NOV-11	CITY CIRCUIT BREAKERS		583.79			Negotiable
324701		03-NOV-11	CLEARINGHOUSE		528.45			Negotiable
324702		03-NOV-11	COASTAL TRAFFIC SYSTEMS, INC		510.00			Negotiable
324703		03-NOV-11	COLONIAL LIFE & ACCIDENT INSURANCE CO.		2,205.48			Negotiable
324704		03-NOV-11	COMMERCIAL CLEANING SYSTEMS INC		10,845.99			Negotiable
324705		03-NOV-11	CONEYBEARE INC		13,163.50			Negotiable
324706		03-NOV-11	CONFERENCING ADVISORS, INC.		5,844.11			Negotiable
324707		03-NOV-11	COX COMMUNICATIONS		61.31			Negotiable
324708		03-NOV-11	CPI-INTERNATIONAL, INC		296.00			Negotiable
324709		03-NOV-11	CREDENTIAL CHECK CORPORATION		156.50			Negotiable
324710		03-NOV-11	CROMWELL, JENNA		28.80			Negotiable

324711	03-NOV-11	CS-AMSCO	317.86	Negotiable
324712	03-NOV-11	DANN, SHERRY	28.29	Negotiable
324713	03-NOV-11	DATA CLEAN CORPORATION	513.25	Negotiable
324714	03-NOV-11	DICKSON UNIGAGE, INC.	369.00	Negotiable
324715	03-NOV-11	DUDEK	13,823.31	Negotiable
324716	03-NOV-11	ELECTRABOND	1,510.00	Negotiable
324717	03-NOV-11	ENTERPRISE INFORMATION SYSTEMS INC	9,750.00	Negotiable
324718	03-NOV-11	ENVIRONMENTAL WATER MGT	4,000.00	Negotiable
324719	03-NOV-11	EXPRESSAIR	238.30	Negotiable
324720	03-NOV-11	FEDEX	453.27	Negotiable
324721	03-NOV-11	FIDELITY INVESTMENTS	421.54	Voided

IRWD Ledger Payment Register For 01-NOV-11 To 30-NOV-11 Report Date: 01-DEC-2011 17:43
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 3
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
324722		03-NOV-11	FIRST HEALTH LIFE AND HEALTH INSURANCE COMPANY		42.60			Negotiable
324723		03-NOV-11	FISERV		508.25			Negotiable
324724		03-NOV-11	FISHER SCIENTIFIC COMPANY LLC		602.12			Negotiable
324725		03-NOV-11	FRANCHISE TAX BOARD		342.31			Negotiable
324726		03-NOV-11	FT ZIEBARTH COMPANY		39,378.25			Negotiable
324727		03-NOV-11	GCI CONSTRUCTION, INC.		91,959.30			Negotiable
324728		03-NOV-11	GODWIN PUMPS OF AMERICA, INC.		2,366.19			Negotiable
324729		03-NOV-11	GRAINGER		44.29			Negotiable
324730		03-NOV-11	GRIFFIN DEWATERING CORPORATION		2,450.50			Negotiable
324731		03-NOV-11	HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY		92.87			Negotiable
324732		03-NOV-11	HOME DEPOT USA INC		556.01			Negotiable
324733		03-NOV-11	HUMANA INSURANCE COMPANY		25.20			Negotiable
324734		03-NOV-11	INDUSTRIAL METAL SUPPLY CO		447.19			Negotiable
324735		03-NOV-11	INORGANIC VENTURES INC		407.16			Negotiable
324736		03-NOV-11	INTERNAL REVENUE SERVICE		1,381.76			Negotiable
324737		03-NOV-11	IRON MOUNTAIN INFORMATION MANAGEMENT INC		1,607.52			Negotiable
324738		03-NOV-11	IRVINE PIPE & SUPPLY INC		2,619.57			Negotiable
324739		03-NOV-11	JAMES, EVAN L		31.75			Negotiable
324740		03-NOV-11	JCI JONES CHEMICALS INC		5,053.95			Negotiable
324741		03-NOV-11	JOHN MICHAEL COVAS		96.50			Negotiable
324742		03-NOV-11	JOHNSON, MIRIAM LEE		25.00			Negotiable
324743		03-NOV-11	JOHNSTONE SUPPLY		2,065.29			Negotiable
324744		03-NOV-11	JOSEPH, EZEKIEL		24.20			Negotiable
324745		03-NOV-11	KELLY SERVICES INC		1,633.00			Negotiable
324746		03-NOV-11	KERN COUNTY TREASURER TAX COLLECTOR		50,845.94			Negotiable

IRWD Ledger Payment Register For 01-NOV-11 To 30-NOV-11 Report Date: 01-DEC-2011 17:43
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 4
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
324747		03-NOV-11	KEY EQUIPMENT FINANCE		3,972.91			Negotiable
324748		03-NOV-11	KILL-N-BUGS TERMITE AND PEST CONTROL SERVICES		11,225.00			Negotiable
324749		03-NOV-11	KIM, HEE		26.03			Negotiable
324750		03-NOV-11	KIM, PETER		60.24			Negotiable
324751		03-NOV-11	KOLCHIN, EKATERINA		110.28			Negotiable
324752		03-NOV-11	LAGUNA BEACH COUNTY WATER		1,627.98			Negotiable

324753	03-NOV-11	DISTRICT LAYNE CHRISTENSEN COMPANY	1,000.00	Negotiable
324754	03-NOV-11	LE, KHANG	21.67	Negotiable
324755	03-NOV-11	LEGACY PROPERTY MANAGEMENT	30.79	Negotiable
324756	03-NOV-11	LENNAR HOMES	146.35	Negotiable
324757	03-NOV-11	LIU, EVA	25.56	Negotiable
324758	03-NOV-11	LSA ASSOCIATES INC	5,906.25	Negotiable
324759	03-NOV-11	LUU, HOAN	53.24	Negotiable
324760	03-NOV-11	MARCIA, NORMA	61.68	Negotiable
324761	03-NOV-11	MARKET-THINK LLC	3,700.00	Negotiable
324762	03-NOV-11	MC MASTER CARR SUPPLY CO	808.18	Negotiable
324763	03-NOV-11	MERCHANTS LANDSCAPE SERVICES INC	816.89	Negotiable
324764	03-NOV-11	MOODY'S INVESTORS SERVICE INC	5,000.00	Negotiable
324765	03-NOV-11	MOSIER, LIZABETH	26.79	Negotiable
324766	03-NOV-11	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY	41,800.00	Negotiable
324767	03-NOV-11	MURRAY, ANNE	26.03	Negotiable
324768	03-NOV-11	MUTUAL PROPANE	139.46	Negotiable
324769	03-NOV-11	NATHAN, REUBIN	82.62	Negotiable
324770	03-NOV-11	NEWPORT BEACH, CITY OF	698.19	Negotiable
324771	03-NOV-11	NMG GEOTECHNICAL INC	19,641.60	Negotiable
324772	03-NOV-11	OCEAN BLUE ENVIRONMENTAL SERVICES INC	983.00	Negotiable
324773	03-NOV-11	OH, SOON	28.89	Negotiable
324774	03-NOV-11	OLIN CORPORATION	17,979.50	Negotiable

IRWD Ledger Payment Register For 01-NOV-11 To 30-NOV-11 Report Date: 01-DEC-2011 17:43
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 5
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
324775		03-NOV-11	ONESOURCE DISTRIBUTORS LLC		113.14			Negotiable
324776		03-NOV-11	ORANGE COUNTY FIRE AUTHORITY		448.00			Negotiable
324777		03-NOV-11	ORANGE COUNTY SANITATION DISTRICT		3,833.66			Negotiable
324778		03-NOV-11	ORANGE COUNTY TREASURER		10,514.98			Negotiable
324779		03-NOV-11	ORANGE COUNTY VECTOR CONTROL DISTRICT		291.53			Negotiable
324780		03-NOV-11	ORDONEZ, CYNTHIA MARIE		500.17			Negotiable
324781		03-NOV-11	PACIFIC COAST BOLT CORP		163.66			Negotiable
324782		03-NOV-11	PACIFIC TECHNOLOGIES INC		4,275.00			Negotiable
324783		03-NOV-11	PACIFIC WEST COMM INC		186.96			Negotiable
324784		03-NOV-11	PARK, HEUNG KYO		46.23			Negotiable
324785		03-NOV-11	PARK, JAESOO		34.04			Negotiable
324786		03-NOV-11	PAULUS ENGINEERING INC		76,250.00			Negotiable
324787		03-NOV-11	PEREZ, ALEJANDRA		23.91			Negotiable
324788		03-NOV-11	PERS LONG TERM CARE		1,626.89			Negotiable
324789		03-NOV-11	PRAXAIR DISTRIBUTION INC		46.40			Negotiable
324790		03-NOV-11	PRE-PAID LEGAL SERVICES INC		1,623.06			Negotiable
324791		03-NOV-11	PREFERRED GROUP PROPERTIES		12.92			Negotiable
324792		03-NOV-11	PRUDENTIAL OVERALL SUPPLY		751.33			Negotiable
324793		03-NOV-11	PSOMAS		2,093.00			Negotiable
324794		03-NOV-11	QUALITY ENVIRONMENTAL		1,634.68			Negotiable
324795		03-NOV-11	R&B AUTOMATION INC		12,700.46			Negotiable
324796		03-NOV-11	RAM AIR ENGINEERING INC		2,266.17			Negotiable
324797		03-NOV-11	RED, JAMES D		1,931.54			Negotiable
324798		03-NOV-11	RYAN, DIANA		33.43			Negotiable
324799		03-NOV-11	SANTA ANA BLUE PRINT		98.38			Negotiable
324800		03-NOV-11	SANTA ANA CITY OF		18,285.05			Negotiable

IRWD Ledger Payment Register For 01-NOV-11 To 30-NOV-11 Report Date: 01-DEC-2011 17:43
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 6
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)

Payment Type: All

Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
324801		03-NOV-11	SCALES, VICTORIA		24.65			Negotiable
324802		03-NOV-11	SECURTEC DISTRICT PATROL INC		3,700.00			Negotiable
324803		03-NOV-11	SERVOTEK PRODUCTS INC		40.25			Negotiable
324804		03-NOV-11	SHAMROCK SUPPLY CO INC		332.37			Negotiable
324805		03-NOV-11	SIGMA-ALDRICH INC		417.56			Negotiable
324806		03-NOV-11	SOLUTIONS 4 INDUSTRY		20,545.15			Negotiable
324807		03-NOV-11	SONGSTAD, CARRIE		26.64			Negotiable
324808		03-NOV-11	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT		1,249.23			Negotiable
324809		03-NOV-11	SOUTH COAST WATER		191.66			Negotiable
324810		03-NOV-11	SOUTHERN CALIFORNIA EDISON COMPANY		455,679.88			Negotiable
324811		03-NOV-11	SOUTHERN COUNTIES LUBRICANTS LLC		414.05			Negotiable
324812		03-NOV-11	SPARKLETTES		54.43			Negotiable
324813		03-NOV-11	STERIS CORPORATION		4,075.32			Negotiable
324814		03-NOV-11	SUMMERTIME INC		30.95			Negotiable
324815		03-NOV-11	SUNSET INDUSTRIAL PARTS		4,178.01			Negotiable
324816		03-NOV-11	SUPERMEDIA LLC		69.75			Negotiable
324817		03-NOV-11	SWAINS ELECTRIC MOTOR SERVICE		3,013.30			Negotiable
324818		03-NOV-11	SY, JOSE		10.68			Negotiable
324819		03-NOV-11	TAYLOR WOODROW HOMES		15.00			Negotiable
324820		03-NOV-11	TESTAMERICA LABORATORIES, INC		567.75			Negotiable
324821		03-NOV-11	TETRA TECH, INC		11,922.50			Negotiable
324822		03-NOV-11	THE CLIMATE REGISTRY		1,200.00			Negotiable
324823		03-NOV-11	THE FENCE GUY		990.00			Negotiable
324824		03-NOV-11	THE FURMAN GROUP		10,330.00			Negotiable
324825		03-NOV-11	THE GAS COMPANY		19.30			Negotiable
324826		03-NOV-11	THE LIGHTSHIP GROUP		793.77			Negotiable
324827		03-NOV-11	THE PLUMBERS WAREHOUSE		126.35			Negotiable
324828		03-NOV-11	THOMPSON INDUSTRIAL SUPPLY		30.26			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 7
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
324829		03-NOV-11	TROPICAL PLAZA NURSERY INC		441.00			Negotiable
324830		03-NOV-11	TRUGREEN LANDCARE LLC		1,620.96			Negotiable
324831		03-NOV-11	UNITED PARCEL SERVICE INC		30.87			Negotiable
324832		03-NOV-11	UNITED STATES POST OFFICE		29,250.00			Negotiable
324833		03-NOV-11	US BANK NAT'L ASSOCIATION NORTH DAKOTA		71,498.34			Negotiable
324834		03-NOV-11	US PEROXIDE LLC		4,250.00			Negotiable
324835		03-NOV-11	UTILITY SYSTEMS SCIENCE & SOFTWARE INC.		840.00			Negotiable
324836		03-NOV-11	VAN DAELE HOMES		31.85			Negotiable
324837		03-NOV-11	VERIZON CALIFORNIA INC		210.54			Negotiable
324838		03-NOV-11	VERIZON WIRELESS SERVICES LLC		8,557.79			Negotiable
324839		03-NOV-11	VWR INTERNATIONAL, LLC		70.58			Negotiable
324840		03-NOV-11	WALTERS WHOLESALE ELECTRIC		137.50			Negotiable
324841		03-NOV-11	WASTE MANAGEMENT OF ORANGE COUNTY		1,575.60			Negotiable
324842		03-NOV-11	WATEREUSE ASSOCIATION		800.00			Negotiable
324843		03-NOV-11	WECK LABORATORIES INC		1,355.00			Negotiable
324844		03-NOV-11	WESTERN HIGHWAY		234.71			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
PRODUCTS								
324845	03-NOV-11		WIRELESS WATCHDOGS LLC		2,500.00			Negotiable
324846	03-NOV-11		WONDERWARE WEST		7,948.85			Negotiable
324847	03-NOV-11		WOOD BROS., INC.		259,313.88			Negotiable
324848	03-NOV-11		Amy McNulty		151.78			Negotiable
324849	03-NOV-11		Christina Shields		44.54			Negotiable
324850	03-NOV-11		David Mazzaella		118.83			Negotiable
324851	03-NOV-11		Fiona Sanchez		32.28			Negotiable
324852	03-NOV-11		Gabriel Vargas		175.60			Negotiable
324853	03-NOV-11		Gregory Herr		56.50			Negotiable
324854	03-NOV-11		Gretchen Maswadeh		99.00			Negotiable
324855	03-NOV-11		Ives Sosa		149.86			Negotiable
324856	03-NOV-11		James Lassalette		140.00			Negotiable
324857	03-NOV-11		Kelly Welch		682.18			Negotiable
IRWD Ledger								
BANK: Bank of America N.A.			Branch : Los Angeles		Payment Register For 01-NOV-11 To 30-NOV-11		Report Date: 01-DEC-2011 17:43	
Bank Account Currency: USD (US Dollar)					Account: Checking AP and PR		Page: 8	
Payment Type: All					Payment Currency: USD (US Dollar)			
					Display Supplier Address: No			

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
324858	03-NOV-11		Kendra Brennan		35.72			Negotiable
324859	03-NOV-11		Kirsten McLaughlin		103.80			Negotiable
324860	03-NOV-11		Leslie Bonkowski		115.79			Negotiable
324861	03-NOV-11		Monica Acosta		51.30			Negotiable
324862	03-NOV-11		Natalie Castaneda		38.99			Negotiable
324863	03-NOV-11		Peter Wang		32.80			Negotiable
324864	03-NOV-11		Shavonne Mays		39.05			Negotiable
324865	03-NOV-11		Thu-Tam Do		35.40			Negotiable
324866	04-NOV-11		ACCURATE AIR ENGINEERING INC		366.95			Negotiable
324867	04-NOV-11		ACTION ELECTRIC CORP		919.48			Negotiable
324868	04-NOV-11		AGILENT TECHNOLOGIES, INC.		1,317.63			Negotiable
324869	04-NOV-11		AIRGAS-WEST, INC.		2,999.73			Negotiable
324870	04-NOV-11		ALCORN FENCE COMPANY		4,390.00			Negotiable
324871	04-NOV-11		ALLEN INSTRUMENTS & SUPPLIES		75.88			Negotiable
324872	04-NOV-11		APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC		36.81			Negotiable
324873	04-NOV-11		APPLIED SPECIATION AND CONSULTING, LLC		3,500.00			Negotiable
324874	04-NOV-11		AQUA-METRIC SALES COMPANY		21,613.04			Negotiable
324875	04-NOV-11		ARCADIS U.S., INC.		12,327.97			Negotiable
324876	04-NOV-11		AT&T		295.56			Negotiable
324877	04-NOV-11		AT&T		99.68			Negotiable
324878	04-NOV-11		ATECH ENGINEERING & MFG INC		269.38			Negotiable
324879	04-NOV-11		B&C DIVING AND CONSTRUCTION		3,800.00			Negotiable
324880	04-NOV-11		BANK OF NEW YORK MELLON TRUST COMPANY NA		1,500.00			Negotiable
324881	04-NOV-11		BATTERY SPECIALTIES		880.72			Negotiable
324882	04-NOV-11		BILL'S SWEEPING SERVICE INC		460.00			Negotiable
324883	04-NOV-11		BLACK & VEATCH CORPORATION		362,611.39			Negotiable
324884	04-NOV-11		BRENNTAG PACIFIC INC		38,020.89			Negotiable
324885	04-NOV-11		BRITHINEE ELECTRIC		5,190.17			Negotiable
IRWD Ledger								
BANK: Bank of America N.A.			Branch : Los Angeles		Payment Register For 01-NOV-11 To 30-NOV-11		Report Date: 01-DEC-2011 17:43	
Bank Account Currency: USD (US Dollar)					Account: Checking AP and PR		Page: 9	
Payment Type: All					Payment Currency: USD (US Dollar)			
					Display Supplier Address: No			

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
324886	04-NOV-11		BUSH & ASSOCIATES INC		5,808.00			Negotiable
324887	04-NOV-11		C WELLS PIPELINE MATERIALS INC		34,286.11			Negotiable
324888	04-NOV-11		CAL WATER PURIFICATION		152.00			Negotiable
324889	04-NOV-11		CALIFORNIA BARRICADE INC		9,406.00			Negotiable
324890	04-NOV-11		CALIFORNIA UTILITY EQUIPMENT INC.		2,018.70			Negotiable
324891	04-NOV-11		CALPI INC		2,085.84			Negotiable
324892	04-NOV-11		CAMERON WELDING		22,878.45			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
324893		04-NOV-11	SUPPLY CAMPBELL & LEVINE LLC		4,785.00			Negotiable
324894		04-NOV-11	CANON BUSINESS SOLUTIONS INC		5,731.94			Negotiable
324895		04-NOV-11	CAPTIVE AUDIENCE MARKETING INC.		85.12			Negotiable
324896		04-NOV-11	CDW GOVERNMENT LLC		434.24			Negotiable
324897		04-NOV-11	CHEM TECH INTERNATIONAL INC		6,261.20			Negotiable
324898		04-NOV-11	CITY CIRCUIT BREAKERS		224.78			Negotiable
324899		04-NOV-11	CLA-VAL COMPANY		2,728.91			Negotiable
324900		04-NOV-11	COASTAL TRAFFIC SYSTEMS, INC		1,020.00			Negotiable
324901		04-NOV-11	COMMERCIAL DOOR OF ORANGE COUNTY, INC.		189.00			Negotiable
324902		04-NOV-11	CREDENTIAL CHECK CORPORATION		526.75			Negotiable
324903		04-NOV-11	CRUMP & CO, INC.		7,005.93			Negotiable
324904		04-NOV-11	D & H WATER SYSTEMS INC.		1,700.95			Negotiable
324905		04-NOV-11	DATASITE INC		2,746.00			Negotiable
324906		04-NOV-11	DCSE INC		3,601.88			Negotiable
324907		04-NOV-11	DELL MARKETING LP		1,383.31			Negotiable
324908		04-NOV-11	DELPHIN COMPUTER SUPPLY		2,941.58			Negotiable
324909		04-NOV-11	DELTA SYSTEMS ENGINEERING		1,026.00			Negotiable
324910		04-NOV-11	DIONEX CORPORATION		141.61			Negotiable
324911		04-NOV-11	DME INC		4,636.07			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 10
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
324912		04-NOV-11	DOUGLAS ENVIRONMENTAL GROUP		2,850.00			Negotiable
324913		04-NOV-11	DUDEK		27,085.14			Negotiable
324914		04-NOV-11	DWYER INSTRUMENTS INC		2,048.56			Negotiable
324915		04-NOV-11	EI&C ENGINEERING INC		8,550.00			Negotiable
324916		04-NOV-11	EMEDCO		603.00			Negotiable
324917		04-NOV-11	ENDRESS+HAUSER, INC		25,348.05			Negotiable
324918		04-NOV-11	ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC.		7,676.14			Negotiable
324919		04-NOV-11	FARRELL & ASSOCIATES		249.41			Negotiable
324920		04-NOV-11	FEDEX		435.83			Negotiable
324921		04-NOV-11	FERGUSON WATERWORKS		4,529.54			Negotiable
324922		04-NOV-11	FIRST CHOICE SERVICES		1,638.99			Negotiable
324923		04-NOV-11	FISERV		10,045.88			Negotiable
324924		04-NOV-11	FISHER SCIENTIFIC COMPANY LLC		4,820.09			Negotiable
324925		04-NOV-11	FLEET SOLUTIONS LLC		3,867.25			Negotiable
324926		04-NOV-11	FLW SERVICE CORPORATION		1,014.54			Negotiable
324927		04-NOV-11	GANAHL LUMBER CO.		1,172.97			Negotiable
324928		04-NOV-11	GE DIGITAL ENERGY		745.00			Negotiable
324929		04-NOV-11	GEI CONSULTANTS INC		136,913.02			Negotiable
324930		04-NOV-11	GEOSCIENCE SUPPORT SERVICES INC		3,265.00			Negotiable
324931		04-NOV-11	GLOBALSTAR INC		168.88			Negotiable
324932		04-NOV-11	GOLDEN STATE LABOR COMPLIANCE LLC		19,163.25			Negotiable
324933		04-NOV-11	GOOGLE INC.		1,080.72			Negotiable
324934		04-NOV-11	GRAINGER		5,424.59			Negotiable
324935		04-NOV-11	GRAYBAR ELECTRIC COMPANY		15,376.93			Negotiable
324936		04-NOV-11	HACH COMPANY		21,435.85			Negotiable
324937		04-NOV-11	HARRINGTON INDUSTRIAL PLASTICS LLC		10,972.32			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 11
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Cleared

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
324938		04-NOV-11	HDR ENGINEERING INC		4,735.78			Negotiable
324939		04-NOV-11	HILL BROTHERS CHEMICAL COMPANY		13,703.16			Negotiable
324940		04-NOV-11	HOME DEPOT USA INC		601.51			Negotiable
324941		04-NOV-11	HOPKINS TECHNICAL PRODUCTS INC		6,175.48			Negotiable
324942		04-NOV-11	IDENTICARD SYSTEMS WORLDWIDE INC		2,554.37			Negotiable
324943		04-NOV-11	IDEXX DISTRIBUTION, INC		8,768.70			Negotiable
324944		04-NOV-11	II FUELS INC		28,978.45			Negotiable
324945		04-NOV-11	INDUSTRIAL METAL SUPPLY CO		160.23			Negotiable
324946		04-NOV-11	INTEGRITY MUNICIPAL SERVICES		29,901.88			Negotiable
324947		04-NOV-11	IRVINE PIPE & SUPPLY INC		3,340.92			Negotiable
324948		04-NOV-11	JOHN G. ALEVIZOS D.O. INC.		1,151.86			Negotiable
324949		04-NOV-11	JPR SYSTEMS INC		529.96			Negotiable
324950		04-NOV-11	K-TORK ACTUATORS AND CONTROLS		6,052.23			Negotiable
324951		04-NOV-11	KAZARIANS & ASSOCIATES, INC.		4,400.00			Negotiable
324952		04-NOV-11	KELLY SERVICES INC		2,717.50			Negotiable
324953		04-NOV-11	KIMBALL MIDWEST		1,157.06			Negotiable
324954		04-NOV-11	KONECRANES INC		2,650.00			Negotiable
324955		04-NOV-11	KS DIRECT LLC		3,338.10			Negotiable
324956		04-NOV-11	LCS Technologies, Inc.		8,375.00			Negotiable
324957		04-NOV-11	LENOVO UNITED STATES INC		37,015.07			Negotiable
324958		04-NOV-11	LEONARD CHAIDEZ TREE SERVICE		4,625.00			Negotiable
324959		04-NOV-11	MARVIN GARDENS LLC		2,593.70			Negotiable
324960		04-NOV-11	MASKELL PIPE & SUPPLY INC		1,278.85			Negotiable
324961		04-NOV-11	MBC APPLIED ENVIRONMENTAL SCIENCES		3,000.00			Negotiable
324962		04-NOV-11	MC MASTER CARR SUPPLY CO		6,374.99			Negotiable
324963		04-NOV-11	MISCOWATER		4,483.88			Negotiable
324964		04-NOV-11	MUELLER SERVICE COMPANY		7,200.00			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 12
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
324965		04-NOV-11	NATIONAL READY MIXED CONCRETE CO		1,528.85			Negotiable
324966		04-NOV-11	NINYO & MOORE		42,296.00			Negotiable
324967		04-NOV-11	O G SUPPLY		249.98			Negotiable
324968		04-NOV-11	ON ASSIGNMENT LAB SUPPORT		6,706.36			Negotiable
324969		04-NOV-11	ONESOURCE DISTRIBUTORS LLC		8,161.23			Negotiable
324970		04-NOV-11	ORANGE COUNTY PUMP		1,934.85			Negotiable
324971		04-NOV-11	PACIFIC COAST BOLT CORP		501.28			Negotiable
324972		04-NOV-11	PAULUS ENGINEERING INC		21,688.52			Negotiable
324973		04-NOV-11	PEARPOINT		513.58			Negotiable
324974		04-NOV-11	PINNACLE LANDSCAPE COMPANY		5,936.76			Negotiable
324975		04-NOV-11	POLLARDWATER.COM		5,946.60			Negotiable
324976		04-NOV-11	PRAXAIR DISTRIBUTION INC		220.13			Negotiable
324977		04-NOV-11	PROTECTION ONE ALARM MONITORING INC		235.64			Negotiable
324978		04-NOV-11	PRUDENTIAL OVERALL SUPPLY		1,564.25			Negotiable
324979		04-NOV-11	PSB THE MARKETING SUPERSOURCE		2,521.35			Negotiable
324980		04-NOV-11	PSOMAS		2,136.59			Negotiable
324981		04-NOV-11	PTI SAND & GRAVEL INC		2,076.64			Negotiable
324982		04-NOV-11	R&B AUTOMATION INC		44,740.28			Negotiable
324983		04-NOV-11	RBF CONSULTING		3,130.18			Negotiable
324984		04-NOV-11	REFRIGERATION SUPPLIES		20.45			Negotiable
324985		04-NOV-11	RESPONSE ENVELOPE,		1,711.07			Negotiable

324986	04-NOV-11	INC	ROCHESTER MIDLAND CORPORATION		1,413.72		Negotiable
324987	04-NOV-11		SANDERS PAVING INC		24,649.00		Negotiable
324988	04-NOV-11		SANTA ANA BLUE PRINT		3,011.64		Negotiable
324989	04-NOV-11		SCHINDLER ELEVATOR CORPORATION		169.16		Negotiable
324990	04-NOV-11		SHAMROCK SUPPLY CO INC		1,219.71		Negotiable
324991	04-NOV-11		SOLARBEE INC		11,148.00		Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 13
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
324992		04-NOV-11	SOUTHERN COUNTIES LUBRICANTS LLC		868.20			Negotiable
324993		04-NOV-11	SPATIAL WAVE, INC.		9,500.00			Negotiable
324994		04-NOV-11	SPECTER INSTRUMENTS		2,002.76			Negotiable
324995		04-NOV-11	STANTEC CONSULTING SERVICES INC.		7,935.92			Negotiable
324996		04-NOV-11	STEEL UNLIMITED INC		3,939.35			Negotiable
324997		04-NOV-11	STRAIGHT-LINE SOLUTIONS		1,231.65			Negotiable
324998		04-NOV-11	TESTAMERICA LABORATORIES, INC		210.00			Negotiable
324999		04-NOV-11	THE GAS COMPANY		3,564.20			Negotiable
325000		04-NOV-11	THE PLUMBERS WAREHOUSE		8,531.43			Voided
325001		04-NOV-11	TRENCH SHORING COMPANY		110.99			Negotiable
325002		04-NOV-11	TRIPAC MARKETING INC		400.85			Negotiable
325003		04-NOV-11	TROPICAL PLAZA NURSERY INC		31,063.43			Negotiable
325004		04-NOV-11	TRUGREEN LANDCARE LLC		150.00			Negotiable
325005		04-NOV-11	UNIVERSAL FILTRATION & PUMPING SOLUTIONS INC		3,760.00			Negotiable
325006		04-NOV-11	US PEROXIDE LLC		21,152.80			Negotiable
325007		04-NOV-11	VPSI INC		8,912.00			Negotiable
325008		04-NOV-11	VULCAN MATERIALS COMPANY		1,248.58			Negotiable
325009		04-NOV-11	VWR INTERNATIONAL, LLC		795.92			Negotiable
325010		04-NOV-11	WAXIE'S ENTERPRISES, INC		460.01			Negotiable
325011		04-NOV-11	WECK LABORATORIES INC		5,570.00			Negotiable
325012		04-NOV-11	WEST COAST SAFETY SUPPLY INC		350.27			Negotiable
325013		04-NOV-11	WESTERN AV		3,888.81			Negotiable
325014		04-NOV-11	WIRELESS WATCHDOGS LLC		28.04			Negotiable
325015		04-NOV-11	YSI INCORPORATED		161.91			Negotiable
325016		08-NOV-11	ASHFORD, WALT PURCHASE		663.04			Negotiable

IRWD Ledger Payment Register For 01-NOV-11 To 30-NOV-11 Report Date: 01-DEC-2011 17:43
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 14
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
325017		08-NOV-11	EMPLOYMENT DEVELOPMENT DEPARTMENT	WEST SACRAMENTO	30,753.00			Negotiable
325018		10-NOV-11	ORANGE, COUNTY OF	IRVINE	200.00			Negotiable
325019		10-NOV-11	ORANGE, COUNTY OF	IRVINE	200.00			Negotiable
325020		10-NOV-11	ORANGE, COUNTY OF	IRVINE	200.00			Negotiable
325021		10-NOV-11	KOREAN CULTURAL CENTER	IRVINE	2,500.00			Negotiable
325022		10-NOV-11	3M PURIFICATION, INC.		2,095.21			Negotiable
325023		10-NOV-11	AARP HEALTH CARE OPTIONS		421.84			Negotiable
325024		10-NOV-11	ACCUSTANDARD INC		139.07			Negotiable
325025		10-NOV-11	ACEVEDO, ALEX		51.18			Negotiable
325026		10-NOV-11	ACTION ELECTRIC CORP		746.49			Negotiable
325027		10-NOV-11	ACWA HEALTH		31,065.19			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
325028		10-NOV-11	BENEFITS AUTHORITY ADS LLC		1,936.50			Negotiable
325029		10-NOV-11	ALEXANDER CONTRACT SERVICES INC		97,879.97			Negotiable
325030		10-NOV-11	ALTERMAN, DENISE		28.60			Negotiable
325031		10-NOV-11	AMERICAN MESSAGING SERVICES LLC		286.97			Negotiable
325032		10-NOV-11	ANTHEM BLUE CROSS		487.00			Negotiable
325033		10-NOV-11	AQUA-METRIC SALES COMPANY		2,656.40			Negotiable
325034		10-NOV-11	ASSOCIATED POWER INC		2,018.97			Negotiable
325035		10-NOV-11	AT&T		5,066.37			Negotiable
325036		10-NOV-11	AT&T		91.25			Negotiable
325037		10-NOV-11	BANK OF AMERICA		19,411.15			Negotiable
325038		10-NOV-11	BECKLIN, MATTHEW		38.43			Negotiable
325039		10-NOV-11	BILL'S SWEEPING SERVICE INC		690.00			Negotiable
325040		10-NOV-11	BIOMAGIC INC		6,911.89			Negotiable
325041		10-NOV-11	BRADMORE INVESTMENT CO LTD		1,029.72			Negotiable
325042		10-NOV-11	C WELLS PIPELINE MATERIALS INC		10,698.06			Negotiable
325043		10-NOV-11	CAL WATER PURIFICATION		80.00			Negotiable
325044		10-NOV-11	CALIFORNIA BARRICADE INC		5,994.64			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 15
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
325045		10-NOV-11	CALIFORNIA MUNICIPAL STATISTICS INC		2,375.00			Negotiable
325046		10-NOV-11	CAMERON WELDING SUPPLY		22,730.01			Negotiable
325047		10-NOV-11	CAMPBELL & LEVINE LLC		226.66			Negotiable
325048		10-NOV-11	CAMPBELL, THOMAS		30.00			Negotiable
325049		10-NOV-11	CANON FINANCIAL SERVICES INC		7,113.64			Negotiable
325050		10-NOV-11	CAPITAL SERVICES AND SOLUTIONS		1,111.36			Negotiable
325051		10-NOV-11	CDW GOVERNMENT LLC		1,853.00			Negotiable
325052		10-NOV-11	CHEN, MEI-CHIN		39.63			Negotiable
325053		10-NOV-11	CHUBB FIRE & SECURITY (CA) INC		1,175.00			Negotiable
325054		10-NOV-11	COAST PLUMBING HEATING AND AIR, INC		60.00			Negotiable
325055		10-NOV-11	COASTAL TRAFFIC SYSTEMS, INC		1,020.00			Negotiable
325056		10-NOV-11	COMMERCIAL DOOR OF ORANGE COUNTY, INC.		328.00			Negotiable
325057		10-NOV-11	COMPONENTS CENTER INC		1,100.31			Negotiable
325058		10-NOV-11	CORELOGIC INC		18.00			Negotiable
325059		10-NOV-11	COX COMMUNICATIONS		31.61			Negotiable
325060		10-NOV-11	CPWH		150.48			Negotiable
325061		10-NOV-11	CR & R INCORPORATED		11.98			Negotiable
325062		10-NOV-11	CRESENT BAY BUSINESS PARK ASSO		767.11			Negotiable
325063		10-NOV-11	DAHL, TERESA		186.02			Negotiable
325064		10-NOV-11	DAN'S MACHINE TOOL, INC		1,575.47			Negotiable
325065		10-NOV-11	DELPHIN COMPUTER SUPPLY		659.43			Negotiable
325066		10-NOV-11	DIONEX CORPORATION		2,907.14			Negotiable
325067		10-NOV-11	EMPLOYEE BENEFIT SPECIALIST, INC		1,405.00			Negotiable
325068		10-NOV-11	ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC.		10,972.73			Negotiable
325069		10-NOV-11	ENVIRONMENTAL EXPRESS INC		1,706.80			Negotiable

IRWD Ledger Payment Register For 01-NOV-11 To 30-NOV-11 Report Date: 01-DEC-2011 17:43
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 16
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								

325070	10-NOV-11	EVOLVE MEDIA	13,600.00	Negotiable
325071	10-NOV-11	FARRELL & ASSOCIATES	282.81	Negotiable
325072	10-NOV-11	FEDEX	1,199.87	Negotiable
325073	10-NOV-11	FIDELITY SECURITY LIFE INSURANCE COMPANY	5,770.92	Negotiable
325074	10-NOV-11	FIRST AMERICAN TITLE CO.	500.00	Negotiable
325075	10-NOV-11	FIRST HEALTH LIFE AND HEALTH INSURANCE COMPANY	42.60	Negotiable
325076	10-NOV-11	FISHER SCIENTIFIC COMPANY LLC	3,629.76	Negotiable
325077	10-NOV-11	FLYNN, TERRI	47.77	Negotiable
325078	10-NOV-11	GANAHL LUMBER CO.	2,905.03	Negotiable
325079	10-NOV-11	GATEWAY PACIFIC CONTRACTORS, INC.	88,149.60	Negotiable
325080	10-NOV-11	GATEWAY PACIFIC CONTRACTORS, INC.	9,794.40	Negotiable
325081	10-NOV-11	GEORGE YARDLEY CO INC	563.27	Negotiable
325082	10-NOV-11	GOLDMAN, SACHS & CO	20,269.37	Negotiable
325083	10-NOV-11	GRAINGER	2,749.66	Negotiable
325084	10-NOV-11	GRAYBAR ELECTRIC COMPANY	295.07	Negotiable
325085	10-NOV-11	HACH COMPANY	168.39	Negotiable
325086	10-NOV-11	HARMSWORTH ASSOCIATES	1,445.00	Negotiable
325087	10-NOV-11	HARRINGTON INDUSTRIAL PLASTICS LLC	77.94	Negotiable
325088	10-NOV-11	HILL BROTHERS CHEMICAL COMPANY	12,754.57	Negotiable
325089	10-NOV-11	HOME DEPOT USA INC	672.41	Negotiable
325090	10-NOV-11	HORIZON TECHNOLOGY INC	526.65	Negotiable
325091	10-NOV-11	HUANG, SAM	32.33	Negotiable
325092	10-NOV-11	HUMANA INSURANCE COMPANY	25.20	Negotiable
325093	10-NOV-11	HUNSAKER & ASSOCIATES IRVINE	10,150.24	Voided
325094	10-NOV-11	HWU, SHAWN	33.12	Negotiable
325095	10-NOV-11	INDUSTRIAL METAL SUPPLY CO	54.02	Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 17
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
325096		10-NOV-11	INSITUFORM TECHNOLOGIES INC		151,467.51			Negotiable
325097		10-NOV-11	IRON MOUNTAIN INFORMATION MANAGEMENT INC		1,580.76			Negotiable
325098		10-NOV-11	IRVINE PIPE & SUPPLY INC		872.40			Negotiable
325099		10-NOV-11	IRWD-PETTY CASH CUSTODIAN		948.35			Negotiable
325100		10-NOV-11	JEFFRIES, DUSTY		146.86			Negotiable
325101		10-NOV-11	JONES & STOKES ASSOCIATES, INC		565.00			Negotiable
325102		10-NOV-11	KAPLAN, MARSHALL		77.60			Negotiable
325103		10-NOV-11	KENNEDY/JENKS CONSULTANTS INC		25,434.72			Negotiable
325104		10-NOV-11	KINGS COUNTY TAX COLLECTOR		22,230.38			Negotiable
325105		10-NOV-11	KOELLER NEBEKER CARLSON & HALUCK, LLP		1,150.50			Negotiable
325106		10-NOV-11	LEE, CHING HUI		426.84			Negotiable
325107		10-NOV-11	LENNAR HOMES		11.11			Negotiable
325108		10-NOV-11	LENOVO UNITED STATES INC		663.74			Negotiable
325109		10-NOV-11	LUBRICATION ENGINEERS, INC.		1,059.72			Negotiable
325110		10-NOV-11	MALCOLM PIRNIE INC		9,646.67			Negotiable
325111		10-NOV-11	MC ELVEEN, RYAN		34.17			Negotiable
325112		10-NOV-11	MC MASTER CARR SUPPLY CO		1,528.71			Negotiable
325113		10-NOV-11	MCR TECHNOLOGIES INC		515.76			Negotiable
325114		10-NOV-11	MERCHANTS LANDSCAPE SERVICES INC		1,700.00			Negotiable
325115		10-NOV-11	MK POWER LLC		2,400.00			Negotiable
325116		10-NOV-11	MOORE, MICHELLE		21.46			Negotiable
325117		10-NOV-11	MUTUAL PROPANE		18.00			Negotiable

325118	10-NOV-11	NATIONAL READY MIXED CONCRETE CO	533.01	Negotiable
325119	10-NOV-11	NELSEN, AUBREY	41.48	Negotiable
325120	10-NOV-11	NEW RESOURCES GROUP INC	855.86	Negotiable
325121	10-NOV-11	NIVI INC	15.00	Negotiable
325122	10-NOV-11	O'HAREN GOVERNMENT RELATIONS	6,500.00	Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 18
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
325123		10-NOV-11	OLIN CORPORATION		18,252.85			Negotiable
325124		10-NOV-11	ON ASSIGNMENT LAB SUPPORT		1,244.80			Negotiable
325125		10-NOV-11	ONESOURCE DISTRIBUTORS LLC		3,888.63			Negotiable
325126		10-NOV-11	ORANGE COUNTY PUMP		1,256.03			Negotiable
325127		10-NOV-11	ORANGE COUNTY TREASURER		622.50			Negotiable
325128		10-NOV-11	ORANGE COUNTY TREASURER		12,623.10			Negotiable
325129		10-NOV-11	ORANGE COUNTY WATER DISTRICT		13,150.15			Negotiable
325130		10-NOV-11	OZIMEC, SUZY		15.21			Negotiable
325131		10-NOV-11	PAC RIM ENGINEERING		575.00			Negotiable
325132		10-NOV-11	PACIFIC STRATEGIES		2,500.00			Negotiable
325133		10-NOV-11	PAN, WILLIAM		25.65			Negotiable
325134		10-NOV-11	PAPER DEPOT DOCUMENT DESTRUCTION LLC		728.88			Negotiable
325135		10-NOV-11	PAUL E BRADLEY INC		5,647.50			Negotiable
325136		10-NOV-11	PAYNE & FEARS LLP		840.00			Negotiable
325137		10-NOV-11	PERKINELMER HEALTH SCIENCES INC		13.00			Negotiable
325138		10-NOV-11	PRAXAIR DISTRIBUTION INC		1,259.97			Negotiable
325139		10-NOV-11	PRUDENTIAL OVERALL SUPPLY		870.19			Negotiable
325140		10-NOV-11	PSB THE MARKETING SUPERSOURCE		2,310.98			Negotiable
325141		10-NOV-11	PUGH, GARY		22.70			Negotiable
325142		10-NOV-11	RAM AIR ENGINEERING INC		2,266.17			Negotiable
325143		10-NOV-11	RBF CONSULTING		129,315.63			Negotiable
325144		10-NOV-11	RINGCLEAR LLC		56.20			Negotiable
325145		10-NOV-11	SAN LEON APTS		1,076.77			Negotiable
325146		10-NOV-11	SAN MARCO APTS		16.75			Negotiable
325147		10-NOV-11	SERFILCO LTD		6,443.16			Negotiable
325148		10-NOV-11	SERVOTEK PRODUCTS INC		2,100.15			Negotiable
325149		10-NOV-11	SHIN, MICHAEL		29.29			Negotiable
325150		10-NOV-11	SIRIUS COMPUTER SOLUTIONS INC		2,604.72			Negotiable
325151		10-NOV-11	SON, SARAH		42.95			Negotiable
325152		10-NOV-11	SOUTH COAST WATER		40.00			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 19
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
325153		10-NOV-11	SOUTHERN CALIFORNIA EDISON COMPANY		9,254.30			Negotiable
325154		10-NOV-11	SOUTHERN CALIFORNIA SECURITY CENTER, INC.		180.00			Negotiable
325155		10-NOV-11	STANTEC CONSULTING SERVICES INC.		6,847.75			Negotiable
325156		10-NOV-11	STOCKSTILL, KATHERINE		1,664.51			Negotiable
325157		10-NOV-11	TALLEY INC		1,013.71			Negotiable
325158		10-NOV-11	TEKDRUALICS		1,969.91			Negotiable
325159		10-NOV-11	TESTAMERICA LABORATORIES, INC		492.15			Negotiable
325160		10-NOV-11	TETRA TECH, INC		54,867.99			Negotiable
325161		10-NOV-11	THE FURMAN GROUP		10,330.00			Negotiable
325162		10-NOV-11	THE PLUMBERS WAREHOUSE		10,746.05			Negotiable
325163		10-NOV-11	THE WESTGATE HOTEL		400.96			Negotiable

325164	10-NOV-11	TIC-OFFICE PROPERTIES	369.34	Negotiable
325165	10-NOV-11	TODAY REAL ESTATE	32.53	Negotiable
325166	10-NOV-11	TRIPAC MARKETING INC	250.25	Negotiable
325167	10-NOV-11	TROPICAL PLAZA NURSERY INC	12,492.20	Negotiable
325168	10-NOV-11	TRUGREEN LANDCARE LLC	1,295.00	Negotiable
325169	10-NOV-11	TYCO VALVES & CONTROLS LP	194.13	Negotiable
325170	10-NOV-11	UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA	609.00	Negotiable
325171	10-NOV-11	UNITED PARCEL SERVICE INC	313.86	Negotiable
325172	10-NOV-11	US PEROXIDE LLC	335.65	Negotiable
325173	10-NOV-11	USA MOBILITY WIRELESS INC	70.78	Negotiable
325174	10-NOV-11	WALTERS WHOLESALE ELECTRIC	1,232.57	Negotiable
325175	10-NOV-11	WATERLINE TECHNOLOGIES INC	1,206.00	Negotiable
325176	10-NOV-11	WAXIE'S ENTERPRISES, INC	3,426.50	Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 20
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
325177		10-NOV-11	WECK LABORATORIES INC		225.00			Negotiable
325178		10-NOV-11	WEISZ, PATTY		24.41			Negotiable
325179		10-NOV-11	WELLS, AUDREY		868.26			Negotiable
325180		10-NOV-11	WEST COAST SAFETY SUPPLY INC		405.53			Negotiable
325181		10-NOV-11	WESTERN EXTERMINATOR COMPANY		6,694.50			Negotiable
325182		10-NOV-11	WHITE CAP CONSTRUCTION SUPPLY		217.26			Negotiable
325183		10-NOV-11	WILLIAMS, IRENE		36.13			Negotiable
325184		10-NOV-11	WORKFLOWONE		6,552.98			Negotiable
325185		10-NOV-11	Cynthia Beck		238.00			Negotiable
325186		10-NOV-11	David Mazzarella		125.00			Negotiable
325187		10-NOV-11	David McCarter		50.00			Negotiable
325188		10-NOV-11	Erika Blaska		118.25			Negotiable
325189		10-NOV-11	Ethan Fike		11.19			Negotiable
325190		10-NOV-11	Gina Jackson		17.34			Negotiable
325191		10-NOV-11	James Hamer		29.01			Negotiable
325192		10-NOV-11	Janet Wells		340.72			Negotiable
325193		10-NOV-11	Karen Bonecki		265.85			Negotiable
325194		10-NOV-11	Lars Oldewage		184.20			Negotiable
325195		10-NOV-11	Mattias Velardes		147.77			Negotiable
325196		10-NOV-11	Michelle Klein		100.00			Negotiable
325197		10-NOV-11	Paul Weghorst		79.86			Negotiable
325198		10-NOV-11	Stephanie Elder		35.99			Negotiable
325199		10-NOV-11	Steven Wehrly		120.00			Negotiable
325200		10-NOV-11	DATASITE INC	PAY	12,735.00			Negotiable
325201		10-NOV-11	FIRST HEALTH LIFE AND HEALTH INSURANCE COMPANY	PAY	36.20			Negotiable
325202		10-NOV-11	WILLIAMS, EDWARD T.	ORANGE	5,569.60			Negotiable
325203		14-NOV-11	PACIFIC LIFE INSURANCE CO	IRVINE	35,852.40			Negotiable
325204		17-NOV-11	FRANCHISE TAX BOARD	SACRAMENTO 1	2,500.00			Negotiable
325205		17-NOV-11	GRAYBAR ELECTRIC COMPANY	LOS ANGELES	9,015.80			Negotiable
325206		17-NOV-11	INDUSTRIAL METAL SUPPLY CO	PAY	32.66			Negotiable
325207		17-NOV-11	THE PLUMBERS WAREHOUSE	LOS ANGELES	7,994.29			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 21
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
325208		17-NOV-11	WALTERS WHOLESALE ELECTRIC	PAY	44.96			Negotiable

325266	17-NOV-11	INC ENVIRON INTERNATIONAL CORP.		13,015.21		Negotiable
325267	17-NOV-11	ESA PWA		14,495.90		Negotiable
325268	17-NOV-11	ESFANDIARI, MOHSEN		103.50		Negotiable

DIRWD Ledger Payment Register For 01-NOV-11 To 30-NOV-11 Report Date: 01-DEC-2011 17:43
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 23
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
325269		17-NOV-11	EVOLVE MEDIA		1,540.00			Negotiable
325270		17-NOV-11	FANG, CONG		45.17			Negotiable
325271		17-NOV-11	FEDEX		596.13			Negotiable
325272		17-NOV-11	FERGUSON, DAVID		3,668.29			Negotiable
325273		17-NOV-11	FIRST AMERICAN TITLE CO.		1,000.00			Negotiable
325274		17-NOV-11	FISERV		10,039.66			Negotiable
325275		17-NOV-11	FISHER SCIENTIFIC COMPANY LLC		3,143.30			Negotiable
325276		17-NOV-11	FOX, RENEE		132.28			Negotiable
325277		17-NOV-11	FRANCHISE TAX BOARD		342.31			Negotiable
325278		17-NOV-11	FUJISHGE FARMS		4,572.70			Negotiable
325279		17-NOV-11	GARZA INDUSTRIES, INC		1,292.57			Negotiable
325280		17-NOV-11	GEOPENTECH, INC.		10,315.00			Negotiable
325281		17-NOV-11	GEO SCIENCE SUPPORT SERVICES INC		47,926.00			Negotiable
325282		17-NOV-11	GODWIN PUMPS OF AMERICA, INC.		2,366.19			Negotiable
325283		17-NOV-11	GRAINGER		7,835.63			Negotiable
325284		17-NOV-11	GUTIERREZ, MAYRA		64.33			Negotiable
325285		17-NOV-11	HACH COMPANY		1,603.20			Negotiable
325286		17-NOV-11	HARPER & ASSOCIATES ENGINEERING INC		1,721.75			Negotiable
325287		17-NOV-11	HARRINGTON INDUSTRIAL PLASTICS LLC		1,867.72			Negotiable
325288		17-NOV-11	HARVARD COURT APTS		63.10			Negotiable
325289		17-NOV-11	HASHIMOTO, MAYUMI		43.80			Negotiable
325290		17-NOV-11	HASLER		394.37			Negotiable
325291		17-NOV-11	HDR ENGINEERING INC		140,487.06			Negotiable
325292		17-NOV-11	HO, CHRIS		20.00			Negotiable
325293		17-NOV-11	HOME DEPOT USA INC		2,089.84			Negotiable
325294		17-NOV-11	HUNSAKER & ASSOCIATES IRVINE		10,150.24			Negotiable
325295		17-NOV-11	HUNTER, ALICIA		35.55			Negotiable
325296		17-NOV-11	II FUELS INC		30,283.31			Negotiable
325297		17-NOV-11	INCIPIO TECHNOLOGIES		413.12			Negotiable
325298		17-NOV-11	INTERNAL REVENUE SERVICE		1,431.82			Negotiable
325299		17-NOV-11	IRVINE COMMUNITY DEVELOPMENT		113.78			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 24
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
325300		17-NOV-11	IRWD-PETTY CASH CUSTODIAN		807.82			Negotiable
325301		17-NOV-11	JIMMY'Z IMAGEZ		400.00			Negotiable
325302		17-NOV-11	JOHN G. ALEVIZOS D.O. INC.		120.00			Negotiable
325303		17-NOV-11	JOHNSON, BRUCE F.		293.17			Negotiable
325304		17-NOV-11	KAHL AND GOVEIA		603.71			Negotiable
325305		17-NOV-11	KB HOMES		14.79			Negotiable
325306		17-NOV-11	KELLY SERVICES INC		672.00			Negotiable
325307		17-NOV-11	KENDALL, DIANA		24.65			Negotiable
325308		17-NOV-11	KPRS CONSTRUCTION SERVICES, INC		1,233,152.99			Negotiable
325309		17-NOV-11	KUNG, CHIHLAN		24.13			Negotiable
325310		17-NOV-11	LEATHERWOOD CONSTRUCTION INC		225,806.20			Negotiable
325311		17-NOV-11	LEONARD CHAIDEZ TREE SERVICE		450.00			Negotiable
325312		17-NOV-11	LEWIS OPERATING CORP		6,462.76			Negotiable
325313		17-NOV-11	LGC GEOTECHNICAL, INC.		4,355.00			Negotiable

325361	17-NOV-11	RRM DESIGN GROUP	4,323.16	Negotiable
325362	17-NOV-11	SABET, LAYLA	28.43	Negotiable
325363	17-NOV-11	SAN MARCO APTS	18.42	Negotiable
325364	17-NOV-11	SANTA ANA BLUE PRINT	7,223.36	Negotiable
325365	17-NOV-11	SANTA ANA CITY OF	58.41	Negotiable
325366	17-NOV-11	SANTA MARGARITA WATER DISTRICT	2,482.89	Negotiable
325367	17-NOV-11	SANTIAGO AQUEDUCT COMMISSION	20,097.31	Negotiable
325368	17-NOV-11	SHARMA, NEERAJ	36.16	Negotiable
325369	17-NOV-11	SHINOZUKA, HIROSHI	30.72	Negotiable
325370	17-NOV-11	SIEMENS INDUSTRY INC	731.15	Negotiable
325371	17-NOV-11	SIGMA-ALDRICH INC	286.23	Negotiable
325372	17-NOV-11	SMITH, RODGER H	31.17	Negotiable
325373	17-NOV-11	SOS SURVIVAL PRODUCTS	260.11	Negotiable
325374	17-NOV-11	SOUTH COAST ANSWERING SERVICE	513.15	Negotiable
325375	17-NOV-11	SOUTH COAST WATER	151.66	Negotiable
325376	17-NOV-11	SOUTHERN CALIFORNIA EDISON COMPANY	192,243.88	Negotiable
325377	17-NOV-11	SOUTHERN CALIFORNIA GRADING	767.76	Negotiable
325378	17-NOV-11	SOUTHERN CALIFORNIA SECURITY CENTER, INC.	183.94	Negotiable
325379	17-NOV-11	SOUTHERN COUNTIES LUBRICANTS LLC	1,336.53	Negotiable
325380	17-NOV-11	SPENGLER, STEPHEN	15.00	Negotiable
325381	17-NOV-11	ST JEAN, DON	17.47	Negotiable
325382	17-NOV-11	STANTEC CONSULTING SERVICES INC.	10,014.96	Negotiable
325383	17-NOV-11	STATE BOARD OF EQUALIZATION	1,206.00	Negotiable
325384	17-NOV-11	STATE BOARD OF EQUALIZATION	7,000.00	Negotiable
325385	17-NOV-11	STATE WATER RESOURCES CONTROL BOARD	678.12	Negotiable

IRWD Ledger Payment Register For 01-NOV-11 To 30-NOV-11 Report Date: 01-DEC-2011 17:43
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 27
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
325386		17-NOV-11	STEVEN ENTERPRISES INC		235.00			Negotiable
325387		17-NOV-11	SUNNYHILLS RESTORATION		44,615.10			Negotiable
325388		17-NOV-11	SVADJIAN, ALEXANDRA		15.00			Negotiable
325389		17-NOV-11	TETRA TECH, INC		27,952.01			Negotiable
325390		17-NOV-11	THE GAS COMPANY		5,009.81			Negotiable
325391		17-NOV-11	THE NEW HOME COMPANY		27.76			Negotiable
325392		17-NOV-11	TIC-ICDE		338.20			Negotiable
325393		17-NOV-11	TOMATO BANK		117.56			Negotiable
325394		17-NOV-11	TOMPKINS, JOHN W		50.62			Negotiable
325395		17-NOV-11	TRUCPARCO		1,837.43			Negotiable
325396		17-NOV-11	TRUGREEN LANDCARE LLC		886.00			Negotiable
325397		17-NOV-11	TURTLE ROCK CANYON APTS		29.58			Negotiable
325398		17-NOV-11	ULINE INC		1,812.96			Negotiable
325399		17-NOV-11	ULTRA SCIENTIFIC		730.23			Negotiable
325400		17-NOV-11	UNITED SITE SERVICES OF CALIFORNIA INC		483.52			Negotiable
325401		17-NOV-11	US PEROXIDE LLC		32,218.55			Negotiable
325402		17-NOV-11	VA CONSULTING, INC		15,884.94			Negotiable
325403		17-NOV-11	VERIZON CALIFORNIA INC		37.94			Negotiable
325404		17-NOV-11	VULCAN MATERIALS COMPANY		1,250.24			Negotiable
325405		17-NOV-11	WASTE MANAGEMENT OF ORANGE COUNTY		1,165.20			Negotiable
325406		17-NOV-11	WECK LABORATORIES INC		7,215.00			Negotiable
325407		17-NOV-11	WESTERN AV		7,509.84			Negotiable
325408		17-NOV-11	WESTERN EXTERMINATOR COMPANY		3,728.00			Negotiable
325409		17-NOV-11	WOJNOWSKI, MIECZYSLAW		24.65			Negotiable
325410		17-NOV-11	WORKPLACE RESOURCE		624.53			Negotiable
325411		17-NOV-11	WU, CHUNCHIO		43.39			Negotiable

325412	17-NOV-11	YSI INCORPORATED	89.74	Negotiable
325413	17-NOV-11	YUSON, JANICE	241.91	Negotiable
325414	17-NOV-11	ZEE MEDICAL SERVICE CO	1,015.69	Negotiable
325415	17-NOV-11	ZGLOBAL, INC.	11,040.00	Negotiable

IRWD Ledger Payment Register For 01-NOV-11 To 30-NOV-11 Report Date: 01-DEC-2011 17:43
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 28
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
325416		17-NOV-11	AXA EQUITABLE	FARMINGTON	9,780.00			Negotiable
325417		17-NOV-11	MARSH RISK & INSURANCE SVCS		42,888.35			Negotiable
325418		17-NOV-11	TESTAMERICA LABORATORIES, INC		330.00			Negotiable
325419		17-NOV-11	MARVIN GARDENS LLCHUNGTINGTO N BEA		297.16			Negotiable
325420		17-NOV-11	Amy McNulty		19.50			Negotiable
325421		17-NOV-11	Christopher Fike		176.00			Negotiable
325422		17-NOV-11	Ethan Fike		130.12			Negotiable
325423		17-NOV-11	Fiona Sanchez		106.70			Negotiable
325424		17-NOV-11	Fotini Charnaw		127.29			Negotiable
325425		17-NOV-11	Jacob Moeder		14.98			Negotiable
325426		17-NOV-11	Peter Wang		150.00			Negotiable
325427		17-NOV-11	Pio Reynoso		215.00			Negotiable
325428		17-NOV-11	Richard Schulze		132.00			Negotiable
325429		17-NOV-11	Robertta Sitzler		29.04			Negotiable
325430		17-NOV-11	Shannon Reed		48.73			Negotiable
325431		17-NOV-11	Steven Malloy		433.72			Negotiable
325432		17-NOV-11	Truc Mai Bertsch		8.62			Negotiable
325433		17-NOV-11	RALPHS GROCERY COMPANY	PAY	14,772.50			Negotiable
325434		17-NOV-11	Fiona Sanchez		43.00			Negotiable
325435		17-NOV-11	Gina Jackson		17.34			Negotiable
325436		17-NOV-11	Jenny Pan		154.16			Negotiable
325437		17-NOV-11	Juan Guzman		79.00			Negotiable
325438		17-NOV-11	Mary Matheis		1,215.26			Negotiable
325439		17-NOV-11	Peer Swan		603.98			Negotiable
325440		17-NOV-11	Steven LaMar		72.15			Negotiable
325441		21-NOV-11	BUILDERS SURPLUS INC	SANTA ANA	2,340.87			Negotiable
325442		30-NOV-11	ORANGE COUNTY SANITATION DISTRICT	FOUNTAIN VALLEY	1,570.00			Negotiable

Payment Document Subtotal: 10,251,084.02

Payment Document : IRWD Wire

9207		02-NOV-11	YORK INSURANCE SERVICES GROUP INC - CA	PAY	2,023.03			Negotiable
9208		04-NOV-11	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	3,972.22			Negotiable

IRWD Ledger Payment Register For 01-NOV-11 To 30-NOV-11 Report Date: 01-DEC-2011 17:43
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 29
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
9209		04-NOV-11	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	208.33			Negotiable
9210		08-NOV-11	YORK INSURANCE SERVICES GROUP INC - CA	PAY	1,910.92			Negotiable
9211		29-NOV-11	YORK INSURANCE SERVICES GROUP INC - CA	PAY	1,071.34			Negotiable
9212		29-NOV-11	YORK INSURANCE SERVICES GROUP INC - CA	PAY	1,122.70			Negotiable
9213		29-NOV-11	YORK INSURANCE SERVICES GROUP INC - CA	PAY	2,785.24			Negotiable
9214		30-NOV-11	INTERNAL REVENUE SERVICE	FRESNO	303,244.38			Negotiable
9215		30-NOV-11	FRANCHISE TAX BOARD	SACRAMENTO	83,298.56			Negotiable
9216		30-NOV-11	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	17,171.42			Negotiable

9217	30-NOV-11	WILLIAMS, TWYLA	PARKER	1,455.70	Negotiable
9218	30-NOV-11	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	2,406.44	Negotiable
9219	30-NOV-11	EMPLOYEE BENEFIT SPECIALIST, INC		23,866.60	Negotiable
9220	30-NOV-11	GREAT WEST	DENVER	152,766.15	Negotiable
9221	30-NOV-11	U.S. BANK NATIONALST. ASSOCIATION	LOUIS	8,610.03	Negotiable
9222	30-NOV-11	U.S. BANK NATIONALPAY ASSOCIATION		9,415.56	Negotiable
9223	30-NOV-11	HELABA LANDESBANK HESSEN-THUERINGEN	NEW YORK	1,600,000.00	Negotiable
9224	30-NOV-11	HELABA LANDESBANK HESSEN-THUERINGEN	NEW YORK	29.81	Negotiable
9225	30-NOV-11	MUNICIPAL WATER DISTRICT OF ORANGEVALLEY COUNTY	FOUNTAIN	1,242,156.76	Negotiable
9226	30-NOV-11	U.S. BANK NATIONALPAY ASSOCIATION		3,431.51	Negotiable
9227	30-NOV-11	BANK OF AMERICA	SAN FRANCISCO	4,746.57	Negotiable

IRWD Ledger Payment Register For 01-NOV-11 To 30-NOV-11 Report Date: 01-DEC-2011 17:43
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 30
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
9228		30-NOV-11	SUMITOMO MITSUI BANKING CORPORAION	NEW YORK	1,961.92			Negotiable
9229		30-NOV-11	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	14,242.98			Negotiable
9230		30-NOV-11	HELABA LANDESBANK HESSEN-THUERINGEN	NEW YORK	218.91			Negotiable
9231		30-NOV-11	BANK OF AMERICA	SAN FRANCISCO	5,120.00			Negotiable
9232		30-NOV-11	SUMITOMO MITSUI BANKING CORPORAION	NEW YORK	4,339.73			Negotiable
9233		30-NOV-11	BANK OF AMERICA	SAN FRANCISCO	295.00			Negotiable
9234		30-NOV-11	U.S. BANK NATIONALPAY ASSOCIATION		250.00			Negotiable
9235		30-NOV-11	CALPERS	SACRAMENTO	315,894.34			Negotiable
9236		30-NOV-11	J.R. FILANC CONSTRUCTION	PAY	5,072,006.28			Negotiable
Payment Document Subtotal:					8,880,022.43			
Bank Account Subtotal :					19,131,106.45			
Report Count : 807		Report Total:			19,131,106.45			

*** End of Report ***

December 12, 2011

Prepared by: Tanja Fournier/Rob Jacobson

Submitted by: Debby Cherney

Approved by: Paul Cook

CONSENT CALENDAR

PROPOSED 2012 INVESTMENT POLICY

SUMMARY:

Each year, the District is required to adopt an Investment Policy. Changes to the policy from year-to-year are required to conform to any amendments to the California Government Code governing investment of public funds. During 2011, there were no significant changes to the California Government Code and the proposed policy for 2012 mirrors the policy adopted for 2011. Staff recommends Board adoption of the proposed policy attached as Exhibit "A".

BACKGROUND:

Staff annually submits a Statement of Investment Policy to the Board of Directors for approval. The annual submittal generally incorporates amendments to investment-related Government Code sections, policy objectives, delegation of authority and a detailed schedule of authorized investments. The proposed 2012 Investment Policy and related resolution are attached as Exhibits "A" and "B", respectively.

During 2011, there were no significant amendments to the Government Code section relating to authorized investments for local agencies.

As specified in the Government Code, the Board's delegation of authority to the Treasurer and Assistant Treasurer(s) to manage the District's investment program is limited to a one year period, renewable annually. The recommended 2012 Investment Policy includes continuation of this annual delegation of authority to the Treasurer and Assistant Treasurer(s).

Given the conservative nature of the State codes and the Board's additional restrictions, staff believes the authorized investments in the recommended 2012 Investment Policy are sufficiently limited to ensure appropriate investments while retaining some degree of flexibility to take advantage of changing market opportunities. Additionally, the recommended policy provides authority for the Finance and Personnel Committee to further restrict, but not liberalize, authorized investments. Any liberalization of authorized investments would first require the approval of the full Board of Directors.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This activity is categorically exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Sections 15301 and 15302.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on December 5, 2011.

RECOMMENDATION:

THAT BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION 2011 - __

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
IRVINE RANCH WATER DISTRICT APPROVING INVESTMENT
POLICY AND AUTHORIZING THE TREASURER AND ASSISTANT
TREASURER TO INVEST AND REINVEST FUNDS OF THE DISTRICT
AND OF EACH OF ITS IMPROVEMENT DISTRICTS AND TO SELL AND
EXCHANGE SECURITIES

LIST OF EXHIBITS:

Exhibit "A" – Proposed 2012 Investment Policy
Exhibit "B" – Resolution Adopting 2012 Investment Policy

Exhibit “A”

IRVINE RANCH WATER DISTRICT

Proposed 20142 INVESTMENT POLICY

Introduction:

This investment policy is intended to establish a clear understanding of the District’s authorized investment activities for members of the public, the Board of Directors of the Irvine Ranch Water District (the “District”), District management and outside investment professionals.

Policy:

It is the policy of the District to invest its funds in a prudent and professional manner which will provide maximum security of principal while meeting required cash flow demands and conforming to all State statutes governing the investment of public funds, the District’s investment policies, and prudent cash management principles.

Scope:

This investment policy applies to all District funds that are under the direct oversight of the Board of Directors. The investment of any bond proceeds or related funds will also be made in accordance with this investment policy.

Standard of Care:

The Board of Directors and those persons authorized to make investment decisions on behalf of the District are trustees of public funds. The standard of care to be used in all investment transactions shall be the “prudent person” standard and shall be applied in the context of managing the overall portfolio (Government Code Section 53600.3). The “prudent person” standard is:

Investments shall be made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation but for investment, considering the probable safety of their capital as well as the probable income to be derived.

Officers and employees of the District involved in the investment process shall refrain from personal business activities that could conflict with proper execution of the investment program or could impair their ability to make impartial investment decisions.

“Designated employees” of the District involved in the investment of District funds, which includes the Treasurer and Assistant Treasurer(s), shall disclose all information at the times and in the manner required by the District’s Conflict of Interest Code.

Objectives:

The primary objectives of the District's investment activities, in priority order, are as follows:

1. **Safety:** Safety of principal is the foremost objective of the investment program. Investments of the District shall be undertaken in a manner that seeks to ensure the preservation of capital in the overall portfolio. Accordingly, diversification by issuer, type, and maturity of securities will be made to avoid or minimize potential losses on individual securities.
2. **Liquidity:** The District's investment portfolio will remain sufficiently liquid to enable the District to meet all operating and capital cash requirements. To the extent required, this liquidity will be maintained through the purchase of securities with active secondary or resale markets and with short-term maturities so as to minimize market risk on the market price of the securities.
3. **Yield:** The District's investment portfolio shall be designed with the objective of attaining the highest rate of return commensurate with the above requirements for the preservation of capital and the maintenance of adequate liquidity.

Delegation of Authority:

In accordance with Government Code Sections 53607 and 53608, the Board of Directors has delegated to the District's Treasurer and Assistant Treasurer(s), acting singly, the authority to manage the District's investment program and to provide for the safekeeping of securities. This delegated authority is effective for the 2011 calendar year (Resolution 2010-49).

Authorized Investments:

The District is authorized to invest its funds pursuant to the following State codes:

Government Code:

- Section 53600 et seq. - General investments
- Section 16429.1 - Local Agency Investment Fund (LAIF)
- Section 53684 - Orange County Treasury Pool (not currently authorized by the Board of Directors)
- Section 5920 - Public finance contracts

Water Code:

- Section 35912 - Real estate

The Treasurer and Assistant Treasurer(s) are authorized to invest District funds in accordance with these Code sections, subject to certain restrictions imposed by the District's Board of Directors. These authorized investments and restrictions are shown in Exhibit "A".

Whenever practical, a competitive process shall be used for the purchase and sale of securities.

Irvine Ranch Water District
2012 Investment Policy

The Board of Directors has approved investing in securities with terms or remaining maturities in excess of five years as part of the District's investment program, but that no such investments are to be made without the concurrence of the Finance and Personnel Committee.

Authorized Financial Institutions:

Only financial institutions designated as "primary dealers" by the Federal Reserve Bank of New York, or other dealers that qualify under Securities and Exchange Commission Rule 15C3-1 (uniform net capital rule), are authorized to provide investment services to the District. The Treasurer may limit the number of dealers authorized to provide such services.

A copy of the District's annual investment policy shall be provided to each institution authorized by the Treasurer to provide services to the District. Prior to providing investment services, such financial institution shall acknowledge in writing that it has received the District's investment policy and that all persons handling the District's account have reviewed the policy.

All authorized financial institutions are required to send the District unaudited quarterly and audited annual financial statements or provide electronic access to the financial statements.

Safekeeping and Custody:

All security transactions entered into by the District shall be conducted on a delivery-versus-payment (DVP) basis. All securities owned by the District shall be delivered to the District by book entry, physical delivery, or a third party custodial agreement. Any third party custodian shall be designated by the Treasurer, and all securities held by such custodian, including book entry and physical securities, shall be held in a manner that clearly establishes the District's right of ownership. The District's custodial agent shall meet the requirements of Government Code Section 53608. The District's deposits with LAIF or any other authorized investment pool shall be evidenced by the standard reporting requirements of LAIF or the investment pool.

Reporting:

The Treasurer shall file a monthly report with the Board of Directors at a public meeting that shows the status of the District's cash and securities, and all related investment transactions that occurred during the month. The status report shall also be filed with the District's General Manager and internal auditor, and will include at least the following information:

- Type of investment
- Issuing institution
- Par amount
- Coupon and/or yield
- Original cost
- Market value, including source
- Maturity date

In addition, the status report shall include the portfolio's rate of return for the month, the average weighted life of the portfolio, a statement regarding the portfolio's compliance with the District's investment policy, and a statement regarding the District's ability to meet expenditure requirements over the following six months. (Government Code Sections 53607 and 53646)

The Treasurer shall also file a quarterly report with the Board of Directors at a public meeting with respect to the District's real estate investments and any related transactions which occurred during such quarter. The real estate report will be structured to comply as closely as possible with the information requirements of G.C. Section 53646.

Investment Policy Adoption and Amendments:

The Treasurer shall submit an investment policy at least annually to the Board of Directors at a public meeting. (Government Code Section 53646) The policy shall be effective for the calendar year specified. If the Board of Directors does not approve an investment policy for any calendar year, then the investment policy for the previous calendar year shall remain in effect until a new policy is approved.

The District's Finance and Personnel Committee is authorized to make changes in the investment policy from time to time as may be necessary, provided that such changes may only be more restrictive in nature. Any changes that would liberalize the investment policy shall be approved by the Board of Directors before becoming effective. Any changes in the investment policy by the Finance and Personnel Committee shall be reported to the Board of Directors at its next regular meeting.

IRVINE RANCH WATER DISTRICT
2012 AUTHORIZED INVESTMENTS

TYPE OF INVESTMENT	MAJOR PROVISIONS (G.C. 53601 or 53635 except as noted)	ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS
California State and Local Agency Bonds, Notes and Warrants	Registered State warrants, treasury notes or bonds. Any bonds, notes, warrants or other evidences of indebtedness of any local agency.	Limited to securities approved by the Finance and Personnel Committee.
U.S. Treasury and Agency Obligations	U.S. Treasury notes, bonds, bills or certificates of indebtedness or those for which the full faith and credit of the United States are pledged for the payment of principal and interest. Also federal agency or U.S. government sponsored obligations.	No additional restrictions.
Registered treasury notes or bonds of California or other 49 United States	Registered treasury notes or bonds of any of the other 49 United States in addition to California, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by a state or by a department, board, agency, or authority of any of the other 49 United States, in addition to California.	Limited to states and/or agencies approved by the Finance and Personnel Committee.
Banker's Acceptances	Must be eligible for discount at the Federal Reserve Bank. May not exceed 180 days maturity or 40% of local agency funds. No more than 30% of local agency funds may be invested in banker's acceptances of any one commercial bank.	Limited to domestic and foreign banks approved by the Finance and Personnel Committee.
Commercial Paper	Must be of "prime" quality of the highest ranking or of the highest letter and number rating as provided for by a nationally recognized rating service. Issuers must be organized and operating in U.S., have assets exceeding \$500 million and be rated "A" or better. May not exceed 270 days maturity. May not exceed 25% of a local agency's funds.	Limited to corporations approved by the Finance and Personnel Committee.
Negotiable Certificates of Deposit	Issued by national or state-chartered banks, savings associations, federal associations, or state or federal credit unions or state-licensed branches of a foreign bank. Specified restrictions on credit unions. Limited to 30% of local agency funds.	Limited to domestic and foreign banks and thrift institutions approved by the Finance and Personnel Committee.

IRVINE RANCH WATER DISTRICT
2012 AUTHORIZED INVESTMENTS

MAJOR PROVISIONS
(G.C. 53601 or 53635 except as noted)

ADDITIONAL RESTRICTIONS IMPOSED
BY THE BOARD OF DIRECTORS

TYPE OF INVESTMENT

<p>Repurchase and Reverse Repurchase Agreements</p>	<p>Repurchase agreements are limited to one year or less and collateral shall be valued at least 102%. Reverse repurchase agreements, including securities lending agreements, are limited to 20% of the base portfolio value and to terms of 92 days or less unless a spread is guaranteed in writing. Securities being sold on reverse must be owned by the agency for at least 30 days. Reverse repurchase agreements may be made with primary dealers of the Federal Reserve Bank of New York, or nationally and state chartered banks with a significant banking relationship with the local agency.</p>	<p>All reverse repurchase agreements must have the prior approval of the Finance and Personnel Committee. All repurchase agreements must be made only with primary dealers of the Federal Reserve Bank of New York, or nationally and state chartered banks with a significant banking relationship with the local agency.</p>
<p>Medium Term Corporate Notes</p>	<p>All debt securities issued by U.S. corporations or depository institutions licensed by the U.S. or any state and operating within the U.S. Institutions rated "A" or better. May not exceed five years maturity, or 30% of funds.</p>	<p>For depository institutions, same as shown under Negotiable Certificates of Deposit. For corporations, limited to those approved by the Finance and Personnel Committee.</p>
<p>Shares of Beneficial Interest</p>	<p>Issued by diversified management companies investing in securities as specified. Companies shall have highest rating assigned by not less than two nationally recognized statistical rating organizations or shall have a registered and experienced investment advisor. Purchase price shall not include any commissions. Limited to 20% of funds of which no more than 10% may be with any one fund.</p>	<p>No additional restrictions.</p>
<p>Shares of Beneficial Interest - (JPA)</p>	<p>Issued by a joint powers authority (JPA) organized pursuant to Section 6509.7 investing in authorized securities as specified. The issuing JPA shall retain an investment advisor that is registered or exempt from registration with the SEC, has not less than five years of investment experience and meets the minimum requirement for assets under management.</p>	<p>No investment in shares of beneficial interest issued by a joint powers authority shall be made without the prior approval of the Finance and Personnel Committee.</p>

IRVINE RANCH WATER DISTRICT
2012 AUTHORIZED INVESTMENTS

MAJOR PROVISIONS
(G.C. 53601 or 53635 except as noted)

ADDITIONAL RESTRICTIONS IMPOSED
BY THE BOARD OF DIRECTORS

TYPE OF INVESTMENT	MAJOR PROVISIONS (G.C. 53601 or 53635 except as noted)	ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS
Collateralized Negotiable Securities	Notes, bonds or obligations secured by a valid first priority security interest in specified securities. Collateral to be placed by delivery or book-entry into the custody of a trust company/department not affiliated with the issuer. Security interest perfected in accordance with Uniform Commercial Code or applicable federal regulations. Collateral requirements are the same as required to secure bank deposits made by local agencies.	No investment in collateralized negotiable securities shall be made without the prior approval of the Finance and Personnel Committee.
Collateralized Mortgage Obligations and Asset-Backed Securities	Mortgage pass-through security, collateralized mortgage obligation, mortgage-backed or other pay-through bond, equipment lease-backed certificate, consumer receivable pass-through certificate, or consumer receivable-backed bond of a maximum of 5 years maturity. Securities must be issued by an issuer having an "A" or higher rating by a nationally recognized rating service. Securities themselves must have an "AA" rating and may not exceed 20% of surplus funds.	No investment in collateralized mortgage obligations or mortgage-backed securities shall be made without the prior approval of the Finance and Personnel Committee.
Financial Futures and Options	Authorizes the investment in financial futures and financial option contracts in any of the investment categories contained in G.C. Section 53601. (Government Code Section 53601.1)	No investments in financial futures and financial option contracts are to be made without the prior approval of the Finance and Personnel Committee.
Prohibited Investments	A local agency shall not invest any funds in inverse floaters, range notes, and mortgage derived interest-only strips, or any security that could result in zero interest accrual if held to maturity. (Government Code Sections 53601.6 and 53631.5)	No additional restrictions.

IRVINE RANCH WATER DISTRICT
2012 AUTHORIZED INVESTMENTS

MAJOR PROVISIONS
(G.C. 53601 or 53635 except as noted)

ADDITIONAL RESTRICTIONS IMPOSED
BY THE BOARD OF DIRECTORS

TYPE OF INVESTMENT	MAJOR PROVISIONS (G.C. 53601 or 53635 except as noted)	ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS
Local Agency Investment Fund	Permits a local agency to deposit funds with the State Treasurer for the purpose of investment in securities prescribed in Government Code Section 16430. (Government Code Section 16429.1 et seq.)	No additional restrictions.
Orange County Treasury Pool	Permits a local agency to deposit funds with the County Treasurer for investment in securities prescribed in Government Code Section 53601 or 53635. (Government Code Section 53684)	No investments are to be made with the Orange County Treasury Pool without the prior approval of the Board of Directors.
Inactive Public Deposits	Deposits or contracts with Federal Reserve System banks insured by FDIC, savings associations or federal associations which are home loan bank members or insured by FSLIC, and state or federal credit unions. Specified restrictions on credit unions.	No inactive public deposits are to be made without the prior approval of the Finance and Personnel Committee.
Public Finance Contracts	Includes interest rate swap agreements, currency swap agreements, forward payment conversion agreements, futures, or index-based agreements to hedge payment, currency, rate, spread or similar exposure. Requires certain determinations by governing body. (Government Code Section 5920 et seq.)	No public finance contracts may be entered into without the prior approval of the Board of Directors. The Board is authorized to approve the general parameters for swap transactions including transaction type (i.e. fixed receiver, fixed payer or basis trade), maximum notional amount(s) and maximum duration(s). The Finance and Personnel Committee shall structure specific parameters for individual transactions including notional amount, transaction timing, counterparty selection, index to be used and ISDA agreement approval. (Resolution 2003-36)
Real Estate Investments	Authorized to invest no more than 30% of the District's Replacement Fund in real estate located in Orange County. (Water Code Section 35912)	Real estate investments shall be made in accordance with existing Board policies (Resolution 1990-30). All real estate investments must be individually approved by the Board of Directors.

Exhibit "B"

RESOLUTION NO. 2011-___

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
IRVINE RANCH WATER DISTRICT APPROVING INVESTMENT
POLICY AND AUTHORIZING THE TREASURER AND ASSISTANT
TREASURERS TO INVEST AND REINVEST FUNDS OF THE
DISTRICT AND OF EACH OF ITS IMPROVEMENT DISTRICTS
AND TO SELL AND EXCHANGE SECURITIES

WHEREAS, the Treasurer of the Irvine Ranch Water District is permitted by Section 53646 of the California Government Code to annually render to the Board of Directors a statement of investment policy, which the Board shall consider at a public meeting; and

WHEREAS, in accordance with such requirement, the Treasurer has presented an investment policy to the Board at this meeting; and

WHEREAS, Section 53607 of the California Government Code permits the Board of Directors to delegate to the Treasurer of the District the Board's authority to invest or reinvest funds of the District or sell or exchange securities so purchased, limits the delegation to a one-year period, allows renewal by the Board on an annual basis and establishes a requirement for monthly reporting of the transactions by the Treasurer to the Board; and

WHEREAS, Section 53608 of the California Government Code permits the Board of Directors to delegate to the Treasurer of the District the Board's authority to deposit for safekeeping the bonds, notes, bills, debentures, obligations, certificates of indebtedness, warrants or other evidences of instruments in which money of the District is invested; and

WHEREAS, under Section 53635.2 of the California Government Code, funds of the District may be deposited with certain financial institutions; and

WHEREAS, pursuant to Section V, Paragraph 8 of the District's Bylaws, the Board has appointed one or more Assistant Treasurers;

WHEREAS, Resolution No. 2010-49 contains the previous delegation by this Board of the authority to invest or reinvest funds, sell or exchange securities, deposit investments for safekeeping, and deposit funds;

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

Section 1. The 2012 Investment Policy of the District is approved in the form presented by the Treasurer to this meeting, to be effective January 1, 2012, and remain in effect until it is revoked or is superseded..

Section 2. The authority of the Board of Directors to invest or reinvest funds of the District and its improvement districts or sell or exchange securities so purchased, subject to the requirements of the Investment Policy approved hereby, is hereby delegated to each of the Treasurer and the Assistant Treasurers, acting singly. Pursuant to Government Code Section 53607, the Treasurer shall assume full responsibility for those transactions until this delegation is revoked or expires. This delegation shall become effective January 1, 2012, and shall remain in

effect until it is revoked or is superseded by a subsequent delegation.

Section 3. The authority of the Board of Directors to deposit for safekeeping the bonds, notes, bills, debentures, obligations, certificates of indebtedness, warrants or other evidences of instruments in which money of the District and its improvement districts is invested, subject to the requirements of the investment policy approved hereby, is hereby delegated to each of the Treasurer and the Assistant Treasurers, acting singly. This delegation shall become effective January 1, 2012, and shall remain in effect until it is revoked or is superseded by a subsequent delegation.

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

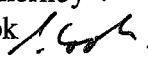
By _____

jca33731/ 110711

December 12, 2011

Prepared by: Eileen Lin

Submitted by: Debby Cherney 

Approved by: Paul Cook 

CONSENT CALENDAR

FY 2010-11 COMPREHENSIVE ANNUAL FINANCIAL REPORT

SUMMARY:

The District's auditor, Mayer Hoffman McCann, P.C. ("MHM"), has completed its annual audit of the District's financial statements for the Fiscal Year (FY) ended June 30, 2011. As stated in its report, MHM concluded that in all material aspects, the statements fairly present the District's financial position as of June 30, 2011 and conform with generally accepted accounting principles.

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

BACKGROUND:

At the Committee meeting, MHM presented its required Auditor Communication pursuant to Statement on Auditing Standards 114 *The Auditor's Communication with Those Charged with Governance*. This letter, attached as Exhibit "B", reflects the auditor's understanding of key management assumptions and practices, corrections made during the audit process, and notes that there were no disagreements with management during the scope of the audit. The auditors have also provided a recommendation, attached as Exhibit "C", that the District scrutinize its practices for capitalizing assets which may appear to be regular maintenance as opposed to rehabilitations that extend the useful life or expand the capacity of the original asset.

The IRWD Comprehensive Annual Financial Report:

The FY 2010-11 CAFR is the eighth one prepared by the District. All of the District's CAFRs have won awards from the Government Finance Officers Association (GFOA), which encourages state and local governments to prepare and publish expanded financial reports in conformity with generally accepted accounting principles (GAAP) and provides awards to recognize contributions to the practice of government finance that exemplifies outstanding financial management. The awards stress practical, documented work that offers leadership to the profession and promotes improved public finance.

Staff will continue to exclusively produce an enhanced electronic version with key references hyperlinked throughout the document. The CAFR will be available on the District's website.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on December 6, 2011.

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE.

LIST OF EXHIBITS:

Exhibit "A" – FY 2010-11 Comprehensive Annual Financial Report

Exhibit "B" – SAS 114 Auditor's Communication with Those Charge with Governance from
Mayer Hoffman McCann

Exhibit "C" – Management Letter Comment from Mayer Hoffman McCann

NOTE:

**COPY OF
EXHIBIT "A"
MAY BE OBTAINED
FROM THE DISTRICT
SECRETARY**



Mayer Hoffman McCann P.C.

An Independent CPA Firm

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Finance and Personnel Committee
Irvine Ranch Water District
Irvine, California

We have audited the financial statements of the Irvine Ranch Water District ("District") for the year ended June 30, 2011, and have issued our report thereon dated December 8, 2011. Professional standards require that we provide you with the following information related to our audit.

**Our Responsibilities under U.S. Generally Accepted Auditing Standards
And OMB Circular A-133**

Our responsibility, as described by professional standards, is to express opinions about whether the financial statements prepared by management with your oversight are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles. Our audit of the financial statements does not relieve you or management of your responsibilities.

Our responsibility is to plan and perform the audit to obtain reasonable, but no absolute, assurance that the financial statements are free of material misstatement. In planning and performing our audit, we considered the District's internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide assurance on the internal control over financial reporting. We also considered internal control over compliance with requirements that could have a direct and material effect on a major federal program in order to determine our auditing procedures for the purpose of expressing our opinion on compliance and to test and report on internal control over compliance in accordance with the U.S. Office of Management and Budget (OMB) Circular A-133.

As part of obtaining reasonable assurance about whether the District's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, grants, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit. Also, in accordance with OMB Circular A-133, we examined, on a test basis, evidence about the District's compliance with the types of compliance requirements described in the OMB Circular A-133 Compliance Supplement applicable to its major federal program for the purpose of expressing an opinion on the District's compliance with those requirements. While our audit provides a reasonable basis for our opinion, it does not provide a legal determination on the District's compliance with those requirements.

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

Planned Scope and Timing of the Audit

We performed the audit according to the planned scope and timing previously communicated to you in our letter about planning matters dated June 22, 2011.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. We will advise management about the appropriateness of accounting policies and their application. The significant accounting policies used by the District are described in Note 1 to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during the year. We noted no transactions entered into by the District during the year for which there is a lack of authoritative guidance or consensus. There are no significant transactions that have been recognized in the financial statements in a different period than when the transaction occurred.

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

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

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

Difficulties Encountered in Performing the Audit

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

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management.

Management has posted the following adjustments that were detected by the audit process:

- Adjustment to construction in progress and accounts payable for \$4.9 million to reverse an item that was accrued by the District in error.
- Adjustment of \$634,000 to correct the amount accrued for interest payable related to the 2010 Certificates of Participation.
- Adjustment of \$727,000 to reverse the District's prior period adjustment related to depreciation expense.
- Adjustment to reclassify \$897,000 related to Baker Plant deposits collected from participating agencies from an offset to receivables to deposits payable.

Management decided not to make the following adjustments because they were immaterial to the financial statements:

- Adjustment to record customer receivable balances in the amount of \$4.2 million that were earned but not billed by June 30, 2011.
- Adjustment to write-off approximately \$574,000 of construction in progress for water banking feasibility studies that do not qualify as capital assets.
- Adjustment to compute the capitalized interest amount based on the Districts' current year interest rate rather than using a five-year average.
- Adjustment to reclassify the amounts capitalized for the Syphon Dam project related to the: land, easements, and fishing license from depreciable capital assets to nondepreciable capital assets.
- Adjustment to increase the fair value of interest rate swaps by \$651,752 due to double counting of interest payable on swaps.

Disagreements with Management

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

Management Representations

We have requested certain representations from management that are included in the management representation letter dated December 8, 2011.

Management Consultations with Other Independent Accountants

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

Other Audit Findings or Issues

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

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

Mayer Hoffman McCann P.C.

Irvine, California
December 8, 2011



Mayer Hoffman McCann P.C.

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Finance and Personnel Committee
Irvine Ranch Water District
Irvine, California

In planning and performing our audit of the financial statements of the Irvine Ranch Water District ("District") as of and for the year ended June 30, 2011, in accordance with auditing standards generally accepted in the United States of America, we considered the District's internal control over financial reporting (internal control) as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we do not express an opinion on the effectiveness of the District's internal control.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control that might be deficiencies, significant deficiencies, or material weaknesses and therefore there can be no assurance that all such deficiencies have been identified.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. We did not identify any deficiencies in internal control that we consider to be material weaknesses.

However, as a service to you, we identified during our audit a certain matter that provides you an opportunity to enhance your existing internal controls. This matter is provided as a recommendation for your consideration and is not considered to be a material weakness or significant deficiency in internal control:

(1) Need to Improve Recordkeeping of Capital Assets

During our review of capital assets, we identified several instances where the District is capitalizing projects that appear to be maintenance in nature (i.e. slurry seals, studies, etc.). Out of 715 projects capitalized in the current year, 525 projects were under \$50,000. The District's Engineering Department is responsible for identifying projects that are capitalizable versus maintenance at the start of the project. General accepted accounting principles suggest that assets are capitalized only when the project exceeds the District's capitalization threshold amounts established by its accounting policy or when the rehabilitation of an asset either extends the useful life or expands the capacity of the original asset. As a result, the District's capital assets could be overstated (and operating expenses understated) for the amounts associated with projects that do not meet the definition previously discussed.

Recommendation

We recommend the District provide training to the Engineering Department staff on projects that qualify as capital projects versus projects that should be expensed.

Board of Directors
Irvine Ranch Water District
Page 2

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

Mayer Hoffman McCann P.C.

Irvine, California
December 8, 2011

December 12, 2011

Prepared By: A. McNulty/F. Sanchez

Submitted by: G. Heiertz

Approved by: Paul Cook

[Handwritten signatures and initials]

CONSENT CALENDAR

UNIVERSITY OF CALIFORNIA, IRVINE
CAMPUS PLUMBING RETROFIT PROGRAM PHASE II

SUMMARY:

Staff is proposing to initiate Phase II of the University of California Irvine (UCI) campus retrofit program to upgrade antiquated, water-wasting toilets, urinals and faucets with new water-efficient devices. Phase I of the campus plumbing retrofit was successfully completed in July of 2011. Phase I replaced 70 toilets with high efficiency models. Building on the success of Phase I, staff proposes to enter into Phase II of the campus plumbing retrofit. Phase II of the project would yield an estimated water savings of over 338 acre feet (AF) during the next ten years. The proposed supplemental funding to be made available to UCI for the water use efficiency upgrades is \$78,600. This will be in addition to IRWD's existing tactical incentive funding of \$60,400 for an IRWD project funding total of \$139,000. IRWD's current incentive funding levels are set below the District's avoided cost and can therefore be augmented and still be cost effective. IRWD's proposed total incentive funding is equivalent to 37% of the total estimated lifetime avoided cost for the project. Staff recommends the Board authorize an increase to the FY 2011-12 Operating Budget of \$78,600 for the supplemental funding and authorize the General Manager to execute an agreement with UCI, included as Exhibit "A", for the project.

BACKGROUND:

UCI is the District's single largest customer, and there are significant water use efficiency measures that can be implemented on campus. In May of 2010 IRWD conducted a water use efficiency survey of selected key areas on the university campus. Based on the survey results, a retrofit project was designed to replace faucets, toilets and urinals within the oldest buildings, many of which are still equipped with the original plumbing fixtures dating back to the 1960s. The plumbing retrofit was divided into two phases based on UCI staff availability for device installation and project financial planning. The lifetime water savings potential for Phase II of the project is estimated at 338 acre feet, as shown in Table 1.

Table 1: Estimated Project Lifetime Water Savings

Device	Quantity	Water Savings AF 10-Year Lifetime
Toilets	447	179
Urinals	157	141
Faucets	60	18

The primary objectives of Phase II of the proposed project are:

1. To offer cost-effective financial incentives for water efficient plumbing equipment upgrades and improvements on the UCI campus, and
2. To coordinate with UCI staff to be the first University of California campus to utilize the University's Strategic Energy Partnership (SEP) as a funding mechanism for water projects.

The SEP provides a model funding mechanism for efficiency improvement projects. Through the SEP, the UC system has an incentive agreement with the electric and gas utilities that has resulted in the development of financially viable projects with significant gas and electricity savings. The Partnership enables UCI to use bonds to finance energy projects that receive incentives and meet minimum payback criteria. The bonds are repaid using savings from the associated project that otherwise would have been part of the utilities budget. The partnership with IRWD and water efficiency funding will enable UCI to meet the payback criteria threshold to qualify for the SEP funding.

Proposed Budget:

Staff is proposing that IRWD provide \$60,400 in existing tactical incentive funding, plus a supplemental funding amount not to exceed \$78,600 for cost effective upgrades. IRWD's total proposed combined contribution is \$139,000. This is equivalent to 37% of IRWD's total estimated lifetime avoided cost of \$381,936 as shown in Table 2.

Table 2: Proposed IRWD Incentive Funding

IRWD Total Avoided Cost	IRWD Existing Tactical Incentive Funding	IRWD Proposed Supplemental Funding	IRWD Proposed Total Funding
\$381,936	\$60,400	\$78,600	\$139,000

UCI will be contributing approximately \$470,200 in combined materials and labor costs. UCI will also use rebate funding from Metropolitan Water District's Save a Buck regional rebate program in the total amount of \$53,750 based on the present device funding levels. Table 3 shows the total project cost and funding contribution from each funding source.

Table 3: Project Costs and Funding

Total Project Cost	IRWD Funding	MWD Funding	UCI Cost
\$662,950	\$139,000	\$53,750	\$470,200

FISCAL IMPACTS:

The FY 2011-12 Operating Budget would be increased by \$78,600 from undesignated over-allocation revenues for the UCI Campus Plumbing Retrofit Phase II. The \$60,400 in Tactical Incentive funding that would also be allocated to this project is already included in the Operating Budget.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed at the Water Resources Policy and Communications meeting on December 5, 2011.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO ENTER INTO AN AGREEMENT WITH UNIVERSITY OF CALIFORNIA, IRVINE (UCI) TO PROVIDE \$139,000 FROM A COMBINATION OF TACTICAL INCENTIVE AND SUPPLEMENTAL FUNDING FOR WATER USE EFFICIENCY UPGRADES; DIRECT STAFF TO DEVELOP AND IMPLEMENT THE UCI CAMPUS PLUMBING RETROFIT PROGRAM PHASE II; AND AUTHORIZE AN INCREASE OF \$78,600 TO THE FY 2011-12 OPERATING BUDGET FROM UNDESIGNATED OVER-ALLOCATION REVENUES TO FUND THE PROGRAM.

LIST OF EXHIBITS:

Exhibit "A" – IRWD and UCI Incentive Program Participation Agreement

EXHIBIT "A"

**AGREEMENT
IRVINE RANCH WATER DISTRICT
UNIVERSITY OF CALIFORNIA IRVINE
INCENTIVE PROGRAM PARTICIPATION
(PHASE II)**

THIS AGREEMENT ("Agreement") is entered into as of this __ day of _____, 20__, by and between the UNIVERSITY OF CALIFORNIA IRVINE ("UCI") and the IRVINE RANCH WATER DISTRICT, a California water district ("IRWD").

RECITALS:

WHEREAS, water use efficiency can be improved by the replacement of older high-water using plumbing fixtures with low-water using plumbing fixtures; and

WHEREAS, inefficient or outdated equipment can result in the unnecessary consumption of water; and

WHEREAS, IRWD has initiated a program (the "Program") that will provide a supplemental financial incentive to UCI for the retrofit of older inefficient plumbing fixtures with new efficient plumbing fixtures to upgrade the efficiency of their campus water use; and

WHEREAS, UCI and IRWD entered into an agreement, dated as of May 2, 2011, to complete the first phase of the Program, and now desire to proceed with the second phase of the Program (the "Phase II Program")

WHEREAS, UCI has been approved by IRWD for receipt of the Phase II Program funding, and IRWD and UCI would mutually benefit from the improvement and upgrading of UCI's water use efficiency; and

WHEREAS, UCI desires to participate in the Phase II Program in accordance with the terms and conditions of this Agreement.

NOW, THEREFORE, UCI AND IRWD MUTUALLY AGREE AS FOLLOWS:

1. Water Use Efficiency Retrofit on Campus:

1.1 In the Phase II Program, UCI shall retrofit the campus with up to a total of 447 High Efficiency toilets (1.28 gallons per flush or less) (“HETs”), 157 High Efficiency urinals (0.5 gallons per flush or less) (“HEUs”), and 60 faucets (collectively, the Phase II Program faucets, HETs and HEUs are referred to as the “Retrofits”). UCI shall replace toilets that have a current flush volume greater than 1.6 gallons with HETs, urinals that have a current flush volume greater than 1.0 gallons with HEUs, and faucets that have flow rates higher than 1.5 gallons per minute with water efficient faucets. UCI shall retain and pay all UCI staff, vendors and contractors for all Retrofits, and no UCI staff, vendors or contractors will be retained or paid by IRWD or receive any incentive payments or rights under this Agreement.

1.2 Upon installation and verification of the Retrofits, payment of the supplemental funding shall be released to UCI. UCI shall provide IRWD with verification and approval of the installation of the Retrofits and the costs thereof (“Verified Cost”), in the form of visual inspections, rebate applications, original receipts, contractor invoices and appropriate backup documentation deemed sufficient by IRWD to permit IRWD’s verification of the installation and payment of costs.

1.3 UCI, upon reasonable prior notice, shall allow access to all areas of the campus to IRWD or its designee for the purposes of verifying the installations of the Retrofits. While on the Property, IRWD representatives will comply with all safety and security requirements identified by UCI to IRWD.

2. Incentive Credits:

2.1 Each Retrofit verified as complete by IRWD will receive IRWD financial incentives for the Verified Costs of the completed Retrofit in the form of a check payable to the account holder. Payment will not be issued until the Retrofit has been verified as complete by IRWD.

2.2 The total Phase II Program funding is limited to \$169 per HET Retrofit, \$360 per HEU Retrofit, \$100 per faucet Retrofit, and a total of \$78,600, for up to a total of 447 HET, 157 HEU and 60 faucet Retrofits. UCI may qualify for a portion of the Retrofit funding through regional rebate programs. IRWD regularly contributes funding to the Metropolitan Water

District of Southern California ("MWD") regional rebate program at a rate of \$100 per HET, and \$100 per HEU. Any IRWD rebate funding obtained for a Retrofit by UCI through the MWD HET or HEU rebate program will be subtracted from the total available Phase II Program funding for such Retrofit under this Agreement. The IRWD individual Retrofit funding level shall not exceed \$169 per HET Retrofit, \$360 per HEU Retrofit, or \$100 per faucet Retrofit and will at no time exceed the total cost incurred by UCI for Retrofits.

2.3 IRWD makes no representation or warranty regarding any Retrofit or any component device, equipment, repair, improvement or installation, and will have no responsibility for the performance, operation, suitability for intended use, maintenance or repair of any Retrofit or any component device, equipment, repair, improvement or installation, or for any design, manufacturing or other defect in any Retrofit or any component device, equipment, repair, improvement or installation, or for any damage or injury resulting therefrom. It will be UCI's responsibility to contact the product manufacturer, distributor or installer for any assistance or regarding any defect, failure of performance or warranty. UCI waives, releases IRWD, its officers, agents and employees from, and agrees to indemnify, defend and hold IRWD, its officers, agents and employees harmless from, any and all claims and causes of action arising out of the purchase, installation or use of the Retrofit or any component device, equipment, repair, improvement or installation.

3. Term:

3.1 The term of this Agreement is from December 15, 2011 through December 31, 2012. All installations of Retrofits must be completed by the end of this term. Final verification and Phase II Program payment may extend beyond this term provided the installations of Retrofits have been completed.

IN WITNESS WHEREOF, each party hereto has executed this Agreement by its duly authorized representative(s) as of the Effective Date.

December 12, 2011

Prepared By: A. McNulty/F. Sanchez

Submitted by: G. Heiertz

Approved by: Paul Cook

CONSENT CALENDAR

UNIVERSITY OF CALIFORNIA, IRVINE STUDENT HOUSING AMENDMENT TO WATER USE EFFICIENCY PILOT PROGRAM

SUMMARY:

In July 2011, the Board approved the University of California Student Housing Water Use Efficiency Pilot Program. The pilot program is designed to upgrade toilets, showerheads and faucets with the latest high-efficiency devices manufactured by Niagara Conservation. UCI Student Housing, in partnership with IRWD and Niagara Conservation, has successfully retrofitted two of the three housing complexes participating in the pilot. The third housing complex, Arroyo Vista, has withdrawn from the pilot. A replacement complex, Verano Place, has been identified that will yield greater water savings than Arroyo Vista due to it having older fixtures. Verano Place has 30 additional fixtures than Arroyo Vista, and therefore would increase the project cost by \$6,000. Staff is recommending that the Board approve an amendment to the agreement with UCI Student Housing, included as Exhibit "A", to replace the original complex with Verano Place, and approve an increase of \$6,000 to the FY 2011-12 Operating Budget for this project. The amended project is estimated to yield an additional 11.6 additional acre feet in lifetime water savings, with a lifetime avoided cost for just the 30 additional units of \$45,463, making this a very cost-effective program.

BACKGROUND:

UCI is the District's single largest customer, and IRWD has been actively partnering with both campus facilities and student housing on water efficiency programs. Under the original pilot program, Niagara Conservation was going to retrofit 270 toilets, showerheads and aerators at the Arroyo Vista housing complex with high efficiency devices. Arroyo Vista withdrew due to some concerns with the existing plumbing configuration. In conjunction with UCI staff, an alternative site was identified. The Verano Place student housing complex has a significant portion of buildings which still have older 3.5 gallon per flush toilets installed. Since Arroyo Vista complex is equipped with 1.6 gallon per flush toilets the proposed change to Verano Place significantly increases the estimated water savings for the project. If approved by the Board, UCI Student Housing proposes implementing the project with Niagara Conservation over the winter break. Verano Place has 30 more units for replacement than Arroyo Vista, which would require an additional \$6,000 in funding. The estimated avoided cost to IRWD associated with the additional \$6,000 in funding is \$45,463, making this very cost-effective. A summary of the original and amended project is shown below in Table 1.

Table 1. Original and Amended Project Summary Information

	Original Project	Amended Project	Difference
Student Housing Complex	Arroyo Vista	Verano Place	
Quantity of Fixtures	270	300	30
Lifetime Water Savings	20.9 AF	29.8 AF	11.6 AF
Total Project Cost	\$111,600	\$117,600	\$6,000
IRWD Total Avoided Cost	\$318,995	\$364,458	\$45,463

FISCAL IMPACTS:

The FY 2011-12 Operating Budget would be increased by \$6,000 for cost-effective water use efficiency upgrades, using undesignated over-allocation revenue.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed at the Water Resources Policy and Communications meeting on December 5, 2011.

RECOMMENDATION:

That the Board authorize the General Manager to execute an Amended Agreement with University of California, Irvine and Niagara Conservation to remove the specification to conduct the program at Arroyo Vista housing complex, increase the total number of installations by 30 additional high efficiency toilets, showerheads and faucet aerators, and authorize the increase of \$6,000 to the FY 2011-12 Operating Budget from undesignated over-allocation revenues.

LIST OF EXHIBITS:

Exhibit "A" –Amended Agreement with UCI Student Housing and Niagara Conservation

EXHIBIT "A"

**AMENDMENT NO. 1
TO
AGREEMENT AMONG
IRVINE RANCH WATER DISTRICT,
UNIVERSITY OF CALIFORNIA, IRVINE,
AND NIAGARA CONSERVATION
FOR
STUDENT HOUSING HIGH-EFFICIENCY PLUMBING
FIXTURE DIRECT-INSTALL PROGRAM PARTICIPATION**

This AMENDMENT NO. 1 TO AGREEMENT FOR STUDENT HOUSING HIGH-EFFICIENCY PLUMBING FIXTURE DIRECT-INSTALL PROGRAM PARTICIPATION (this "Agreement") is made and entered into this _____ day of _____, 2011, by and among IRVINE RANCH WATER DISTRICT, a California Water District formed and existing pursuant to the California Water District Law, hereinafter referred to as "IRWD," the UNIVERSITY OF CALIFORNIA, IRVINE, hereinafter referred to as "UCI or University" and NIAGARA CONSERVATION CORPORATION, a New Jersey corporation, hereinafter referred to as "NIAGARA."

WITNESSETH

WHEREAS, IRWD, UCI and NIAGARA have entered into that certain "Agreement for Student Housing High-Efficiency Plumbing Fixture Direct-Install Program Participation," dated August 8, 2011 (the "Agreement"), providing for the implementation of the Project, as defined therein, to conduct a pilot study and evaluation of the water conservation savings associated with the installation of high-efficiency fixtures at selected Student Housing Units;

WHEREAS, the Parties desire to amend the Agreement to modify the locations and quantities of Retrofit Devices to be installed in the Project.

NOW, THEREFORE, IRWD, UCI and NIAGARA agree as follows:

1. In Section I.A of the Agreement, entitled "Location," the list of locations of the Student Housing Units is modified by deleting "Arroyo Vista Group Housing: 270 Fixtures in 35 buildings" and replacing it with the following:

"Verano Place Group Housing and/or other student housing location(s) as determined herein: 300 Fixtures"

2. Within the specified limits of Fixtures, the Parties' representatives may further mutually modify the designated Student Housing Unit location(s) specified in Section I.A of the Agreement as amended in Section 1 hereof, without the need for a further amendment to the Agreement, provided the toilet fixtures to be replaced shall be 1.6 gallon per flush or greater and the substitute location(s) shall otherwise be determined by IRWD to be suitable for the purposes of the Project following a pre-inspection by IRWD.

3. As modified in this Amendment, the Agreement shall remain in effect.

4. Execution.

UNIVERSITY OF CALIFORNIA, IRVINE

By: _____

IRVINE RANCH WATER DISTRICT

By: _____
Paul Cook, General Manager

NIAGARA CONSERVATION

By: _____
Gerald Thain, Chief Financial Officer

December 12, 2011
Prepared by: C. Kessler/P. Weghorst
Submitted by: G. Heiertz
Approved by: Paul Cook

CONSENT CALENDAR

SANTIAGO CANYON AREA BOOSTER PUMP STATION PERMANENT GENERATORS PROJECT FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

SUMMARY:

Irvine Ranch Water District (IRWD) is proposing the replacement of portable generators at five booster pump station sites in the Santiago Canyon Area (Project). The Project will improve the reliability of the water system in the area during power outages, particularly when the outages are caused by fires in the canyons. Staff recommends that the Board adopt the Findings related to the Project, adopt the Final Initial Study/Mitigated Negative Declaration (IS/MND) for the Project and approve the Project .

BACKGROUND:

In October 2007, the Santiago Fire burned through IRWD's Santiago Canyon service area located in unincorporated portions of Orange County, threatening homes, businesses and the IRWD reservoirs and booster pump stations (BPS) in the area. Water pressure in this area is maintained by facilities at five BPS sites. Continuous operation of these pump stations during a fire is vital to firefighting operations.

Three of the IRWD BPS sites (Fleming, Shaw, and Read) are located along Silverado Canyon Road, which runs east from Santiago Canyon Road. The fourth site (Williams) is located along Williams Canyon Road, which also runs east from Santiago Canyon Road and is approximately one mile south of Silverado Canyon Road. The fifth site (Manning) is located along Modjeska Canyon Road, which runs southeast off of Santiago Canyon Road and is approximately one mile south of Williams Canyon Road.

IRWD is proposing replacement of portable generators at each of the five BPS sites for the purpose of improving the reliability of the water system during power outages, particularly when the outages are caused by fires in the canyons. The portable generators will be replaced with permanent electrical emergency generators with each site to be equipped with a diesel engine and integral 24-hour fuel storage. Four of the five permanent generators would be contained within a concrete masonry unit (CMU) block wall for protection against fires.

The Manning BPS is located within an easement on Unites States Forestry Service (USFS) land and requires the USFS to issue an amended permit that will allow IRWD to operate the permanent generator. Issuance or amendment of USFS permits is subject to NEPA review. The USFS is acting as lead agency for the NEPA review process and is preparing appropriate environmental documentation for the Manning BPS Site portion of the project. Construction at the Manning BPS will not occur until the USFS permit is issued.

A draft IS/MND was circulated pursuant to the California Environmental Quality Act (CEQA) and four comment letters were received. The draft IS/MND was modified where necessary to accommodate the comments and the final document is attached as Exhibit "A". Findings in regard to the adoption of the Final MND are provided as Exhibit "B". Staff recommends that the Board adopt these findings, adopt the MND and approve the Project.

The location and custodian of the documents or other material which constitute the record of proceedings upon which the proposed decision is based are at Irvine Ranch Water District, 15600 Sand Canyon Avenue, Irvine, CA 92618, Attn: Leslie Bonkowski.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the CEQA and in conformance with California Code of Regulations Title 14, Chapter 3, Article 6, a Notice of Intent to adopt a Mitigated Negative Declaration was filed with the County of Orange on November 2, 2011. Pursuant to State Guideline § 15073, the IS/MND was made available for public review for a period of 30 days beginning November 2, 2011 and concluded December 1, 2011. A final IS/MND has been prepared.

The Manning BPS site requires an amended permit from the USFS for the operation of the permanent generators. Issuance or amendment of USFS permit is subject to NEPA review. USFS is performing the NEPA review which is anticipated to be completed in February 2012. Construction of facilities at the Manning BPS site will not occur until the USFS permit is issued.

COMMITTEE STATUS:

This item has not been reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FINDINGS OF THE FINAL NEGATIVE DECLARATION FOR THE SANTIAGO CANYON AREA BOOSTER PUMP STATION PERMANENT GENERATORS PROJECT, ADOPT THE PROPOSED FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION; APPROVE THE PROJECT; DIRECT STAFF TO POST AND FILE A NOTICE OF DETERMINATION; AND SUBMIT PAYMENT FOR THE DEPARTMENT OF FISH AND GAME FILING FEE.

LIST OF EXHIBITS:

- Exhibit "A" – Santiago Canyon Area Booster Pump Station Permanent Generators Project Final Initial Study/Mitigated Negative Declaration
- Exhibit "B" – Findings in Regard to the Adoption of the Final Initial Study/Mitigated Negative Declaration for the Santiago Canyon Area Booster Pump Station Permanent Generators Project.

FINAL
INITIAL STUDY/MITIGATED NEGATIVE
DECLARATION

SANTIAGO CANYON AREA BOOSTER PUMP STATION
PERMANENT GENERATORS PROJECT

LSA

December 2011

FINAL
INITIAL STUDY/MITIGATED NEGATIVE
DECLARATION

SANTIAGO CANYON AREA BOOSTER PUMP STATION
PERMANENT GENERATORS PROJECT

Submitted to:

Christian Kessler
Water Resources and Environmental Compliance
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92618
(949) 453-5300

Prepared by:

LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, California 92614-4731
(949) 553-0666

LSA

December 2011

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1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

In accordance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, this Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared as environmental documentation for the proposed Santiago Canyon Area Booster Pump Station (BPS) Permanent Generators Project (Proposed Project) located in the Santiago Canyon area of unincorporated County of Orange (County). This IS/MND includes a description of the Proposed Project, the location of the project site, evaluation of the potential environmental impacts, findings from the environmental review, and proposed mitigation measures to lessen or avoid potentially significant adverse impacts to the environment.

This IS/MND analyzes the environmental effects of the Proposed Project, including related infrastructure improvements. The Proposed Project would replace the existing portable generators at each of the BPS sites with permanent electrical emergency generators set with a diesel engine and integral 24-hour fuel storage set on a concrete pad. A full project description is provided in Section 2.3.

The purpose of this analysis is to provide Irvine Ranch Water District (IRWD) with information to use as the basis for making an environmental determination regarding whether an Environmental Impact Report (EIR) or an MND is the appropriate CEQA documentation for the Proposed Project. An EIR must be prepared when the Lead Agency determines that there is substantial evidence that the Proposed Project, either individually or cumulatively, may cause a significant effect on the environment.

Section 15070 of the State CEQA Guidelines authorizes a Lead Agency to prepare an MND when:

- (a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or
- (b) The initial study identifies potentially significant effects, but:
 - (1) Revisions in the project plans or proposals made before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
 - (2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

Thus, where appropriate mitigation measures are incorporated to reduce potentially significant effects to a level of insignificance, the Lead Agency may prepare and adopt an MND.

In accordance with Sections 15050 and 15367 of the State CEQA guidelines, IRWD is the designated Lead Agency, has principal authority and jurisdiction over all land use entitlements, and is responsible for adoption and/or certification of the environmental documentation.

1.2 FINDINGS OF THIS INITIAL STUDY

Pursuant to CEQA and the State CEQA Guidelines, this IS/MND has been prepared to determine whether implementation of the proposed improvements will result in significant environmental impacts that would require mitigation or preparation of an EIR if significant impacts cannot be avoided. The analysis contained in this IS/MND has found that the Proposed Project may have a significant effect on the environment unless mitigation is included to lessen or avoid the environmental effects of the Proposed Project. Mitigation measures have been identified in this IS/MND. With incorporation of these measures, potential environmental effects would be reduced to less than significant levels. Therefore, IRWD has determined that an MND is the appropriate environmental documentation for the Proposed Project.

This IS/MND is based on an Environmental Checklist Form (Form), as suggested in Section 15063 (d)(3) of the State CEQA Guidelines. The completed Form is found in Section 3.0 of this IS/MND. Section 4.0 provides an explanation for each answer indicated on the Form. The Form and the accompanying evaluation provide the information and analysis upon which IRWD has made its determination that an MND is the appropriate CEQA document for the Proposed Project. The Form is used to review the potential environmental effects of the Proposed Project for each of the following areas:

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

1.3 EXISTING DOCUMENTS INCORPORATED BY REFERENCE

Section 15150 of the State CEQA Guidelines permits an environmental document to incorporate by reference other documents that provide relevant data. The documents outlined in this section are hereby incorporated by reference, and the pertinent material contained therein is summarized throughout this IS/MND where that information is relevant to the environmental setting and analysis

of potential impacts resulting from the Proposed Project. Any document incorporated by reference is available for review at IRWD (address and contact information is provided in Section 1.4). The following was used as a source document in preparing the responses to the Form in Section 4.0; the reference number indicated below has been incorporated into the text:

1. Irvine Ranch Water District, Preliminary Design Report for Santiago Canyon Area Booster Pump Station Permanent Generators Project, Psomas, May 2011.

1.4 REVIEW OF THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

The IS/MND has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as any other parties requesting a copy of the environmental document pursuant to Public Resources Code (PRC) Section 21092.

IRWD has circulated the IS/MND through the State of California Department of Governor's Office of Planning and Research (OPR), although this is not a requirement pursuant to CEQA. Environmental comments and their responses are included as part of the environmental record for consideration by the decision-makers for the Proposed Project. During the 30-day public review period, the Draft IS/MND is available for review at the following locations:

- Irvine Ranch Water District
Water Resources and Environmental Compliance
15600 Sand Canyon Avenue
Irvine, California 92618
- IRWD web page: <http://www.irwd.com/environment/ceqa.html>.

Written or electronic comments on the IS/MND should be addressed to the IRWD contact listed in Section 1.5.

1.5 PROJECT CONTACT PERSONS

IRWD is the Lead Agency for preparation of this IS/MND. All inquiries regarding the IS/MND should be directed to IRWD as follows:

Lead Agency: **Irvine Ranch Water District**
Water Resources and Environmental Compliance
Christian Kessler
15600 Sand Canyon Avenue
Irvine, California 92618
(949) 453-5441
kessler@irwd.com

2.0 PROJECT DESCRIPTION

2.1 EXISTING SETTING

The Proposed Project site is located within the Santiago Canyon-Modjeska Canyon area within an unincorporated portion of the County. The Proposed Project site is located within five separate IRWD BPS sites. Three of the BPS sites (Fleming BPS, Shaw BPS, and Read BPS) are along Silverado Canyon Road, which runs east from Santiago Canyon Road. The fourth site (Williams BPS) is located along Williams Canyon Road, which also runs east from Santiago Canyon Road and is approximately 1 mile (mi) south of Silverado Canyon Road. The fifth site (Manning BPS) is located along Modjeska Canyon Road, which runs southeast off of Santiago Canyon Road and is approximately 1 mi south of Williams Canyon Road. The Project Location Map (refer to Figure 2.1) identifies each of the five BPS locations.

Santiago Canyon Road is generally a two-way highway (one northbound lane and one southbound lane) from Jamboree Road to Live Oak Canyon Road and is designated as a viewscape corridor in the County's General Plan Circulation Element. Silverado Canyon Road, Williams Canyon Road, and Modjeska Canyon Road primarily serve the rural residential communities within these canyons. The BPS sites are primarily located within rural residential land uses, including small ranches. However, the BPS project sites are within developed portions of the general project area.

A summary of each of the project site settings is discussed below:

- **Fleming BPS:** The Fleming BPS is located on Prairie Road between Santiago Canyon Road and Silverado Canyon Road at approximately 1,030 feet (ft) above mean sea level (amsl). The Fleming site is fully developed and within a fenced facility with little to no vegetation on site. There are no nearby or adjacent sensitive receptors.
- **Shaw BPS:** The Shaw BPS is located within an 18 x 20 ft fenced site set approximately 2 ft back from Silverado Canyon Road and 10 ft north of an existing retaining wall along Silverado Creek at approximately 1,305 ft amsl. The site is a pavement and gravel surface within an existing chain-link fence, and is surrounded on all sides by residential sensitive receptors.
- **Read BPS:** The Read BPS is located within an 18 x 22 ft fenced area on the IRWD Read Reservoir property south of Silverado Creek at approximately 1,615 ft amsl. The site is a pavement and gravel surface and is near residential sensitive receptors.
- **Williams BPS:** The Williams BPS is located within a fenced area adjacent to Williams Canyon Road near the beginning of the access road to Williams Canyon Reservoir at approximately 1,272 ft amsl. Silverado Creek is located south of the project site. The site is within a chain link fence area with paved and dirt surface. There are no adjacent or nearby sensitive receptors within 100 ft of the site.
- **Manning BPS:** The Manning BPS is located in a triangular-shaped fenced area near Modjeska Canyon Road at approximately 1,245 ft amsl. The BPS site also houses the Water Treatment Plant, so space is limited at this site.

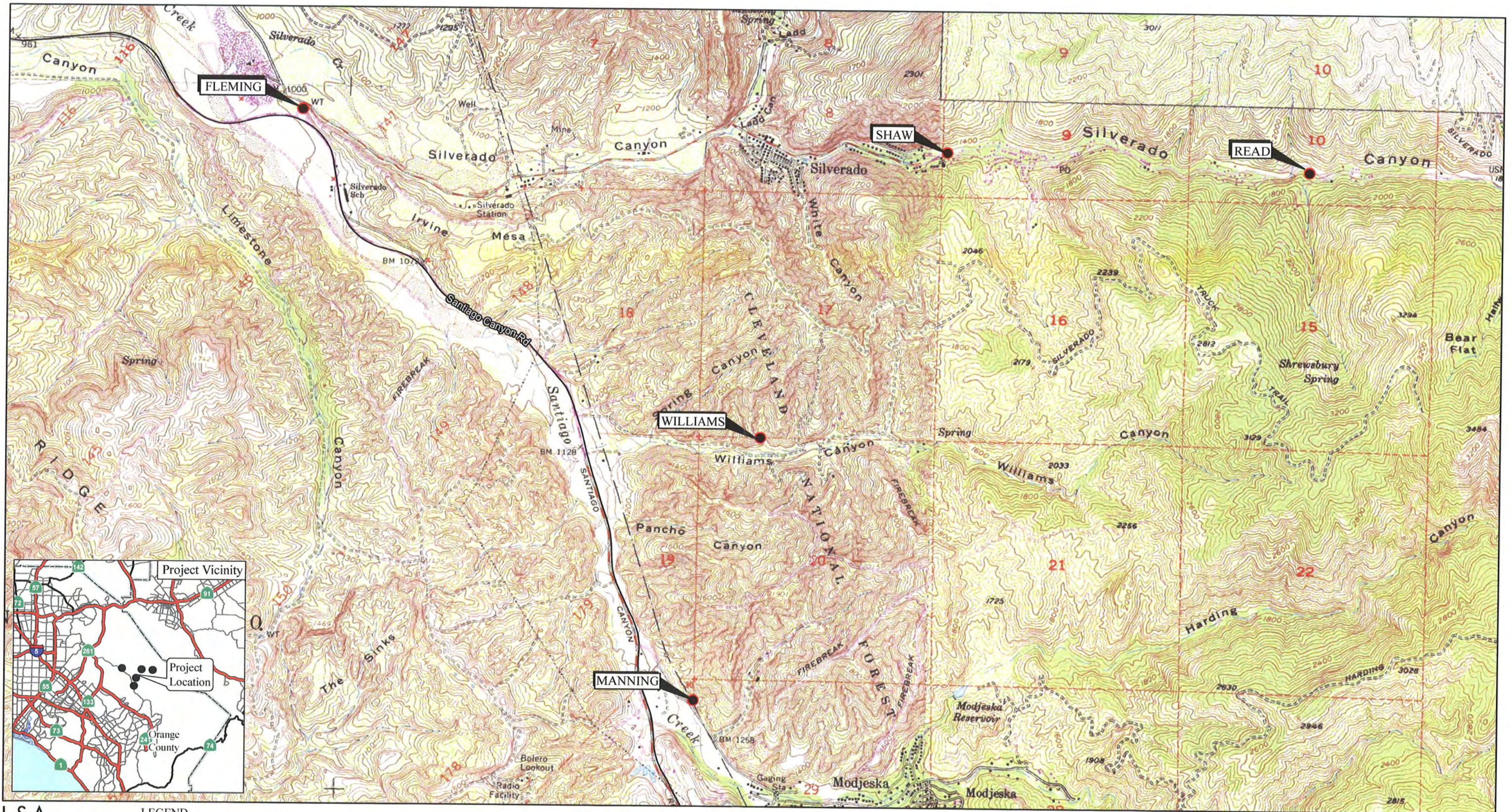


FIGURE 2.1

LSA

LEGEND

● IRWD Booster Pump Stations



0 1000 2000
FEET

SOURCE: USGS 7.5' QUAD - EL TORO ('82)

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Santiago Canyon Area
BPS Permanent Generators Project
Project Location Map

The site is largely developed on paved surfaces; however, there is existing natural vegetation and an oak tree located at the northern project limits. Residential sensitive receptors are located in the vicinity, west and south of the site across Modjeska Canyon Road.

2.2 BACKGROUND INFORMATION

In October 2007, the Santiago Fire burned through IRWD's Santiago Canyon service area, threatening homes, businesses, and the IRWD reservoirs and BPSs in the region. Water pressure in this area is maintained by five BPSs. Continuous operation of these pump stations during a fire is vital to firefighting operations. The name, location, and existing pump motor size of each of the five BPSs are listed in Table 2.A. During the Santiago Fire, power outages were experienced at each of the pump stations, requiring the installation of portable emergency generators at each site. However, these temporary generators are also susceptible to damage by wildfires and are not permitted for permanent installation.

Table 2.A: Existing BPSs in Santiago Canyon Service Area

Booster Pump Station	Location	Pump Motor Size and Quantity
Fleming	74341 Silverado Canyon Road	Two 60 hp pumps
Shaw	28934 Silverado Canyon Road	Two 25 hp pumps
Read	30500 Silverado Canyon Road	Two 25 hp pumps
Williams	27600 Williams Canyon Road	One 60 hp and two 30 hp pumps
Manning	27989 Modjeska Canyon Road	Two 50 hp pumps

hp = horsepower

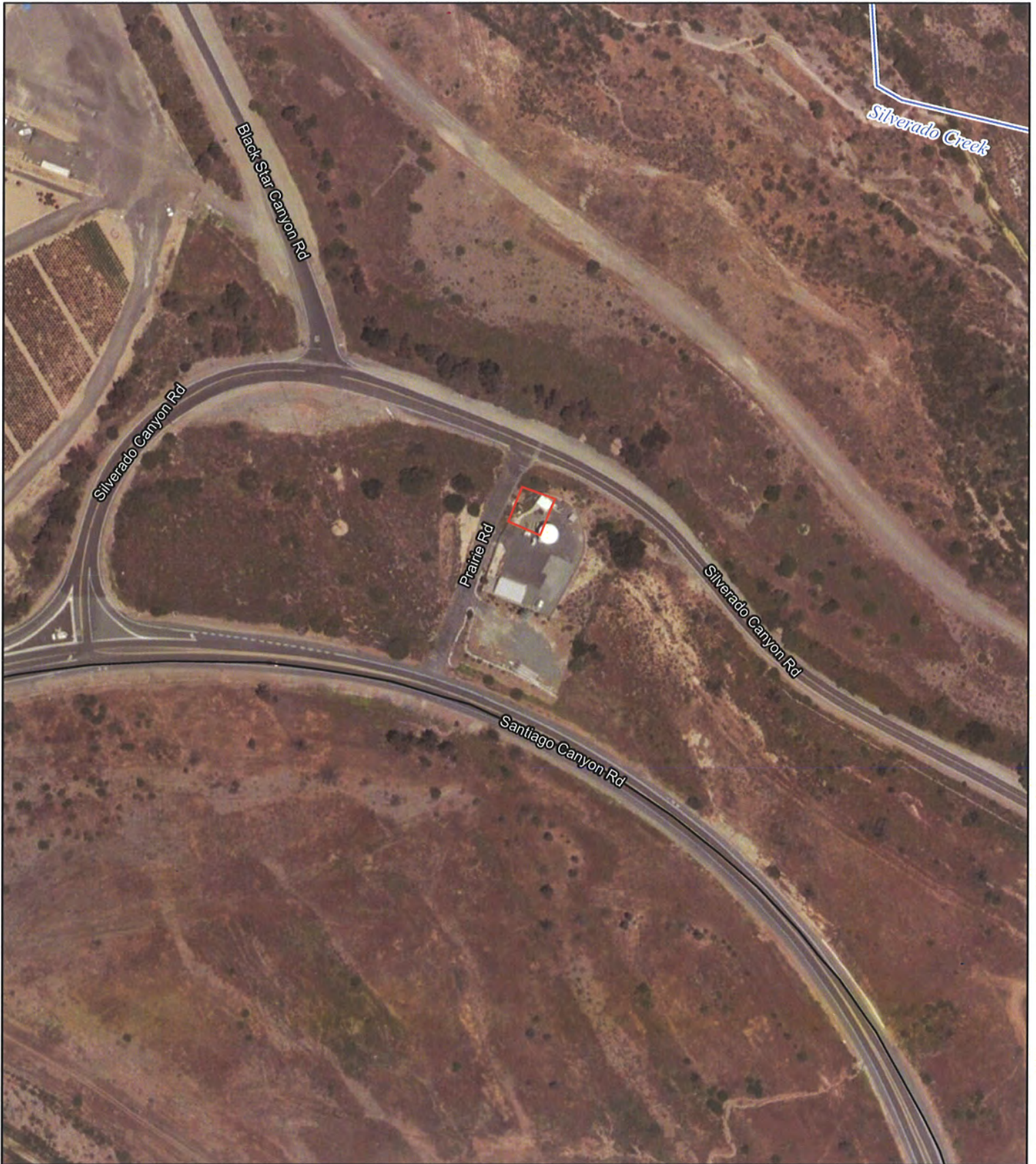
2.3 PROPOSED PROJECT

IRWD is proposing replacement of the portable generators at each of the five BPS sites identified to improve the reliability of the water system during power outages, particularly when the outages are caused by fires in the canyons. This Proposed Project would replace the portable generators at each of the sites with permanent electrical emergency generators, each set with a diesel engine and integral 24-hour fuel storage on a concrete pad. Four of the five permanent generators would be contained within a concrete masonry unit (CMU) block wall for protection against fires. Each of the BPSs and the proposed improvements are listed in further detail below.

Construction is anticipated to be phased to allow work at no more than two sites at any given time in order to minimize disruption to local residents and avoid extended work stoppages at any individual site.

2.3.1 Fleming Booster Pump Station

The Fleming BPS is located on Prairie Road between Santiago Canyon Road and Silverado Canyon Road at approximately 1,030 ft amsl (refer to Figures 2.2 and 2.3). This 0.5-acre (ac) site is unique compared to the other four sites, due to its size and the availability of space for new construction. This site can easily accommodate a permanent emergency generator.



LSA

LEGEND

- Project Site
- Creeks



SOURCE: Bing 2010

I:\RW0901P6\GIS\Fleming.mxd (9/21/2011)

FIGURE 2.2

Santiago Canyon Area
BPS Permanent Generators Project
Fleming Booster Pump Station Vicinity Map



FIGURE 2.3

LSA

LEGEND

Fleming Booster Pump Station Project Site

- Electric
- Electric Underground
- Generator
- Generator Pad



SOURCE: Bing 2010

F:\IRW0901P6\GIS\Fleming_Improvements.mxd (9/21/2011)

*Santiago Canyon Area
BPS Permanent Generators Project*

Fleming Booster Pump Station
Existing and Proposed Site Improvements

Existing facilities at the Fleming BPS site include the following:

- Two 60-horsepower (hp) pumps with aboveground piping, valves, and appurtenances
- Electrical and control panels with electrical service, switchgear, and Supervisory Control and Data Acquisition (SCADA) equipment
- Trailer-mounted portable generator
- Trailer-mounted emergency pump
- Office building
- Maintenance storage buildings
- Cellular telephone tower and switchgear
- Chain-link fence and gates around site perimeter

The following are proposed improvements at this site:

- Permanent electrical emergency generator (150 kilowatts [kW] to power two 60 hp water pumps on 480-volt [V] service) with a diesel engine and integral 24-hour fuel storage set on a concrete pad
- One automatic transfer switch with electrical connections to facilitate the powering of two existing 60 hp pumps from a permanent electric generator
- Triple switch and camlock connector
- Site improvements including pavement and gravel restoration

Access, Property Issues, Easements. The Fleming BPS is located on IRWD-owned property. Construction access, as well as future IRWD maintenance access, is available through an existing chain-link swing gate fronting a paved access road between Silverado Canyon Road and Santiago Canyon Road. The existing access gate and driveway pavement would not be disturbed. Work can be performed within the limits of the existing property without obtaining easements or additional real property.

Site Layout and Improvements. The pump station site is mostly paved with descending slopes along the perimeter to the north and south and an ascending slope to the east. The project would construct and install a permanent emergency electrical generator set on a concrete pad. The recommended location is relatively close to the existing electrical panel, providing a shorter run of conduit compared to other on-site alternative locations considered.

Security Requirements and Fencing. The Fleming BPS is located within an existing chain-link gate. No additional security improvements are needed or proposed for this facility.

Setback Requirements. The generator pad would be located in an open area providing a minimum 4 ft clearance for access on all sides to open panels on the weatherproof enclosure for maintenance and repair. Access for fueling would be provided.

Drainage. The existing runoff pattern would not be changed. The runoff quantity or discharge rate is not expected to increase. The new generator pad would be surrounded by gravel surface.

Construction. Miscellaneous site demolition including removal of decorative wishing well, and utility relocations would be required for construction of the generator pad and conduits. No excavation greater than 5 ft deep is anticipated. Proposed construction staging areas are shown in Figure 2.3. Construction is anticipated to occur in January 2012 and be complete, including site stabilization, within 8 weeks.

Traffic Control. Work at this site would not require traffic control.

2.3.2 Shaw Booster Pump Station

The Shaw BPS is located within an 18 x 20 ft fenced site set approximately 2 ft back from Silverado Canyon Road and 10 ft north of an existing retaining wall along Silverado Creek at approximately 1,305 ft amsl (Figures 2.4 and 2.5).

Existing facilities at the Shaw BPS site include the following:

- Two 25 hp pumps with aboveground piping, valves, and appurtenances
- Electrical and control panels with electrical service, switchgear, and SCADA equipment
- Power pole with overhead power at site
- Chain-link security fence

The following are proposed improvements at this site:

- Permanent electrical emergency generator (100 kW to power two 25 hp water pumps on 480V service) with a diesel engine and integral 24-hour fuel storage set on a concrete pad
- New electrical service meter pedestal and switchgear equipment and cabinets, including all new buried conduits with conductors
- One automatic transfer switch with electrical connections to facilitate the powering of two existing 25 hp pumps from a permanent electric generator
- Triple switch and camlock connector
- Site improvements including a masonry wall, chain-link fence with swing gate, and asphalt concrete (AC) paving in front of the access gate



FIGURE 2.4

LSA

LEGEND

-  Project Site
-  Creeks



SOURCE: Bing 2010

I:\MRW0901P6\GIS\Shaw.mxd (9/21/2011)

Santiago Canyon Area
BPS Permanent Generators Project
 Shaw Booster Pump Station Vicinity Map



LSA

LEGEND

- | | |
|--|---------------------------|
| Shaw Booster Pump Station Project Site | — Site Wall Footing |
| — Electric | — Site Fence |
| — Generator | — Site Gate |
| — Generator Pad | — Contractor Staging Area |
| — Site Wall | — Water Equipment |

* The site boundary is an approximate location based on available information provided by Psomas.



SOURCE: Bing 2010

I:\IRW0901P6\GIS\Shaw_Improvements.mxd (9/21/2011)

FIGURE 2.5

*Santiago Canyon Area
BPS Permanent Generators Project*

Shaw Booster Pump Station
Existing and Proposed Site Improvements

Access, Property Issues, Easements. The Shaw BPS is located partially on IRWD-owned property and partially in County roadway right-of-way along Silverado Canyon Road. All-weather access is available from the County road and gravel access around the pump station. Work would be required inside County right-of-way, requiring a County encroachment permit.

Site Layout and Improvements. The Shaw BPS site lies between Silverado Canyon Road and a retaining wall in Silverado Creek. The project would construct a permanent emergency electrical generator set on a concrete pad on the west side of the existing BPS in order to avoid overhead utility conflicts when installing or removing the generator by crane and provide better access for fueling, maintenance, and repair.

The proposed block screening wall is located approximately 2 ft from the existing Silverado Creek retaining wall. The retaining wall varies from approximately 4 ft high closest to the proposed block wall to 5 ft high across from the proposed new electrical cabinets. The foot of the existing concrete wall would be lowered to 2 ft below grade, thereby reducing the additional load on the existing retaining wall to near zero and providing a deepened footing in an area known to flood when Silverado Creek overtops the banks. There is an existing 8-inch (in) asbestos cement waterline supplying water to the suction side of the pump station. The generator foundation would be designed for a depth of 4 ft.

Security Requirements and Fencing. A new 8 ft high block wall along the south and east sides of the site would be constructed to protect the equipment from radiant heat during a brush fire. A chain-link fence and a 12 ft wide double-swing chain-link gate would be constructed on the north and west sides for security.

Setback Requirements. The existing chain-link fence has an approximately 2 ft setback from the Silverado Canyon Road edge of pavement. The proposed chain-link fence would be constructed approximately 2 additional ft from the edge of pavement. The generator pad would be located within the proposed block wall and fencing to provide a minimum 4 ft clearance for access on all sides in order to open panels on the weatherproof enclosure for maintenance and repair. Access for fueling would be provided.

Drainage. The existing runoff pattern would not be changed. The runoff quantity or discharge rate is not expected to measurably increase. The site is located in an area with gravel surfaces on all sides. The new generator pad would be surrounded by gravel surfaces.

Construction. The proposed improvements, including construction of the generator pad, electrical cabinets, block wall, and conduits would require minor demolition work comprising fence, gravel, and electrical panel removal. No excavation greater than 5 ft deep is anticipated. Proposed construction staging areas are shown in Figure 2.5. Construction is anticipated to occur in January/February 2012 and be complete, including site stabilization, within 8 weeks.

Traffic Control. Work at the site would require traffic control on Silverado Canyon Road.

2.3.3 Read Booster Pump Station

The Read BPS is located within an 18 x 22 ft fenced area on the IRWD Read Reservoir property, south of Silverado Creek at approximately 1,615 ft amsl (Figures 2.6 and 2.7). Existing facilities at the Read BPS site include the following:

- Two 25 hp pumps with aboveground piping, valves, and appurtenances
- Electrical and control panels with electrical service, switchgear, and SCADA equipment
- Trailer-mounted portable generator outside the existing pump station fencing
- Two power poles with overhead power at site
- Chain-link security fence

The following are proposed improvements at this site:

- Permanent electrical emergency generator (100 kW to power two 25 hp water pumps on 480V service) with a diesel engine and integral 24-hour fuel storage set on a concrete pad
- New electrical service meter pedestal and switchgear equipment and cabinets, including all new buried conduits with conductors
- One automatic transfer switch with electrical connections to facilitate the powering of two existing 25 hp pumps from a permanent electric generator
- Triple switch and camlock connector
- Site improvements, including a masonry wall and chain-link swing gate

Access, Property Issues, Easements. The Read BPS is located on IRWD-owned property at the Read Reservoir site. All-weather access is available from Silverado Canyon Road to a paved local road, to a paved reservoir access road. Work identified herein can be performed within the existing property limits without obtaining easements or additional real property.



Site Layout and Improvements. Two potential locations were considered to construct a permanent emergency electrical generator set on a concrete pad. The first option, installation of a new generator on the northeast side of the existing pump station, would be close to the pump station and out of the way in an area not otherwise required for access. Minimal brush clearing and grading would be required for constructing the generator in this location. The wall would be angled in the north corner to maintain separation from the top of the Silverado Creek embankment. A second option would place the permanent generator at approximately the same location as the existing trailer-mounted unit. Construction of the block wall would need to enclose the power pole and guy-wire. The first option on the northeast side of the existing pump station was chosen as the preferred alternative.



FIGURE 2.6

LSA

LEGEND

-  Project Site
-  Creeks



SOURCE: Bing 2010

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Santiago Canyon Area
 BPS Permanent Generators Project
 Read Booster Pump Station Vicinity Map



FIGURE 2.7

LSA

LEGEND

Read Booster Pump Station Project Site

- Electric
- Existing Electric
- Generator

- Generator Pad
- Portable Generator
- Site Wall
- Site Wall Footing

- Site Fence
- Site Gate
- Contractor Site
- Water Equipment



* The site boundary is an approximate location based on available information provided by Psomas.

SOURCE: Bing 2010

E:\RW0901P6\GIS\Read_Improvements.mxd (9/28/11)

Santiago Canyon Area
BPS Permanent Generators Project

Read Booster Pump Station
Existing and Proposed Site Improvements

Security Requirements and Fencing. A split-face block wall, approximately 100 ft long, would be constructed to replace the existing chain-link fence along the northwest side of the site, and to expand the site for the new generator. The existing chain-link fence near the electrical panels is approximately 4 to 6 ft from the top of slope above Silverado Creek. The north corner of the wall would be angled across the corner to maintain as much separation as possible between the new wall and the top of the slope. Enclosing the generator within the block wall perimeter would provide security and fire protection in the event of a brush fire. The overall length of the block wall would be approximately 100 linear feet. A 12 ft wide chain-link gate would provide access to the generator and pumps.

Setback Requirements. The generator pad would be located within the proposed block wall and fencing to provide a minimum 4 ft clearance for access on all sides to open panels on the weatherproof enclosure for maintenance and repair. Access for fueling would be provided.

Drainage. The existing runoff pattern would not be changed. The runoff quantity or discharge rate is not expected to measurably increase. The site is located in an area with AC pavement on two sides and dirt on the remaining two sides. The new generator pad would be surrounded by gravel surfaces.

Construction. The proposed improvements, including construction of the generator pad, electrical cabinets, block wall, and conduits would require minor demolition work comprising fence, gravel, and electrical panel removal. No excavation greater than 5 ft deep is anticipated. Proposed construction staging areas are shown in Figure 2.7. Construction is anticipated to occur in February/March 2012 and be complete, including site stabilization, within 8 weeks.

Traffic Control. Work at the site would not require traffic control.

2.3.4 Williams Booster Pump Station

The Williams BPS is located within a fenced area adjacent to Williams Canyon Road near the beginning of the access road to Williams Canyon Reservoir at approximately 1,272 ft amsl (Figures 2.8 and 2.9). IRWD owns a 60 ft wide ingress/egress easement for utility purposes and a 15 ft wide slope, grading, and drainage easement. The majority of the existing pump station lies within the utility easement with a sliver of the fence located within the slope and drainage easement.

Existing facilities at the Williams BPS site include the following:

- One 60 hp pump and two 30 hp pumps with aboveground piping, valves, and appurtenances
- Electrical and control panels with electrical service, switchgear, and SCADA equipment
- Trailer-mounted portable generator outside the existing pump station fencing
- Power pole with overhead power at site
- Chain-link security fence



FIGURE 2.8

LSA

LEGEND

-  Project Site
-  Creeks



SOURCE: Bing 2010

E:\IRW0901P6\GIS\Williams.mxd (9/21/2011)

Santiago Canyon Area
BPS Permanent Generators Project
Williams Booster Pump Station Vicinity Map



WILLIAMS CANYON RD

LSA

LEGEND

- | | | |
|--|--------------------|-------------------------|
| Williams Booster Pump Station Project Site | Portable Generator | Site Drain Pipe |
| Electric | Site Wall | Site Gate |
| Existing Electric | Site Wall Footing | Contractor Staging Area |
| Generator | Asphalt Parking | |
| Generator Pad | Site Drain | |



SOURCE: Bing 2010

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FIGURE 2.9

Santiago Canyon Area
 BPS Permanent Generators Project
 Williams Booster Pump Station
 Existing and Proposed Site Improvements

The following are proposed improvements at this site:

- Permanent electrical emergency generator (150 kW to power one 60 hp water pump and two 30 hp pumps on 480V service) with a diesel engine and integral 24- hour fuel storage set on a concrete pad
- One automatic transfer switch with electrical connections to facilitate the powering of one existing 60 hp pump and two existing 30 hp pumps from a permanent electric generator
- Triple switch and camlock connector
- Site improvements including a masonry wall and chain-link swing gate

Access, Property Issues, Easements. The Williams BPS is located on private property near the entrance to the Williams Canyon Reservoir access road. All-weather access to the site is provided by Williams Canyon Road from Santiago Canyon Road. IRWD owns access, utilities, and slope easements from Santiago Canyon Road to the Williams BPS and Williams Canyon Reservoir sites.

Site Layout and Improvements. Site access is open to the west, south, and east.

Security Requirements and Fencing. A split-face block wall would be constructed to replace the existing chain-link fence in approximately the same location as the existing fence to provide security and fire protection in the event of a brush fire. The overall length of the block wall would be approximately 105 linear feet.

Setback Requirements. The generator pad would be located within the proposed block wall and fencing to provide a minimum 4 ft clearance for access on all sides to open panels on the weatherproof enclosure for maintenance and repair. Access for fueling would be provided.

Drainage. The existing runoff pattern would not be changed. The runoff quantity or discharge rate is not expected to measurably increase. The site is located in an area with gravel surfaces on all sides. The new generator would be surrounded by gravel surfaces.

Construction. The proposed improvements, including construction of the generator pad, electrical cabinets, block wall, and conduits would require minor demolition work comprising fence and gravel removal. No excavation greater than 5 ft deep is anticipated. The area between Williams Canyon Road and the pump station would be graded slightly flatter than the existing grade and paved over. No brush clearing and minimal grading would be required for construction. Site grading up to 2 ft is anticipated to adjust the existing finish grades to proposed final grades. Proposed construction staging areas are shown in Figure 2.9. Construction is anticipated to occur in February 2012 and be complete, including site stabilization, within 8 weeks.

Traffic Control. Work at the site would require minimal traffic control near Williams Canyon Road.

2.3.5 Manning Booster Pump Station

The Manning Water Treatment Plant and BPS is located in a triangular-shaped fenced area near Modjeska Canyon Road (Figures 2.10 and 2.11). Two options were considered for the location of a new permanent generator set. One option is a site between the paved access to the treatment plant and Modjeska Canyon Road. The second option is behind the treatment plant in the northeast corner of the site. A split-face block wall would be constructed to replace the existing chain-link fence along the northwest and east sides of the treatment plant. The existing chain-link fence along the southwest side of the site (facing Modjeska Canyon Road) would remain. The new block walls would provide fire protection for the treatment plant and generator.

Existing facilities at the Manning BPS site include the following:

- Two 50 hp pumps with aboveground piping, valves, and appurtenances
- Water treatment plant inside chain-link fenced enclosure
- Electrical and control panels with electrical service, switchgear, and SCADA equipment
- Circuit breakers with a mechanical interlock bar for safety
- Trailer-mounted portable generator outside the existing pump station fencing
- Power pole with overhead power at site
- Underground piping in front of the treatment plant
- Paved access in front of the treatment plant

The following are proposed improvements at this site:

- Permanent electrical emergency generator (150 kW to power two 50 hp water pumps on 480V service) with a diesel engine and integral 24-hour fuel storage set on a concrete pad;
- One automatic transfer switch with electrical connections to facilitate the powering of two existing 50 hp pumps from a permanent electric generator. The interlocked circuit breaker manual transfer switch would be removed;
- Triple switch and camlock connector; and
- Site improvements including a reinforced concrete retaining wall, concrete flatwork, and masonry wall.

Access, Property Issues, Easements. All-weather access to the site is provided by Modjeska Canyon Road from Santiago Canyon Road. Property ownership is complicated with both a private owner (Crocker) and the United States Forest Service (USFS) owning parcels dating back to the late 1800s. IRWD currently has an existing easement and agreement with the USFS for the existing pump station site. IRWD shares a driveway with the adjoining neighboring property (Crocker) to the west, where a future development is planned. The Crocker property includes a strip of land between the USFS

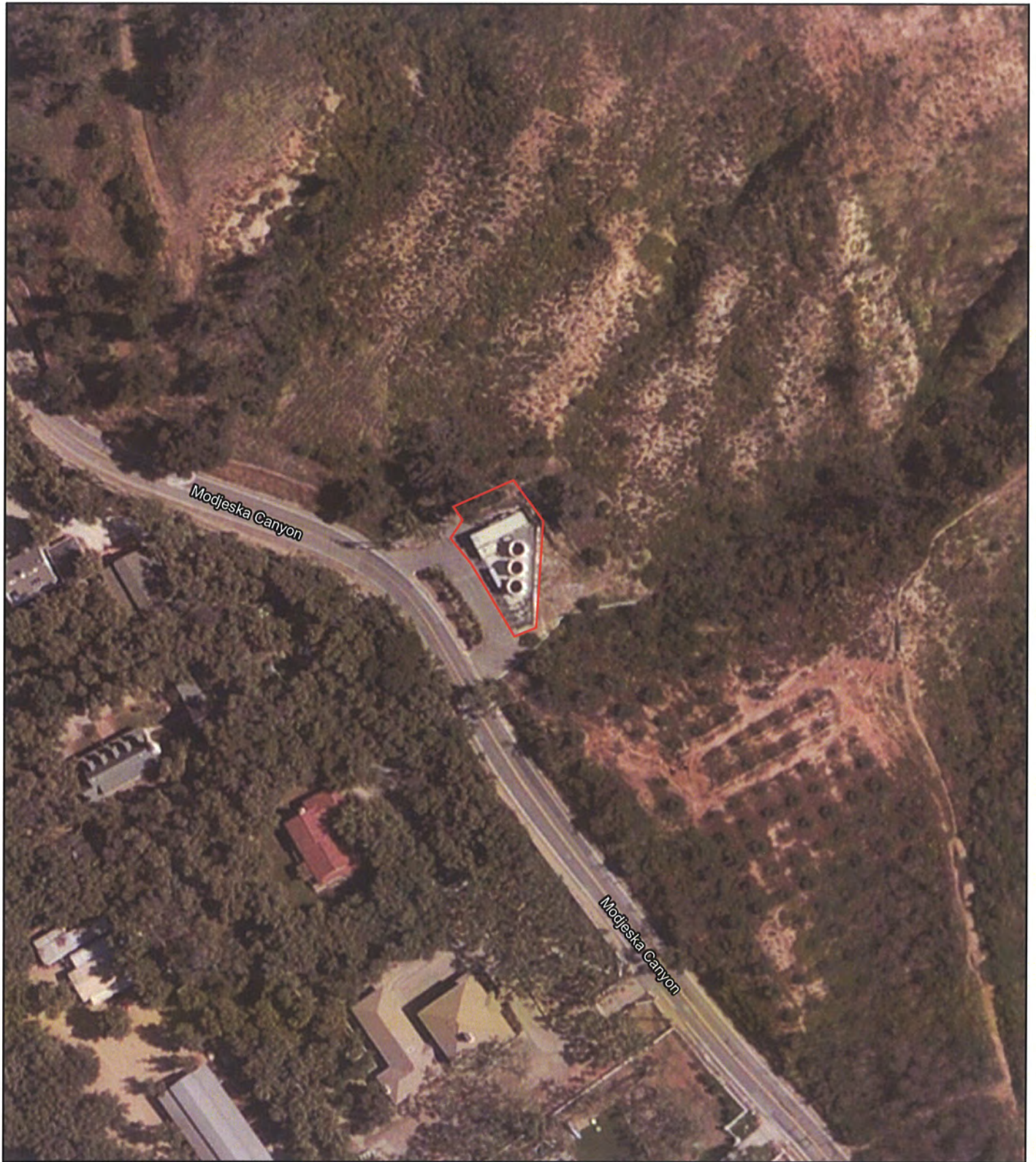

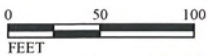


FIGURE 2.10

LSA

LEGEND

-  Project Site
-  Creeks



SOURCE: Bing 2010

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*Santiago Canyon Area
BPS Permanent Generators Project
Manning Booster Pump Station Vicinity Map*



FIGURE 2.11

LSA

LEGEND

Manning Booster Pump Station Project Site

Electric

Electric Underground

Generator

Generator Pad

Site Wall

Site Wall Option 2



SOURCE: Bing 2010

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*Santiago Canyon Area
BPS Permanent Generators Project*
Manning Booster Pump Station
Existing and Proposed Site Improvements

parcel and Modjeska Canyon Road. IRWD owns an entry and utility easement across this property in order to access the treatment plant and the existing buried piping between the treatment plant and Modjeska Canyon Road.

The USFS and IRWD agreement will be revised to allow for the permanent installation of emergency generators to support the existing pump station. The USFS will prepare a separate National Environmental Policy Act (NEPA) document to detail the impacts associated with the change to the agreement (Proposed Project).

Site Layout and Improvements. Site access is challenging because the site is triangular-shaped. Initial review of the site identified up to five possible locations for the new generator. Additional analysis reduced the number of possible new generator locations to two. The area behind the existing treatment plant has been graded and sandbagged, and has had drains installed to protect the slopes uphill of the plant. This area provides the most open space for installation of a generator, but provides the poorest access for fueling, maintenance, and repair, and is located on private property. Access is available around the south side of the treatment plant through a 12 ft wide strip between the treatment plant and a concrete v-ditch.

If the existing utility vault and air/vacuum valve were relocated, a second possible location for the new generator would be at the southern tip of the treatment plant. This location, however, completely blocks access behind the treatment plant, leaving little room for construction of a block wall.

The third and fourth alternative locations include variations of constructing a generator and block wall enclosure in front of the treatment plant along Modjeska Canyon Road, either between the driveway and roadway in an existing landscaped area or in the existing access road entrance, which would require the road entrance to be reconstructed to the north. The proposed development of the Crocker property to the north of the treatment plant shares the access road in front of the plant, so any construction in this area would have a significant impact on access for IRWD (the current property owner), as well as residents of a future development.

A fifth alternative, a location behind the treatment plant, was considered in the analysis and was preferred by IRWD because the generator would be on the plant site with minimal impact to access and with low public visibility. However, this location would require considerable rock excavation and grading to construct an 8 ft high reinforced-concrete retaining wall tied to the proposed generator concrete slab. Lower retaining walls would blend into either side of the 8 ft wall and transition into the block screening wall.

Security Requirements and Fencing. A new block wall would be constructed along the treatment plant perimeter. The new concrete retaining wall near the generator set would provide fire protection.

Setback Requirements. Setback requirements from property lines would be considered in the final site selection and design. The generator pad would provide access on all sides for fueling, maintenance, and repair, thereby meeting the National Electrical Code.

Drainage. The existing runoff pattern would not be measurably changed. The runoff quantity or discharge rate is not expected to increase. The site is located in an area with an existing gravel surface. The terrain has sufficient relief to easily drain storm water runoff to ditches and storm drains.

Construction. Demolition required for the proposed improvements varies among the alternatives presented, but generally includes fencing, AC pavement, and utilities for relocation. Additional concrete and utilities demolition work would be required if the selected alternative is to work inside the treatment plant. Excavation for a retaining wall would exceed 5 ft of open excavation. The Proposed Project would also require site grading to adjust the existing finish grades by as much as 2 to 3 ft. Proposed construction staging areas are shown in Figure 2.11. Construction is anticipated to occur in March/April 2012 and be complete, including site stabilization, within 8 weeks.

Traffic Control. Work at the site in the vicinity of Modjeska Canyon Road would require occasional traffic control, primarily for materials deliveries. The work on the site away from the road would not require traffic control.

2.4 PROJECT OBJECTIVES

The following Proposed Project objectives are common to all sites:

- Install a permanent emergency generator
- Replace all, or a portion of, the existing chain-link fence at each site, as required, with a CMU block wall to assist in deflecting radiant heat from a brush fire per a fire vulnerability analysis assessment recommendation.
- Piping modification and construction of two automated motor operated valves to automate the discharge of off-specification waters.

2.5 DISCRETIONARY ACTIONS

The following discretionary actions are required for project approval:

- **IRWD:** Approval of Proposed Project and Initial Study/Mitigated Negative Declaration (IS/MND)
- **County of Orange:** Encroachment permit for improvements to the Shaw BPS site
- **Orange County Fire Authority:** Approval of setbacks and vent stack heights
- **South Coast Air Quality Management District (SCAQMD):** Permit to construct and operate new permanent engine generators
- **United States Department of Agriculture – Department of Forestry:** Amended permit to operate the permanent generators on the Manning BPS site; NEPA compliance

3.0 ENVIRONMENTAL CHECKLIST FORM

The following pages contain the Environmental Checklist Form for the Proposed Project. The Form is marked with findings as to the environmental effects of the project. A checked box () in Column 1 (Potential Significant Impact) requires preparation of additional environmental analysis in the form of an EIR.

Pursuant to the provisions of CEQA, and as explained in Section 1.0, Introduction, this analysis has been undertaken to provide IRWD with the factual basis for determining, based on the information available, which form of environmental documentation the project warrants. The basis for each of the findings listed in the Form is explained in Section 4.0, Environmental Analysis and Explanation of Checklist Responses.

IRVINE RANCH WATER DISTRICT

INITIAL STUDY OF ENVIRONMENTAL IMPACTS

I. BACKGROUND

1. Project Title: Santiago Canyon Area Booster Pump Station (BPS)
Permanent Generators Project (Proposed Project)
2. Lead Agency Name & Address: Irvine Ranch Water District
Water Resources and Administration
15600 Sand Canyon Avenue
Irvine, California 92618
3. Contact Person and Phone Number: Christian Kessler
(949) 453-5441
kessler@irwd.com
4. Project Location:
 - Fleming BPS – 74341 Silverado Canyon Road,
Silverado, California 92676
 - Shaw BPS – 28934 Silverado Canyon Road,
Silverado, California 92676
 - Read BPS – 30500 Silverado Canyon Road,
Silverado, California 92676
 - Williams BPS – 27600 Williams Canyon Road,
Silverado, California 92676
 - Manning BPS – 27989 Modjeska Canyon Road,
Silverado, California 92676
5. General Plan Designation: Rural and suburban residential
6. Zoning: Silverado-Modjeska Canyon Specific Plan, Rural
Residential
7. Project Description: The IRWD is proposing replacement of the portable generators at each of the five BPS sites identified to improve the reliability of the water system during power outages, particularly when the outages are caused by fires in the canyons. This project would replace the portable generators at each of the sites with permanent electrical emergency generators, each set with a diesel engine and integral 24-hour fuel storage on a concrete pad. Four of the five

permanent generators would be contained within a concrete masonry unit block wall for protection against fires. The fifth generator (Manning BPS) does not require this additional fire protection.

8. Surrounding land uses and setting: The BPS sites are primarily located within rural residential land uses, including small ranches, and surrounded by open space land uses.
9. Other public agencies whose approval is required:
- IRWD: Approval of Proposed Project and Initial Study/Mitigated Negative Declaration (IS/MND)
 - County of Orange: Encroachment permit for Shaw BPS
 - Orange County Fire Authority: Approval of setbacks and vent stack heights
 - South Coast Air Quality Management District (SCAQMD): Permit to construct and operate new permanent engine generators
 - United States Department of Agriculture – Department of Forestry: Amended permit to operate the permanent generators on the Manning BPS; NEPA compliance

II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below have the potential to be significantly impacted by this project, as indicated by the checklist in Section IV.

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

III. IRVINE RANCH WATER DISTRICT DETERMINATION

On the basis of this initial evaluation:

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

Christian Kessler

Signature

October 31, 2011

Date

Christian Kessler

Printed Name

4.0 ENVIRONMENTAL ANALYSIS AND EXPLANATION OF CHECKLIST RESPONSES

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.1 AESTHETICS

Would the project:

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

No Impact. The Project Location Map (refer to Figure 1-1) identifies each of the five BPS locations. The BPS sites are located primarily within rural residential land uses, including small ranches, and adjacent to open space land uses. However, the BPS project sites are within developed portions of the general project area. IRWD is proposing replacement of the portable generators at each of the five BPS sites identified to improve the reliability of the water system during power outages, particularly when the outages are caused by fires in the canyons. This Proposed Project would replace the portable generators at each of the sites with permanent electrical emergency generators set with a diesel engine and integral 24-hour fuel storage set on a concrete pad. Four of the five permanent generators would be contained within a CMU block wall for protection against fires. A summary of each of the Proposed Project site settings and impacts is discussed below.

- Fleming BPS:** The Fleming BPS is located on Prairie Road between Santiago Canyon Road and Silverado Canyon Road at approximately 1,030 ft amsl. The Fleming site is largely developed and is within a fenced facility with little to no vegetation on site. There are no surrounding sensitive receptors. The Proposed Project would remove the trailer-mounted portable generator and emergency pump. Construction at this site will require removal of the decorative wishing well located on site; however, given the industrial nature of the facility, this is not considered to be a significant impact. Once construction activities are complete, the site will appear similar to existing conditions.

- **Shaw BPS:** The Shaw BPS is located within an 18 x 20 ft fenced site set approximately 2 ft back from Silverado Canyon Road and 10 ft north of an existing retaining wall along Silverado Creek at approximately 1,305 ft amsl. There is an existing chain-link fence around the site, and the site is surrounded on all sides by residential sensitive receptors. Improvements at this site include a masonry wall, chain-link fence with a swing gate, and AC paving in front of the access gate. Given the facility's location next to Silverado Canyon Road and the nature of existing facilities, the addition of a masonry block wall around the perimeter of the station will not substantially change the visual appearance of the site from existing conditions. Once construction activities are complete, the site will look similar to existing conditions.
- **Read BPS:** The Read BPS is located within an 18 x 22 ft fenced area on the IRWD Read Reservoir property, south of Silverado Creek at approximately 1,615 ft amsl. The site is surrounded on the south by residential sensitive receptors. Improvements at this site include a permanent electrical emergency generator, masonry wall, and a chain-link fence with a swing gate. Given that this facility is mostly hidden by vegetation from sensitive receptors, the addition of a masonry block wall around the perimeter of the station will not substantially change the visual appearance of the site from existing conditions. Once construction activities are complete, the site will look similar to existing conditions.
- **Williams BPS:** The Williams BPS is located within a fenced area adjacent to Williams Canyon Road, near the beginning of the access road to Williams Canyon Reservoir at approximately 1,272 ft amsl. There are no surrounding sensitive receptors within 100 ft of the site. Improvements at this site include a masonry wall and a chain-link fence with a swing gate. Given that the facility is not located within view of any sensitive receptors, the addition of a masonry block wall around the perimeter of the station will not substantially change the visual appearance of the site from existing conditions. Once construction activities are complete, the site will appear similar to existing conditions.
- **Manning BPS:** The Manning Water Treatment Plant and BPS is located in a triangular-shaped fenced area near Modjeska Canyon Road. The site backs up to open space land uses. Residential sensitive receptors are located west and south of the site, but not within view of the site improvements. This site is fully developed with infrastructure uses; therefore, the addition of a permanent generator and block wall around the back perimeter would not significantly alter the appearance of this facility. In addition, the improvements are not located within view of any sensitive receptors. Once construction activities are complete, the site will look similar to existing conditions.

Santiago Canyon Road is designated as a viewscape corridor in the County's General Plan Circulation Element. Sensitive viewer groups in the Proposed Project area include motorists and a limited number of residents. However, no improvements would occur along Santiago Canyon Road; therefore, there would be no impact to views of or from Santiago Canyon Road. Implementation of the Proposed Project would not result in permanent significant visual changes to the environment. However, construction activities would temporarily affect the aesthetic views of the local environment (adjacent to each site). Viewer groups that would be impacted by construction activities include motorists and local residents. All visual impacts would cease upon completion of construction activities. Although views of the Proposed Project area may be temporarily impacted by construction, the future facilities, once completed, would appear similar to existing conditions. The present character of the site would not be altered substantially by the improvements since these are

improvements to existing structures in mostly developed areas, and they will also provide additional fire protection safety to the local residents. Therefore, no impacts to scenic resources are anticipated.

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

No Impact. There are no designated State Scenic Highways within the project vicinity. There would be no impacts to a State-designated Scenic Highway.

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

No Impact. Refer to Response 4.1(a) above.

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

No Impact. The Proposed Project does not include the addition of a new source of light and glare to the Proposed Project vicinity. Construction of the Proposed Project would occur during daylight hours, and no construction lighting would be required. Therefore, no impacts related to light and glare would occur as a result of the Proposed Project.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
AGRICULTURE AND FOREST RESOURCES. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 122220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.2 AGRICULTURE AND FOREST RESOURCES

Would the project:

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

No Impact. The Proposed Project sites are not used for agricultural purposes and are not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the California Department of Conservation.¹ Therefore, no impact to farmland would occur as a result of the Proposed Project.

¹ Farmland Mapping and Monitoring Program of the California Department of Conservation, Division of Land Resource Protection, <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2008/ora08.pdf>. Accessed on May 31, 2011.

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

No Impact. The Proposed Project site is not used for agricultural purposes and is not restricted by existing agricultural zoning¹ or a Williamson Act contract.² As a result, the Proposed Project would not impact agriculturally zoned or protected lands.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 122220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?

No Impact. The Proposed Project site is not used for forest land or timberland purposes and is not zoned Timberland Production. Therefore, no impact to forestland or timberland would occur as a result of the Proposed Project.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

Less than Significant Impact. The Proposed Project site is not used for forest land. However, the Manning Site is located on USFS parcels. IRWD currently has an existing easement and agreement with the USFS for the existing pump station site. The agreement will be revised to allow for the permanent installation of emergency generators to support the existing pump station. Impacts associated with the installation of the permanent generators are detailed throughout this Initial Study Mitigated Negative Declaration (IS/MND). In addition, the USFS will prepare a separate NEPA document that details the impacts to USFS land. Given that the site is already permitted for this use, the addition of a permanent generator and block wall would not result in the conversion of forest land to non-forest use. Therefore, no impact to forest land, either loss or conversion, would occur as a result of the Proposed Project.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use?

No Impact. Refer to Response 4.2.d above. The Proposed Project would not lead to conversion of farmland or forest land, either directly or indirectly, as the Proposed Project site is not used for farmland or forest land. The Proposed Project would also not result in the conversion of agricultural land or forest land in other areas. Therefore, the Proposed Project would not lead to the conversion of existing farmland or forest land.

¹ County of Orange Zoning Map. May 24, 2005.

² State of California Department of Conservation, Williamson Act Program, ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Map%20and%20PDF/Orange/orange_2004.jpg. Accessed on May 31, 2011.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
AIR QUALITY. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.3 AIR QUALITY

4.3.1 Air Quality Significance Criteria

Air quality impacts would be significant if the Proposed Project does not conform with applicable air quality plans, violates ambient air quality standards, contributes substantially to an existing or projected air quality violation, exposes sensitive receptors to substantial pollutant concentrations, or creates odors that affect a substantial number of people. Specific criteria for determining whether the potential air quality impacts of a project are significant are set forth in the SCAQMD's *CEQA Air Quality Handbook*. The criteria include emission thresholds, compliance with State and national air quality standards, and conformity with the existing State Implementation Plan (SIP) or consistency with the current Air Quality Management Plan (AQMP).

Thresholds for Construction Emissions. The following significance thresholds for construction emissions have been established by the SCAQMD:

- 75 pounds per day (lbs/day) of reactive organic compounds (ROC)
- 100 lbs/day of nitrogen oxide (NO_x)
- 550 lbs/day of carbon monoxide (CO)
- 150 lbs/day of particulate matter less than 10 microns in size (PM₁₀)
- 55 lbs/day of particulate matter less than 2.5 microns in size (PM_{2.5})
- 150 lbs/day of sulfur oxide (SO_x)

Projects in the South Coast Air Basin (Basin) with construction-related emissions that exceed any of the emission thresholds above are considered significant by the SCAQMD.

Thresholds for Operational Emissions. The daily operational emissions “significance” thresholds are as follows:

- **Emission Thresholds for Criteria Pollutants with Regional Effects:**
 - 55 lbs/day of ROC
 - 55 lbs/day of NO_x
 - 550 lbs/day of CO
 - 150 lbs/day of PM₁₀
 - 55 lbs/day of PM_{2.5}
 - 150 lbs/day of SO_x

Projects in the Basin with operations-related emissions that exceed any of the emission thresholds are considered significant by the SCAQMD.

- **Emission Thresholds for Pollutants with Localized Impacts:**
 - California State 1-hour CO standard of 20.0 parts per million (ppm)
 - California State 8-hour CO standard of 9.0 ppm

The significance of localized project impacts depends on whether ambient CO levels in the vicinity of the Proposed Project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have significant impacts if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more.

Thresholds for Localized Significance. For this Proposed Project, the appropriate Source Receptor Area (SRA) for Localized Significance Thresholds (LST) is Saddleback Valley (SRA No. 19), according to the SRA/City Table on the SCAQMD LST website.¹ The Proposed Project sites are located within 50 to 1,500 ft (15 to 457 meters [m]) of sensitive land uses (residences and a school). The shortest distance that the SCAQMD recommends to be used in an LST analysis is 25 m (82 ft). Therefore, the thresholds for a 1 ac site located within 25 m of the nearest sensitive receptor were applied to the Proposed Project. The following thresholds apply for this Proposed Project.

- **Construction Thresholds for a 1 Ac Site:**
 - 91 lbs/day of NO_x at 25 m
 - 696 lbs/day of CO at 25 m

¹ www.aqmd.gov/ceqa/handbook/LST/LST.html.

- 4 lbs/day of PM₁₀ at 25 m
- 2 lbs/day of PM_{2.5} at 25 m
- **Operational Thresholds for a 1 Ac Site:**
 - 91 lbs/day of NO_x at 25 m
 - 696 lbs/day of CO at 25 m
 - 1 lb/day of PM₁₀ at 25 m
 - 1 lb/day of PM_{2.5} at 25 m

The criteria used in this analysis as a threshold for impact significance are based on the Environmental Checklist questions in Section 3.0 of this IS, as listed below. The Proposed Project is deemed to have a potentially significant impact related to air quality if implementation would result in any of the following:

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

Less Than Significant Impact. An AQMP describes air pollution control strategies to be taken by a city, county, or region classified as a nonattainment area. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. CEQA requires that certain proposed projects be analyzed for consistency with the AQMP. For a project to be consistent with the AQMP adopted by the SCAQMD, the pollutants emitted from the project should not exceed the SCAQMD daily threshold or cause a significant impact on air quality, or the project must already have been included in the AQMP projection. However, if feasible mitigation measures are implemented and shown to reduce the impact level from significant to less than significant, a project may be deemed consistent with the AQMP. The Proposed Project emissions would be below the emissions thresholds established in SCAQMD's *CEQA Air Quality Handbook, April 1993* (CEQA Handbook), as shown in Response (b). The analysis provided in Response (c) also discusses the Proposed Project's compliance with the AQMP. Therefore, the Proposed Project will not conflict with the AQMP, and no significant impact will result with respect to implementation of the AQMP.

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

Less Than Significant Impact.

Long-Term (Operational) Emissions. Long-term air emission impacts are associated with any change in permanent use of the Proposed Project site by on-site stationary and off-site mobile sources that substantially increase emissions. Stationary source emissions include emissions associated with electricity consumption and natural gas usage. Mobile-source emissions would result from vehicle trips associated with the Proposed Project. The Proposed Project would replace existing portable generators with permanent emergency generators. Other than monthly testing and emergency events, these generators would not result in any long-term on-site stationary sources. Maintenance activities occur today and would remain the same with the Proposed Project. Therefore, no emissions were calculated for the Proposed Project from long-

term mobile-sources, or long-term stationary sources. The Proposed Project's long-term air quality impacts would be less than significant.

Short-Term (Construction) Emissions. Air quality impacts would occur during construction of the Proposed Project from soil disturbance and equipment exhaust. Major sources of emissions during grading and site preparation include: (1) exhaust emissions from construction vehicles; (2) equipment and fugitive dust generated by construction vehicles and equipment traveling over exposed surfaces; and (3) soil disturbances from grading and backfilling. The following summarizes construction emissions and associated impacts for the Proposed Project site.

Equipment Exhaust and Related Construction Activities. Construction of each of the Proposed Project phases will include the following tasks: site preparation, grading, building, and paving. Peak daily emissions associated with construction equipment exhaust for the Proposed Project during each of the construction tasks were calculated using the SCAQMD CalEEMod emission model. The construction emissions are summarized in Table 4.3.A and detailed in Appendix A. This table shows that construction equipment/vehicle emissions during construction periods would not exceed any of the SCAQMD established daily emissions thresholds.

Table 4.3.A: Peak Day Construction Emissions (lbs/day) by Phase

Construction Phase ¹	CO	VOC	NO _x	SO ₂	PM ₁₀ ²	PM _{2.5}
Site Preparation	1.93	0.45	2.84	0.0	0.26	0.26
Paving (Slab)	1.84	0.42	2.68	0.0	0.24	0.24
Construction	7.37	1.75	12.83	0.01	0.88	0.88
SCAQMD Emissions Threshold	550	75	100	150	150	55
Exceed Significance?	NO	NO	NO	NO	NO	NO

Source: LSA Associates, Inc., June 2011.

¹ It is assumed that there is no overlap of these construction phases.

² Total PM₁₀ daily emission rate with fugitive dust mitigation measures implemented.

CO = carbon monoxide

lbs/day = pounds per day

NO_x = oxides of nitrogen

PM_{2.5} = particulate matter less than 2.5 microns in diameter

PM₁₀ = particulate matter less than 10 microns in diameter

SCAQMD = South Coast Air Quality Management District

SO₂ = sulfur dioxide

VOC = volatile organic compound

Fugitive Dust. Fugitive dust emissions are generally associated with land clearing, exposure, and cut-and-fill operations. Dust generated daily during construction would vary substantially, depending on the level of activity, the specific operations, and weather conditions. Nearby sensitive receptors and on-site workers may be exposed to blowing dust, depending upon prevailing wind conditions. Fugitive dust would also be generated as construction equipment or trucks travel on unpaved areas of the construction site. The PM₁₀ and PM_{2.5} fugitive dust emissions are included in Table 4.3.A.

Localized Significance. The following analysis was performed per SCAQMD *Final Localized Significance Threshold Methodology* (June 2003). The closest sensitive receptors to the various

construction phases are located at a distance of approximately 15 m (50 ft). However, the shortest distance SCAQMD recommends using in an LST analysis is 25 m. Thus, LST values for 25 m were used.

Table 4.3.B shows the construction-related emissions of NO_x, CO, PM₁₀, and PM_{2.5}, compared to the LSTs for Saddleback Valley at a distance of 25 m.

Table 4.3.B: Summary of Construction Emissions, Localized Significance by Phase

Construction Phase	Emission Rates (lbs/day)			
	CO	NO _x	PM ₁₀	PM _{2.5}
Site Preparation	1.93	2.84	0.26	0.26
Paving (Slab)	1.84	2.68	0.24	0.24
Construction	7.37	12.83	0.88	0.88
Localized Significance Threshold (at 25 m)	696	91	4	2
Exceed Significance?	NO	NO	NO	NO

Source: LSA Associates, Inc., June 2011.

CO = carbon monoxide
lbs/day = pounds per day
m = meters

NO_x = oxides of nitrogen
PM_{2.5} = particulate matter less than 2.5 microns in diameter
PM₁₀ = particulate matter less than 10 microns in diameter

Table 4.3.B shows that the calculated emissions rates for the proposed construction activities are below the localized significance thresholds for NO_x, CO, PM₁₀, and PM_{2.5}. Therefore, the Proposed Project would not cause any short-term, localized, significant air quality impacts, and no mitigation is required.

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

Less Than Significant Impact. As discussed in item b) above, no exceedance of SCAQMD's criteria pollutant emission thresholds would be anticipated for the Proposed Project. The projected emissions of criteria pollutants as a result of the Proposed Project are expected to be below the emissions thresholds established for the region. Cumulative emissions are part of the emission inventory included in the AQMP for the Proposed Project area. Therefore, there would be no cumulatively considerable net increase of the criteria pollutants that are in nonattainment status in the Basin.

- d) **Expose sensitive receptors to substantial pollutant concentrations?**

Less Than Significant Impact. As described in Response (b), the Proposed Project would not significantly increase the long-term emissions within the Proposed Project area. Construction of the Proposed Project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually from diesel-fueled vehicles and equipment). However, as required by SCAQMD, construction contractors will be required to

implement standard minimization measures to reduce or eliminate emissions. The SCAQMD's standard minimization measures are listed below. Therefore, sensitive receptors are not expected to be exposed to substantial pollutant concentrations during construction, and potential short-term impacts are considered less than significant.

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

Less Than Significant Impact. Some objectionable odors may emanate from the operation of diesel-powered construction equipment during construction of the Proposed Project. These odors, however, would be limited to the site only during the construction period, and therefore, would not be considered a significant impact.

4.3.2 Standard Minimization Measures

AQ-1 During construction, the contractor will comply with the following rules for construction and operation to minimize the air quality impacts from the Proposed Project. The following measures are required by SCAQMD Rules 402 and 403 and will reduce or minimize air pollutants generated by construction vehicles and equipment and fugitive dust emissions associated with earthmoving or excavation operations, or other soil disturbances.

During earthmoving or excavation operations, fugitive dust emissions shall be controlled by regular watering or other dust-preventive measures using the following procedures:

- All material excavated shall be sufficiently watered to prevent excessive amounts of dust. Watering, with complete coverage, shall occur at least twice daily, preferably in the late morning and after work is done for the day.
- All earthmoving or excavation activities shall cease during periods of high winds (i.e., winds greater than 20 miles per hour [mph] averaged over 1 hour).
- All material transported off site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- The area disturbed by earthmoving or excavation operations shall be minimized at all times.

After earthmoving or excavation operations, fugitive dust emissions shall be controlled using the following measures:

- Portions of the construction area to remain inactive longer than a period of 3 months shall be revegetated and watered until cover is grown.
- All active portions of the construction site shall be watered to prevent excessive amounts of dust.

At all times, fugitive dust emissions shall be controlled using the following procedures:

- On-site vehicle speed shall be limited to 15 mph.
- Road improvements shall be paved as soon as feasible, watered periodically, or chemically stabilized.

At all times during the construction phase, ozone precursor emissions from mobile equipment shall be controlled using the following procedures:

- Equipment engines shall be maintained in good condition and in proper tune according to manufacturers' specifications.
- On-site mobile equipment shall not be left idling for a period longer than 5 minutes.
- Outdoor storage piles of construction materials shall be kept covered, watered, or otherwise stabilized with a chemical wetting agent to minimize fugitive dust emissions and wind erosion.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.4 BIOLOGICAL RESOURCES

The information summarized below is based on information in the Biological Assessment prepared for the Proposed Project. This report is found in its entirety in Appendix B.

A biological survey of the study areas was conducted on May 11, 2011. During the survey, the entirety of the study area was covered on foot, and the existing biological resources were thoroughly assessed. This included identifying and classifying vegetation communities present in the study area, photo documenting the general site conditions, compiling an inventory of the vascular plant and animal species observed or otherwise detected on site, and searching for any special-interest species present or potentially occurring on site. The following details the vegetation present at each site.

4.4.1 Vegetation

Fleming Pump Station: The entire study area lies within the footprint of the existing facility. No vegetation is present within the Proposed Project area. The study area is paved.

Shaw Pump Station: The majority of the study area consists of a gravel turnout. It is likely that two laurel sumac (*Malosma laurina*) individuals will be impacted (i.e., trimmed or removed) as a result of the Proposed Project. The only other plant species observed within the study area was a wild cucumber (*Marah macrocarpus*).

Read Pump Station: The entire study area lies within the footprint of the existing facility. No vegetation is present within the Proposed Project area. The study area is paved.

Williams Pump Station: The entire study area lies within the footprint of the existing facility. No vegetation is present within the Proposed Project area. The study area is partially paved and partially gravel.

Manning Pump Station: The study area includes the existing facility and an open space area adjacent to the existing facility. The open space portion of the study area is approximately 4–5 ft higher in elevation in relation to the adjacent existing facility portion of the study area. There is an existing retaining wall separating the two areas. The existing facility portion of the study area is unvegetated. The vegetation adjacent to the facility within the Proposed Project area consists of coast live oak (*Quercus agrifolia*), laurel sumac, chaparral bedstraw (*Galium angustifolium*), yellow sweet clover (*Melilotus indicus*), shortpod mustard (*Hirschfeldia incana*), red brome (*Bromus madritensis*), ripgut brome (*Bromus diandrus*), long-stemmed golden yarrow (*Eriophyllum confertiflorum*), and Parish's nightshade (*Solanum parishii*).

Would the project:

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Services?**

No Impact. Special-interest species are those plants or animals that (1) are federally and/or State-listed, (2) are currently proposed for listing, or (3) have some other special designation from a resource agency or a recognized conservation organization (e.g., the California Native Plant Society [CNPS]). Attachment A in Appendix B contains a table that identifies those special-interest plant and animal species known to occur or that may potentially occur in the region. This table contains detailed information regarding special-interest plant and animal species' habitat and distribution, activity periods, State- and federal-status designations, and probability of occurrence.

Due to the very small size of the habitat present at only one of the five study areas, LSA Associates, Inc. (LSA) identified two special-interest plant species and no special-interest animal species with a “low” probability of occurrence for these particular study areas. The two special-interest plant species with a “low” probability of occurrence are the intermediate mariposa lily (*Calochortus weedii* var. *intermedius*) and the southern tarplant (*Centromadia parryi* ssp. *australis*). Both plants are included on the California Department of Fish and Game (CDFG) “Special Plants” list and are designated List 1B by the CNPS. Neither of these two plant species was observed within the study area limits during the surveys. Therefore, no impacts to candidate, sensitive, or special-status species are anticipated.

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

Less Than Significant Impact with Mitigation. Manning BPS is the only site with natural communities on site. The vegetation communities adjacent to the existing facility are best described as oak woodland (< 0.01 ac) and disturbed ruderal grassland (< 0.01 ac). There are two coast live oaks that may be impacted by the Proposed Project. The first coast live oak has multiple stems (10) at breast height (DBH) with no stem having a DBH of greater than 2 in. The other coast live oak has a DBH of approximately 18 inches. It is not anticipated that the Proposed Project will require the removal of the two oaks and best efforts will be made to preserve the trees. However, given the proximity to the construction, it is possible that the root system of the trees may be damaged as a result of grading activities. Since these oaks are directly adjacent to the developed Manning Site; the potential impact to these two oaks would not be considered a significant loss to the natural communities on site. However, in the event that the trees become destabilized as a result of the grading activities, the trees will be removed and replaced at a ratio determined by the USFS. Also, short-term construction-related impacts (e.g., nuisance noise) to the adjacent off-site habitat would be temporary and are not expected to be significant. However, to prevent any incidental impacts to the natural communities immediately adjacent to the study area, the installation and maintenance of fencing along the proposed construction perimeter is recommended prior to the commencement of construction activities. These fence materials should be removed upon completion of the Proposed Project.

To prevent any incidental impacts to the native habitat immediately adjacent to the study area, Minimization Measure BIO-1 requires the installation and maintenance of temporary fencing along the proposed construction perimeter prior to the commencement of construction activities. Implementation of Minimization Measures BIO-1 and BIO-2 would reduce any potential impacts to adjacent natural communities to less than significant levels.

4.4.2 Standard Minimization Measures

BIO-1 Prior to the commencement of construction activities or other activities involving significant soil disturbance, all areas to be protected adjacent to the project limits shall be identified with temporary fencing or other suitable barriers clearly visible to construction personnel.

BIO-2 Affected vegetation shall be restored using native seed mix, and the use of invasive exotic plant species shall be strictly prohibited as part of any revegetation efforts on this project.

- c) **Have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

No Impact. No wetlands or potential jurisdictional drainages were observed within the study areas.

- d) **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

No Impact. There is little to no habitat associated with the Fleming, Shaw, Read, Williams, and the majority of the Manning study areas. The small portion of the Manning study area that is not developed does offer some habitat value; however, this portion of the study area is of limited value to wildlife due to its small size and generally disturbed nature. Woodland, Riparian, Grassland, Scrub, and Chaparral habitats all occur in the open space areas surrounding the study areas. Therefore, many wildlife species occur in the area, including a number with special regulatory status. However, no wildlife species were detected within the study areas during the site visit on May 11, 2011, and as the Proposed Project improves an existing facility, no impacts to wildlife species is anticipated.

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

Less Than Significant Impact. There are two coast live oaks (Manning Site) that may be impacted by the Proposed Project. The first coast live oak has multiple stems (10) at breast height (DBH) with no stem having a DBH of greater than 2 in. The other coast live oak has a DBH of approximately 18 inches. It is not anticipated that the Proposed Project will require the removal of the two oaks and best efforts will be made to preserve the trees. However, given the proximity to the construction, it is possible that the root system of the trees may be damaged as a result of grading activities. However, in the event that the trees become destabilized as a result of the grading activities, the trees will be removed and replaced at a ratio determined by the USFS.

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

Less Than Significant Impact. The Proposed Project may result in direct impacts to less than 0.01 ac of coast live oak woodland. Oak woodland is a covered habitat under the Central/Coastal Orange County NCCP/HCP, under which the IRWD is a Participating Landowner and signatory. As such, impacts to the less than 0.01 ac of oak woodland vegetation on site would be considered less than significant.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines, Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines, Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.5 CULTURAL/SCIENTIFIC RESOURCES

The information summarized below is based on information in the Cultural Resources Report prepared for the Proposed Project. This report is found in its entirety in Appendix C.

Would the project:

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

No Impact. Each of the five BPS project areas are built and modern in origin, appear to be disturbed to depth, and are located in areas of modern development. These BPS facilities, including the portable generators, are not considered historical resources as defined in Section 15064.5.

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

Less Than Significant Impact. A records search for the five BPS locations was completed on May 10, 2011, and on June 7, 2011, at the South Central Coastal Information Center (SCCIC), located at California State University, Fullerton. The records search included a review of all recorded historic and prehistoric archaeological sites within a 0.25 mi radius of the five BPS generator locations, as well as a review of known cultural resource survey and excavation reports. In addition, the California State Historic Resources Inventory, which includes the National Register of Historic Places (National Register), California Historical Landmarks (CHL), California Points of Historical Interest (CPHI), and various local historical registers were examined.

The records search conducted at the SCCIC indicated that no archaeological resources are documented within any of the five Proposed Project areas; two archaeological resources have been

documented within a 0.25 mi radius of the Proposed Project Area of Potential Effects (APE). Two historic resources are recorded as being within the 0.25 mi radius. No historic resources are documented in the Proposed Project area. Twenty-one cultural resource studies have been conducted within the 0.25 mi radius records search area. Of these, nine are located within the Proposed Project site.

The archaeological field survey did not locate any cultural resources at any of the five BPS locations. All of the locations have been previously disturbed to depth by the construction of the existing facilities and surrounding modern development. Based on the information summarized above, as well as on the visual examination of the areas, LSA recommends that the Proposed Project APE is not sensitive for cultural resources.

Therefore, LSA recommends that no further cultural resource management of the project area (such as construction monitoring) is necessary. However, in the unlikely event that archaeological materials are encountered during construction, a qualified archaeologist should be contacted in order to determine the appropriate treatment of the discovery.

Therefore, Standard Minimization Measure CUL-1 is proposed to minimize potential impacts to previously undocumented cultural resources by the Proposed Project. Implementation of Standard Minimization Measure CUL-1 will ensure that impacts to unknown cultural resources encountered during construction activities are adequately addressed and are reduced to below the level of significance.

4.5.1 Standard Minimization Measure

CUL-1 Project plans will specify that in the event that cultural resources are discovered in the project area during ground-disturbing activities, work will stop in that area until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.

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

Less Than Significant Impact. According to the County's General Plan, Resources Element, the Proposed Project is located within a general area of paleontological sensitivity. However, given that the proposed work will be conducted on graded, leveled, and 100 percent disturbed sites, no paleontological resources are likely to be affected by the Proposed Project. Since the project area has been previously entirely mechanically disturbed, the potential is low for buried resources to be present.

If such resources are at the project site, they are buried or covered by vegetation and are unknown. The extent of paleontological resources is unknown at this time due to site conditions. Grading activities associated with the improvements could potentially disturb unknown subsurface

paleontological resources. Standard Minimization Measure CUL-2 would reduce potential impacts to unknown paleontological resources to less than significant levels.

4.5.2 Standard Minimization Measure

CUL-2 In the event that paleontological resources are discovered in the project area during ground-disturbing activities, work will stop in that area until a qualified paleontologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.

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

Less Than Significant Impact. During construction, a very low potential exists to encounter human remains. With implementation of Standard Minimization Measure CUL-3, the potential impact related to the discovery of human remains will be reduced to below a level of significance.

4.5.3 Standard Minimization Measure

CUL-3 In the event human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Orange County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendent (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD will have the opportunity to offer recommendations for the disposition of the remains.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have spills incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.6 GEOLOGY AND SOILS

Would the project:

- a) **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

Less Than Significant Impact. The Proposed Project site is located in a seismically active region characteristic of Southern California. Several regional faults (e.g., the Newport-Inglewood, Whittier-Elsinore, San Jacinto, and San Andreas faults among others) could cause secondary seismic effects such as ground shaking in the study area. Seismically active faults have not been identified at the Proposed Project sites.¹ The Proposed Project site itself is not located within any

¹ Geotechnical Evaluation and Design Report for Five Proposed BPS Generator Installations at Existing IRWD Pump Station Sites, County of Orange, California, NMG Geotechnical, Inc., April 28, 2011.

Special Studies Zone and is not expected to experience primary surface fault rupture or related ground deformation during the life of the Proposed Project. The Proposed Project is not anticipated to expose people or structures to rupture of a known earthquake fault on site since the project does not include any structures for human occupancy or facilities that would be considered essential to sustain life and property during a seismic event. The proposed site improvements will be designed per applicable seismic design criteria to withstand an acceptable level of risk. Therefore, no significant impacts related to the rupture of a known earthquake fault would result from the Proposed Project.

ii) Strong seismic ground shaking?

Less Than Significant Impact. Please see the response for 4.6(a)(i) (above).

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction occurs when loose, unconsolidated, water-laden soils are subject to shaking, causing the soils to lose cohesion. According to the United States Geological Survey (USGS) Seismic Hazard Zone Map, *El Toro, California* quadrangle, the Proposed Project site is outside the area of potential liquefaction. In addition, the Proposed Project will be designed per applicable seismic design criteria to withstand an acceptable level of risk. Compliance with these standards and other specific design parameters that may be identified by project engineers prior to the preparation of construction plans is anticipated to limit hazards from ground failure and liquefaction to less than significant levels.

iv) Landslides?

Less Than Significant Impact. According to the Geotechnical Evaluation prepared for the Proposed Project, the project site is adjacent to mapped hazards for seismically induced landslides. However, there are no existing landslide issues on or adjacent to the site. Given the nature of the Proposed Project (generator replacement) and the limited amount of excavation and grading, the Proposed Project is not anticipated to result in landslides. Therefore, no significant impacts related to the landslides would result from the Proposed Project.

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

Less Than Significant Impact. Less than 1 ac of soil would be temporarily disturbed as a result of the proposed improvements. As such, the potential exists for windborne and waterborne erosion and loss of topsoil due to this disturbance. Soil erosion and loss of topsoil would be minimized through compliance with SCAQMD Rules 402/403 and the Orange County Drainage Area Management Plan minimum requirements. Please see responses 4.3(a) and 4.9(a) below for further information.

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

Less Than Significant Impact. See Responses 4.6 (a)(iii) and (iv).

- d) **Be located on expansive soils, as defined in Table 18-1-B of the California Building Code (2001), creating substantial risks to life or property?**

Less Than Significant Impact. All the sites, with the exception of the Williams site, are located on soils that have very low expansion potential and negligible sulfate potential. The Williams site soils have medium expansion potential and severe sulfate potential. In order to reduce the impacts associated with severe sulfate exposure, grading and excavations should be performed in accordance with the General Earthwork and Grading Specifications detailed in the Geotechnical Evaluation and Design Report. In addition, as previously mentioned, all structures must comply with applicable seismic standards. Compliance with these standards and other specific design parameters that may be identified by project engineers prior to the preparation of construction plans is anticipated to limit hazards from potentially expansive soils to less than significant levels.

- e) **Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal system where sewers are not available for the disposal of wastewater?**

No Impact. The Proposed Project is replacement of the portable generators at each of the five BPS sites identified to improve the reliability of the water system during power outages. The Proposed Project does not propose the use of septic tanks or alternative wastewater disposal systems. Further, wastewater requiring the use of these wastewater disposal systems would not be generated by the Proposed Project.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.7 GREENHOUSE GAS EMISSIONS

4.7.1 Introduction

CEQA Guidelines Section 15064(b) provides that the “determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data,” and further states that an “ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting.”

However, despite this, currently neither the CEQA statutes, the OPR guidelines, nor the draft proposed changes to the CEQA Guidelines prescribe thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the Lead Agency.

In this vacuum, on December 5, 2008, the SCAQMD adopted an interim greenhouse gas (GHG) threshold of significance for projects in which it is the Lead Agency, using a tiered approach for determining significance.¹ The objective of the SCAQMD’s interim GHG threshold of significance proposal is to achieve a GHG emission capture rate of 90 percent of all new or modified stationary source projects. SCAQMD asserts that a GHG threshold of significance based on a 90 percent emission capture rate is considered to be more appropriate to address the long-term adverse impacts associated with global climate change (GCC) because most projects will be required to implement GHG reduction measures. SCAQMD further asserts that a 90 percent GHG emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. The following bullet points describe the basic structure of SCAQMD’s tiered interim GHG significance threshold for stationary sources:

- **Tier 1** consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA. For example, Senate Bill (SB) 97 specifically exempts a limited number of projects

¹ South Coast Air Quality Management District, Draft Guidance Document – *Interim CEQA Greenhouse Gas Significance Threshold*. October 2008.

until it expires in 2010. If the project qualifies for an exemption, no further action is required. If the project does not qualify for an exemption, then it would move to the next tier.

- **Tier 2** consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing consistency determination requirements in CEQA Guidelines Sections 15064(h)(3), 15125(d), or 15152(a). The GHG reduction plan must, at a minimum, comply with Assembly Bill (AB) 32 GHG reduction goals; include an emissions inventory agreed upon by either California Air Resources Board (ARB) or the SCAQMD; have been analyzed under CEQA and have a certified Final CEQA document; and have monitoring and enforcement components. If the Proposed Project is consistent with the qualifying local GHG reduction plan, its GHG emissions are not significant. If the Proposed Project is not consistent with a local GHG reduction plan, if there is no approved plan, or if the GHG reduction plan does not include all of the components described above, the Proposed Project would move to Tier 3.
- **Tier 3** establishes a screening significance threshold level to determine significance using a 90 percent GHG emissions capture rate. The 90 percent capture rate GHG significance screening level in Tier 3 for stationary sources was derived using the following methodology. Using the SCAQMD's Annual Emission Reporting (AER) Program, the reported annual natural gas consumption for 1,297 permitted facilities for 2006 through 2007 was compiled, and the facilities were rank-ordered to estimate the 90th percentile of the cumulative natural gas usage for all permitted facilities. Approximately 10 percent of facilities evaluated comprise more than 90 percent of the total natural gas consumption, which corresponds to 10,000 metric tons of carbon dioxide (CO₂) equivalent emissions per year (MTCO₂e/yr) (the majority of combustion emissions consist of CO₂). At the November 2009 SCAQMD Board meeting, staff recommended the following GHG screening thresholds:
 - **Residential:** 3,500 tons per year (tpy) CO₂e
 - **Commercial:** 1,400 tpy CO₂e
 - **Mixed Use:** 3,000 tpy CO₂e

If a project's GHG emissions exceed the GHG screening threshold, the project would move to Tier 4.

- **Tier 4** establishes a decision-tree approach that includes compliance options for projects that have incorporated design features into the project and/or that implement GHG mitigation measures.
 - **Option No. 1: Reduction Target (percentage)**
 - Maximum percentage reduction (land use sector reduction, 23.9 percent; Scoping Plan overall reduction, 28 percent)
 - Target updated as AB 32 Scoping Plan revised
 - Residual emissions not to exceed 25,000 million tons per year (mty) CO₂e
 - Base case scenario to be defined

○ **Option No. 2: Efficiency Target**

- 4.6 million tons of CO₂e per Service Population (SP) for project-level threshold (land use emissions only) and total residual emissions not to exceed 25,000 mty CO₂e
- 6.6 million tons of CO₂e per SP for plan level threshold (all sectors)

If a project fails to meet any of these emissions reduction targets and efficiency targets, the project would move to Tier 5.

- **Tier 5** would require projects that implement off-site GHG mitigation that includes purchasing offsets to reduce GHG emission impacts to purchase sufficient offsets for the life of the project (30 years) to reduce GHG emissions to less than the applicable GHG screening threshold level.

The interim GHG significance threshold that was adopted by the SCAQMD Governing Board only applies to stationary source/industrial projects where the SCAQMD is the Lead Agency under CEQA. The types of projects in which the significance threshold applies include SCAQMD rules, rule amendments, and plans (e.g., Air Quality Management Plans). In addition, the SCAQMD may be the Lead Agency under CEQA for projects that require discretionary approval (i.e., projects that require air quality permits from the SCAQMD and which allow the SCAQMD to exercise discretion in regard to imposing permit conditions). However, for the purposes of this analysis, the IRWD will use the Tier 3 threshold.

4.7.2 Threshold Analysis

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

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

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

However, the analysis of GHGs from a project is a very different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants, significance thresholds are based on daily emissions because attainment or nonattainment is based on daily exceedances of applicable ambient

air quality standards (AAQS). Further, several AAQS are based on relatively short-term exposure effects on human health (e.g., 1-hour and 8-hour). Since the half-life of CO₂ is approximately 100 years, for example, the effects of GHGs are longer term, potentially affecting GCC over a relatively long time frame. As a result, the SCAQMD's current position is to evaluate GHG effects over a longer time frame than a single day.

As noted above, at the November 2009 Board meeting, the SCAQMD recommended a CEQA GHG interim threshold of 1,400 million tons of CO₂e per year for industrial sources. As additional information is compiled regarding the level of GHG emissions that constitute a significant cumulative climate change impact, SCAQMD will continue to revisit and possibly revise the level of GHG emissions considered to be significant. For the purposes of this analysis, the IRWD will apply the SCAQMD's recommended interim threshold for industrial uses.

Construction and Operational GHG Emissions. GHG emissions associated with the Proposed Project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. Construction activities produce combustion emissions from various sources, such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Accordingly, primarily combustion GHG emissions in the form of CO₂, methane (CH₄), and nitrous oxide (N₂O) will be generated by the off-road equipment and on-road vehicles during the construction phase of the Proposed Project. The CalEEMod modeling indicates that construction of each Proposed Project site is expected to generate a total of 9.41 metric tons of GHG emissions (CO₂e emissions). If all five Proposed Project sites are built within the same year, the construction emissions would increase to 47.05 metric tons of CO₂e. Per the requirements of the SCAQMD's recommended GHG significance threshold, the GHG construction emissions are amortized for a period of 30 years, resulting in an estimated 1.57 metric tons of CO₂e per year (see Table 4.7.A).

Table 4.7.A: Greenhouse Gas Emissions

Emissions Source	CO ₂ e Emissions (metric tons/year)
Peak Construction ¹	1.6
Diesel Consumption	4.1
Total Annual Emissions	5.7
SCAQMD Thresholds	1,400
Significant?	No

Source: LSA Associates, Inc., June 2011.

¹ Construction emissions have been amortized for 30 years per the GHG significance threshold adopted by the SCAQMD on December 5, 2008.

CO₂e = carbon dioxide equivalent

SCAQMD = South Coast Air Quality Management District

The vast majority of the potential GHG emissions associated with Proposed Project's operations will come from the monthly testing of the emergency generators, with a small portion coming from energy consumption. At 50 percent load, each generator would consume up to 21.2 liters of diesel fuel per hour. Monthly testing of 5 generators would consume 1,272 liters of diesel fuel per year. Each liter of diesel fuel burned produces 3.2 kilograms (kg) of CO₂e for a total of 4,070 kg or 4.1 metric tons of CO₂e. Table 4.7.A lists the potential GHG construction and operation emissions from the Proposed Project and shows that project GHG emissions will be below the SCAQMD's GHG threshold of 1,400 mty. Therefore, less than significant impacts related to this issue are anticipated and no mitigation is required.

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

Less Than Significant Impact. Implementation of the Proposed Project would not result in GHG emission levels that would substantially conflict with implementation of the GHG reduction goals under AB 32 or other State regulations, fail to achieve energy efficiency, or increase consumption of fuels that contribute to GHG emissions when they are consumed.

While the direct output of GHGs from the Proposed Project can theoretically be estimated based on methodologies available to date, the emission of GHGs associated with implementation of any one development project would not likely result in any directly correlative and measurable global or local effects. Any potential impact of a project on climate change would be considered cumulative because the project is making an incremental contribution to an overall change in the environment.

Refer to Response 4.7.a for additional information regarding applicable GHG plans and policies. Therefore, less than significant impacts related to this issue are anticipated, and no mitigation is required.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site included on a list of Government Code section 65962.5, and as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private helipad or airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.8 HAZARDS AND HAZARDOUS MATERIALS

The information summarized below is based on information in the Environmental FirstSearch Report conducted for the Proposed Project. This report is found in its entirety in Appendix D.

Would the project:

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

Less Than Significant Impact. The proposed improvements would replace the portable emergency temporary generators at the five domestic water BPSs. Four of the five permanent generators would be contained within a CMU block wall for protection against fires. Construction of the Proposed

Project would involve the use of limited quantities of chemical agents, solvents, paints, vehicle fuel, and other hazardous materials. Accidental releases of small quantities of these substances could contaminate soils and degrade the quality of surface water and groundwater, resulting in a public safety hazard. Because of the relatively small volume of such materials on site and the limited duration of construction, the potential for release and exposure is limited to the duration of construction. All use and disposal of hazardous materials must comply with existing State and federal government regulations, and potential impacts to the public or the environment are considered less than significant.

A regulatory information search (database search reports) was conducted for the Proposed Project site (Appendix D). The database search reports were prepared by Track Info Services, LLC (Track Info). The search radii met the criteria specified in the American Society for Testing and Materials (ASTM) E 1527-05 (*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*). A regulatory records search of this nature is based on information published by federal, State, and local regulatory agencies and is used to determine whether the subject property or nearby properties are listed as having a past or present record of actual or potential environmental impacts from hazardous substances or materials. Regulatory listings include only those facilities that are known to the regulatory agencies at the time of publication. The database search reports (dated May 2, 2011) for the five domestic water BPSs, summarize hazardous releases within 0.75 mi of each Proposed Project site. Each site is further discussed below:

- **Fleming BPS – No Impact:** The Track Info Environmental FirstSearch Summary Report summarizes the records identified in this database review. The database search report listed one solid waste land (SWL) facility within 0.125 mi and four underground storage tanks (USTs) within 0.25 mi. Due to the type of the Proposed Project and its distance from these sites, these facilities are unlikely to pose a concern to the construction of the Proposed Project.

In addition, a total of two nongeocoded sites¹ (consisting of one nongeocoded SWL site and one nongeocoded tribal land site) were reported within the FirstSearch database report. These nongeocoded facilities were determined to be greater than 1 mi from the Proposed Project limits and would not pose a potential concern to the Proposed Project site.

- **Shaw BPS – No Impact:** A total of two nongeocoded sites² (consisting of one nongeocoded SWL site and one nongeocoded tribal land site) were reported within the FirstSearch database report. These nongeocoded facilities were determined to be greater than 1 mi from the Proposed Project limits and would not pose a potential concern to the Proposed Project site.
- **Read BPS – No Impact:** A total of two nongeocoded sites³ (consisting of one nongeocoded SWL site and one nongeocoded tribal land site) were reported within the FirstSearch database report. These nongeocoded facilities were determined to be greater than 1 mi from the Proposed Project limits and would not pose a potential concern to the Proposed Project site.

¹ Nongeocoded facilities consist of facilities for which missing or inaccurate information has been provided by the reporting agency, or for which insufficient information prevents the proper placement of a facility on a given map.

² Ibid.

³ Ibid.

- **Williams BPS – No Impact:** One nongeocoded tribal land site¹ was reported within the FirstSearch database report. This tribal land site was determined to be greater than 1 mi from the Proposed Project limits and would not pose a potential concern to the Proposed Project site.
 - **Manning BPS – No Impact:** One nongeocoded tribal land site² was reported within the FirstSearch database report. This tribal land site was determined to be greater than 1 mi from the Proposed Project limits and would not pose a potential concern to the Proposed Project site.
- b) **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

No Impact. Refer to Response 4.8.a above.

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

Less Than Significant Impact. The Proposed Project sites involve five separate sublocations. The potential of these to emit hazardous emissions or to handle hazardous or acutely hazardous materials substances or waste within 0.25 mi of an existing or proposed school is summarized as follows:

- **Fleming BPS – No Impact:** Based upon the site visit on May 11, 2011, and research on the internet, there are no existing or proposed schools located within 0.25 mi of the Proposed Project site. Therefore, no impacts related to this issue will result from the Proposed Project, and no mitigation measures are required.
- **Shaw BPS – No Impact:** Based upon the site visit on May 11, 2011, and research on the internet, there are no existing or proposed schools located within 0.25 mi of the Proposed Project site. Therefore, no impacts related to this issue will result from the Proposed Project, and no mitigation measures are required.
- **Read BPS – No Impact:** Based upon the site visit on May 11, 2011, and research on the internet, there are no existing or proposed schools located within 0.25 mi of the Proposed Project site. Therefore, no impacts related to this issue will result from the Proposed Project, and no mitigation measures are required.
- **Williams BPS – No Impact:** Based upon the site visit on May 11, 2011, and research on the internet, there are no existing or proposed schools located within 0.25 mi of the Proposed Project site. Therefore, no impacts related to this issue will result from the Proposed Project, and no mitigation measures are required.
- **Manning BPS – No Impact:** Based upon the site visit on May 11, 2011, and research on the internet, there are no existing or proposed schools located within 0.25 mi of the Proposed Project

¹ Nongeocoded facilities consist of facilities where missing or inaccurate information has been provided by the reporting agency, or where insufficient information prevents the proper placement of a facility on a given map.

² Ibid.

site. Therefore, no impacts related to this issue will result from the Proposed Project, and no mitigation measures are required.

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

Less Than Significant Impact. None of the Proposed Project sites are included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5.¹ The potential exists for unknown hazardous contamination to be revealed during project construction. If significant surface or subsurface staining is uncovered during grading or excavation activities, it will be investigated for hazardous content, and appropriate measures will be taken in accordance with all applicable regulations. Due to the nature of activities within the Proposed Project area, the probability of contaminated soils being present on site is considered low.

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

No Impact. None of the Proposed Project sites is located within the vicinity of a private airstrip.² Therefore, there are no impacts related to this issue.

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

No Impact. The Proposed Project improvements are not located within the vicinity of a private airstrip³ and, therefore, would not result in a safety hazard for people residing or working in the Proposed Project area.

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

No Impact. The proposed improvements would not impair implementation with an adopted emergency response plan or evacuation plan. The Proposed Project would not require closure of the roadway; however, prior to construction, IRWD would coordinate with emergency response providers to ensure the Proposed Project does not result in temporary interference with an emergency response plan or evacuation plan.

¹ California Department of Toxic Substances Control, Hazardous Waste and Substances Site List – Site Cleanup (Cortese List), http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm. Accessed on May 10, 2011.

² Orange County Airport Planning Areas, Airport Land Use Commission for Orange County, May 10, 2011.

³ Ibid.

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

No Impact. The Proposed Project site is located within a high fire hazard area. In October 2007, the Santiago Fire burned through IRWD's Santiago Canyon service area, threatening homes, businesses, and the IRWD reservoirs and BPSs in the region. Water pressure in this area is maintained by five BPSs, all of which are critical to firefighting operations. During the Santiago Fire, power outages were experienced at each of the pump stations, requiring the installation of portable emergency generators at each site. However, these temporary generators are also susceptible to damage by wildfires and are not permitted for permanent installation. The intent of the Proposed Project is replacement of the portable generators at each of the five BPS sites identified to improve the reliability of the water system during power outages, particularly when the outages are caused by fires within the canyons. In addition, four of the five permanent generators would be contained within a CMU block wall for additional protection against fires. As a result, the Proposed Project would help to reduce potential significant risk or loss, injury, or death involving wildland fires.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.9 HYDROLOGY AND WATER QUALITY

Would the project:

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

Less Than Significant Impact. Short-term and long-term erosion and water quality impacts have the potential to occur.

Long-Term Impacts. Operation of the Proposed Project would have a limited potential for increasing pollutant levels in localized runoff, as a result of the negligible amount of impervious surface associated with the Proposed Project. The Proposed Project includes replacement of the portable generators at each of the five BPS sites identified to improve the reliability of the water system during power outages. This Proposed Project would replace the portable generators at each of the sites with permanent electrical emergency generators, each set with a diesel engine and integral 24-hour fuel storage on a concrete pad. Four of the five permanent generators would be contained within a CMU block wall for protection against fires. Therefore, there is a potential for a minor increase in the amount of impervious surfaces at the Williams and Manning sites. The other three sites will place the generators on existing impervious surfaces. However, this increase is negligible and is not anticipated to result in a violation of water quality standards.

Short-Term Impacts. During the construction phase, it is possible that some discharge of sediments and pollutants might occur into surface waters from the use of construction equipment and as a result of excavation and construction activities. Pollutants of concern during construction include sediments, trash, oil and grease fuels from equipment, and materials used for concrete and asphalt installation. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality and aquatic habitats. While these discharges might occur, their effect on water quality would be minimized through the incorporation of several procedures imposed on the Proposed Project. Such conditions are those prescribed in the general National Pollution Discharge Elimination System (NPDES) dewatering permit issued by the California Regional Water Quality Control Board (RWQCB), the general NPDES Permit for Construction Activities issued by the California Water Resources Control Board, and the Areawide Urban Stormwater Runoff Permit for Orange County issued by the California RWQCB. The following minimum requirements will be implemented to reduce impacts to water quality during construction.

- **Erosion and Sediment Control:** Sediments from areas disturbed by construction shall be retained on site using an effective combination of erosion and sediment maximum extent practicable (MEP) controls, and stockpiles of soil shall be properly contained to minimize sediment transport from the site to streets, drainage facilities, or adjacent properties via runoff, vehicle tracking, or wind.
- **Waste and Materials Management Control:** Construction-related materials, wastes, spills, or residues shall be retained on site to minimize transport from the site to streets, drainage facilities, or adjoining property by wind or runoff.

In consideration of the nature of the Proposed Project and the implementation of the minimum requirements identified above, impacts are considered less than significant.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

No Impact. The Proposed Project site is located outside the Orange County Groundwater Basin, as shown in the County General Plan, Resources Element. According to the geotechnical report prepared for the Proposed Project, historic groundwater is mapped as 5–10 ft below ground surface (bgs) in both Silverado Canyon and Santiago Canyon. Groundwater at the Proposed Project sites are estimated to range from 10 ft bgs to 30 ft bgs. However, surface water and perched groundwater may be encountered at the Manning site. The Proposed Project includes replacement of the portable generators at each of the sites with permanent electrical emergency generators, each set with a diesel engine and integral 24-hour fuel storage on a concrete pad. In addition, the Proposed Project does not include groundwater extraction or injection, or create a demand for groundwater, and the Proposed Project site is not located in a groundwater recharge area, therefore, the Proposed Project would have no effect on groundwater quantities. Though not anticipated, groundwater dewatering may be necessary. Dewatered groundwater may contain high levels of total dissolved solids (TDS), salinity, high nitrates, or other contaminants that could be introduced to surface waters during construction. Groundwater and any other nonstorm water dewatering activities are subject to the requirements of the De Minimus Permit (Order Number R8-2009-0003 NPDES Number CAG998001) and any subsequent permit. Compliance with this permit, as stipulated in Standard Minimization Measure WQ-1, would avoid adverse impacts to water quality via dewatering. Therefore, no impacts related to groundwater resources would occur from implementation of the Proposed Project.

4.9.1 Standard Minimization Measure

WQ-1 Construction site dewatering, if required, must comply with the *General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant Threat to Water Quality* (Order Number R8-2009-0003 NPDES Number CAG998001), and any subsequent updates to the permit at the time of construction. Dewatering best management practices (BMPs) must be used to control sediment and pollutants, and the discharges must comply with the Waste Discharge Requirements (WDRs) issued by the San Diego RWQCB. This will include submission of a Notice of Intent (NOI) to the San Diego RWQCB at least 3 months before the start of dewatering and compliance with all applicable provisions in the De Minimus Permit, including water sampling, analysis, and reporting of dewatering-related discharges.

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?**

Less Than Significant Impact. The Proposed Project includes replacement of the portable generators at each of the five BPS sites identified to improve the reliability of the water system during power outages. The resulting area of disturbance at each site is less than (<) 1 ac. The

replacement of the generator facilities and modification to the fence would not alter the course of a stream or a river, but would result in minor modifications to the drainage from these facilities into the adjacent tributary (for the Shaw and Read BPS sites only). However, the existing drainage pattern would be maintained. With implementation of the standard BMPs, potential erosion impacts due to construction of the Proposed Project improvements are considered less than significant. In addition, with implementation of the minimum requirements identified above, the Proposed Project improvements would not increase the potential sediment load of downstream flow over existing levels. See Response 4.9(a) for additional discussion.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?

Less Than Significant Impact. The Proposed Project includes replacement of the portable generators at each of the five BPS sites identified to improve the reliability of the water system during power outages. The resulting area of disturbance at each site is less than (<) 1 ac. The replacement of the generator facilities and modification to the fence would not alter the course of a stream or a river, but would result in minor modifications to the drainage from these facilities into the adjacent tributary (for the Shaw and Read BPS sites only). However, the existing drainage pattern would be maintained. With implementation of the minimum requirements, potential erosion impacts due to construction of the Proposed Project improvements are considered less than significant. In addition, with implementation of the standard procedures identified above, the Proposed Project improvements would not result in flooding on- or off-site. See Response 4.9(a) for additional discussion. Potential impacts related to on- or off-site flooding due to changes in drainage patterns are anticipated to be less than significant.

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

Less Than Significant Impact. See responses to 4.9.a, 4.9.c, and 4.9.d above. As stated above, development of the Proposed Project would not substantially increase the volume of runoff from the project site and would therefore not exceed the capacity of the existing storm water drainage system. The Proposed Project rehabilitates the existing facilities; therefore, the amount of impervious surfaces is the same or nearly the same as existing conditions. Thus, pollutant contribution would be similar to existing conditions. In addition, with implementation of the minimum requirements, the Proposed Project would not result in substantial additional sources of polluted runoff.

f) Have a significant adverse impact on groundwater quality or otherwise substantially degrade water quality?

Less Than Significant Impact. See responses to 4.9.a and 4.9.b; Section 303(d) of the Clean Water Act (CWA) requires that the State adopt water quality objectives for surface waters. The RWQCB has adopted a Basin Plan for its region of responsibility, which includes the County. The Basin Plan contains water quality objectives considered necessary to protect the specific beneficial uses it

identifies. Section 303(d) specifically requires the State to develop a list of impaired water bodies and the subsequent numeric Total Maximum Daily Load (TMDL) for whichever constituents impair a particular water body. These constituents include inorganic and organic chemical compounds, metals, sediment, and biological agents.

The TMDL is the total amount of a constituent that can be discharged while meeting water quality objectives and protecting beneficial uses. It is the sum of the individual load allocations for point-source inputs (e.g., an industrial plant), load allocations for nonpoint-source inputs (e.g., runoff from urban areas), and natural background, with a margin of safety (RWQCB 2002).

The State Water Board approved the 2010 Integrated Report on August 4, 2010. The 2010 Integrated Report includes changes to the 2006 CWA Section 303(d) list of impaired water bodies and the CWA Section 305(b) report on the quality of waters in California. The 2010 Integrated Report and supporting documents were submitted to the United States Environmental Protection Agency (USEPA) for final approval on October 13, 2010. On November 12, 2010, USEPA approved the inclusion of all waters to California's 2008–2010 Section 303(d) list of impaired waters requiring TMDLs and disapproved the omission of several water bodies and associated pollutants that meet federal listing requirements. The Proposed Project area discharges to Silverado Creek. Silverado Creek is currently listed as impaired for salinity, TDS, chlorides, and pathogens. TMDL levels have not yet been established for Silverado Creek.

There is a very low potential for impairment of the adjacent tributary for these particular pollutants of concern during construction. The minimum requirements identified above would be employed during construction to ensure that sediment, hazardous materials, and other urban pollutants do not impair water quality. Therefore, the Proposed Project would not contribute pollutants of concern to the receiving water body, and no mitigation measures would be required.

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

No Impact. The Proposed Project involves replacement of the portable generators at each of the five BPS sites and does not involve the placement of housing.

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

No Impact. The Proposed Project improvements would replace the portable generators at each of the five BPS sites. The replacement of the portable generators would not impede or redirect flood flows. Therefore, no impacts are anticipated.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. Santiago Reservoir, north of the Proposed Project area, is an earthen dam that impounds water forming Irvine Lake. Irvine Lake is approximately 7–10 mi north of the project area. According to the County’s General Plan, Safety Element, the Proposed Project area is not within the dam inundation area should the Santiago Creek Dam fail. The pattern of flow would be away from the project site, not toward the Proposed Project site. Therefore, there would be no risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. The closest body of water to the Proposed Project site is Irvine Lake, which is approximately 7–10 mi north of the project site. In addition, the Proposed Project area is approximately 15 mi inland, far from the influence of a tsunami. Therefore, the risks associated with a seiche or a tsunami are considered low. The potential for mudflow at the project site is also low given that the nearby waterbodies are contained within the flood zone. Therefore, the risk of seiche, tsunami, or mudflow as a result of the Proposed Project is no greater than exists today.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.10 LAND USE AND PLANNING

Would the project:

a) Physically divide an established community?

No Impact. There are several rural communities in the vicinity of the Proposed Project sites. However, each of the BPS stations is an existing facility serving the surrounding communities. The intent of the Proposed Project is replacement of the portable generators at each of the five BPS sites identified to improve the reliability of the water system during power outages, particularly when the outages are caused by fires in the canyons. In addition, four of the five permanent generators would be contained within a CMU block wall for protection against fires. The project is anticipated to provide a more reliable water supply to the existing community in the event of a wildland fire. Therefore, the Proposed Project improvements would not divide an established community.

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

No Impact. The County's General Plan contains goals, objectives, and policies to guide and implement current and future land use planning and growth within the County. The Proposed Project area is designated Rural Residential in the County's General Plan and Zoning land use map. No action that would affect a change of land use is proposed. The Proposed Project would improve the reliability of the water system during power outages, particularly when the outages are caused by fires in the canyons. The proposed improvements would not alter the character of the Proposed Project area. Since these modifications would not change the character or nature of the overall site, the changes remain consistent with the policies of the County's General Plan and Zoning Ordinance.

A portion of the Manning site is located on the USFS parcels. The IRWD currently has an existing easement and agreement with the USFS for the existing pump station site. The agreement will be

amended to allow for the addition of the permanent generators to operate on site. A separate environmental review to comply with NEPA is being undertaken by the USFS as part of the process to amend the existing permit.

No other conflicts with local plans are known, and none are anticipated. Therefore, no adverse land use impacts are anticipated.

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

Less Than Significant Impact. The Proposed Project is within a NCCP/HCP that may result in direct impacts to less than 0.01 ac of coast live oak woodland. Oak woodland is a covered habitat under the NCCP/HCP, under which IRWD is a Participating Landowner and signatory. As such, impacts to the less than 0.01 ac of oak woodland vegetation on site would be considered less than significant.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.11 MINERAL RESOURCES

Would the project:

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

No Impact. As shown in the Resources Element of the County General Plan, the Proposed Project improvements are not located within an area of known mineral resources of either regional or local value.

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

No Impact. Refer to Response 4.13(a) above.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
NOISE. Would the project result in:				
a) Exposure of persons to, or generation of noise levels in excess of standards established in the Orange County General Plan and noise ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to, or generation of excessive ground-borne vibration or ground-borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within the airport environs land use plan, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private helipad or airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.12 NOISE

Would the project:

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

Less than Significant with Mitigation. The Proposed Project would replace portable generators at five BPS with permanent electrical emergency generators set with diesel engines. The operations of the permanent electric emergency generators during an emergency event are exempt from the County Noise Ordinance under Section 4-6-7, Special Provisions. However, these five emergency generators are subject to the County's noise ordinance during reliability testing. Typically, tests would occur during daytime hours every month for a period of up to 45 minutes. An 8 ft high masonry wall surrounding the sites at Manning, Read, Shaw, and Williams would provide a noise level reduction of 8 decibels (dB) because the generator would be located well under the shadow of the perimeter wall. No perimeter wall or barrier is proposed for the emergency generator at Fleming. Table 4.12.A shows that the emergency generators at Fleming and Williams with the weatherproof enclosure would be sufficient to reduce noise levels to below the County's daytime noise standard of 55 A-weighted decibels (dBA). However, the emergency generators at Manning and Read would require Quiet (Level II) Enclosures, and the emergency generator at Shaw would require Premium (Level III) Enclosures to reduce noise levels to below the County's daytime noise standard of 55 dBA. The Quiet (Level II) Enclosure and the Premium (Level III) Enclosure would provide a noise level reduction of

Table 4.12.A: Noise Levels at the Closest Residence from the Emergency Generator

Location	Approximate Distance to the Closest Residence (ft)	With Weatherproof Enclosure				Noise Level	
		Noise Level at 23 ft (dB)	Noise Level at the Closest Residence (dB)	8 ft High Perimeter Wall ¹	Noise Level (dB)	With Quiet (Level II) Enclosure (dB)	With Premium (Level III) Enclosure (dB)
Fleming	1,580	88.0	50.3	No	50.3 ²	37.3	32.3
Manning	165	88.0	69.9	Yes	61.9	48.9	43.9
Read	140	88.0	71.3	Yes	63.3	50.3	45.3
Shaw	70	88.0	77.3	Yes	69.3	56.3	51.3
Williams	780	88.0	56.4	Yes	48.4	35.4	30.4

Source: LSA Associates, Inc., June 2011.

¹ If there is an 8 ft high perimeter masonry wall planned, the wall would provide a noise level reduction of 8 dB.

² Bold numbers represent noise levels that would comply with the County of Orange's noise daytime standard of 55 dB.

dB = decibels

ft = feet

13 dB and 18 dB, respectively, compared to the Weatherproof Enclosure. Therefore, long-term potential operational noise impacts are considered less than significant with mitigation.

Construction activities could generate substantial noise that may affect residents located closest to the project area. Construction of the Proposed Project is expected to require the use of one bulldozer, a water truck, and a pickup truck. The maximum noise level generated by one bulldozer is assumed to be approximately 85 dBA maximum instantaneous noise level (L_{max}) at a distance of 50 ft. Also, the maximum noise level generated by water trucks and pickup trucks is approximately 86 dBA L_{max} at 50 ft from these vehicles. Each doubling of the sound source with equal strength increases the noise level by 3 dBA. Each piece of construction equipment operates as an individual point source. The worst-case composite noise level at the nearest residence during this phase of construction would be 90 dBA L_{max} (at a distance of 50 ft from an active construction area). The closest residences located immediately adjacent to the Proposed Project, within 50 ft from the project site, would at times be exposed to high intermittent construction noise of 90 dBA L_{max} or higher. However, construction of the Proposed Project would comply with applicable provisions of the County Noise Ordinances, which limit construction activities to between 7:00 a.m. and 8:00 p.m., Monday through Saturday, and prohibit activities on Sundays and federal holidays. Therefore, potential short-term noise impacts are considered less than significant, and no mitigation is required.

4.12.1 Mitigation Measure

NOISE-1 The following measures are required to reduce noise levels to comply with the County's noise ordinance for daytime hours:

- Quiet (Level II) Enclosures manufactured by Cummins Power Generation will be required for emergency generators located at Manning and Read. This enclosure is a cover for the emergency generator to attenuate noise levels by 13 dB.

- Premium (Level III) Enclosures manufactured by Cummins Power Generation will be required for the emergency generator located at Shaw. This enclosure is a cover for the emergency generator and will attenuate noise levels by 18 dB.

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

Less Than Significant Impact. Construction of the Proposed Project would not result in significant groundborne vibration or groundborne noise on properties adjacent to the project site, because the use of bulldozers, water trucks, and pick-up trucks could be distinctly perceptible but would not cause property damage to the closest residence from the project construction boundary. Construction of the Proposed Project would comply with applicable provisions of the County Noise Ordinances, which limit construction activities to between 7:00 a.m. and 8:00 p.m., Monday through Saturday, and prohibit activities on Sundays and federal holidays. Furthermore, project operation would not generate groundborne noise and vibration that is above existing levels. Therefore, groundborne noise and vibration impacts are considered less than significant, and no mitigation measures are required.

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

No Impact. The proposed permanent electrical emergency generators set with diesel engines at the five locations would only operate during monthly reliability testing or an emergency event. Therefore, the Proposed Project would not permanently increase the ambient noise levels which exist without the Proposed Project.

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

Less Than Significant Impact. Although there would be, at times, high intermittent noise in the project area during construction, it would not significantly affect land uses adjacent to the Proposed Project site. In addition, construction at the Proposed Project site would comply with the operating restrictions specified by the County's Noise Ordinance. Therefore, potential construction noise impacts are considered less than significant with compliance to the noise ordinance.

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

No Impact. The Proposed Project is not located within an airport land use plan or within 2 mi of any airport. Therefore, no impacts related to aircraft noise would occur as a result of the Proposed Project.

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

No Impact. The Proposed Project site is not located within the vicinity of a private airstrip. Therefore, there are no impacts related to this issue.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or, indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.13 POPULATION AND HOUSING

Would the project:

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

No Impact. The Proposed Project does not directly result in population growth and does not indirectly add capacity allowing population growth. The Proposed Project would replace the portable generators at each of five sites with permanent electrical emergency generators, each set with a diesel engine and integral 24-hour fuel storage on a concrete pad. Four of the five permanent generators would be contained within a CMU block wall for protection against fires. Therefore, the Proposed Project would help to better serve existing residents within the service area, and as such, would not facilitate population growth or increase vehicle trips.

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

No Impact. There are several communities or housing tracts surrounding the Proposed Project sites; however, the Proposed Project is generally located within existing IRWD and County right-of-way; therefore, the proposed improvements do not displace any housing.

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

No Impact. There are several communities or housing tracts surrounding the Proposed Project sites; however, the Proposed Project is generally located within existing IRWD and County right-of-way; therefore, the proposed improvements do not displace any housing, and no people would be displaced.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
PUBLIC SERVICES. Would the project:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.14 PUBLIC SERVICES

Would the project:

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services, including: fire protection, police protection, schools, parks, and other public facilities?**

No Impact. The intent of the Proposed Project is replacement of the portable generators at each of the five BPS sites identified to improve the reliability of the water system during power outages, particularly when the outages are caused by fires in the canyons. In addition, four of the five permanent generators would be contained within a CMU block wall for protection against fires. The Proposed Project would not generate demand for emergency services, schools, parks, or other facilities. However, the Proposed Project is anticipated to provide reliable water supply in the event of a wildland fire. Prior to construction, the IRWD will coordinate with emergency response providers to ensure the Proposed Project does not interfere with emergency response times in any other way.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
RECREATION. Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.15 RECREATION

Would the project:

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

Less than Significant Impact. The proposed improvements would replace the portable emergency temporary generators at the five domestic water BPSs. Four of the five permanent generators would be contained within a CMU block wall for protection against fires. As described in section 4.16.(g), Santiago Canyon Road is a Class II bike trail. The Proposed Project would not result in permanent impacts to this bikeway since the improvements are located outside of the roadway. Construction activities of the Proposed Project may temporarily impact the on-street bikeway requiring limited rerouting around the construction area. However, the impacts would be temporary during construction only, and bikes, similar to motor vehicles, would be detoured around the construction area and provided through-access around the project site. Therefore, the Proposed Project does not affect demand for recreational resources; would not affect the use of existing neighborhood, regional, or other recreational facilities; and would not create a permanent impairment to the bike trail; therefore, impacts are considered temporary and less than significant.

IRWD currently has an existing easement and agreement with the USFS for the existing pump station site. The agreement will be revised to allow for the permanent installation of emergency generators to support the existing pump station. Impacts associated with the permanent generators installation are detailed throughout this IS/MND. In addition, the USFS will prepare a separate NEPA document to detail the impacts to USFS land. Given that the site is already permitted for this use, the addition of a permanent generator and block wall would not result in substantial physical deterioration of USFS land.

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

Less than Significant Impact. See Response 4.15(a) above.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
TRANSPORTATION/TRAFFIC. Would the project:				
a) Result in an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.16 TRANSPORTATION/CIRCULATION

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

Less Than Significant Impact. The Proposed Project improvements would replace the portable generators at each of five sites with permanent electrical emergency generators, each set with a diesel engine and integral 24-hour fuel storage on a concrete pad. Santiago Canyon Road is a two-lane roadway and is classified as a Primary Arterial in the County General Plan, Transportation Element. According to the Orange County Traffic Flow Map,¹ Santiago Canyon Road currently carries up to approximately 6,000 vehicles per day.

Operation of the portable generators would not increase traffic demand on Santiago Canyon Road. Vehicle trips would be limited to maintenance vehicles. No greater trips would be generated than currently occur for maintenance activities. During construction, vehicle trips of workers and construction vehicles would occur. Up to approximately five workers would be required on a given workday. Construction and haul vehicle trips during construction are expected, due to excavation and

¹ Orange County Traffic Flow Map, 2009, <http://www.octa.net/pdf/2009trafficflow.pdf>. Accessed on May 31, 2011.

block wall construction activities. Maximum weekday trip generation is estimated to be up to 10 daily trips (i.e., one inbound and one outbound trip per each worker and haul truck).

The addition of up to 10 daily construction trips to Santiago Canyon Road would increase traffic on these roadways by less than 1 percent. Placement of the portable generators may require limited lane closures around the construction area; however, closure of the roadway would not be required. This detouring could result in localized traffic delays. The traffic generated by the construction activities and traffic delays is temporary and would not be considered substantial when added to the existing traffic load on Santiago Canyon Road, and would not cause any measurable deterioration in daily traffic operations. In addition, a Traffic Detour Plan will be prepared that requires the use of traffic controls to ensure safety to the public at all times during construction. Therefore, short-term traffic impacts resulting from construction activities are considered less than significant.

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

No Impact. Santiago Canyon Road is not identified as part of the Orange County Congestion Management Plan (CMP) Highway System.¹ The CMP requires that a traffic impact analysis be conducted when a project generates 1,600 daily trips and directly accesses a CMP facility. When a project does not directly access a CMP facility, the threshold is 2,400 daily trips. After construction, the Proposed Project would not generate any traffic trips other than limited maintenance trips by IRWD staff. As stated in Response 4.15 (a), the Proposed Project would generate approximately up to 10 trips per day during construction and may require temporary lane closures around the Proposed Project area during the construction. This temporary increase would not significantly impact any surrounding roadway.

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

No Impact. The proposed improvements are confined to the Proposed Project site and are infrastructure improvements that would not result in any change to air traffic patterns or levels of air traffic.

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

No Impact. The proposed improvements would replace the portable generators at each of five sites with permanent electrical emergency generators, each set with a diesel engine and integral 24-hour fuel storage on a concrete pad. No permanent changes to the roadway's existing design or the local circulation are proposed as part of the project. As a result, there are no incompatible uses or hazardous design features associated with the Proposed Project. In fact, the Proposed Project would have a net positive effect by improving the reliability of the water system during power outages,

¹ Orange County CMP, 2007. <http://www.octa.net/pdf/cmp09.pdf>. Accessed on May 31, 2011.

particularly when the outages are caused by fires in the canyons. Therefore, there are no impacts associated with this issue.

e) Result in inadequate emergency access?

Less than Significant Impact. The Proposed Project would not require emergency access, nor would it impede emergency access to the surrounding land uses. The Proposed Project would require limited lane closures around the construction area; however, closure of the roadway would not be required. This detouring could result in localized traffic delays. Prior to construction, IRWD would coordinate with emergency response providers prior to ensuring that the Proposed Project does not result in temporary interference with emergency access routes.

f) Result in inadequate parking capacity?

Less than Significant Impact. The Proposed Project would not generate a permanent demand for parking or change the parking capacity of the surrounding area. Construction workers would utilize existing street right-of-way along local streets for parking employee vehicles and construction equipment. These parking impacts are temporary and are considered less than significant.

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

Less than Significant Impact. The Proposed Project is adjacent to an on-street bikeway. The Orange County Existing Bikeways map has identified Santiago Canyon Road as a Class II Bikeway. The Proposed Project would not result in permanent impacts to this bikeway since the improvements are located outside of the roadway. Construction activities of the Proposed Project may temporarily impact the on-street bikeway requiring limited rerouting around the construction area. However, the impacts would be temporary during construction only, and bikes, similar to motor vehicles, would be detoured around the construction area and provided through-access along Santiago Canyon Road. Therefore, temporary construction impacts to alternative transportation uses are considered less than significant. In addition, because the Proposed Project would not generate either vehicle or alternative transportation trips, it would not affect any adopted policies, plans, or programs supporting alternative transportation.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.17 UTILITIES AND SERVICE SYSTEMS

Would the project:

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

No Impact. The Proposed Project improvements do not create any wastewater demand, and therefore, would not exceed wastewater treatment requirements of the State Water Resources Control Board (SWRCB) (Santa Ana Region).

- b) **Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?**

No Impact. The Proposed Project improvements do not create a demand requiring the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts.

- c) **Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?**

No Impact. The Proposed Project does not result in a substantial net increase in peak discharge and would not substantially change the existing condition or result in environmental effects. Refer to the discussion in Section 4.9(a).

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

No Impact. As an infrastructure improvement project (replacement of the portable generators at each of five sites with permanent electrical emergency generators, each set with a diesel engine and integral 24-hour fuel storage on a concrete pad), the Proposed Project does not create a demand for water supplies.

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

No Impact. Refer to Response 4.17(a) above.

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

Less than Significant Impact. As an infrastructure improvement project (replacement of the portable generators at each of five sites with permanent electrical emergency generators, each set with a diesel engine and integral 24-hour fuel storage on a concrete pad), the Proposed Project does not generate a permanent demand for landfill capacity. Potential construction debris may be generated that would be disposed of at one of the County's landfills. The amount of debris generated would be limited, and the impacts are considered less than significant.

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

No Impact. As a storm drain and roadway improvement project, the Proposed Project does not create a demand for solid waste facilities.

TOPICS	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment; substantially reduce the habitat or a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; reduce the number or restrict the range of a rare or endangered plant or animal; or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.18 MANDATORY FINDINGS OF SIGNIFICANCE

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

Less Than Significant Impact. As described in the sections above, all environmental effects were determined to be less than significant or reduced to below a level of significance with mitigation. The noise environment will be the most affected resource; however, this impact will be mitigated and Measure NOISE-1 will be implemented to reduce the level of impact to below significant. In addition, there are no known cultural resources within the study area. However, the potential exists to encounter unknown resources during construction activities. With implementation of Standard Minimization Measures CUL-1 and CUL-3, potential effects to unknown cultural resources would be reduced to below the level of significance.

To prevent any incidental impacts to the native habitat immediately adjacent to the study area, Mitigation Measure BIO-1 requires the installation and maintenance of temporary fencing along the proposed construction perimeter prior to the commencement of construction activities. Implementation of Mitigation Measures BIO-1 and BIO-2 would reduce any potential impacts to adjacent natural communities to less than significant levels.

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

Less Than Significant Impact. As the proposed improvements would replace an existing facility, the potential permanent environmental effects of the Proposed Project are not considered cumulatively considerable. All permanent and temporary impacts are either less than significant or can be mitigated to below the level of significance. In particular, impacts to the noise environment would be mitigated, and the contribution of the Proposed Project to cumulative impacts is addressed through the mitigation provided. Therefore, the Proposed Project’s contribution to cumulative impacts is considered less than significant.

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

Less than Significant Impact. The effects to human beings are related to temporary access interruption and to potential noise and aesthetic views from construction. These effects are temporary and not substantial relative to the setting of the Proposed Project. After construction of the Proposed Project, there would be no change to the human environment. Construction activities would affect local ambient air quality and noise levels; however, these impacts are short-term, and mitigation measures or standard County requirements have been identified to reduce the effects of these impacts to less than significant levels.

5.0 REFERENCES

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- California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2008/ora08.pdf>. Accessed on May 31, 2011.
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- California Department of Toxic Substances Control, Hazardous Waste and Substances Site List – Site Cleanup (Cortese List), http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm. Accessed on May 10, 2011.
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- General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant Threat to Water Quality* (Order Number R8-2009-0003 NPDES Number CAG998001).
- Irvine Ranch Water District, Preliminary Design Report for Santiago Canyon Area Booster Pump Station Permanent Generators Project, Psomas, May 2011.
- LSA Associates, Inc., Biological Assessment of Santiago Canyon Area Booster Pump Station Permanent Generators, County of Orange, California, June 2006.
- LSA Associates, Inc., Cultural Resources Assessment of Santiago Canyon Area Booster Pump Station Permanent Generators, County of Orange, California, July 2011.
- NMG Geotechnical, Inc., Geotechnical Evaluation and Design Report for Five Proposed Booster Pump Station Generator Installations at Existing Irvine Ranch Water District Pump Station Sites, County of Orange, California, April 28, 2011.
- Orange County Congestion Management Program, 2007. <http://www.octa.net/pdf/cmp09.pdf>. Accessed on May 31, 2011.
- Orange County Traffic Flow Map, 2009 <http://www.octa.net/pdf/2009trafficflow.pdf>. Accessed on May 31, 2011.

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State Water Resources Control Board, Approved 2010 Integrated Report, August 4, 2010.

Track Info Services, LLC (Track Info), Environmental FirstSearch Report, May 2011.

6.0 LIST OF PREPARERS

6.1 LSA ASSOCIATES, INC.

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Carmen Lo, Hazardous Waste
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Danette LeBron, Word Processor

6.2 IRVINE RANCH WATER DISTRICT

Christian Kessler, Assistant Engineer
Jeffrey Smyth, P.E.
Harry Cho, P.E.

7.0 RESPONSE TO COMMENTS

The Initial Study/Mitigated Negative Declaration (IS/MND) was circulated for public review from November 1, 2011, through November 30, 2011. Four comment letters from public agencies were received on the IS/MND (Orange County Fire Authority, Orange County Public Works, Santa Ana Regional Water Quality Control Board, and Department of Transportation). Each of the comment letters is attached, and responses to each comment are provided after the letter.

Responses to comments for each of the comment letters are provided on the following pages. The comment page number (e.g., OCFA-1) is provided in the upper-right-hand corner of each comment letter, and individual comment points within each letter are identified by index numbers located along the right-hand margin of each letter. Irvine Ranch Water District responses immediately follow each letter, with each individual response referenced by the index number of each individual comment.

Laura Rocha

From: Chris Kessler [KESSLER@irwd.com]
Sent: Wednesday, November 16, 2011 8:11 AM
To: Laura Rocha
Subject: Fwd: NegDec Santiago Canyon BPS Generators Project

>>> "Hernandez, Michele" <MicheleHernandez@ocfa.org> 11/15/2011 6:47 AM >>>
Orange County Fire Authority has no comment. Project will be inspected as per standard installation procedures.

OCFA-1

Michele Hernandez
Management Analyst

ORANGE COUNTY FIRE AUTHORITY

OCFA-1

The email from the Orange County Fire Authority stated that it has no comment, except that the project will be inspected per standard installation procedures. No response necessary.



Jess A. Carbajal, Director
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ENGINEERING & CONSTRUCTION

DEC 01 2011

NCL 11-053

IRVINE RANCH
WATER DISTRICT

November 29, 2011

Christian Kessler
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92618-3102

SUBJECT: Notice of Intent to Adopt a Mitigated Negative Declaration for the Proposed Santiago Canyon Area Booster Pump Station (BPS) Permanent Generators Project

Dear Mr. Kessler;

The County of Orange has reviewed the Notice of Intent to Adopt a Mitigated Negative Declaration for the Proposed Santiago Canyon Area Booster Pump Station (BPS) Permanent Generators Project located in the City of Irvine and offers the following comments:

County Property Permits:

In response to your request dated November 1, 2011, County Property Permits reviewed the subject document and offers the following comments:

Based on the information provided, Irvine Ranch Water District is proposing to encroach onto the County's road right of way. Any temporary access within the County's right-of-way shall require an encroachment permit for County Property Permits. General information and an encroachment permit application may be obtained fro our website at <http://ocplanning.net/PlanCheckForms.aspx>.

Thank you for the opportunity to review this plan submittal. If you have any questions regarding these comments, please contact Mahrooz Ilkhanipour at (714) 667-8867.

Environmental Resources:

In response to your request for input on the subject project, Environmental Resources has reviewed the document, and offers the following comments:

1. Mitigation Measure WQ-1 on Page 4-36 makes reference to Waste Discharge Requirements issued by the San Diego Regional Water Quality Control Board, even though the (correct) permit number referenced is that of the Santa Ana Board. The Santa Ana Board would regulate discharges from these sites ultimately to the Santa Ana River.
2. The discussion of groundwater, also on Page 4-36, should note that, in addition to the "Manning Site" being in immediate proximity to surface and/or ground waters, the "Read" Site appears immediately adjacent to the drainage from Shrewsbury Spring uphill from that site. The spring's drainage terminus is about 100 feet northwest of the Read Site, where the ruins of a 19th century impoundment dam are present in the creek bottom.

OCPW-2

OCPW-3

If you require any additional information, please contact Grant Sharp at (714) 955-0674.

Sincerely,



Michael Balsamo
Manager, OC Community Development
OC Public Works/OC Planning
300 North Flower Street
Santa Ana, California 92702-4048
Michael.Balsamo@ocpw.ocgov.com

MB/mmc

cc: Mahrooz Ilkhanizpour, County Property Permits
Chris Crompton, Environmental Resources

ORANGE COUNTY PUBLIC WORKS

OCPW-1

The comment states that based on the information provided, Irvine Ranch Water District is proposing to encroach onto the County's road right of way. They further state that any temporary access within the County's right-of-way shall require an encroachment permit for County Property Permits. The County also provided website location for general information and an encroachment permit application.

Section 2.5 in this IS/MND identified that an encroachment permit would be required from the County. An encroachment permit would be obtained by IRWD prior to construction.

OCPW-2

The comment states Mitigation Measure WQ-1 on Page 4-36 makes reference to Waste Discharge Requirements issued by the San Diego Regional Water Quality Control Board, even though the (correct) permit number referenced is that of the Santa Ana Board. The Santa Ana Board would regulate discharges from these sites ultimately to the Santa Ana River.

Prior to the start of construction, the appropriate RWQCB permits will be obtained. No further response necessary.

OCPW-3

The comment states that the discussion of groundwater, also on Page 4-36, should note that, in addition to the "Manning Site" being in immediate proximity to surface and/or ground waters, the "Read" Site appears immediately adjacent to the drainage from Shrewsbury Spring uphill from that site. The spring's drainage terminus is about 100 feet northwest of the Read Site, where the ruins of a 19th century impoundment dam are present in the creek bottom.

The Shaw, Read, and Williams sites are nearby surface waters and the Manning and Fleming and Manning are not directly adjacent surface waters. Depending on the final depth of excavation, groundwater may be encountered at the Manning Site. With compliance with the Construction General Permit and Dewatering Permit, if required, impacts to nearby surface and/or groundwaters are not anticipated.

Laura Rocha

From: Chris Kessler [KESSLER@irwd.com]
Sent: Tuesday, November 15, 2011 8:29 AM
To: Laura Rocha
Subject: Fwd: Santiago Canyon Area Booster Pump Station Neg Dec
Attachments: Robertson, Glenn.vcf

Christian Kessler
Assistant Engineer/Planner
Water Resources & Planning Dept.
Irvine Ranch Water District
15600 Sand Canyon Ave
Irvine, California 92618
949-453-5441

>>> Glenn Robertson <grobertson@waterboards.ca.gov> 11/9/2011 5:58 PM >>>
To Christian Kessler - quick note.... Pg. 4-36, 4.9.1 refers to compliance with the Regional Board's dewatering permit and submittal of an NOI, three months before the start of dewatering, to the San Diego RWQCB. Actually that would be the Santa Ana Regional Board, Region 8, for the replacement of the five booster pump generators in Santiago Canyon, Modjeska Canyon, Silverado Canyon, etc. I think you meant us anyway. We note no impacts to channels posed by the Project.

RWQCB-1

I believe IRWD already has this coverage if they wish to take the lead on the dewatering work. Within months before it would commence, send us a letter discussing dates and monitoring. However, contractors for you would submit their own NOI's and fee. Please coordinate this compliance with our Permitting and Compliance Section, either Susan Beeson or Jane Qiu.

Thank you very much for a complete CEQA document. Glenn Robertson

Glenn Robertson, Engineering Geologist
CEQA Coordinator
California Regional Water Quality Control Board, Santa Ana Region (8)
3737 Main Street, Suite 500
Riverside, CA 92501-3348
(951) 782-3259
Fax (951) 781-6288
Email grobertson@waterboards.ca.gov
Website: www.waterboards.ca.gov/santaana

11/16/2011

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

RWQCB-1

The comment makes correction to page 4-36, Section 4.9.1, which refers to compliance with the Regional Board's dewatering permit and submittal of an NOI, 3 months before the start of dewatering, to the *San Diego* RWQCB. The Santa Ana RWQCB corrected that it would be the Santa Ana Regional Board, Region 8, responsible for the replacement of the five booster pump generators in Santiago Canyon, Modjeska Canyon, Silverado Canyon, etc. In addition, the RWQCB noted no impacts to channels posed by the project. It further made reference that IRWD already has this coverage if it wishes to take the lead on the dewatering work, or if contractors performed the work, it would need to submit their own NOIs and fee. It requested that compliance should be coordinated with the Permitting and Compliance Section, either Susan Beeson or Jane Qiu.

Prior to the start of construction, the appropriate RWQCB permits will be obtained. No further response necessary.

DEPARTMENT OF TRANSPORTATION ENGINEERING & CONSTRUCTION
District 12
3347 Michelson Drive, Suite 100
Irvine, CA 92612-8894
Tel: (949) 724-2241
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Flex your power!
Be energy efficient!

DEC 05 2011
IRVINE RANCH
WATER DISTRICT

November 30, 2011

Christian Kessler
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92618-3102

File: IGR/CEQA
SCH#: 2011111010
Log #: 2843
SR-241

Subject: Santiago Canyon Area Booster Pump Station Permanent Generator Project

Dear Mr. Kessler,

Thank you for the opportunity to review and comment on the **Initial Study and Draft Mitigated Negative Declaration (IS/MND) for the Santiago Canyon Area Booster Pump Station Permanent Generator Project**. The proposal is to replace the portable generators at each of the five booster pump station (BPS) sites with permanent electrical emergency generators, each set with a diesel engine and integral 24-hour fuel storage on a concrete pad. Four of the five generators would be contained within a concrete masonry unit (CMU) block wall for protection against fires. The project sites are located within the Santiago Canyon - Modjeska Canyon areas of unincorporated Orange County. Three of the BPS sites are along Silverado Canyon Road, which runs east from Santiago Canyon Road. The fourth site is located along Williams Canyon Road, and the fifth site is located along Modjeska Canyon Road. The nearest State route to the project sites are SR-241.

The Department of Transportation (Department) is a commenting agency on this project and has no comment at this time. However, in the event of any activity in the Department's right-of-way, an encroachment permit will be required.

Please continue to keep us informed of this project and any future developments that could potentially impact State transportation facilities. If you have any questions or need to contact us, please do not hesitate to call Marlon Regisford at (949) 724-2241.

Sincerely,

Christopher Herre, Branch Chief
Local Development/Intergovernmental Review

C: Scott Morgan, Office of Planning and Research

DEPARTMENT OF TRANSPORTATION

DOT-1

The letter from the Department of Transportation stated that it has no comment at this time, except that, in the event of any activity in the Department's right-of-way, an encroachment permit will be required. They requested to keep them informed of this project and any future developments that could potentially impact State transportation facilities. No response necessary.

8.0 MITIGATION AND MONITORING REPORTING PROGRAM

MITIGATION MONITORING REQUIREMENTS

Public Resources Code (PRC) Section 21081.6 (enacted by the passage of Assembly Bill 3180) mandates that the following requirements shall apply to all reporting or mitigation monitoring programs:

- *The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.*
- *If there is a project for which mitigation is adopted, a public agency shall comply with subdivision (a) by, among other things, adopting mitigation measures as conditions of project approval. Those conditions of project approval may be set forth in referenced documents which address required mitigation measures.*
- *Prior to the close of the public review period for a draft environmental impact report or mitigated negative declaration, a responsible agency, or a public agency having jurisdiction over natural resources affected by the project, shall either submit to the lead agency complete and detailed performance objectives for mitigation measures which would address the significant effects on the environment identified by the responsible agency or agency having jurisdiction over natural resources affected by the project, or refer the lead agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a lead agency by a responsible agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures which mitigate impacts to resources which are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance by a responsible agency or agency having jurisdiction over natural resources affected by a project with that requirement shall not limit that authority of the responsible agency or agency having jurisdiction over natural resources affected by a project, or the authority of the lead agency, to approve, condition, or deny projects as provided by this division or any other provision of law.*
- *The lead agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which its decision is based.*

MITIGATION MONITORING PROCEDURES

The mitigation monitoring and reporting program has been prepared in compliance with PRC Section 21086.6. It describes the requirements and procedures to be followed by Irvine Ranch Water District to ensure that all mitigation measures outlined in the Initial Study/Mitigated Negative Declaration (IS/MND) are carried out.

Table A lists each of the mitigation measures specified in the IS/MND and identifies the party(ies) responsible for implementation and monitoring of each measure.

Table A: Mitigation Measure Implementation, Schedule, and Monitoring

No.	Mitigation Measure	Implementation, Monitoring, and Reporting Action	Timing of Verification	Responsible Person	Date of Completion Initials
1. Aesthetics					
	No mitigation measures are required.				
2. Agriculture and Forest Resources					
	No mitigation measures are required.				
3. Air Quality					
	No mitigation measures are required.				
4. Biological Resources					
BIO	In the event that the oak trees are removed or become destabilized as a result of the grading activities, the trees will be removed and replaced at a ratio determined by the USFS.	Project design specifications shall include the required replanting ratio, if required.	Prior to construction	IRWD/ USFS	
5. Cultural Resources					
	No mitigation measures are required.				
6. Geology and Soils					
	No mitigation measures are required.				
7. Greenhouse Gases					
	No mitigation measures are required.				
8. Hazards and Hazardous Waste					
	No mitigation measures are required.				
9. Hydrology and Water Quality					
	No mitigation measures are required.				
10. Land Use					
	No mitigation measures are required.				
11. Mineral Resources					
	No mitigation measures are required.				

Table A: Mitigation Measure Implementation, Schedule, and Monitoring

No.	Mitigation Measure	Implementation, Monitoring, and Reporting Action	Timing of Verification	Responsible Person	Date of Completion Initials
12. Noise NOISE-1	<p>The following measures are required to reduce noise levels to comply with the County's noise ordinance for daytime hours:</p> <ul style="list-style-type: none"> Quiet (Level II) Enclosures manufactured by Cummins Power Generation will be required for emergency generators located at Manning and Read. This enclosure is a cover for the emergency generator to attenuate noise levels by 13 dB. Premium (Level III) Enclosures manufactured by Cummins Power Generation will be required for the emergency generator located at Shaw. This enclosure is a cover for the emergency generator and will attenuate noise levels by 18 dB. 	Project design specifications shall include the required enclosures.	Prior to construction	IRWD	
13. Population and Housing					
No mitigation measures are required.					
14. Public Services					
No mitigation measures are required.					
15. Recreation					
No mitigation measures are required.					
16. Transportation/Circulation					
No mitigation measures are required.					
17. Utilities and Service Systems					
No mitigation measures are required.					

EXHIBIT "B"

IRVINE RANCH WATER DISTRICT

FINDINGS IN REGARD TO THE ADOPTION OF THE FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION FOR THE SANTIAGO CANYON AREA BOOSTER PUMP STATION PERMANENT GENERATORS PROJECT (State CEQA Guidelines §15074)

Irvine Ranch Water District (IRWD) has determined that the project described in the attached Final Mitigated Negative Declaration (the "Project") incorporates specified mitigation measures, and that, on the basis of the mitigation measures, as well as the commitments that have been made as part of the Project itself, that the Project will not have a significant effect on the environment. As provided in the California Environmental Quality Act (CEQA) (Public Resources Code §21080(c)(2)), a mitigated negative declaration may be prepared when a lead agency determines that mitigation measures will avoid or mitigate potentially significant effects of a project to a point where this is no substantial evidence, in light of the whole record before the agency, that the Project, with the incorporated measures, will have a significant effect on the environment.

These findings are provided so as to set forth and inform the public of the basis of IRWD's evaluation and determination to adopt a Mitigated Negative Declaration and approve the project. The findings summarize this evaluation and determination. The Board of Directors find as follows.

CEQA Proceedings. On November 2, 2011, IRWD staff prepared and filed an Initial Study/Mitigated Negative Declaration with the State Clearinghouse and distributed to Responsible Agencies. In addition, the Notice of Intent was posted at the project site and filed with the Orange County Clerk. The Notice specified the period of November 2, 2011 through December 1, 2011 for receipt of comments on the proposed action. The Notice indicated that hard copies of the Initial Study/Mitigated Negative Declaration were available for review at the Silverado Library, located at 28192 Silverado Canyon Road, Silverado, California 92676, and at the Irvine Ranch Water District Headquarters, located at 15600 Sand Canyon Avenue, Irvine, California 92618-3102. The notice also listed that the electronic version of the Initial Study/Mitigated Negative Declaration may be viewed at the following website address: <http://www.irwd.com/environment/ceqa.html>.

Consideration of the Record. The Board of Directors has considered the proposed Mitigated Negative Declaration, the comments received during the public review process and the responses prepared by IRWD relative to the comments.

Recirculation. The Board finds that recirculation of the Initial Study/Mitigated Negative Declaration is not required. In the review and consideration of the comments, no further explanation or elaboration was required by IRWD concerning: the original conclusions of the

Initial Study/Mitigated Negative Declaration; the mitigation measures, nor the Project requirements and related permit requirements. No new, avoidable significant effect has been identified and no determination has been made that the proposed mitigation measures and Project requirements are insufficient to reduce potential impacts to less than significant. No new measures or conditions of project approval have been added after circulation of the Initial Study/Mitigated Negative Declaration.

Mitigation and Monitoring and Reporting Plan. IRWD is adopting a Mitigation and Monitoring and Reporting Plan in conjunction with the adoption of the Mitigation Measures.

Conclusions. The Board of Directors has considered the whole record before it, including the Initial Study/Mitigated Negative Declaration; the comments received; the Mitigation and Monitoring and Reporting Plan adopted with respect to the Mitigation Measures; and all other documents, records, and proceedings with respect thereto.

The documents and materials referred to in the foregoing paragraph are on file with Irvine Ranch Water District, located at 15600 Sand Canyon Avenue, Irvine, California 92618-3102.

On the basis of the foregoing record, the Board of Directors finds that there is no substantial evidence that the project will have a significant effect on the environment.

Independent Judgment. The proposed Mitigated Negative Declaration reflects the independent judgment and analysis of IRWD.

December 12, 2011

Prepared by: R. Bennett/P. Weghorst *PW*

Submitted by: K. Burton/G. Heiertz *GH*

Approved by: Paul Cook *PC*

CONSENT CALENDAR

SELENIUM AND NITROGEN DISPOSAL SYSTEM CONCEPT STUDY

SUMMARY:

Five agencies within the Newport Bay watershed are collectively seeking a cost-effective solution for the disposal of flows from dewatering projects that contain high nitrate and selenium concentrations. At the request of these agencies, RBF Consulting (RBF) has proposed a conceptual design study for the construction of a pipeline along Peters Canyon Wash and San Diego Creek to Orange County Sanitation District's sewer collection system at Main Street. The total cost for the proposed study is \$53,110 and will be paid for by these agencies. IRWD will manage the study on behalf of the agencies, but will not share in the cost. Staff recommends that the Board:

- Authorize an addition to the FY 2011-12 Capital Budget in the amount of \$44,800 to prepare a Groundwater Disposal System Concept Study;
- Approve an Expenditure Authorization in the amount of \$44,800; and
- Authorize the General Manager to execute a Professional Services Agreement with RBF in the amount of \$31,866 for the City of Irvine, City of Tustin and the Transportation Corridor Administration (TCA) shares of the study which will be reimbursed to IRWD; The California Department of Transportation and the County of Orange will each pay directly to RBF \$10,622 for their respective cost shares.

BACKGROUND:

The California Department of Transportation (Caltrans), TCA, cities of Irvine and Tustin and the County of Orange are seeking, as funding partners, a cost-effective project for the disposal of flows from dewatering facilities that contain high nitrate and selenium concentrations. The need for developing such a cost-effective project is due to the expectation that the Regional Water Quality Control Board (RWQCB) will no longer be allowing the discharge of high nitrate and selenium flows to surface waters within the Newport Bay watershed.

Various treatment and disposal alternatives have been studied over the past several years; cost and regulatory constraints have prevented implementation of an effective solution. Recently, the funding partners have proposed a conceptual study to develop a planning level design and cost estimate for the construction of a pipeline along Peters Canyon Wash and San Diego Creek to Orange County Sanitation District's (OCSD) sewer collection system at Main Street (Pipeline Project). By routing the high selenium flows into the OCSD sewer, selenium and nitrate could be effectively removed from the San Diego Creek watershed. A conceptual design study is proposed at a level of detail that will be sufficient to determine whether the Pipeline Project is cost effective and viable.

Funding Partner Interests:

Following is a description of the interests of each of the funding partners relative to the proposed Pipeline Project:

1. Caltrans and TCA are currently discharging shallow groundwater from the SR-261 dewatering operations to IRWD's Harvard Avenue Trunk Sewer (HATS). IRWD and Caltrans have developed long term alternatives for the disposal of dewatering flows. However, Caltrans and TCA are interested to see if the Pipeline Project is a more cost effective option.
2. The City of Irvine is currently discharging groundwater with high selenium concentrations from its dewatering operations at the Culver Drive grade separation facility into the Como Channel. This channel is tributary to Peters Canyon Channel. In the near future, these discharges will no longer be permitted by the RWQCB and the City needs to find an alternate discharge solution.
3. The County of Orange has identified dry weather discharges with high selenium concentrations from storm drains that discharge to Peters Canyon Channel. The County is interested in finding a way to eliminate these dry weather flows from entering into Peters Canyon Channel.
4. The City of Tustin has expressed an interest in participating in the Pipeline Project to facilitate the disposal of high concentration discharges from future development projects.

Conceptual Design Study Overview:

The Pipeline Project, as currently envisioned, would allow each funding partner to discharge flows containing high concentrations of nitrogen and selenium into a pipeline along Peters Canyon Wash into an underground storage tank located at IRWD's Cienega site (adjacent to Peters Canyon Channel and Barranca Parkway). The stored water would then be pumped through another pipeline down San Diego Creek to OCSD's sewer system at Main Street during off-peak hours.

At the funding partner's request, a document containing a detailed scope of work, project schedule and project budget was prepared by RBF Consulting to perform the conceptual design study. This document is provided as Exhibit "A". RBF was selected to prepare this document by the funding partners because these agencies have all used RBF to their satisfaction on other projects.

The total cost for the proposed study is \$53,110. IRWD will manage the study while the five agencies will pay an equal share of the project in the amount of \$10,622. Caltrans and the County of Orange have existing contracts with RBF and will pay their shares of the costs directly to RBF. The City of Irvine, City of Tustin and TCA have agreed to reimburse IRWD for their shares of the conceptual study. IRWD will not issue RBF a notice to proceed until the City of Irvine, City of Tustin and TCA have each issued IRWD a purchase order for their share of the project.

IRWD will not share in the cost of the RBF study, but will incur costs for staff time to manage the study in the amount of \$5,000 and legal counsel assistance in the amount of \$2,000.

Discharges to OCSD:

Recently, OCSD has identified a need to increase its deliveries to Orange County Water District's (OCWD) Groundwater Replenishment System during off-peak (i.e. night time) hours. As a means of increasing its supplies, OCSD has indicated it may be willing to reduce its capitol buy-in cost if additional discharges to its sewer system from the proposed Pipeline Project are limited to off-peak hours.

FISCAL IMPACTS:

Project 11631 (3633) is not included in the FY 2011-12 Capital Budget. The total cost for the conceptual design study is \$53,110. IRWD will manage the project and the five funding partners will pay their pro-rata share of the study cost in the amount of \$10,622 each. Caltrans and the County of Orange have existing contracts with RBF and will pay for their share of the work directly to RBF. The City of Irvine, City of Tustin and TCA will issue purchase orders to IRWD to reimburse IRWD for their shares of the work for a total amount of \$31,866. Additional staff time and legal assistance in the amount of \$5,000 and \$2,000 respectively are required. Staff requests a FY 2011-12 budget addition of \$44,800 to perform the groundwater disposal system concept study. Staff also requests an Expenditure Authorization in the amount of \$44,800 as shown below and in Exhibit "B".

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
11631 (3633)	\$0	\$44,800	\$44,800	\$0	\$44,800	\$44,800

ENVIRONMENTAL COMPLIANCE:

This study is not subject to the California Environmental Quality Act (CEQA).

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on December 8, 2011.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE AN ADDITION TO THE FY 2011-12 CAPITAL BUDGET FOR PROJECT 11631 (3633) IN THE AMOUNT OF \$44,800; APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$44,800 FOR PROJECT 11631 (3633), AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH RBF CONSULTING IN THE AMOUNT OF \$31,866 TO DEVELOP A GROUNDWATER DISPOSAL SYSTEM CONCEPT STUDY (WHICH WILL BE REIMBURSED TO IRWD THROUGH PURCHASE ORDERS ISSUED BY THE CITY OF IRVINE, CITY OF TUSTIN AND TRANSPORTATION CORRIDOR ADMINISTRATION).

LIST OF EXHIBITS:

Exhibit "A" – RBF Proposal – Groundwater Disposal System Concept Study
Exhibit "B" – Expenditure Authorization

EXHIBIT "A"



A Baker Company

November 23, 2011

Mr. Kevin Burton, PE
Director of Engineering
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

Subject: Proposal –Groundwater Disposal System Concept Study

Dear Mr. Burton:

Project Understanding

Irvine Ranch Water District (District), Caltrans, City of Irvine, County of Orange, and City of Tustin are collectively seeking a cost-effective solution for disposal of high nitrate and selenium groundwater at specific locations within the Cities of Irvine and Tustin. The need for developing a cost-effective disposal system is due to several factors:

1. The Regional Water Quality Control Board (RWQCB) no longer allows surface water discharge of high nitrate and selenium water to surface waters within the Newport Bay watershed pursuant to Order No. R8-2004-0041.
2. Caltrans is currently discharging shallow groundwater from its SR-261 dewatering operations to IRWD's Harvard Avenue Trunk Sewer (HATS). IRWD and Caltrans have developed long term alternatives for the water disposal, but Caltrans is interested to see if this joint project is a better option.
3. City of Irvine is currently discharging high selenium groundwater from its dewatering operations at the Culver Drive grade separation facility to Como Channel, which is tributary to Peters Canyon Channel. These discharges to Peters Canyon Channel are no longer permitted by the RWQCB as indicated above and the City needs to find an alternate discharge solution.
4. County of Orange has identified dry weather discharges from storm drains that discharge to Peters Canyon Channel, which are suspected to originate from shallow groundwater infiltration. Water quality testing verified concentrations exceeding the TMDL for selenium. The County is interested in finding a way to eliminate these dry weather flows into Peters Canyon Channel.
5. City of Tustin has expressed an interest in participating in the project, due to possible disposal needs from future development.

Various treatment and disposal alternatives for one or more of these agencies have been studied over the past several years; however, cost and regulatory constraints have prevented identification of an optimum solution. Recently, the Orange County Sanitation District (OCS D) identified a need to increase its flow deliveries to Orange County Water District's (OCWD) Groundwater Replenishment System (GWRS) during off-peak (i.e. night time) hours. OCS D

PLANNING ■ DESIGN ■ CONSTRUCTION

14725 Alton Parkway, Irvine, CA 92618-2027 □ P.O. Box 57057, Irvine, CA 92619-7057 □ 949.472.3505 □ Fax 949.472.8373
Offices located in □ www.RBF.com

indicated it may be willing to significantly reduce its rate charges if flow deliveries are limited to off-peak hours. However, details of this opportunity are yet to be identified.

The potential for reduced disposal costs from OCSD, coupled with shared capital cost investment between the agencies, initiated discussions among the agencies about developing a joint-owned groundwater disposal pipeline, storage reservoir, and pump station. The system as currently envisioned would allow high nitrate and selenium groundwater discharges from each agency to be piped to an underground storage tank located at IRWD's Cienega site (adjacent to Peters Canyon Channel and Barranca Parkway), and then pumped to OCSD's sewer system at Main Street during off-peak hours. The agencies are interested in developing a project description addressing the proposed construction, and capital and operation costs sufficient to determine whether the project alternative is viable. Modifications to each agency's existing conveyance facilities in order to deliver groundwater to this new system would need to be studied by each individual agency.

It is our understanding that the District will be the administrator of the contract for the feasibility study. It is also our understanding that the proposed groundwater conveyance system will include a pipeline constructed along the trail on the east side of Peters Canyon Channel, and underground storage and pumping facilities at the District's Cienega site to convey the groundwater to OCSD during off-peak hours.

Scope of Services

Based on our understanding of objectives, RBF Consulting (RBF) proposes to perform the following services:

1. Concept Development of Groundwater Disposal Pipeline

RBF will evaluate a concept for the groundwater disposal pipeline. The effort will include document review, evaluation of gravity and pressure system hydraulics, and preparation of concept schematics showing the proposed horizontal and vertical alignment at major crossings. The proposed alignment will run approximately 10,000 feet along the trail on the east side of Peters Canyon Channel, from TCA's Groundwater Treatment Facility (GWTF) to the Cienega site.

Document Review

RBF will obtain pertinent record drawings, including Peters Canyon Channel construction drawings, bridge construction plans for Walnut Avenue, Edinger Avenue, Warner Avenue, and Moffett Drive. It should be noted that RBF is in the possession of a number of the record drawings already due to its involvement in the Peters Canyon Channel Widening Project. Therefore, this task is limited to the additional drawings that are required but not in RBF's possession. RBF will review record drawings for impacts to the alignment of the groundwater disposal pipeline.

Evaluation of Gravity and Pressure Systems

RBF will evaluate gravity and pressurized pipeline system hydraulics, to verify if both are viable options. A schematic hydraulic profile will be prepared to

summarize the points of connection and locations where flows are provided (by each agency), flow by reach, system hydraulics, and size the pipeline. For the gravity system evaluation siphons may be required if the alignment were decided to follow the trail beneath the bridges at Edinger Avenue, Warner Avenue, and Moffett Drive. For the pressurized system the schematic hydraulic profile will enable calculation of the range of operating pressure in the disposal pipeline.

In order to complete the evaluation, RBF will require estimated flow rates and proposed points of connection from each agency. Improvements required by each agency to deliver the flows to the system are excluded from this task.

Concept Schematics of Groundwater Disposal Pipeline

RBF will prepare concept schematics for the groundwater disposal pipeline, in order to more accurately determine construction cost. The start and end points of the pipeline will be the TCA GWTF (near Walnut Avenue and Peters Canyon Channel) and the Cienega site, respectively. The schematics will provide a concept level full length horizontal alignment, and vertical alignment details at major crossings, including (see Attachment 2 – Aerial Images):

- Walnut Avenue – where the pipeline would cross Peters Canyon Channel in an available bridge cell in the Walnut Avenue bridge to reach the trail on the east (or south) side of the channel. (See Attachment 2 – Image 1)
- Railroad Crossing – at which the pipeline would follow the trail beneath the railroad bridge. (See Attachment 2 – Image 2)
- Edinger Avenue – which has no trail beneath the bridge leading to consideration of jack-and-bore construction. (See Attachment 2 – Image 3).
- Moffett Drive – where future bridge expansion would dictate selecting a pipeline alignment out of areas disturbed during construction of the bridge abutment. (See Attachment 2 – Image 4).
- Warner Avenue – which has a long undercrossing that is constructed full length of concrete. (See Attachment 2 – Image 5).

The Peters Canyon Widening Project and record drawings for the Peter Canyon Channel will be used to develop the concept alignment schematics. It is understood that aerial topography files can be obtained from the County of Orange. Eagle Aerial or other commercially available imaging may be used to depict proposed alignments.

Excluded from the concept evaluation is any analysis of alignments for pipelines to tie-in to the disposal pipeline, geotechnical investigation, and potholing. Surveys are excluded for this scope of work, including topographic and field surveying.

2. Concept Evaluation of Cienega Reservoir and Pump Station

RBF will prepare a concept layout of the storage and pumping facilities at the Cienega site. The effort will include sizing the on-site storage reservoir, laying out the fully buried tank (assumed as a pre-stressed concrete tank), sizing the discharge pump station, and laying out a conceptual plan for the pump station assuming it will be fully buried in a vault.

Reservoir Calculations and Layout

RBF will determine the required capacity for a new fully buried pre-stressed concrete reservoir to be built at the Cienega site. The capacity calculation will be based on the flow rate information provided by each participating agency, as well as the number of hours that OCSD approves for pumping flows to their system. RBF will develop one conceptual layout of the reservoir including inlet / outlet piping and overflow.

Pump Station Calculations and Layout

RBF will determine the pump station capacity based on the volume of disposal or required discharge rate to OCSD. RBF will determine the discharge pipeline size, prepare basic hydraulic calculations, select the number and size of pumps, and develop a conceptual layout for the pump station.

Site Plan / Grading Plan

RBF will prepare a conceptual site plan for the Cienega Reservoir and Pump Station in order to estimate quantities. The site plan will include the reservoir, pump station vault, yard piping and proposed locations of electrical and instrument equipment. Grading quantities will be estimated for the site plan.

3. Concept Development of Discharge Pipeline to OCSD Sewer

RBF will evaluate a concept for the discharge pipeline from the Cienega Pump Station to OCSD's sewer within Main Street, near Peters Canyon Wash. The effort will include document review and pipe sizing based upon a pumped system, and preparation of concept schematics showing the proposed horizontal and vertical alignment at major crossings. The proposed alignment will run approximately 6,000 feet. It will exit the Cienega site, cross Peters Canyon Channel at Barranca Parkway, parallel Peters Canyon Wash and, following its confluence with San Diego Creek, run within the trail on the west side of the wash to Main Street, where it will finally connect to OCSD's sewer. This task excludes evaluation of the downstream capacity of the OCSD sewer system.

Document Review

RBF will obtain pertinent record drawings, including Peters Canyon Channel construction drawings, bridge construction plans for Barranca Parkway, Alton Parkway and Main Street, and sewer plans for OCSD's sewer system at Main Street. RBF will review record drawings for impacts to the alignment of the groundwater disposal pipeline. It is assumed the County and Cities involved in

the project will assist to facilitate RBF obtaining these plans. RBF will review record drawings for impacts to the alignment of the discharge pipeline to OCSD's sewer.

Concept Schematics of Discharge Pipeline

RBF will prepare concept schematics for the groundwater disposal pipeline, in order to more accurately determine construction cost. The start and end points of the pipeline will be the Cienega site and Main Street near Peters Canyon Wash, respectively. The schematics will provide a concept level full length horizontal alignment, and vertical alignment details at major crossings, as follows:

- Peters Canyon Wash at the Cienega site – possible methods of crossing the channel include: jack-and-bore, horizontal directional drilling, or hanging the pipe on the Barranca Parkway bridge or through an available bridge cell.
- Barranca Parkway – which has a long undercrossing that is constructed full length of concrete. (See Attachment 2 – Image 6)
- Alton Parkway – which has a long undercrossing that is constructed full length of concrete. (See Attachment 2 – Image 7)
- Main Street – where the pipeline would follow the bike trail exiting to Main Street. (See Attachment 2 – Image 8)

Record drawings for the Peter Canyon Channel will be used to develop the concept alignment schematics. It is understood that aerial topography files can be obtained from the County of Orange. Eagle Aerial or other commercially available imaging may be used to depict proposed alignments.

Excluded from the concept evaluation is geotechnical investigation, and potholing. Surveys are excluded for this scope of work, including topographic and field surveying.

4. Evaluate Water Quality / Blending Analysis

RBF will evaluate water quality data as made available by each agency intending to convey flow to through the groundwater disposal pipeline. Water quality data must be provided by each agency in a concise format and include low, high and average measurements for nitrate, selenium, TSS and TDS. RBF will utilize the water quality data to ascertain anticipated levels in the blended water quality to be conveyed to OCSD for treatment.

5. Cost Estimate

RBF will prepare a capital cost estimate for the groundwater disposal pipeline, Cienega Reservoir and Pump Station, and discharge pipeline to OCSD sewer in Main Street. The capital cost estimate will have a conceptual level - Class 4 (per AACEI) accuracy (-30% to +50%), and will include estimated design and

construction costs. RBF will also prepare an operational cost estimate, including pumping cost, and OCSD discharge costs based upon estimated flow, BOD, and TSS.

6. Conceptual Report

RBF will prepare a brief report covering the concept-level evaluation of potential for gravity and pressurized pipelines, alignment considerations including the methods of crossing at each roadway overpass, and pipeline hydraulics for the groundwater disposal pipeline. The report will include the analysis of the Cienega Reservoir and Pump Station, including the concept site plan, storage capacity calculation and pump system sizing. A section on the capital and operational cost estimates will be provided in the report. The concept schematics and cost estimates will be provided as attachments to the report.

7. Project Meetings and Project Management

In preparing the feasibility study, RBF will meet with IRWD's engineering department, and other participating agencies. This task is based on a total of two (2) meetings.

8. Meetings with OCSD

RBF will attend two meetings with IRWD and OCSD representatives to discuss the project concept along with estimated disposal costs, off-peak discharges, and sewer capacity, and to coordinate tie-in design requirements.

9. Meeting with OC Flood

RBF will attend one meeting with IRWD and OC Flood representatives to discuss the project concept, and issues pertinent to the proposed alignment within Peter's Canyon Channel.

10. Workshop

RBF will conduct a workshop at IRWD covering the analysis and conclusions for the feasibility study with focus on the capital and operational cost.

Proposed Project Team

RBF proposes Cindy Miller as the Principal-in-Charge, and Steven Conner as Project Manager. In addition, RBF will utilize Dan Apt for water quality and John McCarthy and Larry Tortuya who have extensive knowledge of Peters Canyon Channel improvements. These team members will not be removed from this project without your consent.

Proposed Budget

RBF appreciates the opportunity to support IRWD and the stakeholders with the Feasibility Study for the Groundwater Disposal Pipeline and Cienega Storage and Pumping Facility. The total time-and materials not to exceed budget for this project is \$53,110. RBF's understanding is that the five stakeholders (Caltrans, TCA, OC Flood, City of Irvine, and City of Tustin) will each pay an equal share the project cost, estimated at \$10,622 each. Caltrans and OC Flood have indicated to RBF that each will be contracting separately with RBF for this work. The TCA and

Mr. Kevin Burton, PE
November 23, 2011
Page 7

the Cities of Irvine and Tustin will reimburse IRWD for their portions of the contract. Therefore, RBF's contract with IRWD totals \$31,866. The fee estimate is provided as Attachment 1.

Exclusions

The budget is based on exclusion of survey (aerial topography and field survey), mapping services (including legal descriptions and right-of-way mapping), geotechnical investigation and potholing.

Schedule

RBF anticipates the project to require ten (10) weeks to complete from the date of notice-to-proceed (NTP). This assumes information required from participants (i.e. flows, locations for points of connection, and water quality) is provided to RBF within two weeks from the NTP.

If you have any questions regarding the proposed scope of services, please do not hesitate to call me at (949) 855-3616 or e-mail me at CLMILLER@rbf.com.

Sincerely,



Cindy L. Miller, PE
Vice President

cc: Ray Bennett, IRWD

IRVINE RANCH WATER DISTRICT
 Groundwater Disposal System Concept Study
 Attachment No. 1 - Proposed Project Budget
 23-Nov-11

Task	Description	Labor Hours					Fee		
		Principal In Charge	Senior Project Manager	Project Engineer	Senior Designer	Total Hours	Labor Fee	Other Direct Costs	Total Fee
1	Concept Development of Groundwater Disposal Pipeline - Document Review	\$ 220	\$ 180	\$ 140	\$ 125	118	\$ 15,650		\$ 15,650
	- Evaluation of Gravity and Pressure Systems	2	8	18	90				
	- Concept Schematics of Groundwater Disposal Pipeline	2	4	6					
2	Concept Evaluation of Cienega Reservoir and Pump Station - Reservoir Calculations and Layout - Pump Station Calculations and Layout - Site Plan / Grading Plan	1	8	28	40	77	\$ 10,580		\$ 10,580
	Concept Evaluation of Discharge Pipeline to OCSD Sewer - Document Review - Concept Schematics of Discharge Pipeline	0	4	14	36	54	\$ 7,180		\$ 7,180
4	Evaluation of Water Quality / Blending Analysis	1	4	12	36	13	\$ 1,900		\$ 1,900
5	Cost Estimate		4	20		24	\$ 3,520		\$ 3,520
6	Feasibility Report	1	8	30		39	\$ 5,860		\$ 5,860
7	Project Meetings and Project Management		10	8		18	\$ 2,920		\$ 2,920
8	Meetings with OCSD		4	4		8	\$ 1,280		\$ 1,280
9	Meeting with OC Flood		2	2		4	\$ 640		\$ 640
10	Workshop	4	4	12		20	\$ 3,280		\$ 3,280
	Reimbursables							\$ 300	\$ 300
	Total Contract Amount:	9	48	134	130	321	\$ 52,810	\$	\$ 53,110
	Amount Contracted by Caltrans and OC Flood:								\$ 21,244
	Net Contract Amount with IRWD:								\$ 31,866

IRVINE RANCH WATER DISTRICT Exhibit "B"

Expenditure Authorization

Project Name: GROUNDWATER DISPOSAL SYSTEM CONCEPT STUDY

Project No: 11631 EA No: 1

ID Split: Regional Potable Water Splits (11/08)

Improvement District (ID) Allocations

Project Manager: WEGHORST, PAUL

Project Engineer: BENNETT, RAY

Request Date: November 28, 2011

ID No. Allocation % Source of Funds

ID No.	Allocation %	Source of Funds
112	4.3	BONDS YET TO BE SOLD**
113	5.2	BONDS YET TO BE SOLD**
115	7.3	CAPITAL FUND
121	15.3	BONDS YET TO BE SOLD**
130	11.8	BONDS YET TO BE SOLD**
140	4.2	BONDS YET TO BE SOLD**
150	31.2	BONDS YET TO BE SOLD**
153	3.4	BONDS YET TO BE SOLD**
154	1.5	BONDS YET TO BE SOLD**
161	8.0	BONDS YET TO BE SOLD**
182	3.0	BONDS YET TO BE SOLD**
184	2.8	BONDS YET TO BE SOLD**
186	1.0	BONDS YET TO BE SOLD**
188	1.0	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$44,800
Total EA Requests:	\$44,800
Previously Approved Budget:	\$0
Budget Adjustment Requested this EA:	\$44,800
Updated Budget:	\$44,800
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 IRWD	5,000	0	5,000	5,000	0	5,000	11/11	6/12
ENGINEERING - PLANNING OUTSIDE	31,900	0	31,900	31,900	0	31,900	11/11	6/12
LEGAL	2,000	0	2,000	2,000	0	2,000	11/11	6/12
Contingency - 15.00% Subtotal	\$5,900	\$0	\$5,900	\$5,900	\$0	\$5,900		
Subtotal (Direct Costs)	\$44,800	\$0	\$44,800	\$44,800	\$0	\$44,800		
Estimated G/A - 180.00% of direct labor*	\$9,000	\$0	\$9,000	\$9,000	\$0	\$9,000		
Total	\$53,800	\$0	\$53,800	\$53,800	\$0	\$53,800		
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: Ray Bennett 11/28/11

Department Director: Kevin J. Burton 11/30/11

Finance: _____

Board/General Manager: _____

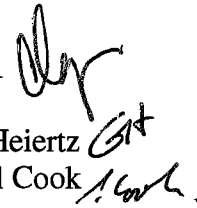
** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$55,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

December 12, 2011

Prepared and

Submitted by: G. Heiertz

Approved by: Paul Cook



ACTION CALENDAR

GREEN ACRES PROJECT AGREEMENT

SUMMARY:

Starting in July 1996, the Irvine Ranch Water District, Orange County Water District (OCWD), Orange County Sanitation District (OCSD), and the City of Newport Beach entered into a series of agreements (GAP Agreements) to convey recycled water from the IRWD Michelson Water Recycling Plant (MWRP) to serve OCWD's Green Acres Project (GAP) customers. The GAP intertie allows IRWD to operate the MWRP on a year-round basis, thus avoiding the need for IRWD to acquire additional wastewater treatment capacity in OCSD treatment facilities at a significant cost.

As the GAP Agreements will expire on January 15, 2012, staff has negotiated a replacement agreement that includes a 15-year extension and slightly modified terms. Staff recommends that the Board authorize execution of the new agreement entitled "Agreement for Irvine Ranch Water District Interties to Orange County Water District Green Acres Project and Groundwater Replenishment System and Orange County Sanitation District Outfall" subject to non-substantive changes by the General Manager and Legal Counsel.

BACKGROUND:

Starting in July 1996, IRWD, OCWD, OCSD and Newport Beach entered into a series of agreements to convey recycled water from the MWRP to serve OCWD's GAP customers. Flow not utilized by the GAP customers can also be discharged to the OCSD outfall. The GAP intertie allows IRWD to operate the MWRP on a year-round basis, thus avoiding the need for IRWD to acquire additional wastewater treatment capacity in OCSD treatment facilities at significant cost. As the GAP Agreements will expire on January 15, 2012, staff has negotiated a replacement agreement, provided as Exhibit "A", which includes a 15-year extension and slightly modified terms as discussed below.

Under the existing agreements, IRWD owns the intertie (including the intertie meter and vault), associated telemetry equipment upstream of the intertie meter vault on University Drive, and the outfall connection meter at OCSD's Plant No. 2. Provided in the new agreement, IRWD agrees to assume ownership of an additional 1,300 feet of 24-inch diameter pipeline in University Drive between the intertie meter vault and the point of connection with the OCWD GAP II pipeline in Jamboree Road. OCWD is planning to construct and own additional facilities to connect the GAP to the Groundwater Replenishment System (GWRS) that will allow water conveyed through the intertie for treatment by this system.

IRWD will be permitted to discharge up to eight million gallons per day (MGD) through the intertie for use by GAP, GWRS, or through the OCSD outfall. IRWD will not be entitled to any compensation for the discharge of recycled water to the intertie, except when specifically requested by OCWD to meet GAP or GWRS supply needs. Under the current agreements,

OCWD pays a minimal amount to IRWD for any water delivered to GAP customers. OCWD will not be entitled to any compensation for treating or disposing of recycled water delivered through the intertie. IRWD will compensate OCSD for the operation and maintenance of the ocean outfall at their actual cost for any water discharged to the outfall through the intertie. The cost of outfall operation and maintenance will be apportioned between OCSD and IRWD annually on a flow weighted basis.

Intentional discharges of recycled water to San Diego Creek and Newport Bay are prohibited.

IRWD will be responsible for the quality and its suitability of recycled water delivered through the intertie for use by the GAP and GWRS. Water quality reports will be provided by IRWD on a regular basis. The parties will perform daily meter reads of water conveyed through the intertie and outfall facilities. The representatives of each party shall meet periodically to provide and receive input on scheduling of recycled water discharges to the intertie, GAP, GWRS and the outfall, and to address any operational or maintenance concerns. The agreement is intended to remain in effect until January 15, 2027.

FISCAL IMPACTS:

Continued use of the GAP intertie will preclude the need for IRWD to seek alternative disposal methods that would be costly. The cost would depend on the alternative selected.

ENVIRONMENTAL COMPLIANCE:

Extension of this agreement 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 operation 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 December 8, 2011.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE PRESIDENT TO EXECUTE THE AGREEMENT ENTITLED "AGREEMENT FOR IRVINE RANCH WATER DISTRICT INTERTIES TO ORANGE COUNTY WATER DISTRICT GREEN ACRES PROJECT AND GROUNDWATER REPLENISHMENT SYSTEM AND ORANGE COUNTY SANITATION DISTRICT OUTFALL" SUBJECT TO NON-SUBSTANTIVE CHANGES BY THE GENERAL MANAGER AND LEGAL COUNSEL.

LIST OF EXHIBITS:

Exhibit "A" – Agreement for Irvine Ranch Water District Interties to Orange County Water District Green Acres Project and Groundwater Replenishment System and Orange County Sanitation District Outfall

EXHIBIT "A"

AGREEMENT FOR IRVINE RANCH WATER DISTRICT INTERTIES TO ORANGE COUNTY WATER DISTRICT GREEN ACRES PROJECT AND GROUNDWATER REPLENISHMENT SYSTEM AND ORANGE COUNTY SANITATION DISTRICT OUTFALL

This Agreement ("Agreement"), dated this _____ day of _____, 2011, is made and entered into by and between ORANGE COUNTY WATER DISTRICT, a district organized and existing pursuant to the Orange County Water District Act, Chapter 924 of the California Statutes of 1933, as amended ("OCWD"), IRVINE RANCH WATER DISTRICT, a California water district organized and existing pursuant to the California Water District Law, California Water Code Section 34000 *et seq.* ("IRWD"), ORANGE COUNTY SANITATION DISTRICT, a county sanitation district organized and existing pursuant to the County Sanitation District Act, California Health & Safety Code Sections 4700 *et seq.* ("OCSD") and the CITY OF NEWPORT BEACH ("CNB"), a municipality incorporated under state law in 1906. OCWD, IRWD, OCSD and CNB are sometimes individually referred to herein as a "Party" and collectively as the "Parties."

RECITALS:

WHEREAS, OCWD, IRWD and the CNB entered into an agreement, entitled "Agreement," dated July 17, 1996, as amended by Revised Amendment to Agreement dated September 18, 1996, and Amendment No. 2 to Agreement dated December 18, 1996 (the "1996 Intertie Agreement"), providing for, among other things, the construction and operation of an intertie (the "Intertie") to convey recycled water from IRWD's Michelson Water Reclamation Plant (MWRP) to OCWD's Green Acres Phase II pipeline ("GAP II"); and

WHEREAS, the 1996 Intertie Agreement further provided for the execution of an agreement between OCWD and OCSD's predecessor agencies, and such agreement, entitled "Second Amended and Restated Agreement for Utilization of Reclaimed Wastewater," was entered into on January 15, 1997 (the "Wastewater Utilization Agreement"), pursuant to which OCSD is obligated to accept from OCWD a minimum quantity of recycled water; and

WHEREAS, OCWD, IRWD, OCSD's predecessor agencies and the CNB entered into an agreement, entitled "Agreement For Operation of Green Acres Project Intertie and Outfall Connection," dated April 15, 1998 (the "1998 Operating Agreement"), establishing operating agreements and conditions for the use of the Intertie, GAP II and a connection (the "Outfall Connection") between GAP II and the ocean outfall at OCSD's Plant No. 2 in the City of Huntington Beach (the "Outfall"); and

WHEREAS, OCWD and OCSD entered into an agreement, entitled "Joint Exercise of Powers Agreement for the Development, Operation and Maintenance of the Groundwater Replenishment System and the Green Acres Project," dated November 12, 2002, as amended by Amendment No. 1 dated October 15, 2003, and Amendment No. 2 dated April 26, 2006 (the "2002 Agreement"), which, among other things, incorporated certain provisions of the Wastewater Utilization Agreement and terminated the Wastewater Utilization Agreement; and

WHEREAS, the 2002 Agreement was replaced by an agreement, entitled the "Amended Joint Exercise of Powers Agreement for the Development, Operation and Maintenance of the Groundwater Replenishment System and the Green Acres Project", dated May 5, 2010 (the "2010 OCWD-OCSD GWRS Agreement") which preserved all the rights and obligations set forth in those portions of the 2002 Agreement incorporated by reference in the 2010 OCWD-OCSD GWRS Agreement; and

WHEREAS, OCWD was issued producer/user water recycling requirements for the Groundwater Replenishment System ("GWRS") by the California Regional Water Quality Control Board, Santa Ana Region ("RWQCB"), which include findings of fact made by the California Department of Public Health ("CDPH"), via Order No.R8-2004-002 and Amending Order No. R8-2008-0058 (the "GWRS permit"); and

WHEREAS, both the 1996 Intertie Agreement and the 1998 Operating Agreement, by their respective terms, will expire on January 15, 2012, the end of the fifteen (15) year term described in the 2002 Agreement and the 2010 OCWD-OCSD GWRS Agreement("the "Prior Expiration Date"); and

WHEREAS, the Parties desire to enter into this Agreement to consolidate, modify and replace the 1996 Intertie Agreement and the 1998 Operating Agreement (collectively, the "Prior Agreements"), in order to continue the operation of the Interties, GAP II and the Outfall Connections following the Prior Expiration Date; and

WHEREAS, the effective date of this Agreement (the "Effective Date") shall be January 16, 2012 and

WHEREAS, this Agreement is a successor agreement to the 1996 Intertie Agreement and the 1998 Operating Agreement; and

WHEREAS, OCSD and IRWD entered into a Memorandum of Understanding dated February 11, 1987 (the "1987 Source Control MOU") to memorialize, among other things, that IRWD's source control program shall in no instance be less stringent than OCSD's source control program.

WHEREAS, the Parties in the 1996 Intertie Agreement stipulated terms and conditions for IRWD to supply Recycled Water to the IRWD planned Wetlands Water Supply Project (WWSP) and allow under specified conditions for the discharge of said Recycled Water to San Diego Creek and Newport Bay if the Basic Integrated Reuse Project (GAP II and the Intertie) was not constructed by October 1, 1997.

WHEREAS, the Parties in the 1996 Intertie Agreement completed the Basic Integrated Reuse Project prior to October 1, 1997 and IRWD constructed the WWSP to use San Diego Creek water as supply water for the wetlands in lieu of recycled water.

NOW, THEREFORE, in consideration of the promises and covenants herein contained, OCWD, IRWD, OCSD and CNB agree as follows:

AGREEMENT:

Section 1. Ownership of Facilities. The facilities described below in this Section are schematically depicted on Exhibits "A-1," "A-2," "B" and "C," which are attached hereto and incorporated herein by this reference.

1.1 IRWD Facilities. IRWD owns (i) the Intertie, Intertie meter and vault, associated telemetry equipment and all associated appurtenances upstream of the downstream side of the Intertie meter vault on University Drive, as depicted in Exhibit A-1, and (ii) the Outfall Connection Telemetry and Cla Valve at OCSD's Plant No. 2. In addition, OCWD and IRWD agree that IRWD will assume ownership from OCWD of approximately 1,300 feet of 24-inch diameter pipeline (the "Connector Line") in University Drive between the downstream side of the Intertie meter vault and the point of connection with the OCWD GAP II pipeline in Jamboree Road that was designed and constructed by IRWD as part of the Basic Integrated Reuse Project, as depicted in Exhibit A-2. Bonita Creek Park, which is served from the Bonita Creek Park dedicated service line off of the Connector Line, will continue to be an OCWD GAP customer.

1.2 OCWD Facilities. OCWD owns (i) GAP II and associated telemetry equipment and all associated appurtenances downstream of the point of connection between the OCWD GAP II pipeline and the Connector Line in Jamboree Road, (ii) the Bonita Creek Park dedicated service line downstream of the point of connection thereof with the Connector Line, and (iii) all other Green Acres Project ("GAP") and GAP II facilities not included in Paragraph 1.1 or 1.3 hereof, and shall own and maintain (iv) the microfiltration feed ("MFF"), trickling filter ("TF"), activated sludge ("AS"), and IRWD feed ("IT") meters and GWRS Screening Facility & Overflow Weir and shall own (iv) a new connection ("GWRS Connection") to be constructed as provided in this Agreement between OCSD Plant No. 1 Secondary Effluent Junction Box 6 ("SEJB6") and the 24" GAP pipeline located in Garfield Avenue immediately south of OCSD's Plant No. 1 facility, as depicted in Exhibit C, such that the IRWD flows described in Section 4 can be supplied as influent to OCWD's GWRS project. The GWRS Connection shall include a flow control valve, pressure reducing valve and flow metering device to measure the volume of the IRWD Recycled Water to the GWRS system. The flow metering device shall include remote flow indication at OCSD and OCWD control centers. The device shall be equipped with a flow totalizer and a continuous recorder that logs the time, date, and flow volume. The GWRS Connection shall also incorporate an accessible sample point with suitable pressure regulation. OCSD shall be given the opportunity to review and approve the choice of metering equipment and components, and sample point location.

1.3 OCSD Facilities. OCSD owns the Outfall Connection exclusive of all associated telemetry but exclusive of the meter, as depicted in Exhibit B.

Section 2. Maintenance of Facilities. The Parties agree that each of the facilities and appurtenant equipment and telemetry shall be maintained and operated by the Party owning it as set forth in Section 1.

Section 3. Construction of GWRS Connection. OCWD shall design and construct the GWRS Connection. The GWRS Connection shall be designed and constructed to be capable of accepting flows delivered by IRWD in the amounts specified in Section 4, through the Intertie and GAP II and conveying such flows to the GWRS via OCSD's SEJB6.

Section 4. Discharge of Recycled Water Flows by IRWD. IRWD shall be entitled to discharge at its sole discretion up to 8 million gallons per day (mgd) of water treated in accordance with the standards set forth in California Code of Regulations Title 22 ("Recycled Water") to the Intertie at any time. IRWD shall provide notice to OCWD at least thirty (30) days prior to each scheduled date for commencement or cessation of the discharge of Recycled Water to the Intertie. During such times as IRWD elects to discharge Recycled Water to the Intertie, IRWD will, at a minimum, discharge sufficient Recycled Water to satisfy the average demands of GAP customers as determined by OCWD, up to 4 mgd. IRWD understands that OCWD will not operate the GAP plant, clearwell, pump stations or Santa Ana GAP Reservoir whenever IRWD is delivering Recycled Water to the Intertie. Until OCSD completes its "J-109" project, GAP customers could generate up to 8 mgd of demand, and IRWD agrees to make a good faith effort to accommodate this demand when electing to discharge Recycled Water to the Intertie. IRWD agrees not to operate the Intertie on an intermittent basis, but rather to attempt in good faith to operate the Intertie on a continuous basis for each Intertie delivery season that IRWD elects to commence discharges of Recycled Water to the Intertie.

4.1 Compensation for Recycled Water Discharged to the Intertie. IRWD will not be entitled to any compensation for the discharge of Recycled Water to the Intertie, except when specifically requested by OCWD in writing to discharge Recycled Water to meet GAP or GWRS supply needs. If Recycled Water is requested by OCWD, then OCWD agrees to compensate IRWD for the specifically requested flows at a rate equivalent to IRWD's cost to provide tertiary treatment and the cost to deliver the Recycled Water to OCWD at the Intertie when surplus Recycled Water is available. If Recycled Water is not available, then OCWD will compensate IRWD for the specifically requested flows at a rate equivalent to MWD full service untreated water rate.

Section 5. Acceptance of Recycled Water Flows.

5.1 Acceptance in GWRS Facilities. OCWD may accept any Recycled Water discharged by IRWD to the Intertie for use to supply GAP users or for treatment by the GWRS. Recycled Water that is discharged by IRWD to the Intertie shall be deemed to have been delivered through the GWRS Connection to the Outfall (as described in Section 5.2) if it is discharged by IRWD to the Intertie when GWRS is not receiving any influent water and the control valve at the GWRS Connection is in the open position. The quantities of Recycled Water delivered to GAP or GWRS and deemed to have been delivered to the Outfall shall be determined from meter readings as provided in Section 12.2. OCWD will not be entitled to any compensation for treating or disposing of Recycled Water.

5.2 Acceptance of up to 8 mgd in OCSD Outfall. OCSD shall accept up to 5 mgd of Recycled Water not accepted by OCWD and deemed to have been discharged by IRWD through the GWRS Connection to the Outfall. The IRWD water that flows through the GWRS Connection at SEJB6 reaches the OCSD outfall by overflowing the weir at the GWRS

Screening Facility and flowing through SEJB6 to OCSD's Plant No. 1 Secondary Effluent Junction Box 3 to the Outfall pipelines transporting flow to the Outfall pumping facilities. OCSD shall accept up to an additional 3 mgd of Recycled Water discharged by IRWD directly to the Outfall Connection.

5.3 No Required Flow. Nothing in this Agreement shall require IRWD to deliver any Recycled Water to GAP II.

5.4 LRP Payments. IRWD relinquishes any claim to receive Local Resources Program (LRP) subsidy payments from The Metropolitan Water District of Southern California for Recycled Water delivered to the Intertie.

5.5 No Required Acceptance for GWRS. Nothing in this Agreement shall require OCSD to accept any Recycled Water from IRWD for use in, treatment by or discharge through GWRS.

Section 6. Access to IRWD's Outfall Connection Telemetry. To obtain access to OCSD's property for routine and scheduled maintenance or repairs of the Outfall Connection telemetry and Cla Valve, IRWD shall provide OCSD with written or electronic notice one (1) week or more prior to the date of the maintenance to comply with any and all security provisions adopted or instituted by OCSD, with respect to access into and across OCSD property. The security provisions shall also ensure that persons using IRWD's access license on OCSD's property, including, but not limited to any regular full-time, temporary, part-time or limited-term employees of IRWD or of an IRWD contractor, are made aware of OCSD security access provisions and restrictions. In the event of an emergency, IRWD shall notify OCSD by telephone prior to access. OCSD hereby confirms, ratifies and continues in effect the non-exclusive license conveyed to IRWD pursuant to the 1998 Outfall Connection Agreement for access to the Outfall Connection Cla Valve and telemetry and for such access purposes over the portions of OCSD's Plant 2 property depicted on Exhibit "B"; provided, that OCSD may modify the license area or designated access route from time to time following written notice to IRWD.

Section 7. Shutdown of IRWD's Flows to OCSD's Outfall. The Outfall Connection is intended to be used for the disposal of Recycled Water delivered by IRWD through the Intertie and GAP II, at any time elected by IRWD as specified in Section 4, which is in excess of the amount accepted into GAP and the GWRS under Sections 5.1 and 5.2. It may be necessary for OCSD to temporarily shut down Recycled Water deliveries into the Outfall via either the GWRS Connection or the Outfall Connection for scheduled or emergency maintenance or repairs or during conditions of high flows through the Outfall, such as in storm events. During such shutdowns, IRWD agrees to divert any flow of Recycled Water, in excess of the amount being accepted into GAP and from the GAP II system into the GWRS, to either the OCSD Main Street Pump Station or, if possible, to IRWD storage facilities. OCSD shall provide IRWD with written notice one (1) week prior to the date of any scheduled maintenance or repair. In the event of emergency high flow conditions or maintenance requiring a shutdown of the Recycled Water deliveries into the Outfall, OCSD shall give reasonable notice to IRWD by telephone prior to the shutdown. OCSD shall use reasonable efforts to schedule maintenance and repairs during the non-rainy season.

Section 8. Pumping, Operation & Maintenance and Dechlorination Costs. At the end of each fiscal year, OCSD will estimate the cost per gallon of pumping Recycled Water flows (i) delivered from the Outfall Connection into the Outfall, and (ii) not used by OCWD and deemed to have been delivered through the GWRS Connection to the Outfall, using actual costs for operation and maintenance of the Outfall for the previous 12 months, and will compute the total pumping, operation and maintenance, and dechlorination costs for such fiscal year, using the information generated by OCWD pursuant to Section 12.2 hereof and the cost formulas set forth in Sections 8.1 and 8.2. IRWD shall pay the annual pumping, operation and maintenance, and dechlorination costs to OCSD annually, not later than December 31, 2012, and not later than December 31 of each year thereafter. Each annual payment shall constitute payment of the costs for annual pumping, operation and maintenance, and dechlorination for the Recycled Water flows from the Outfall Connection into the Outfall and the GWRS Connection into the Outfall during the fiscal year ended on June 30 preceding the December 31 payment date. OCSD shall, on or before September 30 following the close of the fiscal year, provide a written statement to IRWD setting forth the calculation of the pumping, operation and maintenance, and dechlorination costs for that fiscal year. OCSD shall periodically review all costs related to operating the Outfall and, if deemed necessary, adjust the cost factor used for determining the total Outfall pumping, operation and maintenance, and dechlorination costs (the variable "E" as used in the formulas in Sections 8.1 and 8.2) without amending this Agreement, by giving sixty (60) days advance notice to IRWD. IRWD has the right to examine all costs and calculations used by OCSD in determining IRWD's total cost.

8.1 Cost Formula for outfall flows via GWRS Connection. The formulas below will be used to compute IRWD's annual cost for flows deemed to have been delivered through the GWRS connection (OCWD IT Meter) to the Outfall for a given fiscal year period.

During any period when GWRS is off or GWRS operations are reduced to a level below the low flow influent levels of OCSD's Reclamation Plant No. 1, all flows discharged by IRWD will be charged.

Prior to OCWD storage tanks becoming operational and during periods when GWRS is operational above the minimum daily flows at Reclamation Plant No. 1, flows delivered between the hours of X am and X am will be assumed to enter the GWRS system and will not be charged. Flows delivered during the remaining portion of the day will be charged. The operations committee may periodically review the actual GWRS operations to determine if the hours need to be adjusted to better reflect IRWD flows actually entering the GWRS system.

After OCWD storage tanks become operational and during periods when GWRS is operational above the minimum daily flows at Reclamation Plant No. 1, the total flow to be charged will be based on the following formula:

$$X = (A - (B - C)) * (E / D)$$

X = Cost to IRWD for Operation of the Ocean Outfall in \$'s

A = IRWD Flow to the GWRS Connection at OCWD's IT Meter in MG

B = OCWD Flow to the GWRS Microfiltration Unit at OCWD's MFF Meter in MG

C = OCSD Influent Flow to Reclamation Plant No. 1 in MG

D = OCSD Total Effluent Flow to Ocean Outfall System in MG

E = OCSD Costs to Operate and Maintain the Ocean Outfall System in \$'s

Where if A-(B-C) is less than zero use \$0 for charges to IRWD. Where (B-C) is a negative number, use 0.

All flow totalization numbers will be recorded and reported on a daily basis by OCWD (values A, B and C above). OCWD will report four daily values on a monthly basis: A, B, C, and (A-(B-C)). OCWD will make the information available to IRWD and OCSD on a monthly basis. On an annual basis, before the billing invoice to IRWD is generated by OCSD, OCSD will calculate the total annual cost of operations and maintenance of the outfall system for the prior year (value E) and totalize the annual outfall flow for the prior year (value D). The Joint Staff Operating Committee may revise this formula as operating circumstances necessitate such revision(s) without amending this Agreement. As part of any review, all parties must maintain the concept that IRWD's water is considered to be last into GWRS and first flows to the ocean outfall system when flows are spilling to the ocean outfall system.

Outfall costs include, but are not limited to, actual costs of pumping, dechlorination, and operation and maintenance costs IRWD has the right to examine all costs and calculations used by OCSD in determining IRWD's total cost.

8.2 Cost Formula for outfall flows via the Outfall Connection at Plant 2. The formula to be used to compute IRWD's annual cost for flows delivered through the Outfall Connection at Plant 2 for a given fiscal year period is as follows:

$$Y = (F / D) * E$$

Y= Annual Cost to IRWD for Operation of the Ocean Outfall in \$'s

F = Annual IRWD Flow through the Outfall Connection Meter in MG

D = Annual OCSD Effluent flow To Ocean Outfall System in MG

E = Annual OCSD Costs to Operate and Maintain the Ocean Outfall System in \$'s

Outfall costs include, but are not limited to, actual costs of pumping, dechlorination, and operation and maintenance costs. Initially, these calculations will be done using the totalized annual flows from IRWD and OCSD. The Parties' designated staff representatives may revise formulas in Sections 8.1 and this 8.2 pursuant to Section 12 if and when they determine that operating circumstances necessitate such revision(s), and such revisions may be effected without amending this Agreement. In such event, each revised formula shall be set forth in an addendum hereto.

Section 9. Determination of Flow Delivered. IRWD's payment to OCSD pursuant to Section 8 for the costs of pumping, operation and maintenance, and dechlorination shall be based on the quantity of Recycled Water discharged by IRWD and metered into the Outfall Connection and the quantity deemed to have been delivered through the GWRS Connection into the Outfall pursuant to Paragraph 5.1.

Section 10. Source Control.

10.1 In accordance with both: (a) the 2010 OCWD-OCSD GWRS Agreement and (b) the GWRS permit, OCSD shall maintain a comprehensive industrial wastewater pretreatment and pollutant source control program for controlling the discharge of wastes from point sources including in those areas serviced by IRWD. OCSD's current source control program addressing these requirements includes: (a) monitoring and testing of federally regulated categorical and locally regulated non-categorical industrial discharges, (b) a non-point source program for discharges with the potential to adversely affect GWRS performance and water quality, (c) the planning and development of non-industrial source controls for contaminants, and (d) the regulatory authority to prohibit the discharge of pollutants to the sewer causing OCSD effluent to be unsuitable for reclamation, as contained within OCSD Ordinance No. OCSD-39. For the Recycled Water discharged by IRWD that may supply GWRS that includes any specific contaminant specified by CDPH, both now and in the future, as harmful or potentially harmful to human health and drinking water supplies, and/or affects GWRS performance and water quality, OCSD shall develop and implement a pollution source control strategy for that constituent.

10.2 In the event that any contaminants, either known as of the date of this Agreement or discovered after that date, are found in IRWD Recycled Water which require removal in order for the GWRS to meet current or future GWRS permit requirements, RWQCB, and/or CDPH standards, then IRWD, OCWD, and OCSD will meet and confer in good faith regarding: (a) the appropriate type of source control and/or water treatment needed to address the contaminants; (b) the appropriate sharing of cost for the construction and operation of any necessary treatment facilities; and/or (c) the development and implementation of additional source control strategies. IRWD shall supply trunkline sampling and /or analytical support for all sewer investigations aimed at determining the source or sources of any such contaminant discovered in IRWD's Recycled Water. OCSD's liability for IRWD's Recycled Water shall extend only to the development and implementation of the additional source control strategies; and shall not include the costs of any construction and/or operation of needed treatment facilities. In the event that IRWD Recycled Water is found to contain contaminants in a concentration that affects OCWD's ability to reclaim the GWRS Specification Influent and/or OCSD's ability to meet its NPDES discharge limits, and OCSD's source control strategies prove unable to mitigate the concentration of said constituent, then OCSD reserves the right to reject and refuse to accept the IRWD Recycled Water to GWRS. To assist in the identification of contaminant sources or other factors that may affect GWRS performance, IRWD shall provide information concerning all chemicals (e.g., polymers and coagulants) used in the IRWD wastewater and/or solids treatment processes (e.g., manufacturer, type, chemical composition, etc.) if requested by OCWD or OCSD.

10.3 IRWD shall indemnify, defend and hold harmless OCWD from any and all liability for any damage to GWRS for noncompliance of terms, conditions and requirements contained in Section 10 – Source Control of this Agreement and the successor provision(s) of any amendments to this Agreement.

Section 11. Discharges to San Diego Creek. IRWD will use the Intertie under the terms and conditions of this Agreement whenever IRWD elects to discharge Recycled Water and

will not make intentional discharges of Recycled Water from MWRP to San Diego Creek and Newport Bay.

Section 12. Reporting. IRWD shall provide OCWD and OCSD with a monthly report for each calendar month during an operation period for the Intertie, by the thirtieth (30th) day of the following month. Such monthly reports shall include the following information:

12.1 Water Quality Data. Final effluent water quality data from MWRP, including, at minimum, the daily results for coliform, electrical conductivity (maximum, minimum and average for each day) and chlorine residual (maximum, minimum and average for each day), and monthly sampling results for total dissolved solids, pH, carbonate, bicarbonate, calcium, magnesium, boron, chloride, sodium, calculated sodium adsorption ratio (SAR) and adjusted SAR. Results for other constituents that are routinely measured in the final effluent shall also be included. The report shall include the dates of sample collection and units used for reporting. Upon written notification by OCWD or OCSD, IRWD shall test for additional constituents based on operational and regulatory needs of OCWD or OCSD.

12.2 Meter Readings. IRWD will provide daily readings, in both acre feet and million gallons, of the quantity of water delivered through the Intertie meter on University Drive and the quantity of excess flow delivered through the Outfall Connection meter. OCWD will provide daily readings of the quantity of water delivered to the GWRS Connection (IT Meter) for treatment by OCWD and total water delivered to the MFF meter. OCSD will provide daily readings of the quantity of influent flow to Plant No. 1 and total effluent flow to the Outfall. The Parties' designated staff representatives may revise the designated meters to be read and meter reading responsibilities pursuant to Section 12 as they determine that operating circumstances necessitate; and such revision(s) may be made by said representatives without amending this Agreement. In such event, the revised meter reading requirements shall be set forth in an addendum hereto.

Section 13. Staff Representatives. Each Party shall appoint one staff representative and one alternate staff representative to work with the staff representatives and alternate representatives of the other Parties to facilitate communication between the parties and aid in the administration of this Agreement. The parties shall give full consideration to all joint recommendations of the staff representatives. The staff representatives shall meet periodically, but at least once a year, to perform such tasks as may be assigned to them by the parties from time to time, including, but not limited to, the following: provide and receive input on scheduling of Recycled Water discharges to the Intertie, GAP, GWRS and the Outfall; address operational concerns in the use and maintenance of the Intertie and GAP II; and address any other operational matters as deemed necessary.

Section 14. Notices. Any notice or other document and all billings and payments required or permitted to be given by any Party hereto to another Party shall be deemed received upon delivery in person to the recipient or upon deposit in the United States mail in the State of California, with postage prepaid, and addressed to the Party for whom intended at the following address:

To OCSD: Orange County Sanitation District
P.O. Box 8127
Fountain Valley, CA 92728-8127
Attention: Director of Engineering/AGM
Telephone: (714) 593-7300
E-mail: jherberg@ocsd.com

To OCWD: Orange County Water District
18700 Ward Street
P.O. Box 8300
Fountain Valley, CA 92728-8300
Attention: Director of Engineering
Telephone: (714) 378-3200
E-mail: dyoungblood@ocwd.com

To IRWD: Irvine Ranch Water District
15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000
Attention: General Manager
Telephone: (949) 453-5590
E-mail: cook@irwd.com

To CNB: City of Newport Beach

Newport Beach, CA 9_____
Attention:
Telephone:
E-mail:

Section 15. Effectiveness of Agreement; Term. This Agreement shall become effective on the Effective Date, and the Prior Agreements shall remain in effect through January 15, 2012. The term of this Agreement shall expire on the fifteenth (15th) anniversary of the Effective Date.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first hereinabove written.

[Signatures on the following page.]

ORANGE COUNTY WATER DISTRICT

By: _____
President

By: _____
General Manager

**APPROVED AS TO FORM:
Rutan & Tucker LLP**

By: _____
Joel Kuperberg
General Counsel, Orange County
Water District

IRVINE RANCH WATER DISTRICT

By _____
President, Board of Directors

By _____
Secretary

**APPROVED AS TO FORM:
BOWIE, ARNESON,
WILES & GIANNONE**

By _____

ORANGE COUNTY SANITATION DISTRICT

By _____
Chair, Board of Directors

By _____
Clerk of the Board

APPROVED AS TO FORM:
BRADLEY R. HOGIN,
GENERAL COUNSEL

By _____

CITY OF NEWPORT BEACH

APPROVED AS TO FORM:

By: _____
City Attorney


By: _____
City Manager

Exhibit A-1 (IRWD producing)

Exhibit A-2 (IRWD producing)

Exhibit B (IRWD producing)

Exhibit C (OCWD producing)

December 12, 2011
Prepared By: K. Welch/P. Weghorst
Submitted By: G. Heiertz
Approved By: Paul Cook 

ACTION CALENDAR

STORAGE OPTION WITH ANTELOPE VALLEY-EAST KERN WATER AGENCY AND KERN COUNTY WATER AGENCY FEES

SUMMARY:

In June 2011, IRWD executed a letter agreement for a Pilot Exchange Program with Antelope Valley-East Kern Water Agency (AVEK) that allows AVEK to store a portion of AVEK's unused State Water Project (SWP) Table A water in IRWD's Strand Ranch Integrated Banking Project (Water Bank) on an unbalanced exchange basis. The letter agreement provides AVEK the ability to store up to 5,000 AF of Table A water.

AVEK has requested to exercise an option in the agreement which allows, at IRWD's sole discretion, to increase AVEK deliveries up to 10,000 AF. In addition, Kern County Water Agency (KCWA) has implemented an administration fee for third party non-member transactions which will require an amendment to the agreements for the Pilot Exchange Programs with both AVEK and Carpinteria Valley Water District (CVWD). Staff recommends the Board approve the following:

1. Authorize the General Manager to exercise the option in the Pilot Exchange Program Agreement with AVEK to increase the amount of water to be delivered from 5,000 AF to up to 10,000 AF; and
2. Authorize staff to work with Legal Counsel to prepare amendments to Pilot Exchange Program agreements with both AVEK and CVWD for payment and reimbursement of half of the KCWA third party administration fees and authorize the General Manager to execute the amendments to the Pilot Exchange Program agreements.

BACKGROUND:

In March 2011, the Board approved a Pilot Exchange Program which would allow the District to store a portion of AVEK's unused Table A water in the Water Bank on an unbalanced exchange basis. The Pilot Program applies provisions of AVEK's SWP Contract with the Department of Water Resources (DWR) that allows for unbalanced exchanges where a minimum of 50 percent of the water to be delivered to IRWD would need to be returned to AVEK within ten years.

The District and AVEK entered into a letter agreement for a Pilot Exchange Program on June 6, 2011 for AVEK to store up to 5,000 AF of Table A water. This agreement is attached is Exhibit "A". The agreement contains a provision which provides for IRWD, at its sole discretion, to allow AVEK to increase the amount of water it can deliver from 5,000 AF up to 10,000 AF. AVEK has expressed an interest in exercising this option in the Pilot Exchange Program and staff recommends approving the increase of allowable storage to 10,000 AF for AVEK.

Metropolitan as Exchangee:

Metropolitan has consented to IRWD securing SWP water from AVEK pursuant to the executed Coordinated Operating, Water Storage, Exchange and Delivery Agreement (Metropolitan Agreement) between IRWD, Metropolitan and Municipal Water District of Orange County (MWDOC). This agreement establishes the framework by which Metropolitan will act as the Exchangee in unbalanced exchanges of SWP water on behalf of IRWD. Metropolitan's consent was provided through their signature on the letter agreement and their further consent to increase the amount of AVEK's deliveries to 10,000 AF is not necessary.

Kern County Water Agency Fees:

In September 2009, the Kern County Water Agency (KCWA) Board approved a third party wheeling fee for transactions involving non-member units. Until recently, the KCWA had not implemented this fee for any non-member transaction. The KCWA has informed staff that the KCWA Board will not approve the transaction request for delivery of water from either of IRWD's Pilot Exchange Programs with AVEK or CVWD until the associated third party administration fees are paid. The requested fee is based on \$5 per acre-foot with a minimum fee of \$7,500 and a maximum fee of \$75,000 per transaction. Staff has been inquiring with the KCWA to obtain clarification for the basis of the fee.

Payment for Fees for CVWD: The administrative fee for the CVWD Pilot Exchange Program for 1,500 AF is \$7,500. CVWD requested that IRWD pay the entire fee of \$7,500 for the transaction and that they will sign (subject to CVWD Board approval) an amendment to the letter agreement with IRWD requiring them to reimburse IRWD for half of the fee at the time that they take delivery of their share of the water upon recovery from the Water Bank. In order not to delay the delivery of CVWD's water into storage, the administrative fee in the amount of \$7,500 was submitted to KCWA on December 6, 2011 under the authority of the General Manager.

Payment of Fees for AVEK: The KCWA administrative fee for the AVEK Pilot Exchange Program will be \$50,000 for 10,000 AF of water. AVEK staff has requested further explanation of the KCWA administrative fee and its implementation prior to agreeing to make payment. Staff is coordinating a meeting between the parties to discuss the fee. It is expected that AVEK will approve payment of the fee to KCWA and AVEK has asked staff to prepare an amendment to the letter agreement with IRWD requiring them to reimburse IRWD for half of the fee at the time that they take delivery of their share of the water upon recovery from the Water Bank.

Preparation of Agreement Amendments: Staff requests the Board authorize staff to work with Legal Counsel to prepare amendments to the Pilot Exchange Program agreements with AVEK and CVWD to reflect payment of the KCWA third party administration fees with CVWD and AVEK being required to reimburse IRWD for half of the fees at the time that they take delivery of their shares of the water upon recovery from the Water Bank.

FISCAL IMPACTS:

The costs of SWP water secured by IRWD are established within the Metropolitan Agreement. Assuming that IRWD's share of the AVEK or CVWD Exchange Water are delivered directly to Metropolitan's reservoirs, IRWD's total cost of water from the Pilot Programs and delivered to IRWD's service area will be Metropolitan's Full Service Tier-1 rate for treated supply (currently \$744 per AF) that is in effect at the time IRWD takes delivery of the water at its service connection plus MWDOC's surcharge of \$4.25 per AF. The total cost for IRWD's share of the water from Metropolitan's reservoirs will be \$748 per AF. If Metropolitan chooses to deliver IRWD's share to the Water Bank and that water is recovered from the Water Bank by exchange rather than by direct use of pumping wells, then IRWD's total cost of water from the Pilot Exchange Programs and delivered to IRWD's service area will be \$770 per AF. If recovery occurs by pumping wells then IRWD's total cost of water will be \$825 per AF which is below Metropolitan's Tier-2 full service rate at \$873 per AF for water (including MWDOC's surcharge).

The KCWA third party administration fee of \$7,500 and \$50,000 AF for the CVWD and AVEK Pilot Exchange Programs will be funded from the District's Operating Budget with reimbursements for half of the fees being provided to IRWD upon delivery of water back to CVWD and AVEK.

ENVIRONMENTAL COMPLIANCE:

A Final Environmental Impact Report (FEIR) for the Strand Ranch Integrated Water Banking Project 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. The FEIR evaluates the delivery of SWP water to the Strand Ranch Integrated Water Banking Project and to IRWD's service area through Metropolitan facilities. AVEK and Central Coast Water Authority (on behalf of CVWD) have both filed a Notice of Exemption for their respective Exchange Programs with IRWD as required by Department of Water Resources

COMMITTEE STATUS:

This item was not reviewed by a committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXERCISE THE OPTION IN THE PILOT EXCHANGE PROGRAM AGREEMENT WITH AVEK TO INCREASE THE AMOUNT OF WATER TO BE DELIVERED FROM 5,000 AF TO UP TO 10,000 AF, AND AUTHORIZE STAFF TO WORK WITH LEGAL COUNSEL TO PREPARE AN AMENDMENT TO PILOT EXCHANGE PROGRAM AGREEMENTS WITH BOTH AVEK AND CVWD FOR PAYMENT AND REIMBURSEMENT OF HALF OF THE KCWA THIRD PARTY ADMINISTRATION FEES AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE AMENDMENTS TO THE PILOT EXCHANGE PROGRAM AGREEMENTS.

EXHIBITS:

Exhibit "A" – Pilot Exchange Agreement with AVEK

EXHIBIT "A"



IRVINE RANCH WATER DISTRICT

15600 Sand Canyon Ave., P.O. Box 57000, Irvine, CA 92619-7000 (949) 453-5300

June 6, 2011

Honorable Board of Directors
Antelope Valley-East Kern Water Agency
6500 West Avenue N
Palmdale, CA 93551

Re: Short-Term Water Storage Partnership – Pilot Exchange Program

Dear Members of the Board:

Please be advised that that the Board of Directors of Irvine Ranch Water District (“IRWD”) has determined to proceed with the six-year pilot exchange program (“Pilot Program”) with Antelope Valley-East Kern Water Agency (“AVEK”) (IRWD and AVEK collectively are referred to as the “Parties” and each individually may be referred to as a “Party”). The “Pilot Program” means the program described in “(4/4/2011) Terms of Pilot Exchange Program” (“Term Sheet”) which is attached hereto as Exhibit “A” and incorporated herein by this reference. When you have countersigned below to indicate your acceptance, this letter will be an agreement between IRWD and AVEK that will constitute the “Pilot Program Agreement” referred to in the Term Sheet. Capitalized terms used herein and not otherwise defined shall have the definitions given such terms in the Term Sheet. The Pilot Program will be governed by the terms and conditions of the Term Sheet. In addition, the Pilot Program will be governed by the following terms and conditions of this letter agreement, each and all of which terms and conditions are intended to supplement said Term Sheet and, to the extent inconsistent therewith, are intended to amend and replace said Term Sheet:

1. Mediation: The Parties agree that any and all disputes, claims or controversies regarding the Pilot Program, the Term Sheet, or this letter agreement, shall be submitted to mediation in a mutually agreeable venue and if the matter is not resolved through mediation, then it may be submitted to any court of competent jurisdiction. Any affected Party may commence mediation by providing the other Party a written request for mediation, setting forth the subject of the dispute and the relief requested. The Parties shall cooperate with one another in selecting a mediator and in scheduling the mediation proceedings. The Parties covenant that they shall participate in the mediation in good faith, and that they shall share equally in costs charged by the mediator. All offers, promises, conduct and statements, whether oral or written, made in the course of the mediation by any of the Parties, their agents, employees, experts and attorneys, and by the mediator or any of the mediator’s employees, are confidential, privileged and inadmissible for any purpose, including impeachment, in any arbitration or other proceeding involving the Parties, provided that evidence that is otherwise admissible or discoverable shall not be rendered

inadmissible or non-discoverable as a result of its use in the mediation. The provisions of this letter agreement with respect to mediation may be enforced by any Court of competent jurisdiction, and the Party seeking such enforcement shall be entitled to an award of all costs, fees and expenses, including attorneys' fees, to be paid by the Party against whom such enforcement is ordered.

2. Release and Indemnification: IRWD and its officers, agents, or employees shall not be liable for the control, carriage, handling, use, disposal, or distribution of Exchange Water upstream of the IRWD POD, or for the control, carriage, handling, use, disposal, or distribution of IRWD Return Water downstream of the AVEK POD, nor for any claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal or distribution of such water, unless such damages or claims are a result of negligent, intentional or reckless misconduct on the part of IRWD.

AVEK and its officers, agents, and employees shall not be liable for the control, carriage, handling, use, disposal, or distribution of Exchange Water downstream of IRWD POD or for the control, carriage, handling, use, disposal, or distribution of Return Water upstream of the AVEK POD, nor for any claim of damage of any nature whatsoever, including, but not limited to, property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal, or distribution of such water, unless such damages or claims are a result of negligent, intentional or reckless misconduct on the part of AVEK.

Neither IRWD nor AVEK shall be liable to the other for any claims related to the impairment of the quality of water as a result of storage in the IRWD and/or RRBWSD facilities or the aquifer from any cause.

Each Party will indemnify, defend, and hold the other harmless from any claims made by landowners in the respective Party's service area (in the case of IRWD, the service area will also include RRBWSD's boundaries) as a result of activities of the indemnifying party or its diversion, control, carriage, handling, use, disposal or distribution of water into and out of storage in its performance under the Term Sheet or this letter agreement, and any claims relating to any third party claiming a prior right, or interference with their right, to water delivered from one Party to the other.

Each Party shall at all times indemnify, defend and save the other Party free and harmless from, and pay in full, any and all causes of action, claims, liabilities, obligations, demands, losses, judgments, damages or expenses, including reasonable attorney fees and costs ("claims") in any manner arising out of or connected with the indemnifying Party's activities in its performance under the Term Sheet or this letter agreement or its diversion, control, carriage, handling, use, disposal or distribution of water into and out of storage, excepting any loss, damage or expense and claims for loss, damage or expense resulting in any manner from the negligent act or acts of the other Party, or its Board of Directors, officers, representatives, consultants, contractors, agents or employees.

In the event a Party entitled to indemnification is made a party to any action, lawsuit, or other adversarial proceeding alleging negligent or wrongful conduct on the part of an indemnifying Party, then (1) the indemnifying Party shall provide a defense to the other or, at the indemnitee's option, reimburse the indemnitee its costs of defense, including reasonable attorneys' fees, incurred in defense of such claims, and (2) the indemnifying Party shall promptly pay any final judgment or portion thereof rendered against the indemnitee(s).

3. Notices: All written notices required to be given pursuant to the terms of the Term Sheet or this letter agreement shall be either (i) personally delivered, (ii) deposited in the United States express mail or first class mail, registered or certified, return receipt requested, postage prepaid, (iii) delivered by overnight courier service, or (iv) delivered by facsimile transmission or e-mail, provided that the original of such notice is sent by certified United States mail, postage prepaid, or by overnight courier, no later than one (1) business day following such facsimile transmission or email. All such notices shall be deemed delivered upon actual receipt (or upon first attempt at delivery pursuant to the methods specified in clauses (i), (ii) or (iii) above if the intended recipient refuses to accept delivery). All such notices shall be delivered to the addresses shown in this letter agreement or to such other address as the receiving Party may from time to time specify by written notice to the other Party given in the manner provided herein.

4. Representations and Warranties:

- (A) Each of the Parties represents and warrants to the other Party that each is a duly organized or constituted entity, with all requisite power to carry out its obligations under the Term Sheet and this letter agreement, and that the execution, delivery and performance of these documents have been duly authorized by all necessary action of the board of directors or other governing body of such Party, and shall not result in a violation of such Party's organizational documents.
- (B) AVEK represents and agrees that AVEK has and, at all times during the term of this agreement shall have, insurance coverage for its facilities and operations, including those facilities owned or operated by AVEK and those operations by AVEK involved in the delivery of Exchange Water to the IRWD POD and receipt of Return Water from the AVEK POD.
- (C) AVEK has legally enforceable rights to the Exchange Water and to deliver the Exchange Water to IRWD and to carry out its performance under the terms of this letter agreement.
- (D) AVEK represents and warrants that entry into this letter agreement does not create or result in the breach of any other agreement to which AVEK is a party or to which AVEK is otherwise subject to or bound.
- (E) AVEK represents and warrants that, to its knowledge at the time AVEK executed this letter agreement, there is no pending or threatened litigation involving AVEK that will affect this letter agreement.

- (F) IRWD represents and agrees that IRWD has and, at all times during the term of this Agreement shall have, insurance coverage for its facilities and operations, including those facilities owned or operated by IRWD and those operations by IRWD involved in the receipt of Exchange Water from the IRWD POD and delivery of Return Water to the AVEK POD.
- (G) IRWD represents and warrants that entry into this letter agreement does not create or result in the breach of any other agreement to which IRWD is a party or to which IRWD is otherwise subject to or bound.
- (H) IRWD has legally enforceable rights to carry out its performance under the terms of this letter agreement.
- (I) IRWD represents and warrants that, to its knowledge at the time IRWD executed this letter agreement, there is no pending or threatened litigation involving IRWD that will affect this letter agreement.
- (J) Prior to commencement of the delivery of Exchange Water pursuant hereto, there has been completed an environmental review under CEQA with respect to the Strand Ranch Integrated Banking Project and the use of water therein by IRWD, and the Project EIR was certified on May 27, 2008. To IRWD's knowledge, no actions or proceedings have been initiated attacking the validity of such Project EIR.
- (K) The Parties have relied on the forgoing representations, warranties, and covenants as a material inducement to execute this letter agreement, and should any material representation not be correct or true, it shall constitute a material breach of this letter agreement.

5. Increase in Maximum Account Balance; Expansion and Long-Term Agreement: IRWD, at its sole discretion, may offer AVEK the ability to increase the delivery of Exchange Water and the Maximum Account Balance and/or extend the term of this letter agreement, including the period during which AVEK may deliver Exchange Water, as specified in the Term Sheet paragraph entitled "Quantity," by giving a written notice to AVEK, without the need for any amendment of this letter agreement.

The Parties may enter into a long-term exchange program agreement based on terms agreeable to both Parties that would provide for the storage and exchange of AVEK State Water Project water supplies using increased storage, recharge and recovery capacity that may become available as IRWD successfully expands its Water Banking programs and facilities in the future.

6. Termination For Breach. Either Party may terminate this letter agreement if the other Party breaches any material obligation under this letter agreement and such breach continues for a period of sixty (60) days, or such other period as may be reasonable under the circumstances, after the date on which written notice is issued by the non-breaching Party. The non-breaching

Party shall be entitled to seek any and all legal or equitable damages and/or remedies as a result of the breaching Party's breach.

In the event that either IRWD or AVEK is in material default of this Agreement, the non-defaulting Party shall provide written notice to the defaulting Party, identifying with reasonable specificity the nature of the claimed default. If the defaulting Party has not cured the event(s) of material default which is (are) identified in the notice required by this section within twenty (20) business days after receipt of written notification, or such other period as is reasonable under the circumstances, the non-defaulting Party shall be entitled to any and all remedies which may be available to it at law or in equity. This provision is not intended to provide a separate termination right, which is set forth in the first paragraph of this Section.

7. Governing Law: The Term Sheet and this letter agreement shall be construed and enforced in accordance with the laws of the State of California.
8. Amendments: No amendment of the Term Sheet or this letter agreement shall be binding upon the Parties unless it is in writing and executed by both of the Parties.
9. Further Action: The Parties agree to and shall take such further action and execute and deliver such additional documents as may be reasonably required to effectuate the Pilot Program, consistent with each and all of the terms and conditions of the Term Sheet and this letter agreement.
10. Assignment: No Party shall assign or otherwise transfer its rights or obligations in, under or to the Pilot Program, the Term Sheet, or this letter agreement, in whole or in part, without the prior written consent of the other Party. All covenants and agreements contained in the Term Sheet and this letter agreement shall bind and inure to the benefit of the Parties' respective successors and permitted assigns.
11. Force Majeure; Change In Law. The respective obligations of each Party hereto shall be suspended while it is prevented from complying by acts of God; war; riots; civil insurrection; acts of civil or military authority; fires; floods; earthquakes; labor accidents or incidents; rules and regulations of any federal, state, or other governmental agency (other than the Parties themselves); changes in law, rules, or regulations of any federal, state or other governmental agency (other than the Parties themselves); or other cause of the same or other character any of which are beyond the reasonable control of such Party (collectively, "Force Majeure"). In the event of a suspension due to the foregoing, the Party whose obligations are suspended shall promptly notify the other Party in writing of such suspension and the cause and estimated duration of such suspension.

The Party providing such notice shall be excused from fulfilling its obligations under this Agreement until such time as the Force Majeure has ceased to prevent performance or other remedial action is taken, at which time the Party shall promptly notify the other Party of the resumption of its obligations under this letter agreement. Any Party rendered unable to fulfill any of its obligations by reason of a Force Majeure shall exercise due diligence to remove such

inability with reasonable dispatch within a reasonable time period and mitigate the effects of the Force Majeure. The relief from performance shall be of no greater scope and of no longer duration than is required by the Force Majeure.

12. Joint Drafting and Negotiation: The Term Sheet and this letter agreement have been jointly negotiated and drafted. The language of each shall be construed as a whole according to its fair meaning and without regard to or aid of Civil Code Section 1654 or similar judicial rules of construction. Each Party acknowledges that it has had the opportunity to seek the advice of experts and legal counsel prior to executing said documents and that it is fully aware of and understands all of their respective terms and the legal consequences thereof.

13. Headings. Headings used in this letter agreement are for reference only and shall not affect the construction of this letter agreement.

14. No Third Party Beneficiaries. No third party beneficiaries are intended by the Parties hereto, and no third party shall be entitled to claim or enforce any rights under this letter agreement.

15. Severability. In the event that any provision of this letter agreement is determined by a court to be invalid, the court shall reform the provision in a manner that is both consistent with the terms of this letter agreement taken as a whole and legally valid. The remainder of this letter agreement shall not be affected thereby.

16. Successors and Permitted Assigns. All covenants and agreements contained in this letter agreement by or on behalf of any of the Parties shall bind and inure to the benefit of their respective successors and permitted assigns under Section 10, whether so expressed or not.

17. Approval by DWR. The effectiveness of this letter agreement shall be contingent upon consent to the herein-described transaction by The Metropolitan Water District of Southern California, as indicated by its signature below, and approval of the herein-described transaction by the California Department of Water Resources. If The Metropolitan Water District of Southern California does not consent, or the California Department of Water Resources disapproves the transaction described herein, this letter agreement shall terminate; provided, the Parties may mutually agree to and make any modifications of this letter agreement that they determine are necessary to gain such consent or approval.

By its signature hereon, IRWD accepts the Term Sheet as amended and supplemented by the terms and provisions contained in this letter agreement. Please indicate the acceptance of AVEK of the Term Sheet, as amended and supplemented by the terms and provisions contained in this letter agreement, by signing and returning the enclosed copy. Thank you for your cooperation.

The Parties intend that this letter agreement and the Term Sheet are consistent with, and are entered into by IRWD pursuant to, that certain Water Banking and Exchange Program Agreement between Rosedale-Rio Bravo Water Storage District (RRBWSD) and IRWD dated as

of January 13, 2009.

Sincerely,

*not as
in letter
JLH*

IRVINE RANCH WATER DISTRICT

By: *[Signature]*
General Manager

By: *[Signature]*
Secretary

READ, APPROVED AND ACCEPTED:

ANTELOPE VALLEY-EAST KERN WATER AGENCY

By: *[Signature]*
Title: *President of the board*

By: *[Signature]*
Secretary

CONSENT:

In accordance with Paragraph 3.2 of that agreement entitled "Coordinated Operating, Water Storage, Exchange and Delivery Agreement," (the "COA") dated as of April 21, 2011, by and among The Metropolitan Water District of Southern California ("Metropolitan"), the Municipal Water District of Orange County and the Irvine Ranch Water District, and in accordance with Section 15(d) of Metropolitan's State Water Project Contract with the California Department of Water Resources, THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA hereby provides its written consent to IRWD's acquisition of State Water Project Water on Metropolitan's behalf as described in the Pilot Program defined herein, so long as that water meets the requirements of Section 3.1(a) of the COA.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

By: *[Signature]*
Title: *GENERAL MANAGER*

By: _____
Secretary

EXHIBIT "A"

(4/4/2011)

Antelope Valley-East Kern Water Agency and Irvine Ranch Water District

Terms of Pilot Exchange Program

GENERAL TERMS

- Parties:** Irvine Ranch Water District ("IRWD"); Antelope Valley-East Kern Water Agency ("AVEK")
- Description:** The IRWD seeks to enter into a Pilot Exchange Program (Pilot Program) with AVEK as described in this Summary of Proposed Terms ("Term Sheet") pursuant to a Pilot Program Agreement (as defined below). The AVEK and IRWD Pilot Program will provide for IRWD to store a portion of AVEK's unused State Water Project (SWP) water in IRWD's Integrated Strand Ranch Banking Project (Water Bank) for the benefit of both agencies. The Pilot Program will provide for storage of up to 5,000 AF of AVEK water on a 2 for 1 basis as described under Pilot Program Terms.
- Effective Date:** April 1, 2011.
- Term:** Six (6) years from the Effective Date or as mutually extended by the Parties.
- IRWD's Strand Ranch:** The IRWD Integrated Strand Ranch Water Banking Project located in Kern County is owned by IRWD and operated by Rosedale-Rio Bravo Water Storage District (Rosedale). IRWD holds the first priority rights to use of the Strand Ranch recharge facilities except for when the Kern River Watermaster offers water to all takers willing to sign a notice/order or the Kern River Watermaster offers Kern River water to the California Aqueduct / Kern River Intertie. Under such conditions, Rosedale has first priority right to the use of the recharge

facilities. IRWD holds first priority rights to use of the Strand Ranch Recovery facilities. IRWD's water banking capacity limitations are as follows:

Recharge Capacity: Approximately 100 cfs and 17,500 acre-feet per year

Recharge Area: 502 acres

Recovery Capacity: Approximately 36 cfs and 17,500 acre-feet per year

Storage Capacity: 50,000 acre-feet

Cross Valley Canal Turnouts: 200 cfs

Expansions: IRWD will be making best efforts to expand its water banking capacities. The Pilot Program Agreement shall include language allowing for IRWD and AVEK to jointly agree to enter into a Long-term Program Agreement under terms agreeable to both agencies. This Long-term Program Agreement shall include provisions for IRWD's consideration to increase the storage, recharge, and recovery limits allocated to the Exchange Program with AVEK as IRWD successfully expands the water bank.

Non-Binding Effect: This Term Sheet is intended to be a non-binding statement of the terms of the proposed transaction. It is subject to the negotiation, execution and delivery of a Pilot Program Agreement by IRWD and AVEK not inconsistent with the basic terms and conditions set forth herein. AVEK and IRWD will provide usual and customary representations and warranties including: 1) title to Exchange Water as described below; 2) the adequacy of Exchange Water and; 3) authority to transfer unbalanced portions of Exchange Water pursuant to the Pilot Program Agreement to IRWD.

General Expenses: Each party shall be responsible for its own fees and expenses arising out of the negotiation and execution of agreements related to this transaction, obtaining necessary approvals, and the like.

- Coordination:** IRWD and AVEK shall jointly coordinate with the California Department of Water Resources (DWR), Metropolitan Water District of Southern California and the Kern County Water Agency in the development of all approvals and agreements necessary to deliver Exchange Water to the Water Bank and to deliver Return Water to AVEK as described below. IRWD and AVEK shall each be responsible for their own costs associated for such coordination.
- CEQA Compliance:** Both parties shall comply with CEQA and cooperate with one another with respect to CEQA compliance that may be required by the California Department of Water Resources for the proposed Pilot Program. IRWD has already conducted environmental review under CEQA for the Water Bank that takes into consideration the delivery of SWP water to the Water Bank. Rosedale and IRWD independently certified and approved the Water Bank Project on May 27, 2008. IRWD and AVEK will share equally any additional costs associated with environmental review deemed necessary for delivering AVEK Exchange Water into storage. Both IRWD and AVEK shall separately be responsible for any other environmental review necessary to implement the Pilot Program within their own respective service areas.
- Permit Costs:** No permits are expected to be required for the Pilot Program; however IRWD and AVEK will share equally any and all regulatory and permitting fees that might come to be required during the implementation of the Pilot Program.
- Water Rights:** It is expressly agreed, understood, and acknowledged by IRWD that any existing or future delivery of Exchange Water to the Water Bank by AVEK will not result in or be considered a sale or transfer of AVEK's contractual rights to SWP Table A water.

Pilot Program

Agreement: Contract language to be incorporated into the pilot exchange program agreement between the Parties.

PILOT PROGRAM TERMS

Exchange Water: AVEK will supply SWP Table A water or schedulable Article 21 water to the Water Bank available to AVEK as a result of allocations of Table A water to AVEK under its SWP Contract with DWR (Exchange Water).

Quantity: Up to 5,000 acre-feet of Exchange Water may be delivered to the Water Bank by AVEK within the first year of the execution of the Pilot Program Agreement with a maximum cumulative account balance limited to the lesser of 5,000 acre-feet or the total amount of Exchange Water delivered to the Water Bank within the first year (Maximum Account Balance). In addition, IRWD at its sole discretion may offer AVEK the ability to increase deliveries of Exchange Water and the Maximum Account Balance limit up to 10,000 AF and/or extend the term of this agreement to allow delivery of Exchange Water to the Water Bank.

Quality: The quality of water delivered to the Water Bank and returned to AVEK will be limited as follows:

If and to the extent that either party delivers water to and into the California Aqueduct, the quality of water shall meet the water quality standards established by DWR for pump-in to the California Aqueduct.

Availability: Although not intended as a project commitment, AVEK presently foresees that it may make Exchange Water available for delivery to the Water Bank if the hydrology of the SWP system results in the California Department of Water Resources declaring allocation levels of ____% or higher. The Exchange Water will be available as per Delivery Schedule below and upon completion of

environmental review, agreements and permits for the programs contemplated by this agreement. The availability of Exchange Water shall be determined in AVEK's sole discretion in accordance with the Quantity limit defined above. The availability of recharge and storage capacity beyond the Quantity limits described above will be determined in IRWD's sole discretion.

Delivery Points: AVEK will deliver Exchange Water to the IRWD point of delivery (IRWD POD) which will be the Strand Ranch Turnouts on the Cross Valley Canal or other Rosedale diversion locations as specified by Rosedale, or thereabouts. IRWD will deliver Return Water, as defined below, to the AVEK point of delivery (AVEK POD) which will be Check 28 of the California Aqueduct.

Return Water: Water that IRWD delivers to AVEK (Return Water) will occur by either (i) an exchange of banked water for SWP water or other water already in the California Aqueduct, or (ii) recovery of water from the Water Bank wells with subsequent delivery through the Cross Valley Canal to the California Aqueduct.

Delivery Schedule: AVEK may deliver Exchange Water within the first year of the execution of the Pilot Program Agreement. IRWD shall provide Return Water at a time when requested by AVEK at an annual rate of no more than one-third of the portion of the Maximum Account Balance due to be returned to AVEK after losses. For example, if the AVEK portion of the Maximum Account Balance after losses were 2,125 acre-feet, then Return Water would be provided at a rate not to exceed 708 acre-feet per year. The construction of IRWD's Strand Ranch Integrated Banking Project recovery facilities is not yet completed, and IRWD estimates the recovery facilities will be available for use by February 2012. IRWD shall use its best reasonable efforts to complete construction of such recovery facilities on or before such time. To the extent IRWD is unable to provide requested Return Water to AVEK because Strand Ranch Integrated Banking Project recovery facilities are not completed, the time during which AVEK may schedule return of the water shall be adjusted by mutual agreement.

Consideration: IRWD will remit Return Water equal to one-half of the Exchange Water placed into storage less applicable losses (as described below) by the end of the 5th full calendar year after the associated recharge event. The other one-half of the Exchange Water placed into storage less applicable losses shall be deemed transferred to IRWD. AVEK's share of the Exchange Water less applicable losses may not remain in storage beyond the end of the 5th full calendar year after completion of the associated recharge event.

Losses: Exchange Water stored will be subject to the loss provisions of any applicable "Memorandum of Understanding" between Rosedale and adjoining entities applicable to or affecting the Pilot Program. Losses for banking operations currently are fifteen percent (15%) for evaporation, migration and out-of county use. IRWD and AVEK agree that all losses will be shared equally.

Costs: Costs associated with the Pilot Program will be paid as follows:

- (i) IRWD will pay all variable costs actually incurred by AVEK associated with making the Exchange Water available for recharge at the IRWD POD in Kern County and charges assessed by Rosedale for the recharge of the water at the Water Bank. These costs are currently estimated at \$30.00 per acre-foot and are comprised of the current \$27 Unit Variable OMP&R Component of Transportation Charge in the State Water Project in Reach 13-b of the California Aqueduct and an administrative charge assessed by Rosedale that will be about \$3 per AF consistent with that certain Water Banking and Exchange Program Agreement (Banking Agreement) between Rosedale and IRWD dated as of January 13, 2009. AVEK will reimburse IRWD for 50 percent of these costs paid by IRWD upon IRWD's delivery of Return Water to AVEK.

- (ii) AVEK will pay all fixed costs associated with making all Exchange Water available for recharge, including water that will be allocated to both AVEK and IRWD.
- (iii) IRWD will pay all variable costs associated with delivery of the Exchange Water through the Cross Valley Canal (CVC) and into the recharge basins. These costs are for use of two pumping plants on the CVC and are currently estimated at \$7.00 per acre-foot. AVEK will reimburse IRWD for 50 percent of these variable costs paid by IRWD upon IRWD's delivery of Return Water to AVEK.
- (iv) AVEK will reimburse IRWD for all costs incurred by IRWD in the recovery and/or exchange of Return Water from Storage at the Water Bank. Recovery costs associated with extraction are estimated at \$65 per acre-foot and are comprised of current groundwater pumping costs of \$62 per acre-foot and an administrative charge assessed by Rosedale that will be about \$3 per AF consistent with the Banking Agreement. The actual groundwater pumping cost will be dependent on water surface elevations and may be less if recovered via an exchange through Rosedale or another agency. AVEK will pay all conveyance and canal pumping costs associated with the delivery of Return Water to the AVEK POD and to its service area.
- (v) IRWD will pay all costs associated with the recovery and/or exchange of its share of water from storage at the Water Bank including all conveyance costs and pumping costs to its respective service area.

OS
December 12, 2011
Prepared by: A. Arant/S. Malloy
Submitted by: K. Burton *(K.B.)*
Approved by: Paul Cook *(P. Cook)*

CONSENT CALENDAR

JEFFREY ROAD SOUTH RECLAIMED WATER AND DOMESTIC
WATER MAINS – FINAL ACCEPTANCE

SUMMARY:

Construction of the Jeffrey Road reclaimed water and domestic water mains are 100% complete. The contractor SEMA Construction, Inc. has completed all the required work and all punch list items. The project has received a final inspection and acceptance of construction is recommended.

BACKGROUND:

IRWD's domestic, reclaimed and sewer lines in Jeffrey Road between Irvine Center Drive and Walnut Avenue were relocated due to the City of Irvine's Jeffrey Road Grade Separation and Roadway Widening Project. A location map is attached as Exhibit "A". The pipeline project consisted of construction of approximately 3,771 feet of 30-inch reclaimed water pipeline and 2,054 feet of 24-inch domestic water transmission main and associated appurtenances; 968 feet of 12-inch domestic water pipelines and appurtenant valves, manways, earthwork, street pavement removal and replacement, adjustment of sewer manholes to grade, fire hydrants, and laterals for the piping facilities. The required work is complete.

Project Title:	Jeffrey Road South Reclaimed Water and Domestic Water Mains (Irvine Center Drive to the Meadows)
Project Numbers:	10283 (1073), 30189 (1692)
Design Engineer:	Stantec Consulting, Inc.
Contractor:	SEMA Construction, Inc.
Original Contract Cost:	\$2,998,000.00
Final Contract Cost:	\$4,053,189.15
Original Contract Days:	600
Substantial Completion Days:	1,512
Final Contract Days:	1,512
Total Budget:	\$5,066,600

Consent Calendar: Jeffrey Road South Reclaimed Water and Domestic Water Mains - Final Acceptance

December 12, 2011

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Total Project Cost (Est.): \$5,000,965

Final Contract Change Order Approved On: June 15, 2011

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the Public Resources Code, division 13, Chapter 2.6, Section 21080.21, which provides exclusions for pipelines of less than one mile.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

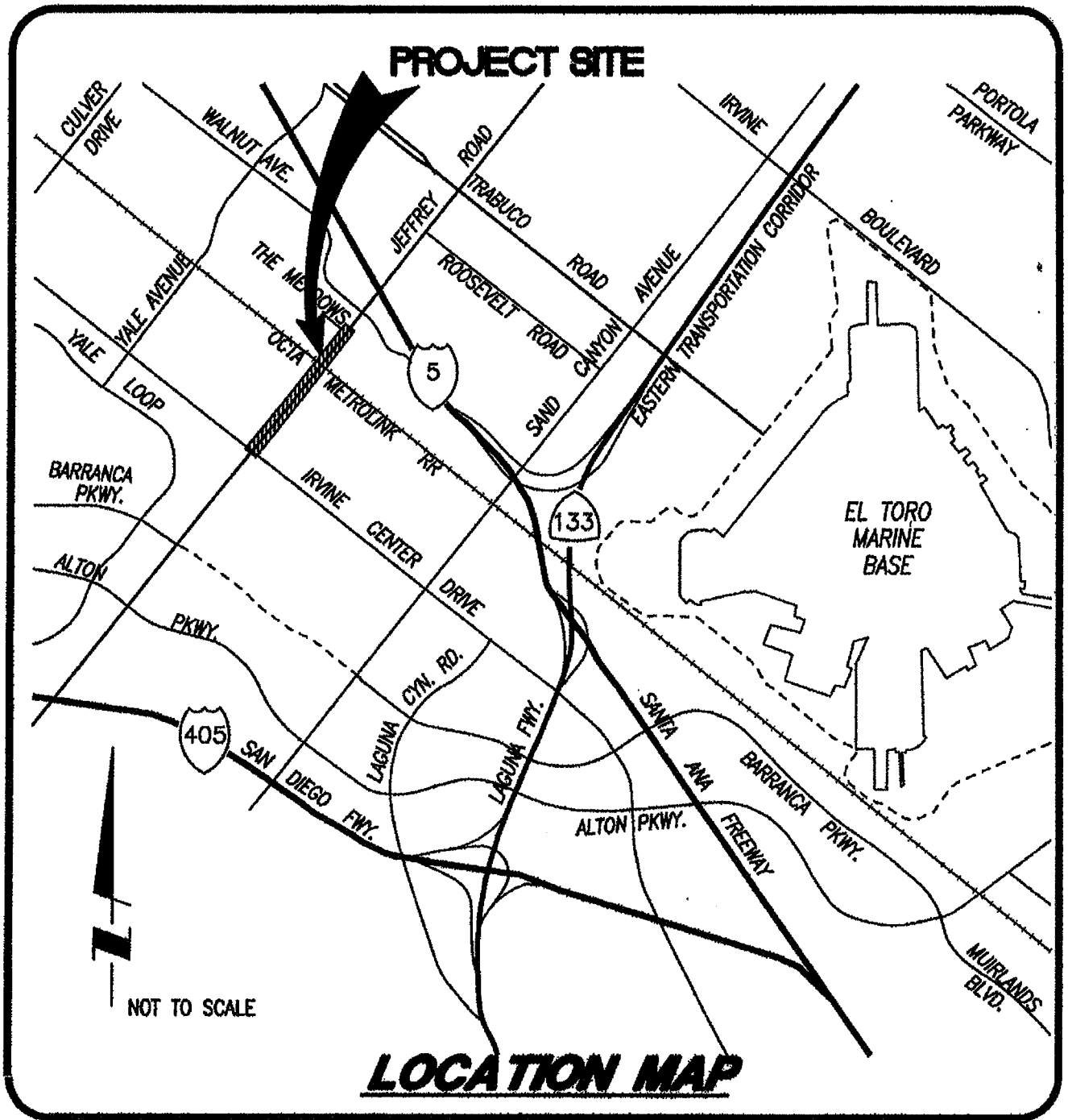
RECOMMENDED MOTION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE JEFFREY ROAD SOUTH RECLAIMED WATER AND DOMESTIC WATER MAINS (IRVINE CENTER DRIVE TO THE MEADOWS), PROJECTS 10283 (1073) AND 30189 (1592); AUTHORIZE FILING OF A NOTICE OF COMPLETION; AND AUTHORIZE RELEASE OF RETENTION 35 DAYS AFTER THE FILING OF THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

Exhibit "A" – Location Map

Exhibit "A"



December 12, 2011
Prepared by: J. Smyth/M. Cortez
Submitted by: K. Burton *(initials)*
Approved by: Paul Cook *(signature)*

CONSENT CALENDAR

OPERATIONS CENTER FACILITIES EXPANSION PROJECT PHASE I
STORAGE BUILDING FINAL ACCEPTANCE

SUMMARY:

PhilCo Construction Inc. completed the construction of a 4,571 sq. ft. pre-engineered metal storage building to meet the need for additional storage. The project has received a final inspection and acceptance of construction is recommended.

BACKGROUND:

Project Title:	Operations Center Facilities Expansion Phase I Storage Building
Project No.:	11422, 21422, 31422
Design Engineer:	RRM Design Group
Construction Management by:	IRWD Staff
Contractor:	PhilCo Construction Inc.
Original Contract Cost:	\$619,380
Final Contract Cost:	\$699,949
Original Contract Days:	240
Substantial Completion Days:	309
Final Contract Days:	309
Total Budget:	\$967,250
Total Project Cost (Est.):	\$805,200
Final Change Order Approved On:	October 3, 2011

FISCAL IMPACTS:

Projects 11422 (1388), 21422 (1120), and 31422 (1156) are included in the FY 2011-12 Capital Budget. The existing budgets and Expenditure Authorizations were sufficient to complete the project.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Division 6, Chapter 3, a Mitigated Negative Declaration, was adopted by the Board December 13, 2010.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDED MOTION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE OPERATIONS CENTER FACILITIES EXPANSION PROJECT PHASE I STORAGE BUILDING, PROJECTS 11422 (1388), 21422 (1120), AND 31422 (1156); AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION; AND AUTHORIZE THE PAYMENT OF THE RETENTION 35 DAYS AFTER THE DATE OF RECORDING THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

None.

December 12, 2011
Prepared by: J. Moeder/C. Spangenberg
Submitted by: Kevin Burton
Approved by: Paul Cook

CONSENT CALENDAR

TUSTIN LEGACY WELL NO. 1 ALTERNATIVE
CONTRACT CHANGE ORDER AND FINAL ACCEPTANCE

SUMMARY:

Bakersfield Well and Pump Company completed construction of Tustin Legacy Well No. 1 Alternative (Well 52). A final Contract Change Order in the credit amount of \$3,893 is required to adjust for final project quantities. Staff recommends that the Board:

- Approve Contract Change Order No. 1 with Bakersfield Well and Pump in the credit amount of \$3,893;
- Accept construction of the Tustin Legacy Well No. 1 Alternative Project;
- Authorize the General Manager to file a Notice of Completion; and
- Authorize the release of retention to Bakersfield Well and Pump Company 35 days after the filing of the Notice of Completion.

BACKGROUND:

The Tustin Legacy Well No. 1 Alternative (Well 52) is part of the District's Groundwater Management Plan. The information obtained by drilling this well will augment the area's limited hydrogeological information and will be used in evaluating the future use of Wells 51 and 52. This project is receiving 25% matching funds, up to a reimbursement limit of \$415,000, in Title XVI funding through the United States Bureau of Reclamation from the American Recovery and Reinvestment Act of 2009.

Bakersfield Well and Pump Company constructed Tustin Legacy Well No. 1 Alternative (Well 52) at the 1061 Duryea Avenue District owned property. The new stainless steel well is estimated to produce 5,000 gallons per minute at a 90% utilization rate, but would require treatment for color. Contract Change Order No. 1 is the final accounting for the project that shows the increase and decrease in quantities listed on the bid form and requires Board approval. Contract Change Order No. 1 is shown in Exhibit "A" and reflects a credit in the amount of \$3,893. Construction is complete and the project is ready for final acceptance by the Board.

Project Title:	Tustin Legacy Well No. 1 Alternative
Project No.:	11419 (1356)
Design Engineer:	RBF and Geoscience
Construction Management by:	Geoscience and IRWD Staff

Consent Calendar: Tustin Legacy Well No. 1 Alternative Contract Change Order and Final Acceptance

December 12, 2011

Page 2

Contractor:	Bakersfield Well and Pump Company
Original Contract Cost:	\$2,757,463
Final Contract Cost:	\$2,753,570
Original Contract Days:	120
Final Contract Days:	120
Total Budget:	\$3,561,600
Total Project Cost (Est.):	\$3,127,900

FISCAL IMPACTS:

Project 11419 (1356) is included in the FY 2011-12 Capital Budget. The existing budget and Expenditure Authorization were sufficient to complete the project.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

ENVIRONMENTAL COMPLIANCE:

Section 15164 of the State CEQA Guidelines provides for the preparation of the addendum to a previously certified MND/IS/EA by lead agency or a responsible agency if some changes or additions to the project are necessary but none of the conditions described in CEQA calling for preparation of a subsequent MND/IS/EA have occurred. The Board approved Addendum No. 1 to the Wells 21 and 22/Tustin Legacy Well 1 project Mitigated Negative Declaration/Initial Study/Environmental Assessment at the April 25, 2011 Board meeting.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE CONTRACT CHANGE ORDER NO. 1 WITH BAKERSFIELD WELL AND PUMP COMPANY IN THE CREDIT AMOUNT OF \$3,893; ACCEPT CONSTRUCTION OF TUSTIN LEGACY WELL NO.1 ALTERNATIVE, PROJECT 11419 (1356); AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION; AND AUTHORIZE THE RELEASE OF RETENTION 35 DAYS AFTER FILING OF THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

Exhibit "A" – Contract Change Order No. 1

EXHIBIT "A"

CONTRACT CHANGE ORDER

IRVINE RANCH WATER DISTRICT
 15600 Sand Canyon Avenue
 Irvine, California 92619
 (949) 453-5300



C.O. No. 001
 Final

Project No. 11419

Tustin Legacy Well No. 1 Alternative
 Project Title

Date: 11/28/11

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
1. ADD 3 tests to Bid Item 6.	\$6,000.00	0	0
2. ADD 50 feet to Bid Item 16.	\$4,250.00	0	0
3. DELETE 41 hours from Bid Item 19.	0	(\$14,350.00)	0
4. DELETE Bid Item 21 entirely.	0	(\$5,000.00)	0
5. ADD 30 feet to Bid Item 22.	\$2,550.00	0	0
6. ADD 32 feet to Bid Item 25.	\$31,808.00	0	0
7. ADD 165 feet to Bid Item 26.	\$137,445.00	0	0
8. DELETE 170 feet from Bid Item 28.	0	(\$167,042.00)	0
9. ADD 50 feet to Bid Item 29.	\$3,000.00	0	0
10. ADD 28 feet to Bid Item 30.	\$2,660.00	0	0
11. ADD 30 feet to Bid Item 32	\$2,100.00	0	0
12. DELETE Bid Item 35 entirely.	0	(\$2,700.00)	0
13. ADD 12 hours to Bid Item 37.	\$3,600.00	0	0
14. DELETE 4 hours from Bid Item 38.	0	(\$1,200.00)	0
15. ADD 1 test to Bid Item 44.	\$4,286.00	0	0
16. ADD 60 feet to Bid Item 47.	\$2,700.00	0	0
17. DELETE Bid Item 48 entirely.	0	(\$10,000.00)	0
18. DELETE Bid Item 49 entirely.	0	(\$4,000.00)	0
TOTAL	\$200,399.00	(\$204,292.00)	0

DAYS ±

1. NET AMOUNT THIS CHANGE ORDER	=	(\$3,893.00)	0
2. ORIGINAL CONTRACT AMOUNT	=	\$2,757,463.00	120
3. TOTAL PREVIOUS CHANGE ORDER(S)	=	\$0.00	0
4. TOTAL BEFORE THIS CHANGE ORDER (2+3)	=	\$2,757,463.00	120
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4)	=	\$2,753,570.00	120

ENGINEERING & CONSTRUCTION

DEC 01 2011

IRVINE RANCH
 WATER DISTRICT

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.

CSG-02

We hereby agree to make the above change subject to the terms of this change order for the sum of: (\$3,893⁰⁰)

Dollars 11-28-11 _____
 Date Contractor John Zimmerman By John Zimmerman

SIGNATURE	DATE	APPROVAL LEVEL REQUIRED
<u>[Signature]</u> IRWD Engineer or Consulting Engineer	<u>12/2/11</u> Date	Department Director Approval Required <input type="checkbox"/>
<u>[Signature]</u> Principal Engineer	<u>12/6/11</u> Date	General Manager Approval Required <input type="checkbox"/>
<u>[Signature]</u> Director of Engineering and Construction	<u>12/6/11</u> Date	Committee Approval Required <input type="checkbox"/>
General Manager	Date	Board Approval Required <input type="checkbox"/>
		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.

December 12, 2011

Prepared and

Submitted by: Janet Wells

Approved by: Paul Cook



CONSENT CALENDAR

LONG-TERM DISABILITY, LIFE, AND DEPENDENT LIFE INSURANCE COVERAGE FOR CALENDAR YEAR 2012

SUMMARY:

Staff has received renewal rates for long-term disability insurance (LTD), life insurance, and dependent life insurance coverage. Staff recommends that the Board:

- Authorize the General Manager to extend IRWD's current contract with Principal Financial for LTD coverage;
- Authorize the General Manager to extend IRWD's current contract with Principal Financial for Life and Dependent Life coverage including the life insurance coverage currently provided through Pacific Life; and
- Terminate the existing policies with Pacific Life for split dollar life insurance coverage.

BACKGROUND:

Since 2008, some life insurance, dependent life insurance, and LTD insurance coverage has been provided by Principal Financial on a three-year rate guarantee. The remainder of life insurance coverage is provided through a split dollar life insurance program with Pacific Life Insurance and premiums for that program are established by Pacific Life on a year-to-year basis. The table below summarizes the current coverage:

Coverage Type	Provider	Notes
Long-Term Disability (LTD)	Principal Life Insurance	--
Life insurance for employees with less than five years of service	Principal Life Insurance	Three or four times an employee's annual salary up to \$750,000
Life insurance for employees with more than five years of service	Principal Life Insurance	First \$50,000 only
	Pacific Life Insurance	Split dollar life plan for balance of three or four times an employee's annual salary
Dependent life insurance	Principal Life Insurance	\$25,000 death benefit for a qualified spouse or dependent child over six months of age

Within the first five years of employment, the balance of the employee's coverage is moved from the Principal coverage to the District's split dollar life insurance plan with Pacific Life.

Renewal Rates:

LTD Coverage:

Principal has proposed a 5% increase in our LTD premiums from 0.40% to 0.42% of insured payroll. Principal guaranteed the LTD rates at 0.40% for the past three years and is now proposing a 5% rate increase to 0.42% of insured payroll. This rate would be for calendar year 2012. Prior to contracting the coverage with Principal in 2008, the District was facing a 30% increase from the prior provider to 0.52% of insured payroll.

Life Insurance Coverage:

During the past three years, the life insurance premiums for coverage provided through the District's split dollar life plan with Pacific Life have steadily increased. Under the split dollar program, life insurance policies theoretically build value over time and policies filled by terminating employees are re-assigned to new employees thereby protecting and building the accrued values in the policies. An added benefit of this program was that employees were taxed on the excess value of their life insurance benefit under a lower tax table than typically used for life insurance coverage. The viability of this program relied heavily on the investment of the accrued values in the policies and due to the instability of the investment market, this program is no longer cost effective as a means of providing life insurance. At present, there is approximately \$4,300 in cash value in the split dollar life plan.

Staff requested Principal to submit a quote to provide all of the District's life insurance coverage so that the split dollar life program with Pacific Life could be terminated. Principal proposed to reduce its life insurance rates (per \$1,000 of coverage) from \$0.149 to \$0.146 if it is contracted for all life and dependent life coverage for active employees and will provide a three-year rate guarantee on this coverage as long as the volume of coverage does not change by more than 25%. They have also proposed an increase in the maximum amount of coverage from the current \$750,000 to \$1,000,000 and an increase in the guaranteed issue amount from \$370,000 to \$500,000. Should the District elect to contract for the additional coverage with Principal, approximately 25 employees who are currently insured for \$500,000 or more would have to complete a health questionnaire and go through underwriting to determine if they are insurable only for the guaranteed issue amount or if they would be eligible for the full coverage amount of four times their annual salary. Should the District keep the existing split dollar life plan intact, Principal has proposed to keep its rates at the current level of \$0.149.

By eliminating the split dollar program with Pacific Life, the District will save a minimum of \$158,127 in premiums for 2012 or approximately 54% of the 2011 total life premiums. Moving all life insurance coverage to Principal would require employees to pay taxes on the value of the life insurance benefit from the regular life insurance tax table rather than the split dollar tax table, resulting in an overall increase in additional employee taxes paid of approximately \$38,000 assuming a 27% tax rate. Life insurance coverage would also cease at age 70 for active employees as it does now for retirees. Currently, the District has no active employees age 70 or older.

Dependent Life Insurance Coverage:

Principal has proposed that there be no increase in premiums for dependent life, currently priced at \$1.25 per unit per month. This is still 17% below what the District was paying for this coverage with Hartford in 2007.

A summary of the current premiums for life insurance coverage with Principal and Pacific Life along with the premiums for the two proposed methods of providing life insurance coverage for 2012 are presented in Exhibit "A".

FISCAL IMPACTS:

Staff budgeted \$99,850 for LTD premiums for FY 2011-12. Principal has agreed to renew our LTD coverage with a 5% rate increase. Contracting with Principal Financial for LTD coverage will result in estimated annual premiums of \$101,910, an estimated \$2,060 or 2.1% over budgeted projections.

Contracting with Principal Financial for all life and dependent life coverage will result in a rate decrease from \$0.149/\$1,000 of coverage to \$0.146/\$1,000 of coverage. Total estimated annual premiums for dependant life and life insurance coverage is \$172,030, less the cash value from the Pacific Life plans, would be an estimated \$128,920 or 43.5% under budgeted projections. Life rates are guaranteed for three years provided the total volume is not reduced by more than twenty-five percent.

ENVIRONMENTAL COMPLIANCE:

Not Applicable.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on December 6, 2011.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONTRACT FOR THE CALENDAR YEAR 2012 WITH PRINCIPAL FINANCIAL FOR LIFE, DEPENDENT LIFE AND LONG-TERM DISABILITY COVERAGE AND TO TERMINATE THE SPLIT DOLLAR LIFE INSURANCE PROGRAM WITH PACIFIC LIFE EFFECTIVE JANUARY 1, 2012.

LIST OF EXHIBITS:

Exhibit "A" – Summary of Life Insurance Renewal Options

Exhibit "A"

Life Insurance Coverage Renewal			
	Current Principal/Pacific Life Insurance Premiums for 2011	Projected Principal/Pacific Life Premiums for 2012	Proposed Principal Life Only Premiums for 2012
Active Life Coverage	\$23,271,000	23,271,000	\$89,763,000
Retiree Life Coverage	<u>\$6,347,000</u>	<u>\$6,347,000</u>	<u>\$6,347,000</u>
Total Life Coverage	\$29,618,000	\$29,618,000	\$96,110,000
Life Insurance Rate Per \$1,000 of coverage	<u>0.149</u>	<u>0.149</u>	<u>0.146</u>
Life Annual Premium	\$52,957	\$52,957	\$168,385
Pacific Life Premiums (\$69,768,000 in Coverage)	\$234,375	\$273,555	N/A
Dep Life Volume	243	243	243
Dep Life Rate	<u>\$1.25</u>	<u>\$1.25</u>	<u>\$1.25</u>
Dep Life Annual Premium	\$3,645	\$3,645	\$3,645
Total Annual Life Premium	\$290,977	\$330,157	\$172,030
Annual Savings from Projected Premiums including Pac Life			-\$158,127 -47.89%
2011-12 Budget for Life Insurance			\$296,650
Return of Cash Value in Pacific Life Policies			-\$4,300
Variance (Under Budget)			-\$128,920 -43.46%
<u>Tax Impact on Employees Due to Increase in Imputed Income</u>			
Annual Imputed Income - Pacific Life	\$64,398		
Annual Imputed Income - Principal Life	<u>\$217,085</u>		
Additional Employee Imputed Income	\$152,687		
Estimated Additional Employee Tax assuming a 25% tax rate.	\$38,172		

December 12, 2011

Prepared by: K. Lew/M. Cortez

Submitted by: K. Burton

Approved by: Paul Cook



KL

KB



CONSENT CALENDAR

TWO-YEAR REIMBURSEMENT AGREEMENT BETWEEN IRWD AND THE CITY OF IRVINE FOR THE ADJUSTMENT/RELOCATION OF MISCELLANEOUS FACILITIES RELATED TO CITY STREET PROJECTS, 2012-2013

SUMMARY:

IRWD has used reimbursement agreements (RAs) with the cities in the District's service area as a way to facilitate minor capital improvements, such as raising valve cans and sewer manholes to grade after a street repaving project. Staff recommends the Board authorize the General Manager to execute a two-year Reimbursement Agreement (RA) between Irvine Ranch Water District and the City of Irvine to facilitate these minor capital improvements.

BACKGROUND:

IRWD and the City of Irvine have had a successful RA in place since 1995 for managing the City of Irvine's various street rehabilitation projects. Typically included in the City of Irvine's Capital Improvement Projects (CIP) are alternate bid items for raising existing IRWD sewer manhole covers and domestic and reclaimed water valve cans to the new pavement grade. Any project, up to \$100,000 in reimbursable costs, can be authorized by the General Manager as an addendum to this RA. Having an "umbrella"-type RA reduces the administrative work involved in preparing a separate agreement for each individual project, which would require review and approval by both IRWD and Irvine. For any project with estimated costs over \$100,000, an individual RA is required.

Staff recommends that IRWD enter into another two-year RA with the City of Irvine to facilitate these minor capital improvements. Minor changes were made to the previous RA, including the addition of a seven percent administration fee on the IRWD portion of the construction cost instead of paying actual cost for administrative items including surveying, compaction testing, permits, inspection, accounting, and reproduction. Staff has evaluated past reimbursement projects with the City of Irvine and finds the seven percent administration fee to be reasonable for small, less complex projects. The proposed RA has been reviewed by IRWD's legal counsel and is attached as Exhibit "A".

FISCAL IMPACTS:

The Raise System Valves and Raise Manholes to Grade Projects 11444 (1470), 20943 (1194), and 31444 (1201) are included in the FY 2011-12 Capital Budget. The project budgets and existing Expenditure Authorizations are sufficient.

Consent Calendar: Two-Year Reimbursement Agreement between IRWD and the City of Irvine for the Adjustment/Relocation of Miscellaneous Facilities Related to City Street Projects, 2012-2013

December 12, 2011

Page 2

ENVIRONMENTAL COMPLIANCE:

These projects are exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15061 (b) (3). The activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.

In addition, projects referenced in these agreements are exempt from CEQA as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15302 C, which provides exemption for “replacement or reconstruction involving negligible or no expansion of capacity”.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on December 8, 2011.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A TWO-YEAR REIMBURSEMENT AGREEMENT BETWEEN IRWD AND THE CITY OF IRVINE FOR THE INSTALLATION OF MISCELLANEOUS FACILITIES (2012-2013).

LIST OF EXHIBITS:

Exhibit “A” – Two-Year Reimbursement Agreement between IRWD and the City of Irvine for the Installation of Miscellaneous Facilities (2012-2013)

EXHIBIT "A"

TWO-YEAR REIMBURSEMENT AGREEMENT
BETWEEN
IRVINE RANCH WATER DISTRICT
AND THE CITY OF IRVINE
FOR THE INSTALLATION OF
MISCELLANEOUS FACILITIES
(2012-2013)

This Agreement is made and entered as of this _____ day of _____, 20____, by and between IRVINE RANCH WATER DISTRICT, a California Water District formed and existing pursuant to California Water District Law, hereinafter referred to as "IRWD," and the CITY OF IRVINE, a municipal corporation, hereinafter referred to as "CITY."

WITNESSETH

WHEREAS, City periodically undertakes street improvement projects, a number of which involve concurrent construction, modification or relocation of water, sewer and/or reclaimed water facilities of IRWD in the vicinity of the respective projects; and

WHEREAS, the parties have determined that for certain projects, to be mutually designated by CITY and IRWD staff (each, a "Project" and collectively, the "Projects"), it would be more efficient for CITY, rather than IRWD, to carry out the design, construction, modification or relocation of the affected water, sewer and/or reclaimed water facilities of IRWD ("IRWD FACILITIES") due to the particular alignment and construction scheduling of IRWD FACILITIES; and

WHEREAS, the parties desire to enter into a master reimbursement agreement covering all Projects initiated during the term of such master agreement that involve an estimated IRWD FACILITIES construction cost of less than \$100,000 per Project; and

WHEREAS, IRWD is amenable to the construction of IRWD FACILITIES by CITY at CITY's cost, which cost is to be reimbursed to CITY by IRWD as provided herein; and

WHEREAS, all IRWD FACILITIES shall be the property of IRWD in accordance with the terms and conditions hereinafter set forth;

NOW, THEREFORE, the parties hereto, in consideration of the mutual promises and covenants hereinafter set forth, DO AGREE AS FOLLOWS:

A. SELECTION OF PROJECTS

SECTION 1. CITY and IRWD shall, by consultation between their respective staffs on an as-needed basis, review all proposed CITY street improvement projects to identify each project which involves the design, construction, modification and/or relocation of IRWD FACILITIES having an estimated construction cost of under \$100,000 and which the staffs concur would be more efficiently accomplished by the CITY than IRWD. The parties agree to identify all such projects in good faith, but the identification of any project shall be subject to mutual approval. IRWD shall prepare the cost estimates for this purpose. For each project so identified and the related IRWD FACILITIES, an Addendum in the form of Exhibit "A," attached hereto and incorporated herein by this reference, shall be executed by authorized representatives of CITY and IRWD, and, upon execution, shall be deemed incorporated in this Agreement. Each project for which an Addendum is executed shall be deemed a "Project" as used herein.

SECTION 2. A Project may be identified at any time so long as the related Addendum is executed prior to the expiration of the term of this Agreement.

SECTION 3. A Project and the related IRWD FACILITIES shall continue to be governed by the terms of this Agreement notwithstanding that actual total costs of items set forth in Section 11 exceed \$100,000 for the Project.

SECTION 4. Any CITY street improvement project which involves the construction, modification and/or relocation of the IRWD FACILITIES with an estimated construction cost over \$100,000 and for which the parties desire to have the IRWD FACILITIES constructed on a reimbursement basis shall be governed by a separate agreement.

SECTION 5. This Agreement shall not alter any other obligations which may exist between the parties relating to the allocation of costs for particular IRWD FACILITIES, such as easement rights. Costs which are the obligation of CITY or any party other than IRWD shall not be considered within the estimates of costs for purposes of identifying Projects under Section 1.

B. CONSTRUCTION AND REIMBURSEMENT

SECTION 6. The provisions of Part B shall apply separately to each individual Project included within this Agreement.

SECTION 7. CITY agrees to initiate and pursue to completion with its construction of the Project, the construction of the IRWD FACILITIES as shown on plans and specifications incorporated by reference in the Addendum for the subject Project, and IRWD agrees to cooperate with CITY with respect to the construction and schedules for completion of IRWD FACILITIES.

SECTION 8. CITY agrees that IRWD FACILITIES shall be completed pursuant to IRWD-approved plans and specifications (the "Plans and Specifications") which shall be supplied by IRWD.

SECTION 9. The parties agree that the construction of IRWD FACILITIES shall be included in CITY's proposed Project plans, and that IRWD FACILITIES shall be bid as an alternate bid item that can be deleted and will not be considered in the base bid and contract award. Upon opening of bids by CITY, CITY will submit a copy of the original bid proposals received for the IRWD FACILITIES to IRWD for review and approval. CITY agrees that the alternate bid prices received shall be subject to the approval of IRWD prior to proceeding with the construction of the IRWD alternate bid item work for the proposed project, and further agrees that in the event IRWD does not approve the prices proposed for such alternate bid item(s), the Addendum may be terminated by either party. IRWD shall have a period of ten (10) working days for review of the alternate bid prices presented in the low bidder's proposal for the IRWD FACILITIES, and for approval or rejection of the alternate bid prices. The total estimated construction cost for IRWD FACILITIES is as set forth in the Addendum provided, however, that the amount to be reimbursed by IRWD shall be based on the actual construction costs (as set forth in Section 11). Upon transmitting the Notice to Proceed to the Contractor, CITY shall provide IRWD with one (1) original copy of the fully executed contract documents and one (1) copy of each of the bid forms.

SECTION 10. CITY shall promptly furnish IRWD with copies of any proposed change orders to Project contract(s) within five (5) working days of being notified of changed conditions to the contract. Change orders shall be subject to IRWD approval if and to the extent any of the IRWD FACILITIES are affected thereby. IRWD shall have a maximum of ten (10) working days to review and respond to the change order that affects IRWD's Facilities.

CITY agrees that if any revision during design or construction is requested by CITY to the Plans and Specifications, and would increase the cost thereof, such increased costs shall be borne by CITY, and shall not be reimbursed by IRWD. The cost of any revisions requested by IRWD shall be reimbursed by IRWD as provided herein.

SECTION 11. Within thirty (30) calendar days following receipt from CITY of each monthly invoice for the portion of a design or construction progress payment attributable to IRWD FACILITIES, together with supporting documentation, IRWD shall deposit with CITY the amount of such invoice. CITY shall maintain separate costs for all bid item and change order amounts expended by CITY in relation to the IRWD FACILITIES. IRWD agrees to accept the IRWD FACILITIES when the Project, which includes the IRWD FACILITIES, has been completed, including any change orders approved by IRWD as provided in Section 10 hereof and accepted by CITY. Within sixty (60) calendar days of CITY's final acceptance of the Project, a final accounting (the "Final Accounting") of the actual cost of the bid items and change order amounts attributable to the IRWD FACILITIES, plus an administration fee equal to seven (7%) of the actual cost of the bid items and change order amounts attributable to the IRWD FACILITIES deemed to cover costs of all items associated with surveying, compaction testing, permits, construction inspection, administration, accounting, and reproductions attributable to the IRWD FACILITIES ("COSTS"), shall be made by CITY and submitted to IRWD, accompanied by receipts and other supporting documentation. All legal costs attributable to IRWD FACILITIES will be invoiced in addition to COSTS. IRWD agrees to pay to CITY, within thirty (30) calendar days of receipt of the Final Accounting, the total amount of COSTS, less the amount previously paid by IRWD pursuant to progress payment invoices. If the amount previously paid by IRWD pursuant to progress payment invoices exceeds the COSTS as determined in the Final Accounting, CITY shall refund the difference to IRWD within thirty (30) calendar days following preparation of the Final Accounting.

SECTION 12. IRWD shall have sole and absolute discretion as to all aspects of design and construction of the IRWD FACILITIES, and IRWD shall be entitled to inspect the construction of IRWD FACILITIES as it deems necessary to assure compliance with the Plans and Specifications, including shop drawing review and/or material inspection thereof. IRWD will promptly notify CITY of any portion of the work on IRWD FACILITIES which appears not to conform to the Plans and Specifications. The determination of IRWD as to conformity of IRWD FACILITIES with the Plans and Specifications shall be made in IRWD's sole and absolute discretion. IRWD agrees not to unreasonably withhold its approval as to such conformity. CITY shall require its contractor to construct the IRWD FACILITIES so that the IRWD FACILITIES conform to the Plans and Specifications. CITY agrees to assume full responsibility for certifying or obtaining certification of the compaction of backfill material over the IRWD FACILITIES.

SECTION 13. At the time of completion and acceptance of the IRWD FACILITIES, CITY agrees to furnish IRWD with “as-built” drawings and one (1) copy each of the compaction reports, certificate and cut sheets, as requested by IRWD.

SECTION 14. It is mutually agreed between the parties hereto that notwithstanding the fact that CITY shall accomplish the design or construction of the IRWD FACILITIES subject to reimbursement, IRWD FACILITIES to be completed hereunder, rights-of-way, and other privileges, shall at all times be subject to the applicable rates, rules and regulations of IRWD, as modified or amended from time to time. CITY hereby disclaims any interest in IRWD FACILITIES and by acceptance of the Project which includes the IRWD FACILITIES, transfers and assigns to IRWD any and all right, title, and interest it may have in the IRWD FACILITIES. IRWD shall own, operate and maintain the IRWD FACILITIES following acceptance thereof.

SECTION 15. CITY agrees to cause its contractor for the IRWD FACILITIES to guarantee the IRWD FACILITIES against defects in workmanship and materials for a period of one (1) year from the date of acceptance by IRWD. It is further agreed that CITY shall assume the responsibility for causing the IRWD FACILITIES to be brought or restored to full compliance with the requirements of the Plans and Specifications, including any test requirements, for any portion of the IRWD FACILITIES which during said one (1) year period are found not to be in conformance with the provisions of the Plans and Specifications and are required under such guarantee of CITY’s contractor to be repaired and replaced by such contractor. This guarantee is in addition to any and all other warranties, expressed or implied, from CITY contractors or material manufacturers with respect to the IRWD FACILITIES. The guarantee and obligations under this section shall in no way be relieved by IRWD inspection and/or approval of the IRWD FACILITIES. This section sets forth the entire agreement of CITY with respect to guarantees and warranties of the IRWD FACILITIES, but this section shall in no way limit any expressed or implied warranties of other persons with respect to the IRWD FACILITIES.

SECTION 16. CITY shall indemnify, defend and hold IRWD, its officers, agents and employees, harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen during construction of the IRWD FACILITIES and prior to acceptance by IRWD, as a result of any work or action performed by CITY or on behalf of CITY, save and except to the extent such death, injury, loss, damage or expense is determined by a court of competent jurisdiction to have been proximately caused in whole or in part by any negligence or willful misconduct of IRWD, its officers, agents or employees or by any act or omission for which IRWD, its officers, agents or employees are liable without fault.

IRWD shall indemnify, defend and hold CITY, its officers, agents, and employees, harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen either (i) as a result of any act performed by IRWD, its officers, agents, or employees, with respect to the construction of the IRWD FACILITIES, or (ii) following IRWD acceptance of the IRWD FACILITIES, with respect to maintenance and operation of the IRWD FACILITIES, save and except to the extent such death, injury, loss, damage or expense is determined by a court of competent jurisdiction to have been proximately caused in whole or in part by any negligence or willful misconduct of CITY, its officers, agents or employees, or by any act or omission for which CITY, its officers, agents or employees are liable without fault.

SECTION 17. CITY shall cause its contractors for the construction of IRWD FACILITIES to obtain insurance coverage sufficiently broad to insure the matters set forth in this Agreement and to include IRWD as an additional insured on all insurance policies that CITY requires its contractors to provide. As evidence of such insurance coverage, CITY shall, prior to commencement of construction of the IRWD FACILITIES, provide IRWD with certificates of insurance and insurance endorsements in forms that are acceptable to IRWD.

SECTION 18. Either party shall have the right, upon written notice to the other which shall become effective five (5) working days after receipt pursuant to Section 19, to terminate any Addendum and thereby delete the respective Project from this Agreement at any time, subject to the provisions of this section. If at the request or direction of a party other than CITY, including IRWD, the IRWD FACILITIES construction is not accomplished or completed, IRWD shall remain obligated for the actual amount of any Costs incurred by CITY for the items set forth in Section 11 above to the date of termination or incurred after the date of termination for work necessary to close or leave the IRWD FACILITIES-related work in a safe condition.

C. MISCELLANEOUS

SECTION 19. Any notice or other written instrument required or permitted by this Agreement to be given to either party shall be deemed received when personally served or twenty-four (24) hours after being deposited in the U.S. Mail, postage prepaid, registered or certified and addressed as follows:

IRWD:
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618-3102
Attn: General Manager

CITY:
City of Irvine
P.O. Box 19575
Irvine, CA 92623-9575
Attn: Director of Public Works

SECTION 20. This Agreement shall be binding upon and inure to the benefit of the successors and assigns of CITY and IRWD. This Agreement constitutes the entire Agreement between CITY and IRWD and supersedes all prior understandings and Agreements between the parties with respect to the subject hereof. This Agreement may be modified only in writing, signed by both parties hereto.

SECTION 21. In the event of any declaratory or other legal or equitable action instituted between CITY and IRWD in connection with this Agreement, the prevailing party shall be entitled to recover from the losing party all of its costs and expenses, including court costs and reasonable attorneys' fees.

SECTION 22. Any approval required to be given by either party pursuant to this Agreement, shall be deemed given if no response to the party's request for such approval is received by the requesting party within ten (10) working days following the request for such approval.

SECTION 23. The term of this Agreement shall expire December 31, 2013.

SECTION 24. The provisions of Parts B and C of this Agreement shall survive the expiration of the term hereof with respect to any Project, until the completion of construction and reimbursement of the Costs of the related IRWD FACILITIES. The provisions of Sections 15 and 16 shall survive the expiration or termination of this Agreement or any Addendum.

SECTION 25. The persons executing this Agreement on behalf of each party warrant that he/she is duly authorized to execute and deliver this Agreement on behalf of the respective party for whom he/she signs, and that by so executing this Agreement, each party is bound by the provisions of this Agreement.

SECTION 26. If any term, provision, covenant or condition of this Agreement is held to be invalid, void or otherwise unenforceable, to any extent, by any court of competent jurisdiction, the remainder of this Agreement shall not be affected thereby, and each term, provision, covenant or condition of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

SECTION 27. This Agreement shall be construed and enforced in accordance with the laws of the State of California.

IN WITNESS WHEREOF, the parties to the Agreement have executed this Agreement on the date hereinabove written.

IRVINE RANCH WATER DISTRICT

By _____
General Manager

Dated _____

ATTEST:

By _____
Secretary/Assistant Secretary

Dated _____

APPROVED AS TO FORM:

By _____
Legal Counsel,
Irvine Ranch Water District

Dated _____

CITY OF IRVINE

By _____
Manuel Gomez
Director of Public Works

Dated _____

APPROVED AS TO FORM:

By _____
Phil Kohn
City Attorney

Dated _____

ATTEST:

Sharie Apodaca
City Clerk of the City of Irvine

EXHIBIT A
[Form of Addendum]

ADDENDUM
NO. 2012-2013-____
TO
TWO-YEAR REIMBURSEMENT AGREEMENT BETWEEN
IRVINE RANCH WATER DISTRICT AND THE CITY OF IRVINE
FOR THE INSTALLATION OF MISCELLANEOUS FACILITIES
(2012, 2013)

By execution of this Addendum, the parties agree that the following Project has been identified pursuant to Section 1 of the agreement dated _____, 20__, entitled "TWO-YEAR REIMBURSEMENT AGREEMENT BETWEEN IRVINE RANCH WATER DISTRICT AND THE CITY OF IRVINE FOR THE INSTALLATION OF MISCELLANEOUS FACILITIES (2012, 2013)" (the "Agreement") and that such Project and the below-specified IRWD FACILITIES shall be covered by the Agreement.

Project: _____

_____ (depicted on
Exhibit "1" attached and incorporated in this Addendum)

IRWD FACILITIES (type, diameter, approximate linear feet, PR Nos., etc.): _____

_____ (depicted on
the plans and specifications incorporated by reference in this Addendum)

Estimated cost of IRWD FACILITIES: \$ _____

IN WITNESS WHEREOF, the parties to the Agreement have executed this Addendum.

IRVINE RANCH WATER DISTRICT

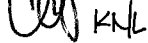


By _____
General Manager

Dated _____

CITY OF IRVINE

By _____
Project Manager

Dated _____

December 12, 2011 
Prepared by: R. Sundberg / M. Cortez
Submitted by: K. Burton 
Approved by: Paul Cook 

CONSENT CALENDAR

CHANGE ORDER TO REIMBURSEMENT AGREEMENT WITH THE CITY OF IRVINE FOR THE BARRANCA PARKWAY/RED HILL AVENUE DYER ROAD STREET INTERSECTION IMPROVEMENT PROJECT

SUMMARY:

The cities of Irvine, Tustin and Santa Ana are constructing the Barranca Parkway/Red Hill Avenue/Dyer Road Street Intersection Improvement Project, Capital Improvement Project (CIP) 327030. The City of Irvine, acting as lead agency, is administering the construction contract with Sequel Contractors. The project requires the relocation of existing IRWD facilities appurtenant to the Dyer Road Well Field pipeline. These relocations have encountered several unexpected underground conditions that required additional work. Staff recommends that the Board:

- Authorize a budget increase of \$181,500, from \$305,400 to \$486,900;
- Approve an Expenditure Authorization in the amount of \$181,500; and
- Approve Contract Change Order (CCO) No. 2 in the amount of \$146,509.77 per the terms of the Reimbursement Agreement with the City of Irvine for the construction of the Barranca Parkway/Red Hill Avenue/Dyer Road Street Intersection Improvement Project.

BACKGROUND:

The cities of Irvine, Tustin and Santa Ana are constructing the Barranca Parkway/Red Hill Avenue/Dyer Road Street Intersection Improvement Project. A Vicinity Map is attached as Exhibit "A". The City of Irvine is the lead agency for this project and is administering the construction contract with Sequel Contractors. IRWD's existing domestic water facilities are being relocated outside of the proposed street alignment and storm drain project under the terms of a Reimbursement Agreement (RA) with the City of Irvine. The RA was approved by the IRWD Board on August 9, 2010, as shown in Exhibit "B".

During construction, a 12-inch bottom drain assembly required extensive additional effort to relocate due to underground conditions not anticipated or shown on the record drawings. Backfill pea gravel material was encountered and was not confined to the original trench width for the bottom drain assembly. This backfill extended several feet beyond each side of the typical pipe trench width and created conditions that required extensive groundwater pumping and shoring in lieu of what Sequel had anticipated for the soil conditions native to the general area. One-inch thick steel plates that were left in place by the original construction of the bottom drain further complicated and slowed the excavation. Sequel was required to cut and remove conflicting portions of the existing plates piece by piece as they lowered their excavation shield. In addition to these unanticipated conditions, runoff from a unlined storm drain channel that the bottom drain assembly crosses under added to the difficulty in completing the relocation.

Sequel submitted CCO No. 2 in the amount of \$177,171.49 for this additional work. Staff reviewed IRWD and the City of Irvine’s inspection reports and held numerous meetings with the City of Irvine and Sequel regarding the CCO. Sequel and the subcontractor KEC presented documentation in support of their request, and following discussion, a final CCO amount of \$146,509.77 was negotiated, and is shown in Exhibit “C”.

FISCAL IMPACTS:

Project 11448 (2816) is included in the FY 2011-12 Capital Budget. A budget increase and Expenditure Authorization are requested in the amounts shown below and in Exhibit “D”:

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
11448 (2816)	\$305,400	\$181,500	\$486,900	\$305,400	\$181,500	\$486,900

ENVIRONMENTAL COMPLIANCE:

The City of Irvine is the lead agency for California Environmental Quality Act (CEQA) compliance, with IRWD as the responsible agency. The City of Irvine complied with CEQA by filing the following document, Barranca Parkway/Red Hill Avenue/Dyer Road Street Intersection Improvement Project, CIP 327030 – Mitigated Negative Declaration July 13, 2004 (State Clearing House 2004051069).

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee on December 8, 2011.

RECOMMENDATION:

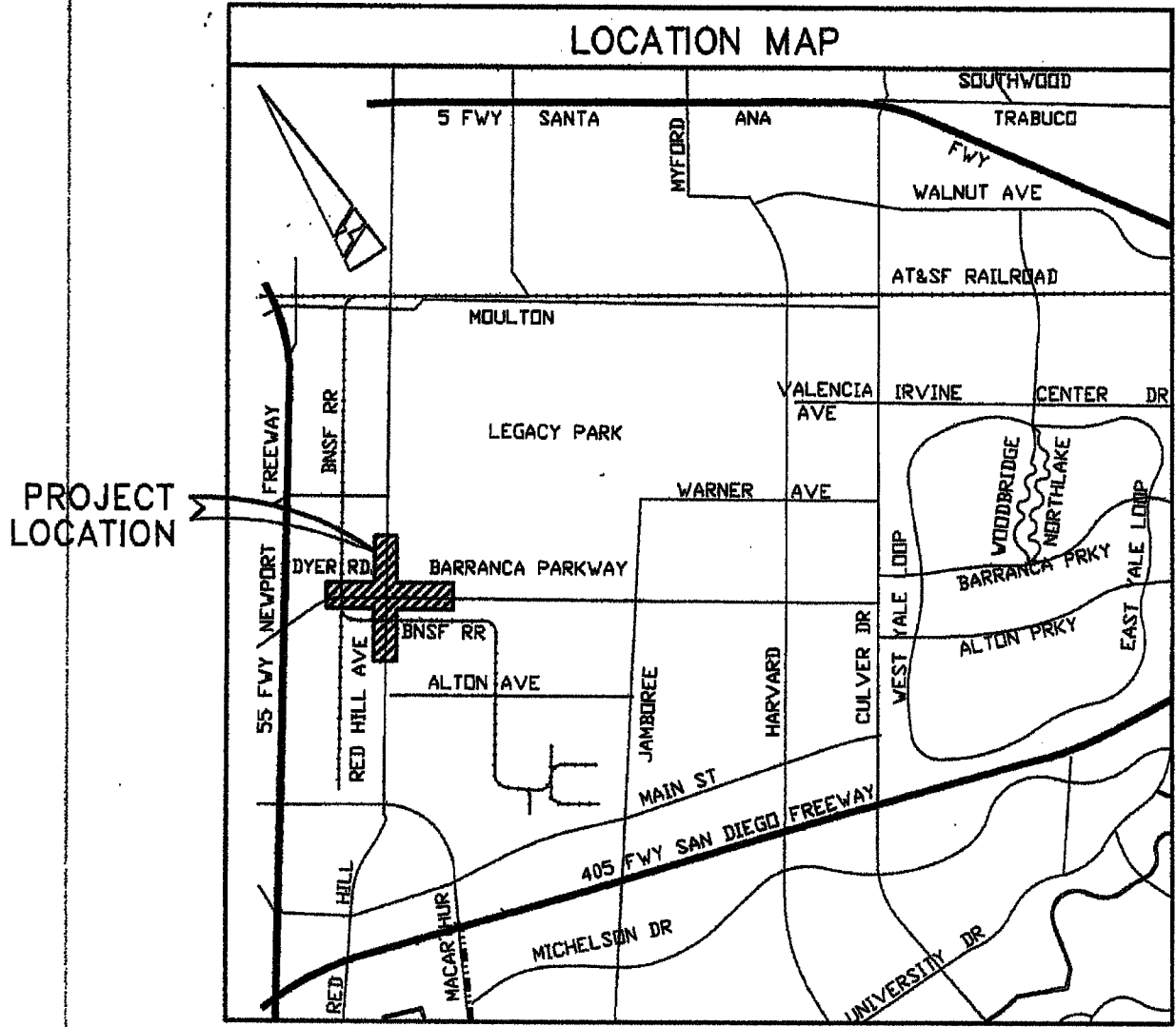
THAT THE BOARD AUTHORIZE AN INCREASE TO THE FY 2011-12 CAPITAL BUDGET IN THE AMOUNT OF \$181,500, FROM \$305,400 TO \$486,900; APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$181,500; AND APPROVE CONTRACT CHANGE ORDER NO. 2 IN THE AMOUNT OF \$146,509.77 TO THE REIMBURSEMENT AGREEMENT WITH THE CITY OF IRVINE FOR THE BARRANCA PARKWAY/RED HILL AVENUE/DYER ROAD STREET INTERSECTION IMPROVEMENT PROJECT 11448 (2816).

LIST OF EXHIBITS:

- Exhibit “A” – Vicinity Map
- Exhibit “B” – Reimbursement Agreement
- Exhibit “C” – Contract Change Order No. 2
- Exhibit “D” – Expenditure Authorization

Exhibit "A"

CIP NO. 327030



**REIMBURSEMENT AGREEMENT BETWEEN
IRVINE RANCH WATER DISTRICT
AND THE CITY OF IRVINE
FOR
BARRANCA/DYER /RED HILL INTERSECTION IMPROVEMENTS
& THE BARRANCA CHANNEL PROJECT
(CIP 327030, PR 11448)**

This Agreement is made and entered into as of this 23rd day of AUGUST, 2010, by and between IRVINE RANCH WATER DISTRICT, a California water district formed and existing pursuant to the California Water District Law, hereinafter referred to as "DISTRICT," and the CITY OF IRVINE, a municipal corporation, hereinafter referred to as "CITY."

WITNESSETH:

WHEREAS, CITY proposes to construct street and utility improvements within the Barranca/Dyer/Red Hill Intersection Improvements & The Barranca Channel Project, CIP 327030, IRWD Project 11448 (the "Project"), within the jurisdictional boundaries of DISTRICT, the City of Irvine, The City of Santa Ana and the City of Tustin; and

WHEREAS, such construction will necessitate the installation or adjustment to grade of the following: a 12-inch blowoff bottom drain, 2-inch air release valve, 4-inch air release valve, air vents, air-gap structure, water sample station, traffic-rated vault hatch, water valves, and manhole, as depicted on Exhibit "A" attached hereto incorporated by reference herein (hereinafter referred to as the "IRWD FACILITIES"); and

WHEREAS, the parties have determined that it would be more expedient for CITY to construct the IRWD FACILITIES rather than for DISTRICT to do so; and

WHEREAS, DISTRICT is amenable to the CITY constructing the IRWD FACILITIES with the CITY agreeing to advance the costs; and

WHEREAS, DISTRICT agrees to fully reimburse the CITY through payments billed by the CITY and approved by DISTRICT for the entire cost of the IRWD FACILITIES; and

WHEREAS, except as otherwise provided herein, upon the completion of the IRWD FACILITIES, the IRWD FACILITIES shall become the property of DISTRICT in accordance with the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the parties hereto agree as follows:

SECTION 1. IRWD FACILITIES. In conjunction with the Project, CITY agrees to initiate and pursue to completion the design and construction of the IRWD FACILITIES.

SECTION 2. PLANS. CITY agrees that the IRWD FACILITIES shall be completed pursuant to approved project plans and specifications (the "Plans and Specifications") which shall be approved by DISTRICT and used in awarding the construction contract. Prior to commencement of preparation of the Plans and Specifications, CITY shall submit its design engineer's proposal for the design of the IRWD FACILITIES to DISTRICT. DISTRICT will have a period of five (5) calendar days from its receipt of such design proposal to review and either indicate its approval or request changes. CITY shall cause its design engineer to review and respond to any requested changes. The Plans and Specifications shall be deemed to incorporate the applicable portions of DISTRICT's latest edition of "Construction Manual for the Construction of Water, Sewer, and Reclaimed Water Facilities" (the "Construction Manual"). The IRWD FACILITIES shall be contracted by CITY together with non-reimbursable work to be completed by CITY within the Project pursuant to plans prepared by CITY's design engineer.

SECTION 3. BIDDING AND AWARD. The parties agree that the construction of the IRWD FACILITIES shall be included in CITY's contract(s) awarded for the Project and that the IRWD FACILITIES shall be bid as a separate item or items that can be deleted. During the bidding process, CITY shall deliver to IRWD one (1) complete set of the bid documents that include the IRWD FACILITIES, including all related addenda concurrently with the distribution thereof to prospective bidders. Upon opening of bids by CITY, CITY will submit the bids or a spread sheet summary of the bids to DISTRICT. DISTRICT will have a period of ten (10) calendar days from its receipt of the bid results for review and approval of the IRWD FACILITIES bid item(s) submitted by the bidder identified to DISTRICT by CITY as CITY's proposed successful bidder. CITY agrees that bids received for the construction of the IRWD

FACILITIES bid item(s) shall be subject to the approval of DISTRICT prior to award of the Project construction contract(s) that include the IRWD FACILITIES; and further agrees that in the event DISTRICT does not approve such bids, either party may terminate this Agreement upon twenty-four (24) hours' prior written notice, in which event CITY shall have no further obligation to construct the IRWD FACILITIES, and DISTRICT may elect to install the IRWD FACILITIES with its own contractor. If DISTRICT approves of the IRWD FACILITIES bid item(s) of CITY's successful bidder, CITY agrees to cause the IRWD FACILITIES to be constructed as part of the contract awarded to such bidder. The total estimated construction cost for the IRWD FACILITIES is \$169,900.00, provided, however, the amount to be reimbursed by DISTRICT shall be based on the actual costs of construction. Upon award of the construction contract, CITY shall provide DISTRICT with one (1) original copy of the fully executed contract documents and one (1) copy of the bid package relating to the IRWD FACILITIES received from the successful bidder.

SECTION 4. DESIGN REVISIONS AND CHANGE ORDERS. DISTRICT agrees to reimburse CITY for any change order(s) for revision(s) requested by DISTRICT or otherwise required to construct the IRWD FACILITIES. CITY shall promptly furnish DISTRICT with copies of any proposed change order(s) to such contract within five (5) working days of the initiation of the changed conditions to such contract, which shall be subject to DISTRICT approval if and to the extent the IRWD FACILITIES are affected therefrom.

DISTRICT shall promptly review proposed change order(s) and provide CITY with a response within five (5) working days or sooner of receiving proposed change order(s) information from CITY. DISTRICT agrees not to unreasonably cause delay(s) to the construction schedule of the Project in reviewing proposed change order(s) for the IRWD FACILITIES. Notwithstanding any other provision herein, any approval required to be given by the DISTRICT under this Section shall be deemed given if no response to the CITY's request for such approval is received by the CITY within eight (8) working days following the written request for such approval unless the parties agree otherwise in a writing executed by both parties.

SECTION 5. REIMBURSEMENT. DISTRICT agrees to reimburse CITY for the following costs (collectively, the "Costs"): (1) the actual costs of design, construction, permits, bonds, and legal fees (excluding the costs of preparation of this Agreement) incurred by CITY in connection with the design and construction of the IRWD FACILITIES, plus (2) an administration fee which shall be equal to four percent (4%) of the actual cost of construction (costs paid directly to CITY's contractor for construction, only, excluding any cost for design,

surveying, geotechnical or other work) of the IRWD FACILITIES and which shall be deemed to cover all costs of project administration, including, but not limited to, accounting, inspection, surveying, compaction testing, geotechnical services and engineering. CITY shall keep a separate accounting of all Costs incurred by CITY in relation to the IRWD FACILITIES.

Within sixty (60) days of DISTRICT's acceptance of the IRWD FACILITIES as provided in Section 8, a final accounting of the Costs shall be made by CITY and submitted to DISTRICT along with an invoice for the Costs and any supporting documentation necessary to show the amounts which represent Costs of IRWD FACILITIES. Amounts paid pursuant to progress payment invoices shall be subject to adjustment in the final accounting. Within thirty (30) days of said final accounting, DISTRICT agrees to pay to CITY the total amount of the Costs.

SECTION 6. LAWS, ORDINANCES, RULES AND REGULATIONS. CITY shall require in its contract for the construction of the IRWD FACILITIES that its contractor be fully informed of and comply with all laws, ordinances, rules and regulations, including, but not limited to, all applicable requirements of the California Labor Code, prevailing wage laws, the Construction Manual, and the Rules and Regulations of DISTRICT, in connection with the construction of the IRWD FACILITIES.

SECTION 7. INSPECTION. DISTRICT shall have sole and absolute discretion as to all aspects of design and construction of the IRWD FACILITIES, and DISTRICT shall be entitled to inspect the construction of IRWD FACILITIES as it deems necessary to assure compliance with the Plans and Specifications, including shop drawing review and material inspection thereof. DISTRICT shall have access to all phases of the Project work to be performed by CITY for the purpose of such inspection; provided, however, all questions regarding the work being performed will be directed to CITY's resident engineer. DISTRICT will promptly notify CITY of any portion of the work on the IRWD FACILITIES which appears not to conform to the Plans and Specifications. The determination of DISTRICT as to conformity of the IRWD FACILITIES with the Plans and Specifications shall be made in DISTRICT's sole and absolute discretion. DISTRICT agrees not to unreasonably withhold its approval as to such conformity of the IRWD FACILITIES with the Plans and Specifications. CITY shall require its contractor to construct the IRWD FACILITIES so that the IRWD FACILITIES conform to the Plans and Specifications. CITY agrees to assume full responsibility for certifying or obtaining certification of the compaction of backfill material over the IRWD FACILITIES.

SECTION 8. ACCEPTANCE. DISTRICT agrees to accept the IRWD FACILITIES when the IRWD FACILITIES have been completed by CITY in accordance with all requirements of the Plans and Specifications, including any change orders approved by DISTRICT as provided in Section 3 hereof. At the time of completion and acceptance of the IRWD FACILITIES, CITY agrees to furnish DISTRICT with one (1) copy of the contractor's redlined set of blueline "record" drawings (showing all revisions, manufacturer and type of valves, pipe and fittings as required by DISTRICT) and one (1) copy of the compaction reports and certificate, survey notes and cut sheets.

SECTION 9. OWNERSHIP. It is mutually agreed between the parties hereto that notwithstanding the fact that CITY shall accomplish the construction of the IRWD FACILITIES subject to reimbursement, the IRWD FACILITIES to be completed hereunder, together with the necessary franchises, licenses, easements, rights-of-way, and other privileges, shall at all times be subject to the applicable rates, rules and regulations of DISTRICT, as modified or amended from time to time. CITY hereby disclaims any interest in the IRWD FACILITIES and does hereby transfer and assign to DISTRICT any and all right, title, and interest it may have in the IRWD FACILITIES. DISTRICT shall own, operate and maintain the IRWD FACILITIES following acceptance thereof.

SECTION 10. GUARANTEES. CITY will, pursuant to the requirement(s) of the Plans and Specifications, cause its contractor(s) for the IRWD FACILITIES to guarantee the IRWD FACILITIES against defects in workmanship and materials for a period of one (1) year from the date of acceptance by CITY, which acceptance shall be given only after acceptance by DISTRICT as provided in Section 8. It is further agreed that CITY shall cause the IRWD FACILITIES to be brought or restored to full compliance with the requirements of the Plans and Specifications, including any test requirements, for any portions of the IRWD FACILITIES which during said one (1) year period are found not to be in conformance with the provisions of the Plans and Specifications. This guarantee is in addition to any and all other warranties, express or implied, from CITY's contractors or material manufacturers, with respect to the IRWD FACILITIES. The guarantee and obligations under this section shall in no way be relieved by DISTRICT's inspection and/or acceptance of the IRWD FACILITIES. This section sets forth the entire guarantee and warranty of CITY with respect to the IRWD FACILITIES. The express or implied warranties of other persons with respect to IRWD FACILITIES shall in no way be limited by the guarantee and warranty of CITY contained in this section. If requested by DISTRICT, CITY agrees to assign to DISTRICT the contractor's guarantee and/or any other guarantees or warranties relating to the IRWD FACILITIES.

SECTION 11. INDEMNIFICATION. CITY shall indemnify, defend and hold DISTRICT, its officers, agents, employees, and engineers harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen during construction of the IRWD FACILITIES as a result of any work or action performed by CITY or on behalf of CITY, save and except to the extent such expense, liability or claim is proximately caused in whole or in part by any act, omission, or negligence of DISTRICT, its officers, agents, employees or engineers or by any act or omission for which DISTRICT, its officers, agents, employees or engineers are liable without fault.

DISTRICT shall indemnify, defend and hold CITY, its officers, agents, and employees, harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen either (i) as a result of any acts performed by DISTRICT, its officers, agents, or employees, with respect to the IRWD FACILITIES construction; or (ii) following DISTRICT acceptance of the IRWD FACILITIES, with respect to maintenance and operation of the IRWD FACILITIES, save and except to the extent such expense, liability or claim is proximately caused in whole or in part by any negligence of CITY, its officers, agents, employees or engineers, or by any act or omission for which CITY, its officers, agents, employees or engineers are liable without fault.

SECTION 12. INSURANCE AND BONDING. CITY shall cause its contractor(s) to provide performance and payment bonds for the construction of the Project including the IRWD FACILITIES and to obtain insurance coverage sufficiently broad to insure the matters set forth in this Agreement and to include DISTRICT, its officers, agents, employees and engineers, as additional insureds on all insurance policies that CITY requires its contractor(s) to provide. As evidence of such insurance coverage, CITY shall, prior to commencement of construction of the IRWD FACILITIES, provide DISTRICT with certificates of insurance and insurance endorsements from CITY's contractor(s) in a form acceptable to DISTRICT.

SECTION 13. TERMINATION. DISTRICT shall have the right to terminate this Agreement at any time, subject to the provisions of this section, by providing five (5) business days' prior written notice to CITY, except as noted in Section 3. If at the request or direction of a party other than CITY, the construction of the IRWD FACILITIES is not accomplished or completed, DISTRICT shall remain obligated for the actual amount of the Costs incurred by CITY to the date of termination.

If CITY's Project is canceled or modified so as to eliminate the necessity of the construction of the IRWD FACILITIES, CITY shall have the right to terminate this Agreement and thereby terminate its obligation to construct the IRWD FACILITIES, by providing five (5) business days' prior written notice to DISTRICT. In such case, DISTRICT will not be obligated for any design or any other Costs incurred by CITY. If IRWD elects to construct the IRWD FACILITIES, DISTRICT may, but shall not be obligated to, acquire the design or other work from CITY by separate agreement.

SECTION 14. NOTICE. Any notice or other written instrument required or permitted by this Agreement to be given to either party shall be deemed received when personally served or twenty-four (24) hours after being deposited in the U.S. Mail, postage prepaid, registered or certified and addressed as follows:

DISTRICT: Irvine Ranch Water District
15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000
Attn: General Manager

CITY: City of Irvine
6427 Oak Canyon, Bldg. 1
Irvine, CA 92618
Attn: Darrell Hartman, Senior Civil Engineer

SECTION 15. SUCCESSORS AND ASSIGNS; INTEGRATION; AMENDMENT.

This Agreement shall be binding upon and inure to the benefit of the successor and assigns of CITY and DISTRICT. This Agreement constitutes the entire Agreement between CITY and DISTRICT and supersedes all prior understandings and agreements between the parties with respect to the subjects hereof. This Agreement may be modified only in writing signed by both parties hereto.

SECTION 16. LEGAL FEES. In the event of any declaratory or other legal or equitable action instituted between CITY and DISTRICT in connection with this Agreement, the prevailing party shall be entitled to recover from the losing party all of its costs and expenses, including court costs and reasonable attorneys' fees.

SECTION 17. DEEMED APPROVAL. Any approval required to be given by either party pursuant to this Agreement shall be deemed given if no response to the party's request for

such approval is received by the requesting party within fifteen (15) days following the written request for such approval.

SECTION 18. SEVERABILITY. If any term, provision, covenant or condition of this Agreement is held to be invalid, void or other unenforceable, to any extent, by any court of competent jurisdiction, the remainder of this Agreement shall not be affected thereby, and each term provision, covenant or condition of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

SECTION 19. APPLICABLE LAW. This Agreement shall be construed and enforced in accordance with the laws of the State of California.

SECTION 20. WAIVER. The waiver of any provision of this Agreement by either party shall not be deemed to be a waiver of any other provision or of any preceding or subsequent breach hereunder.

IN WITNESS WHEREOF, the parties to the Agreement have executed this Agreement on the date herein above written.

IRVINE RANCH WATER DISTRICT

By 
For Paul D. Jones II, General Manager

Dated 12 August 2010

ATTEST:

By 
Secretary/Assistant Secretary

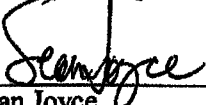
Dated 8/12/10

APPROVED AS TO FORM:

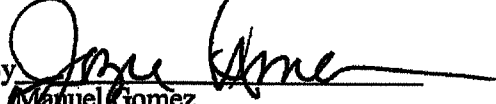
By 
Legal Counsel, IRWD

Dated 8-12-10

CITY OF IRVINE
A Municipal Corporation

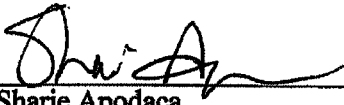
By 
Sean Joyce
City Manager of the City of Irvine

Dated 8-19-10

By 
Manuel Gomez
Director of Public Works

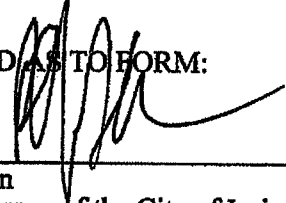
Dated 8-16-10

ATTEST:

By 
Sharie Apodaca
City Clerk of the City of Irvine

Dated 8-19-10

APPROVED AS TO FORM:

By 
Phil Kohn
City Attorney of the City of Irvine

Dated 8/17/10

CONTRACT CHANGE ORDER

IRVINE RANCH WATER DISTRICT
 15600 Sand Canyon Avenue
 Irvine, California 92619
 (949) 453-5300

Exhibit "C"

C.O. No. 2
 Final
 Project No. PR 11448

City of Irvine Barranca Dyer Redhill Widening Project, CIP 327030
 IRWD Facility Relocations per PC 5162

Project Title

Date: November 3, 2011

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
a. Additional work to relocate blowoff at station 131+90 due to unexpected underground conditions such as, but not limited to, large quantities of pea gravel backfill instead of anticipated native soils and buried 1" thick steel shields left in place during the original construction of the blowoff.	\$146,509.77		
TOTAL	\$146,509.77		

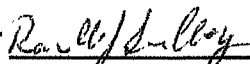
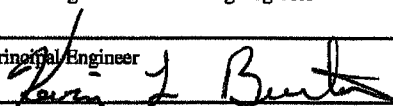
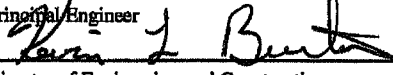
DAYS ±

1. NET AMOUNT THIS CHANGE ORDER	=	\$146,509.77	
2. ORIGINAL CONTRACT AMOUNT	=	\$169,900.00	N/A
3. TOTAL PREVIOUS CHANGE ORDER(S)	=	\$ 13,784.16	N/A
4. TOTAL BEFORE THIS CHANGE ORDER (2+ 3)	=	\$183,684.16	N/A
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4) =		\$330,193.93	N/A

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

ONE-HUNDRED AND FORTY-SIX THOUSAND, FIVE - HUNDRED AND NINE AND 77/100 - - - - - Dollars

Date _____ Contractor Sequel Contractors, Inc By _____

SIGNATURE	DATE	APPROVAL LEVEL REQUIRED
 IRWD Engineer or Consulting Engineer	<u>11-3-11</u> Date	Department Director Approval Required <input type="checkbox"/>
 Principal Engineer	<u>11/29/11</u> Date	General Manager Approval Required <input type="checkbox"/>
 Director of Engineering and Construction	Date	Committee Approval Required <input type="checkbox"/>
General Manager	Date	Board Approval Required <input checked="" type="checkbox"/>
		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.

December 12, 2011

Prepared by: R. Bennett/P. Weghorst

Submitted by: K. Burton/G. Heiertz

Approved by: Paul Cook

CONSENT CALENDAR

SELENIUM AND NITROGEN DISPOSAL SYSTEM CONCEPT STUDY

SUMMARY:

Five agencies within the Newport Bay watershed are collectively seeking a cost-effective solution for the disposal of flows from dewatering projects that contain high nitrate and selenium concentrations. At the request of these agencies, RBF Consulting (RBF) has proposed a conceptual design study for the construction of a pipeline along Peters Canyon Wash and San Diego Creek to Orange County Sanitation District's sewer collection system at Main Street. The total cost for the proposed study is \$53,110 and will be paid for by these agencies. IRWD will manage the study on behalf of the agencies, but will not share in the cost. Staff recommends that the Board:

- Authorize an addition to the FY 2011-12 Capital Budget in the amount of \$44,800 to prepare a Groundwater Disposal System Concept Study;
- Approve an Expenditure Authorization in the amount of \$44,800; and
- Authorize the General Manager to execute a Professional Services Agreement with RBF in the amount of \$31,866 for the City of Irvine, City of Tustin and the Transportation Corridor Administration (TCA) shares of the study which will be reimbursed to IRWD; The California Department of Transportation and the County of Orange will each pay directly to RBF \$10,622 for their respective cost shares.

BACKGROUND:

The California Department of Transportation (Caltrans), TCA, cities of Irvine and Tustin and the County of Orange are seeking, as funding partners, a cost-effective project for the disposal of flows from dewatering facilities that contain high nitrate and selenium concentrations. The need for developing such a cost-effective project is due to the expectation that the Regional Water Quality Control Board (RWQCB) will no longer be allowing the discharge of high nitrate and selenium flows to surface waters within the Newport Bay watershed.

Various treatment and disposal alternatives have been studied over the past several years; cost and regulatory constraints have prevented implementation of an effective solution. Recently, the funding partners have proposed a conceptual study to develop a planning level design and cost estimate for the construction of a pipeline along Peters Canyon Wash and San Diego Creek to Orange County Sanitation District's (OCSD) sewer collection system at Main Street (Pipeline Project). By routing the high selenium flows into the OCSD sewer, selenium and nitrate could be effectively removed from the San Diego Creek watershed. A conceptual design study is proposed at a level of detail that will be sufficient to determine whether the Pipeline Project is cost effective and viable.

Funding Partner Interests:

Following is a description of the interests of each of the funding partners relative to the proposed Pipeline Project:

1. Caltrans and TCA are currently discharging shallow groundwater from the SR-261 dewatering operations to IRWD's Harvard Avenue Trunk Sewer (HATS). IRWD and Caltrans have developed long term alternatives for the disposal of dewatering flows. However, Caltrans and TCA are interested to see if the Pipeline Project is a more cost effective option.
2. The City of Irvine is currently discharging groundwater with high selenium concentrations from its dewatering operations at the Culver Drive grade separation facility into the Como Channel. This channel is tributary to Peters Canyon Channel. In the near future, these discharges will no longer be permitted by the RWQCB and the City needs to find an alternate discharge solution.
3. The County of Orange has identified dry weather discharges with high selenium concentrations from storm drains that discharge to Peters Canyon Channel. The County is interested in finding a way to eliminate these dry weather flows from entering into Peters Canyon Channel.
4. The City of Tustin has expressed an interest in participating in the Pipeline Project to facilitate the disposal of high concentration discharges from future development projects.

Conceptual Design Study Overview:

The Pipeline Project, as currently envisioned, would allow each funding partner to discharge flows containing high concentrations of nitrogen and selenium into a pipeline along Peters Canyon Wash into an underground storage tank located at IRWD's Cienega site (adjacent to Peters Canyon Channel and Barranca Parkway). The stored water would then be pumped through another pipeline down San Diego Creek to OCSD's sewer system at Main Street during off-peak hours.

At the funding partner's request, a document containing a detailed scope of work, project schedule and project budget was prepared by RBF Consulting to perform the conceptual design study. This document is provided as Exhibit "A". RBF was selected to prepare this document by the funding partners because these agencies have all used RBF to their satisfaction on other projects.

The total cost for the proposed study is \$53,110. IRWD will manage the study while the five agencies will pay an equal share of the project in the amount of \$10,622. Caltrans and the County of Orange have existing contracts with RBF and will pay their shares of the costs directly to RBF. The City of Irvine, City of Tustin and TCA have agreed to reimburse IRWD for their shares of the conceptual study. IRWD will not issue RBF a notice to proceed until the City of Irvine, City of Tustin and TCA have each issued IRWD a purchase order for their share of the project.

IRWD will not share in the cost of the RBF study, but will incur costs for staff time to manage the study in the amount of \$5,000 and legal counsel assistance in the amount of \$2,000.

Discharges to OCSD:

Recently, OCSD has identified a need to increase its deliveries to Orange County Water District's (OCWD) Groundwater Replenishment System during off-peak (i.e. night time) hours. As a means of increasing its supplies, OCSD has indicated it may be willing to reduce its capitol buy-in cost if additional discharges to its sewer system from the proposed Pipeline Project are limited to off-peak hours.

FISCAL IMPACTS:

Project 11631 (3633) is not included in the FY 2011-12 Capital Budget. The total cost for the conceptual design study is \$53,110. IRWD will manage the project and the five funding partners will pay their pro-rata share of the study cost in the amount of \$10,622 each. Caltrans and the County of Orange have existing contracts with RBF and will pay for their share of the work directly to RBF. The City of Irvine, City of Tustin and TCA will issue purchase orders to IRWD to reimburse IRWD for their shares of the work for a total amount of \$31,866. Additional staff time and legal assistance in the amount of \$5,000 and \$2,000 respectively are required. Staff requests a FY 2011-12 budget addition of \$44,800 to perform the groundwater disposal system concept study. Staff also requests an Expenditure Authorization in the amount of \$44,800 as shown below and in Exhibit "B".

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
11631 (3633)	\$0	\$44,800	\$44,800	\$0	\$44,800	\$44,800

ENVIRONMENTAL COMPLIANCE:

This study is not subject to the California Environmental Quality Act (CEQA).

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on December 8, 2011.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE AN ADDITION TO THE FY 2011-12 CAPITAL BUDGET FOR PROJECT 11631 (3633) IN THE AMOUNT OF \$44,800; APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$44,800 FOR PROJECT 11631 (3633), AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH RBF CONSULTING IN THE AMOUNT OF \$31,866 TO DEVELOP A GROUNDWATER DISPOSAL SYSTEM CONCEPT STUDY (WHICH WILL BE REIMBURSED TO IRWD THROUGH PURCHASE ORDERS ISSUED BY THE CITY OF IRVINE, CITY OF TUSTIN AND TRANSPORTATION CORRIDOR ADMINISTRATION).

LIST OF EXHIBITS:

Exhibit "A" – RBF Proposal – Groundwater Disposal System Concept Study
Exhibit "B" – Expenditure Authorization

EXHIBIT "A"



A Baker Company

November 23, 2011

Mr. Kevin Burton, PE
Director of Engineering
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

Subject: Proposal –Groundwater Disposal System Concept Study

Dear Mr. Burton:

Project Understanding

Irvine Ranch Water District (District), Caltrans, City of Irvine, County of Orange, and City of Tustin are collectively seeking a cost-effective solution for disposal of high nitrate and selenium groundwater at specific locations within the Cities of Irvine and Tustin. The need for developing a cost-effective disposal system is due to several factors:

1. The Regional Water Quality Control Board (RWQCB) no longer allows surface water discharge of high nitrate and selenium water to surface waters within the Newport Bay watershed pursuant to Order No. R8-2004-0041.
2. Caltrans is currently discharging shallow groundwater from its SR-261 dewatering operations to IRWD's Harvard Avenue Trunk Sewer (HATS). IRWD and Caltrans have developed long term alternatives for the water disposal, but Caltrans is interested to see if this joint project is a better option.
3. City of Irvine is currently discharging high selenium groundwater from its dewatering operations at the Culver Drive grade separation facility to Como Channel, which is tributary to Peters Canyon Channel. These discharges to Peters Canyon Channel are no longer permitted by the RWQCB as indicated above and the City needs to find an alternate discharge solution.
4. County of Orange has identified dry weather discharges from storm drains that discharge to Peters Canyon Channel, which are suspected to originate from shallow groundwater infiltration. Water quality testing verified concentrations exceeding the TMDL for selenium. The County is interested in finding a way to eliminate these dry weather flows into Peters Canyon Channel.
5. City of Tustin has expressed an interest in participating in the project, due to possible disposal needs from future development.

Various treatment and disposal alternatives for one or more of these agencies have been studied over the past several years; however, cost and regulatory constraints have prevented identification of an optimum solution. Recently, the Orange County Sanitation District (OCSD) identified a need to increase its flow deliveries to Orange County Water District's (OCWD) Groundwater Replenishment System (GWRS) during off-peak (i.e. night time) hours. OCSD

PLANNING ■ DESIGN ■ CONSTRUCTION

14725 Alton Parkway, Irvine, CA 92618-2027 □ P.O. Box 57057, Irvine, CA 92619-7057 □ 949.472.3505 □ Fax 949.472.8373
Offices located in Irvine, CA □ www.RBF.com

indicated it may be willing to significantly reduce its rate charges if flow deliveries are limited to off-peak hours. However, details of this opportunity are yet to be identified.

The potential for reduced disposal costs from OCSD, coupled with shared capital cost investment between the agencies, initiated discussions among the agencies about developing a joint-owned groundwater disposal pipeline, storage reservoir, and pump station. The system as currently envisioned would allow high nitrate and selenium groundwater discharges from each agency to be piped to an underground storage tank located at IRWD's Cienega site (adjacent to Peters Canyon Channel and Barranca Parkway), and then pumped to OCSD's sewer system at Main Street during off-peak hours. The agencies are interested in developing a project description addressing the proposed construction, and capital and operation costs sufficient to determine whether the project alternative is viable. Modifications to each agency's existing conveyance facilities in order to deliver groundwater to this new system would need to be studied by each individual agency.

It is our understanding that the District will be the administrator of the contract for the feasibility study. It is also our understanding that the proposed groundwater conveyance system will include a pipeline constructed along the trail on the east side of Peters Canyon Channel, and underground storage and pumping facilities at the District's Cienega site to convey the groundwater to OCSD during off-peak hours.

Scope of Services

Based on our understanding of objectives, RBF Consulting (RBF) proposes to perform the following services:

- 1. Concept Development of Groundwater Disposal Pipeline**
RBF will evaluate a concept for the groundwater disposal pipeline. The effort will include document review, evaluation of gravity and pressure system hydraulics, and preparation of concept schematics showing the proposed horizontal and vertical alignment at major crossings. The proposed alignment will run approximately 10,000 feet along the trail on the east side of Peters Canyon Channel, from TCA's Groundwater Treatment Facility (GWTF) to the Cienega site.

Document Review

RBF will obtain pertinent record drawings, including Peters Canyon Channel construction drawings, bridge construction plans for Walnut Avenue, Edinger Avenue, Warner Avenue, and Moffett Drive. It should be noted that RBF is in the possession of a number of the record drawings already due to its involvement in the Peters Canyon Channel Widening Project. Therefore, this task is limited to the additional drawings that are required but not in RBF's possession. RBF will review record drawings for impacts to the alignment of the groundwater disposal pipeline.

Evaluation of Gravity and Pressure Systems

RBF will evaluate gravity and pressurized pipeline system hydraulics, to verify if both are viable options. A schematic hydraulic profile will be prepared to

summarize the points of connection and locations where flows are provided (by each agency), flow by reach, system hydraulics, and size the pipeline. For the gravity system evaluation siphons may be required if the alignment were decided to follow the trail beneath the bridges at Edinger Avenue, Warner Avenue, and Moffett Drive. For the pressurized system the schematic hydraulic profile will enable calculation of the range of operating pressure in the disposal pipeline.

In order to complete the evaluation, RBF will require estimated flow rates and proposed points of connection from each agency. Improvements required by each agency to deliver the flows to the system are excluded from this task.

Concept Schematics of Groundwater Disposal Pipeline

RBF will prepare concept schematics for the groundwater disposal pipeline, in order to more accurately determine construction cost. The start and end points of the pipeline will be the TCA GWTF (near Walnut Avenue and Peters Canyon Channel) and the Cienega site, respectively. The schematics will provide a concept level full length horizontal alignment, and vertical alignment details at major crossings, including (see Attachment 2 – Aerial Images):

- Walnut Avenue – where the pipeline would cross Peters Canyon Channel in an available bridge cell in the Walnut Avenue bridge to reach the trail on the east (or south) side of the channel. (See Attachment 2 – Image 1)
- Railroad Crossing – at which the pipeline would follow the trail beneath the railroad bridge. (See Attachment 2 – Image 2)
- Edinger Avenue – which has no trail beneath the bridge leading to consideration of jack-and-bore construction. (See Attachment 2 – Image 3).
- Moffett Drive – where future bridge expansion would dictate selecting a pipeline alignment out of areas disturbed during construction of the bridge abutment. (See Attachment 2 – Image 4).
- Warner Avenue – which has a long undercrossing that is constructed full length of concrete. (See Attachment 2 – Image 5).

The Peters Canyon Widening Project and record drawings for the Peter Canyon Channel will be used to develop the concept alignment schematics. It is understood that aerial topography files can be obtained from the County of Orange. Eagle Aerial or other commercially available imaging may be used to depict proposed alignments.

Excluded from the concept evaluation is any analysis of alignments for pipelines to tie-in to the disposal pipeline, geotechnical investigation, and potholing. Surveys are excluded for this scope of work, including topographic and field surveying.

2. Concept Evaluation of Cienega Reservoir and Pump Station

RBF will prepare a concept layout of the storage and pumping facilities at the Cienega site. The effort will include sizing the on-site storage reservoir, laying out the fully buried tank (assumed as a pre-stressed concrete tank), sizing the discharge pump station, and laying out a conceptual plan for the pump station assuming it will be fully buried in a vault.

Reservoir Calculations and Layout

RBF will determine the required capacity for a new fully buried pre-stressed concrete reservoir to be built at the Cienega site. The capacity calculation will be based on the flow rate information provided by each participating agency, as well as the number of hours that OCSD approves for pumping flows to their system. RBF will develop one conceptual layout of the reservoir including inlet / outlet piping and overflow.

Pump Station Calculations and Layout

RBF will determine the pump station capacity based on the volume of disposal or required discharge rate to OCSD. RBF will determine the discharge pipeline size, prepare basic hydraulic calculations, select the number and size of pumps, and develop a conceptual layout for the pump station.

Site Plan / Grading Plan

RBF will prepare a conceptual site plan for the Cienega Reservoir and Pump Station in order to estimate quantities. The site plan will include the reservoir, pump station vault, yard piping and proposed locations of electrical and instrument equipment. Grading quantities will be estimated for the site plan.

3. Concept Development of Discharge Pipeline to OCSD Sewer

RBF will evaluate a concept for the discharge pipeline from the Cienega Pump Station to OCSD's sewer within Main Street, near Peters Canyon Wash. The effort will include document review and pipe sizing based upon a pumped system, and preparation of concept schematics showing the proposed horizontal and vertical alignment at major crossings. The proposed alignment will run approximately 6,000 feet. It will exit the Cienega site, cross Peters Canyon Channel at Barranca Parkway, parallel Peters Canyon Wash and, following its confluence with San Diego Creek, run within the trail on the west side of the wash to Main Street, where it will finally connect to OCSD's sewer. This task excludes evaluation of the downstream capacity of the OCSD sewer system.

Document Review

RBF will obtain pertinent record drawings, including Peters Canyon Channel construction drawings, bridge construction plans for Barranca Parkway, Alton Parkway and Main Street, and sewer plans for OCSD's sewer system at Main Street. RBF will review record drawings for impacts to the alignment of the groundwater disposal pipeline. It is assumed the County and Cities involved in

the project will assist to facilitate RBF obtaining these plans. RBF will review record drawings for impacts to the alignment of the discharge pipeline to OCSD's sewer.

Concept Schematics of Discharge Pipeline

RBF will prepare concept schematics for the groundwater disposal pipeline, in order to more accurately determine construction cost. The start and end points of the pipeline will be the Cienega site and Main Street near Peters Canyon Wash, respectively. The schematics will provide a concept level full length horizontal alignment, and vertical alignment details at major crossings, as follows:

- Peters Canyon Wash at the Cienega site – possible methods of crossing the channel include: jack-and-bore, horizontal directional drilling, or hanging the pipe on the Barranca Parkway bridge or through an available bridge cell.
- Barranca Parkway – which has a long undercrossing that is constructed full length of concrete. (See Attachment 2 – Image 6)
- Alton Parkway – which has a long undercrossing that is constructed full length of concrete. (See Attachment 2 – Image 7)
- Main Street – where the pipeline would follow the bike trail exiting to Main Street. (See Attachment 2 – Image 8)

Record drawings for the Peter Canyon Channel will be used to develop the concept alignment schematics. It is understood that aerial topography files can be obtained from the County of Orange. Eagle Aerial or other commercially available imaging may be used to depict proposed alignments.

Excluded from the concept evaluation is geotechnical investigation, and potholing. Surveys are excluded for this scope of work, including topographic and field surveying.

4. Evaluate Water Quality / Blending Analysis

RBF will evaluate water quality data as made available by each agency intending to convey flow to through the groundwater disposal pipeline. Water quality data must be provided by each agency in a concise format and include low, high and average measurements for nitrate, selenium, TSS and TDS. RBF will utilize the water quality data to ascertain anticipated levels in the blended water quality to be conveyed to OCSD for treatment.

5. Cost Estimate

RBF will prepare a capital cost estimate for the groundwater disposal pipeline, Cienega Reservoir and Pump Station, and discharge pipeline to OCSD sewer in Main Street. The capital cost estimate will have a conceptual level - Class 4 (per AACEI) accuracy (-30% to +50%), and will include estimated design and

construction costs. RBF will also prepare an operational cost estimate, including pumping cost, and OCSD discharge costs based upon estimated flow, BOD, and TSS.

6. Conceptual Report

RBF will prepare a brief report covering the concept-level evaluation of potential for gravity and pressurized pipelines, alignment considerations including the methods of crossing at each roadway overpass, and pipeline hydraulics for the groundwater disposal pipeline. The report will include the analysis of the Cienega Reservoir and Pump Station, including the concept site plan, storage capacity calculation and pump system sizing. A section on the capital and operational cost estimates will be provided in the report. The concept schematics and cost estimates will be provided as attachments to the report.

7. Project Meetings and Project Management

In preparing the feasibility study, RBF will meet with IRWD's engineering department, and other participating agencies. This task is based on a total of two (2) meetings.

8. Meetings with OCSD

RBF will attend two meetings with IRWD and OCSD representatives to discuss the project concept along with estimated disposal costs, off-peak discharges, and sewer capacity, and to coordinate tie-in design requirements.

9. Meeting with OC Flood

RBF will attend one meeting with IRWD and OC Flood representatives to discuss the project concept, and issues pertinent to the proposed alignment within Peter's Canyon Channel.

10. Workshop

RBF will conduct a workshop at IRWD covering the analysis and conclusions for the feasibility study with focus on the capital and operational cost.

Proposed Project Team

RBF proposes Cindy Miller as the Principal-in-Charge, and Steven Conner as Project Manager. In addition, RBF will utilize Dan Apt for water quality and John McCarthy and Larry Tortuya who have extensive knowledge of Peters Canyon Channel improvements. These team members will not be removed from this project without your consent.

Proposed Budget

RBF appreciates the opportunity to support IRWD and the stakeholders with the Feasibility Study for the Groundwater Disposal Pipeline and Cienega Storage and Pumping Facility. The total time-and materials not to exceed budget for this project is \$53,110. RBF's understanding is that the five stakeholders (Caltrans, TCA, OC Flood, City of Irvine, and City of Tustin) will each pay an equal share the project cost, estimated at \$10,622 each. Caltrans and OC Flood have indicated to RBF that each will be contracting separately with RBF for this work. The TCA and

Mr. Kevin Burton, PE
November 23, 2011
Page 7

the Cities of Irvine and Tustin will reimburse IRWD for their portions of the contract. Therefore, RBF's contract with IRWD totals \$31,866. The fee estimate is provided as Attachment 1.

Exclusions

The budget is based on exclusion of survey (aerial topography and field survey), mapping services (including legal descriptions and right-of-way mapping), geotechnical investigation and potholing.

Schedule

RBF anticipates the project to require ten (10) weeks to complete from the date of notice-to-proceed (NTP). This assumes information required from participants (i.e. flows, locations for points of connection, and water quality) is provided to RBF within two weeks from the NTP.

If you have any questions regarding the proposed scope of services, please do not hesitate to call me at (949) 855-3616 or e-mail me at CLMILLER@rbf.com.

Sincerely,



Cindy L. Miller, PE
Vice President

cc: Ray Bennett, IRWD

IRVINE RANCH WATER DISTRICT
 Groundwater Disposal System Concept Study
 Attachment No. 1 - Proposed Project Budget
 23-Nov-11

Task	Description	Labor Hours					Fee		
		Principal In Charge	Senior Project Manager	Project Engineer	Senior Designer	Total Hours	Labor Fee	Other Direct Costs	Total Fee
		\$ 220	\$ 180	\$ 140	\$ 125				
1	Concept Development of Groundwater Disposal Pipeline	2	8	18	90	118	\$ 15,650		\$ 15,650
	- Document Review			2					
	- Evaluation of Gravity and Pressure Systems	2	4	6					
	- Concept Schematics of Groundwater Disposal Pipeline		4	12	90				
2	Concept Evaluation of Cienega Reservoir and Pump Station	1	8	28	40	77	\$ 10,580		\$ 10,580
	- Reservoir Calculations and Layout		2	8					
	- Pump Station Calculations and Layout		4	14					
	- Site Plan / Grading Plan	1	2	6	40				
3	Concept Evaluation of Discharge Pipeline to OCSD Sewer	0	4	14	36	54	\$ 7,180		\$ 7,180
	- Document Review			2					
	- Concept Schematics of Discharge Pipeline		4	12	36				
4	Evaluation of Water Quality / Blending Analysis	1		12		13	\$ 1,900		\$ 1,900
5	Cost Estimate		4	20		24	\$ 3,520		\$ 3,520
6	Feasibility Report	1	8	30		39	\$ 5,860		\$ 5,860
7	Project Meetings and Project Management		10	8		18	\$ 2,920		\$ 2,920
8	Meetings with OCSD		4	4		8	\$ 1,280		\$ 1,280
9	Meeting with OC Flood		2	2		4	\$ 640		\$ 640
10	Workshop	4	4	12		20	\$ 3,280		\$ 3,280
	Reimbursables							\$ 300	\$ 300
								\$ 52,810	\$ 53,110
		9	48	134	130	321	\$ 52,810	\$ -	\$ 53,110
	Total Contract Amount:								
	Amount Contracted by Caltrans and OC Flood								\$ 21,244
	Net Contract Amount with IRWD:								\$ 31,866

IRVINE RANCH WATER DISTRICT Exhibit "B"

Expenditure Authorization

Project Name: GROUNDWATER DISPOSAL SYSTEM CONCEPT STUDY

Project No: 11631 EA No: 1

ID Split: Regional Potable Water Splits (11/08)

Improvement District (ID) Allocations

Project Manager: WEGHORST, PAUL

Project Engineer: BENNETT, RAY

Request Date: November 28, 2011

ID No. Allocation % Source of Funds

ID No.	Allocation %	Source of Funds
112	4.3	BONDS YET TO BE SOLD**
113	5.2	BONDS YET TO BE SOLD**
115	7.3	CAPITAL FUND
121	15.3	BONDS YET TO BE SOLD**
130	11.8	BONDS YET TO BE SOLD**
140	4.2	BONDS YET TO BE SOLD**
150	31.2	BONDS YET TO BE SOLD**
153	3.4	BONDS YET TO BE SOLD**
154	1.5	BONDS YET TO BE SOLD**
161	8.0	BONDS YET TO BE SOLD**
182	3.0	BONDS YET TO BE SOLD**
184	2.8	BONDS YET TO BE SOLD**
186	1.0	BONDS YET TO BE SOLD**
188	1.0	BONDS YET TO BE SOLD**

Total 100.0%

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$44,800
Total EA Requests:	\$44,800
Previously Approved Budget:	\$0
Budget Adjustment Requested this EA:	\$44,800
Updated Budget:	\$44,800
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 IRWD	5,000	0	5,000	5,000	0	5,000	11/11	6/12
ENGINEERING - PLANNING OUTSIDE	31,900	0	31,900	31,900	0	31,900	11/11	6/12
LEGAL	2,000	0	2,000	2,000	0	2,000	11/11	6/12
Contingency - 15.00% Subtotal	\$5,900	\$0	\$5,900	\$5,900	\$0	\$5,900		
Subtotal (Direct Costs)	\$44,800	\$0	\$44,800	\$44,800	\$0	\$44,800		
Estimated G/A - 180.00% of direct labor*	\$9,000	\$0	\$9,000	\$9,000	\$0	\$9,000		
Total	\$53,800	\$0	\$53,800	\$53,800	\$0	\$53,800		
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:

Ray Bennett 11/28/11

Department Director:

Kevin J. Burton 11/30/11

Finance:

Board/General Manager:

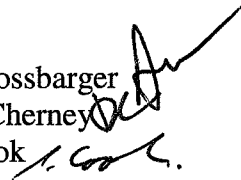
** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$55,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

December 12, 2011

Prepared by: Tony Mossbarger

Submitted by: Debby Cherney

Approved by: Paul Cook



ACTION CALENDAR

UTILITY BILLING SOFTWARE REQUIREMENTS ANALYSIS – CONSULTANT SELECTION

SUMMARY:

The IRWD Application Strategic Plan finalized earlier this year recommended several steps be taken to better align the District's software applications with its strategic vision, including the implementation of the Oracle Customer Care and Billing (CC&B) system. The Oracle CC&B system will improve the District's ability to effectively manage customer and account relationships, perform complex billing calculations, integrate with the Oracle Financial Management System, and provide enhanced analytics and reporting. In May 2011, the Board approved procurement of the Oracle CC&B applications licenses. While the CC&B software application licenses have been procured, the next step in the process is to hire a consultant to assist the District with defining the detailed functional requirements for implementation and prepare a request for proposal for implementation services.

Staff recommends that the Board authorize an increase to the FY 2011-12 Capital Budget and accompanying Expenditure Authorizations in the amount of \$115,000 each, and authorize the General Manager to execute a Professional Services Agreement with Five Point Partners, LLC in the amount of \$196,340 for the Oracle Customer Care and Billing Detailed Requirements Analysis project.

BACKGROUND:

In July 2010, the Board approved a Professional Services Agreement with Pacific Technologies, Inc. to develop an Applications Strategic Plan with an emphasis on Utility Billing, Asset Management, Customer Relationship Management, and Budgeting and Planning. The completed Application Strategic Plan determined that a new Utility Billing system to replace the District's existing legacy system should be a high priority for the District.

IRWD's current Utility Billing System and Customer Service Request system, developed over a period of 20 years, has been modified and upgraded over time to meet changes driven by the unique needs of the District and external regulations. The allocation-based conservation rate structure employed by the District requires a sophisticated utility billing system that will allow the District to utilize the billing algorithms and methodology that it has developed and refined over time.

In May 2011, the Board approved procurement of the Oracle CC&B applications licenses, allowing the District to avoid making costly changes needed to improve the existing legacy system, including upgrading the user interface and changing the underlying architecture to allow for the storage and presentation of transactional data that it cannot handle in its current form.

While the CC&B software application licenses have been procured, the next step in the process is to hire a consultant to assist the District with defining the detailed functional requirements for implementation and prepare a request for proposal for implementation services. Staff believes that this approach, different than that used for the Financial Management System implementation, will help deliver a more accurate scope for the implementation of Oracle CC&B.

Consultant Selection Process:

It was determined that a consultant team that has experience in developing requirements for utility billing systems, specifically Oracle CC&B, should be retained to provide the expertise to assist in identifying the District's requirements for the Oracle CC&B system and request for proposal preparation. Staff prepared a Request for Proposal for consulting services to perform Oracle CC&B detailed requirements analysis and assistance with preparation of a request for proposal for implementation services. A Request for Proposal was issued on September 16, 2011 to five pre-selected consultants with experience in conducting detailed requirements analysis and preparing a request for proposal for implementation services for Oracle CC&B: Centric Consulting, EP2M, Five Point Partners, Langham Consulting, and Wagware. Three consultants submitted proposals and results were as follows:

<u>Consultant</u>	<u>Proposal Amount</u>
Five Point Partners	\$119,800
Langham Consulting	\$114,700
Centric consulting	\$120,800

Staff from multiple departments reviewed and ranked the proposals. After staff evaluated the proposals, Five Point Partners was selected for a follow-up interview which was conducted on October 25, 2011.

Based on the proposals and interviews, staff believes that Five Point Partners demonstrated the best understanding of the Oracle CC&B Analysis project and has the most extensive experience not only developing detailed requirements for Utility Billing systems, but is the most experienced with Oracle CC&B. Five Point Partners has the most experienced project team and is the most capable of assisting the District with development of detailed requirements and assist with development of the request for proposal for implementation services. The Five Point Partners proposal is attached as Exhibit "A".

While Five Point Partners' proposed fee is 4.5% higher than the fee proposed by the second-highest ranked firm, staff determined that Five Point Partners had the most experience developing detailed requirements for Oracle CC&B than either of the other consulting teams. Staff believes that this will result in the best requirements analysis and preparation of a request for proposal for implementation services.

In addition to the services in the original proposal response, Five Point Partners submitted an addendum for additional procurement services. While not originally included in the scope of the Request for Proposal, staff believes that the following optional procurement services add value to the project and should be included in the contract:

<u>Procurement Services</u>	<u>Proposed Amount</u>
Data Quality Assessment	\$28,400
Vendor Proposals	\$ 6,000
Solution Evaluation	<u>\$42,140</u>
Total	\$76,540

The Data Quality Assessment service is a defined set of activities that will provide a comprehensive evaluation of the data stored in the existing utility billing system and compile critical information for the development of the request for proposal for implementation services. The Vendor Proposals service provides assistance with answering questions and conducting a pre-bid conference for consultants responding to the request for proposal for implementation services. The Solution Evaluation service provides a comprehensive evaluation of each consultant response. This covers the solution presentation/demo as well as the elements critical to the implementation and IRWD’s ability to work with the consultant effectively, including: testing, software configuration, data conversion, business process analysis, change management, training, and terms and conditions.

Staff recommends awarding a professional services agreement to Five Point Partners that includes the original proposal in the amount of \$119,800 plus the additional procurement services in the amount \$76,540, for a total of \$196,340.

FISCAL IMPACTS:

Costs to implement the Oracle CC&B package are expected to vary based on the necessity and complexity of integrating that with the District’s existing technology. Subject to Board approval, the following capital projects will be increased in the FY 2011-12 Capital Budget to fund the project from replacement funds, as summarized in the table below:

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
11615	\$800,000	\$115,000	\$915,000	\$800,000	\$115,000	\$915,000
21615	\$800,000	\$115,000	\$915,000	\$800,000	\$115,000	\$915,000
Total	\$1,600,000	\$230,000	\$1,830,000	\$1,600,000	\$230,000	\$1,830,000

ENVIRONMENTAL COMPLIANCE:

This activity is not subject to the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15060 (c)(1) Preliminary Review. An activity is not subject to CEQA if the activity will not result in a direct reasonably foreseeable indirect physical change to the environment.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on December 6, 2011.

RECOMMENDATION:

THAT THE BOARD APPROVE A BUDGET INCREASE OF \$115,000 EACH AND APPROVE EXPENDITURE AUTHORIZATIONS IN THE AMOUNT OF \$115,000 EACH FOR PROJECTS 11615 AND 21615, AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH FIVE POINT PARTNERS, LLC IN THE AMOUNT OF \$196,340 FOR THE UTILITY BILLING SOFTWARE REQUIREMENTS ANALYSIS PROJECT.

LIST OF EXHIBITS:

Exhibit “A” – Five Point Partners Scope of Work and Fee Proposal

Exhibit “B” – Expenditure Authorizations



PROPOSAL FOR

IRVINE RANCH WATER DISTRICT

TO PROVIDE

CONSULTING SERVICES TO PERFORM ORACLE
UTILITIES CUSTOMER CARE AND BILLING DETAILED
REQUIREMENTS ANALYSIS AND ASSISTANCE WITH THE
PREPARATION OF A REQUEST FOR PROPOSAL FOR
IMPLEMENTATION SERVICES

SEPTEMBER 16, 2011



September 16, 2011

Tony Mossbarger
Director of Administrative Services
Irvine Ranch Water District
15600 Sand Canyon Ave.
Irvine, CA 92618

Dear Mr. Mossbarger:

Five Point Partners (“Five Point”) is pleased to provide our proposal for Consulting Services to Perform Oracle Utilities Customer Care and Billing Detailed Requirements Analysis and Assistance with the Preparation of a Request for Proposal for Implementation Services to Irvine Ranch Water District (“IRWD”). We offer a proven approach to evaluate and select CIS software and Systems Implementers (SIs), which we refer to as Solution Procurement. Five Point has provided Solution Procurement consulting services for over 100 utilities.

Our Understanding

IRWD is an independent special district serving Central Orange County, California. IRWD provides high-quality drinking water, reliable wastewater collection and treatment, recycled water programs, and urban runoff treatment to more than 330,000 residents. The environment and water conservation are significant areas of concern to IRWD. Their innovative programs related to recycled water as well as storm drain and urban runoff demonstrate IRWD’s commitment to these areas.

IRWD has a history for pursuing strategies that maintain high quality standards, resulting in greater efficiency and lower costs to customers. Over the last 14 years, IRWD has pursued consolidations with other water districts, which resulted in reduced costs and lower rates to customers.

IRWD is proceeding with replacing their current CIS with Oracle’s CC&B system. IRWD is seeking consulting services to assist in conducting a requirements analysis as well as developing an RFP for a systems implementer to implement the CC&B system.

Experience and Qualifications

Five Point is a utility focused consulting firm that was founded to provide expert independent advice to our clients regarding their critical information technology decisions. Our primary objective is to enable our utility clients to efficiently harness the power of information and technology to make more informed and timely business decisions. We provide quantitative and actionable information and recommendations to assist our clients in making important decisions about their key systems. We focus on the solution as a whole, not just the features and functions of the software, which is why our consultants help our clients to secure a *Solution, not just a Selection*.

We are currently supporting 18 utility clients with systems evaluation, selection, implementation and application management for their software applications. Thirteen involve CIS applications. We have recently completed a CIS system SI selection for the City of Hamilton and NV Elmar in Aruba. We are currently engaged to begin a CIS Solution Procurement for UGI Utilities and two confidential utility clients. These procurements all involve the development of requirements and the subsequent RFP, as well as supporting the utility with the evaluation of responses, both from an application and SI perspective. In addition to our procurement work with water utilities, we are also providing Quality Assurance oversight over two CC&B implementations, Los Angeles Department of Water and Power and United Water. We assisted both of those utilities with their selection of CC&B and Systems Implementers. Through these current efforts and others recently completed, we believe we have an excellent understanding of CC&B and the ecosystem of SIs who are qualified to implement the product.

We have provided references from our current CC&B clients, which include Cleveland Water Division, Denver Water, Los Angeles Department of Water and Power, San Francisco PUC, United Water and the City of Winnipeg. We have also included another California water utility, LA County.

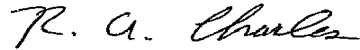
Proposed Services

Five Point is proposing the services requested in the RFP for a total of \$96,000 in fixed fees plus estimated travel expenses. If IRWD's budget does not allow for this amount, we would recommend eliminating the Business Process Review work for \$18,000, which would result in a fixed fee of \$78,000. While many of our clients do conduct reviews of their existing processes and find it useful when developing their change management approach, others prefer to focus on the future business processes as they are designed in collaboration with the SI.

We have also outlined a number of services that were not requested that IRWD may be interested in receiving from Five Point. These include our solution evaluation, scoping and contract negotiations services. We are happy to provide IRWD with additional information and pricing regarding these services.

Five Point understands the importance of IRWD's CIS initiative, and we would be delighted to provide our services to assist in this effort. Should you have any questions regarding our proposal, please do not hesitate to contact me. We hope to craft an approach that precisely meets your needs and can fine-tune our response based on your feedback.

Sincerely,



Richard Charles
President
Five Point Partners, LLC
(214) 530-5989 x720

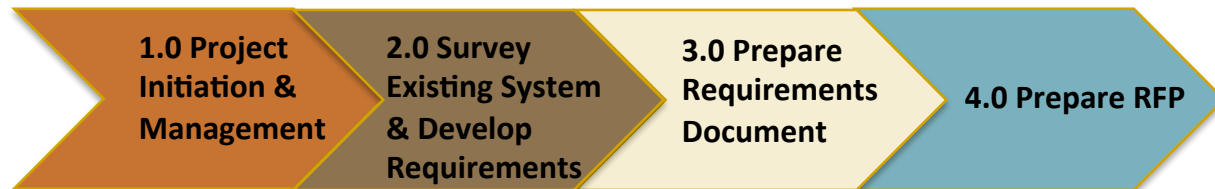
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Project Approach

IRWD has requested the four phases depicted in Figure 1. Five Point's standard Solution Procurement methodology includes all of the phases IRWD has outlined, and we have extensive experience delivering all of these phases.

Figure 1. Approach



1.0 Project Initiation and Project Management

Project management begins with project initiation. It encompasses confirmation of status reporting and other expectations. Activities related to project management are performed for the duration of the project.

Project Initiation

Project Planning, Tracking and Reporting

- Review Project Scope, Objectives, Resources and Logistics. The Project Manager will review the project with the IRWD Project Manager to ensure that expectations will be met. The Project Manager will cover resources and logistics while Five Point is in IRWD's offices.
- Finalize project plan and scheduling. Five Point will work with IRWD to schedule workshops, interviews and other key events and ensures that there are no conflicts with the schedule. Based on this scheduling, the project calendar and timeline will be finalized.
- Develop Governance Model including Communications and Reporting. Five Point will work with IRWD to determine what project communications should take place during the project and what standards are in place for communications at IRWD. Five Point will review status reporting requirements and any other expectations that IRWD may have regarding project management.

Project Kick Off Planning and Execution

The project kickoff meeting sets the stage for how IRWD and Five Point will work together to accomplish the project objectives. The joint project team will be orientated and aligned with the project schedule, goals, methodology, roles and responsibilities and expected deliverables. The

goal of the meeting will be to obtain consensus and document any issues or concerns that team members may have.

Five Point will also present an Industry Perspective during this session so that client project teams understand trends in the market and the typical costs for implementing a CIS. Since IRWD has already selected its software, we would tailor the presentation to focus on recent CC&B implementations and the integrators who perform the work. For many participants, this is their first exposure to a project of this magnitude and the background information is very useful for setting expectations appropriately.

Ongoing Project Management

These ongoing project management duties are included within the time allocated for the project during Phases 2.0 through 4.0. They include:

- Scope, issue and change management activities.
- Provide team direction and manage project resources. The Five Point Project Manager will manage the project team and direct activities to ensure that the project stays on track.
- Administer communication and documentation. Five Point will conduct communication and document management activities, which may include the use of a project website or other collaboration tool. Five Point will work closely with the IRWD project manager.
- Status reports. The Project Manager will prepare status reports about the project. IRWD has requested status reports monthly in the RFP.

2.0 Survey Existing System and Develop Requirements

The activities in this step are centered on gathering information regarding the existing UB and CSR processes that support the business functions and developing the requirements.

Understand Existing UB and CSR Systems, Documentation and Processes

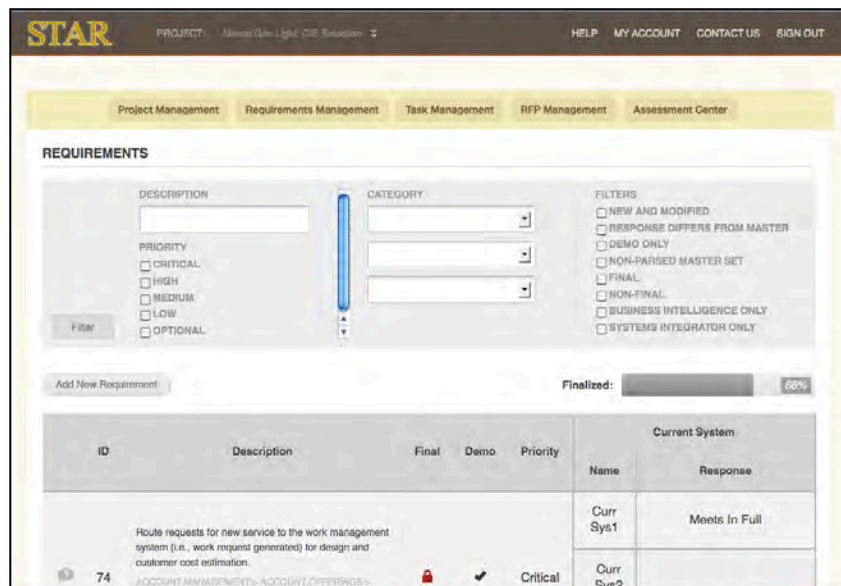
Five Point consultants use an Information Gathering Document to request technical and business documentation. They review the current documentation, interview subject matter experts in the organization to understand how the systems function and observe operations.

Develop Key Process Requirements

After gathering information about the current application, Five Point consultants will conduct a series of workshops on-site with key IRWD personnel where they will assess the current environment and organization that surrounds and impacts the practical application of the system.

After gaining an understanding of the high-level aspects of the application and associated environment, we will then gather the key business and functional requirements of the CIS application using STAR™, our proprietary tool for facilitating software evaluations. STAR™ contains 3,000 CIS requirements, which reflect industry best practices and the work we have completed over the past 15 years across numerous utilities. We will extract the relevant requirements for IRWD and customize them to reflect IRWD's business.

Figure 2. Screen shot from Five Point's proprietary STAR™ system



Conduct Business Process Review

Five Point will document and analyze IRWD's key business processes over a three week timeframe. We will conduct interviews and meetings to document the processes and review and validate our documentation. We will identify areas of inefficiency and opportunity by comparing IRWD's current processes to our inventory of documented "best practice" business processes related to CIS. We will present potential improvements that might be achieved with a process improvement, system enhancement or new tool/application. Our findings will become part of the key process requirements.

Develop Key Technical Requirements

Five Point will develop the technical requirements for the CC&B implementation by conducting workshops and interviews on the current environment and anticipated interfaces. The Five Point Technology Manager will develop these requirements based primarily on experience at one of Five Point's Application Management clients, where Five Point is managing the

environment of a live CC&B system and related systems. The technical requirements will include those items that IRWD has requested, including the system architecture and sizing, software requirements, data conversion requirements and integration requirements. Five Point will also propose design and build standards.

Optional Service: During Phase 2.0, Five Point will provide its standard guidance for the Data Conversion effort. However, if IRWD would like to have more precision regarding the data scrubbing and conversion effort, Five Point offers a four to six week Data Assessment which analyzes the existing data to determine the quality of the data. This assessment then provides a more precise estimate of the level of effort required to scrub and convert the data for the new CC&B, and this information can be used as inputs into the CC&B implementation plan.

3.0 Prepare Requirements Document

In this phase, Five Point will develop the requirements, which were identified in Phase 2, into a document to be used for the RFP. A draft will be prepared, reviewed and validated with IRWD staff. The final version will be used in the RFP.

4.0 Develop RFP

Five Point will utilize its RFP accelerator and modify it to incorporate specifics identified and documented during the previous phases as well as purchasing and legal requirements and preferences.

Through our extensive experience in developing RFPs for utilities, we have developed proven templates and accelerators for inclusion in RFPs to ensure a precise evaluation of System Implementer responses. In addition to these, Five Point has developed a proven scoring model for comparative purposes. These accelerators are:

- Elaborate Pricing Template outlining in detail and summary all services to be provided by each System Implementer. This template provides an exact pricing comparative.
- Product Solution Components including requirements, interfaces, and modifications.
- Solution Architecture and technology requirements.
- Implementation Plan and Services
- Qualifications of System Implementers, including profile, history, and business strategy.

Five Point will also provide a detailed Scope of Work as well as Terms and Conditions based on IRWD's purchasing guidelines.

After approval is obtained for the format, the template will be populated with the RFP requirements and information, including the Features and Functions Checklist that is generated from STAR™, a description of the key business processes to be addressed by the new CIS and technical requirements.

Our Feature/Function weighting is conducted in our STAR™ tool, and vendors typically respond on-line to each requirement. Since IRWD is not using our services for the evaluation process, we will export the requirements from STAR™ into spreadsheets and develop the weighting criteria in those spreadsheets, which will be included in the RFP.

Develop Evaluation Criteria to be Used in Selection Process

Five Point will develop the SI evaluation approach. Five Point has standard evaluation templates with customizable weightings, which we will refine to highlight IRWD's key areas of interest.

IRWD benefits from our battle-tested RFP template, which has been developed as a result of our work on over a hundred solution procurement projects for utilities.

Optional Services

Our complete Solution Procurement services include Requirements Gathering, RFP development, Solution Evaluation, Solution Scoping and Confirmation as well as Contract Negotiations. We have outlined these services below along with the purpose and benefits of each service. We are happy to provide one or all of these services based on IRWD's needs.

Solution Evaluation

This process begins when the vendor proposals are received. The activities conducted in this stage are designed to evaluate each vendor solution thoroughly and ultimately determine a solution/vendor of choice. This phase is typically one of the most intense and requires broad participation from the IRWD team.

Vendors typically respond on-line in the STAR™ tool to the Feature and Function Requirements. Scoring is done within the system using the weights, which were pre-loaded during the STAR™ requirements sessions.

This step includes an onsite demo to review each shortlist SI's proposed solution. During this event, the SI will demonstrate its implementation approach and how it intends to address

integration and product gaps. Each SI follows a structured outline. IRWD personnel attending the demonstration will grade the presentation and note positive and negative comments.

IRWD benefits from our extensive experience in facilitating the Solution Evaluation process, including coordinating demonstrations of the product and the proposed solution. Five Point reviews products at the *solution* level to ensure that they can be fully integrated into IRWD's environment. We have worked with hundreds of groups of client evaluators, and we understand how to reach consensus on a solution and build support.

Solution Scope

Our Solution Scope step is critical to the success of the implementation and scoping of the implementation prior to contract negotiations. We encourage IRWD to consider performing this step. Our approach is based on our experience working with vendors and systems implementers on over 100 contracts. By conducting additional due diligence on the solution, both parties (IRWD and Systems Implementer) fully understand what is expected of them, significantly reducing the need for costly change orders during implementation.

When a single SI finalist is identified, the work is focused on due diligence activities to further investigate the SI's approach and confirm the scope of activities required for a successful implementation.

Solution Confirmation

When the SI's Best and Final Offer (BAFO) has been received, final evaluation activities take place. This work builds upon the due diligence activities to ensure that all solution components have been identified, priced accordingly and that IRWD has confirmed that the solution remains the optimal solution to move forward with into contract negotiations. The implementation plan is also developed in this phase.

Five Point's Solution confirmation step minimizes change orders during the implementation phase because the full scope of the solution has been completed prior to contract negotiations.

Contract Negotiations

This work focuses on the development of the statement of work and contracts for implementation. These activities may be for multiple vendors, i.e. software, service, hardware and third party implementation partners. Five Point will work with various utility personnel, including legal and purchasing, to complete the contract negotiation process.

IRWD benefits from Five Point's extensive contract negotiation experience. We have negotiated over 100 successful contracts. We are already familiar with what vendors and systems implementers present in their standard contracts and statements of work, and we provide solutions to minimize IRWD's risk.

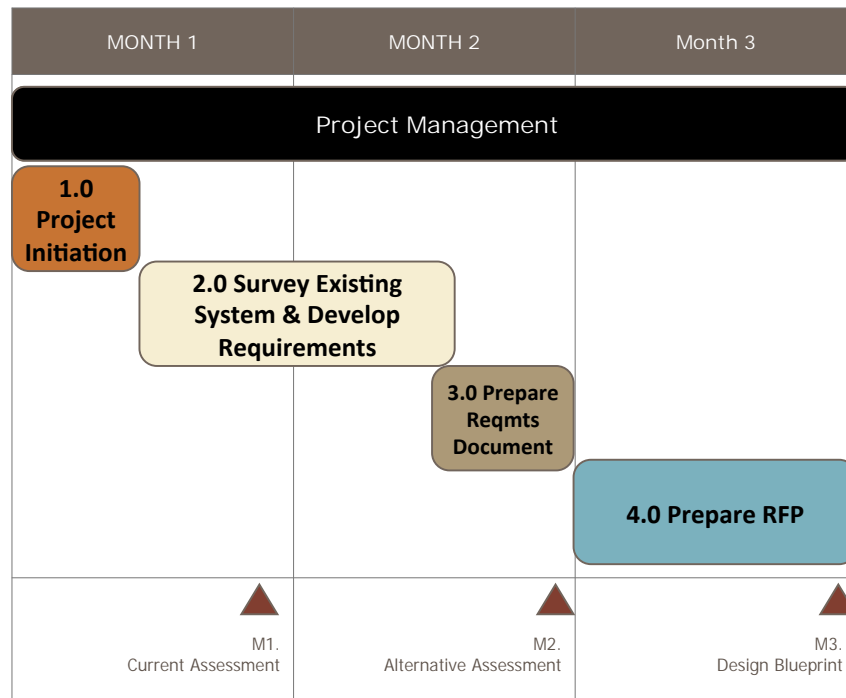
Expectations of IRWD Staff

IRWD involvement is critical during the project. In addition to gathering information and ensuring that we have key inputs to the RFP, Five Point is interested in building buy-in and support from stakeholders from the beginning. Our Industry Perspective Workshop is designed for the widest possible audience to ensure that everyone is on the same page at the outset. Our interviews are designed to reach multiple levels of the organization so that when a decision is reached about a functional or technical requirement, the widest array of stakeholders feel that they have been asked what they think about the situation, and their input has been taken into consideration. We sow the seeds of Change Management long before the decision to make a change has been made so that we can ensure the greatest possible success for the change.

IRWD's estimated level of involvement is at least the same number of hours as Five Point's involvement. This estimate is based on two or three IRWD team members participating in most of the tasks and activities shown in the project plan. More hours may be required if additional team members participate in a particular area. The project management tasks are shown to be primarily Five Point's responsibility. If IRWD designates a full-time project manager, the IRWD hours could increase in that area as well.

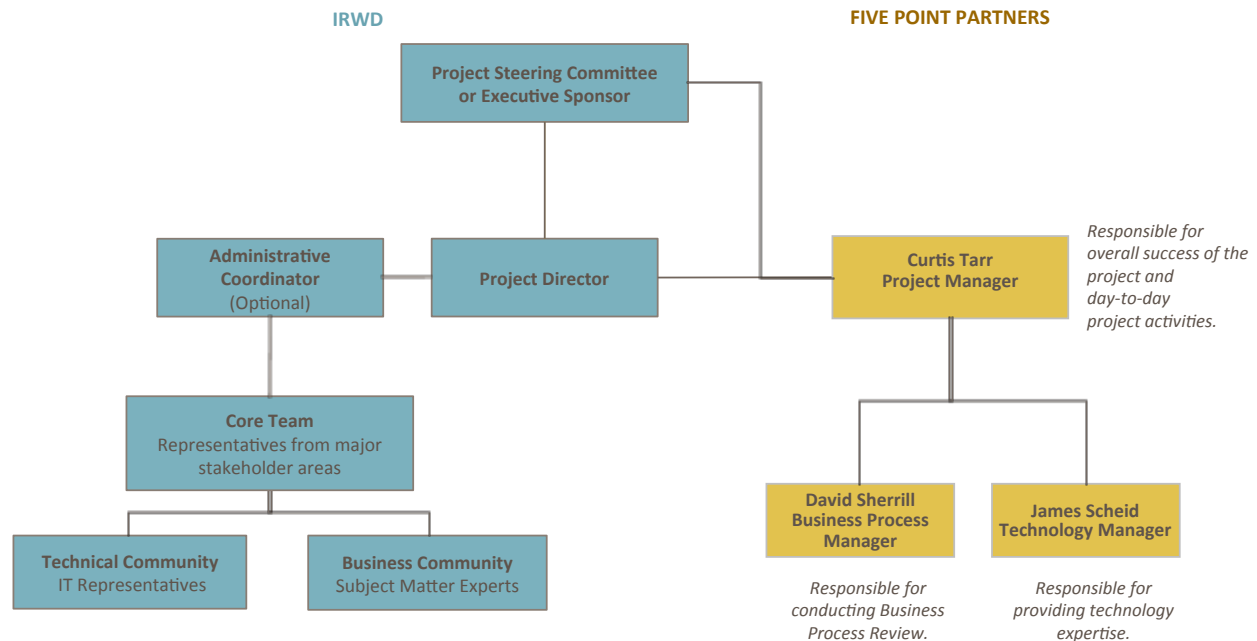
Project Schedule

Five Point anticipates that the project will take three months to complete. The schedule below outlines how the four phases are scheduled over the three-month timeframe.



Project Team

Five Point proposes the following project team structure. Utilizing this structure, Five Point works to facilitate and coordinate activities rather than control and dictate. Project ownership, authority and ultimate decision-making remains with IRWD



Curtis Tarr, Vice President

Curtis is a senior IT professional with experience in managing systems design, development and integration within the energy industry. Curtis combines business acumen with information technology expertise to develop and execute strategic technology plans aligned with corporate goals. He has excellent communication skills and is effective with both business executives and technical groups.

Curtis has extensive CC&B experience with two municipal water utilities, Austin Energy, and the City of Winnipeg. He has additional water experience working with the City of Fort Lauderdale and the City of Hamilton.

INDUSTRY EXPERIENCE

Highlights from selected projects that Curtis has been involved with:

Austin Energy | Serving 340,000 electric, water, wastewater, solid waste, recycling, transportation and drainage accounts. Primary Consultant for the CIS Evaluation, Selection and contract negotiations. The project resulted in the selection of CC&B, implemented and managed by IBM.

Winnipeg | Primary Consultant for the CIS Application Plan, Evaluation, Selection and Implementation Quality Assurance. Winnipeg implemented Oracle's CC&B.

Fort Lauderdale, FL | Serving 183,000 water, wastewater, and draining accounts. Primary Consultant for the CIS Application Plan, Evaluation, Selection and Implementation QA.

Hamilton, OH | Primary Consultant for the CIS Evaluation, Selection and contract negotiations. Supporting 72,000 service points for electric, gas, water, wastewater and solid waste services.

Gazifère | Serving 32,000 gas accounts. Assisted with the development of a CIS application plan.

Green Mountain Energy | Serving 600,000 electric accounts in deregulated markets across the country. Primary Consultant for a CIS selection, providing current environment assessment, business and technology strategies, RFP preparation, and RFP submission evaluation. Provided alternative solutions, a cost/benefit analysis and a blueprint for success during CIS application planning and selection process.

Phoenix, AZ | Serving 386,000 water, wastewater, and solid waste accounts. Primary Consultant for developing an application plan and leading the utility through a CIS software procurement project. Activities included: interviews and surveys, identification of requirements, current assessment, identification and assessment of alternatives, development of a design blueprint, development of an RFP, assessment of RFP proposals, vendor confirmation and due diligence, contract negotiations, and presentations and approvals.

Philadelphia, PA | Assisted in the development of an Application Plan for water utility with 500,000 accounts.

Santee Cooper Power | Serving 625,000 electric accounts. Assisted with a CIS Evaluation and Selection process.

SASKEnergy | Serving 340,000 gas accounts. Assisted in developing an application plan for the utility. The plan consisted of an assessment of the current environment, the identification and assessment of alternatives, the identification of requirements, the development of a business case, and presentations and approvals.

SASKPower | Identified the utility's CIS business requirements for developing an Application Plan.

Topeka | Serving 40,000 water and wastewater accounts. Primary Consultant for developing a CIS Application Plan.

Canadian Energy Provider | Serving 1,000,000 regulated and deregulated accounts servicing electricity and natural gas within the Alberta, Canada market. Primary Consultant for the

evaluation of current BPO services, assessment of BPO alternatives and selection of new BPO providers.

Texas/Canadian Energy Provider | Primary Consultant for assessing risks associated with the utility's Business Process Outsourcing strategy and CIS evaluation/selection process. 900,000 deregulated accounts in the Texas and Ontario Markets.

Shell Energy Services Company | IT Manager responsible for development and operations of CIS/CRM/ERP systems which support multiple deregulated utility markets across the country. 375,000 accounts.

ERCOT | IT Director responsible for the development and operations of systems which support the Texas deregulated retail/wholesale market and the power grid within the ERCOT region. This included systems such as: CIS, CRM, AMI/MDM, SCADA, etc.

Dynegy Energy Services | Primary Consultant responsible for managing the implementation and integration of a new CIS supporting Dynegy's deregulated markets.

RELEVANT WORK HISTORY

Five Point Partners

Vice President; 2009 – present

TMG Consulting (acquired by Five Point February 2009)

Manager and Senior Consultant; 2004-2009

Electric Reliability Council of Texas

Director, IT Delivery & Operations; 2002-2003

Dynegy Energy Services

Senior Consultant; 2001-2002

Shell Energy Services Company

IT Applications Manager; 1998-2001

Exxon Company

Senior Systems Specialist; 1991-1998

EDUCATION

MS - Management Information Systems, Texas Tech University

BBA - Management Information Systems, Texas Tech University

David Sherrill, Director

David has over 37 years of Utility experience with tier one Public Utility and large scale system implementations from both the user and vendor perspective. Extensive experience in customer best practices and process modeling in customer service, CIS, AMR, mobile workforce, and call center management as well as business process improvements for Financial Systems. He has consulting experience in system integration, project management, project methodology, business process analysis and modeling.

David has worked with water conservation rates and activities at LA County Water. He also has experience with other water utilities, including Owensboro Municipal Utilities, WEB in Aruba and Fulton County.

INDUSTRY EXPERTISE

Highlights from selected projects that David has been involved with:

LA County Water | Serving 65,000 water accounts. Project Manager for Business Process Review Analysis, Solution Procurement, Contract Negotiation and Implementation QA for CIS.

Owensboro Municipal Utilities | Serving 26,000 electric and water accounts. Project Consultant for Solution Procurement of CIS, Financial Information System (FIS) and Work Management System (WMS).

NV Elmar (Aruba) | Serving 40,000 electric accounts. Project Manager for CIS and ERP Application Planning, CIS and ERP Solution Procurement and Quality Assurance over CIS and ERP implementation.

Jamaica Public Service | Serving 430,000 residential, commercial and industrial electric accounts. Project manager for business process analysis, vendor selection, and implementation for CIS.

W.E.B. Aruba N.V. | Serving 35,000 water accounts. Business Process Flow mapping, process analysis, GAP analysis, and business process change recommendations for water utility CIS selection.

Atlanta Gas Light | Serving 1.5 million natural gas accounts. Project Manager for business process review and installation for Mobile Workforce System.

Austin Energy | Serving 360,000 electric accounts. Project director responsible for implementation of Scheduling and Mobile Dispatch System.

BC Hydro | Serving 1.5 million electric accounts. Project manager responsible for the preparation of a business integration plan for Mobile workforce and CIS.

Central Hudson Gas and Electric | Serving 280,000 electric accounts. Provided business review analysis and implementation for Mobile workforce software.

Cinergy | Serving 1.6 million residential and commercial electric accounts. Project Director for mobile workforce installation and related interfaces.

Fulton County Water and Sewer | Serving 68,000 water and sewer accounts. Project Manager for business process mapping and analysis and process change recommendations. Developed RFP for CIS selection and participation in vendor selection to lead CIS implementation upon vendor selection.

Horizon Utilities | Serving 30,000 residential and commercial electric accounts. Project manager for business process review, RFP requirements, and cost justification for mobile software acquisition.

Mobile Gas | Serving 105,000 natural gas accounts. Project manager for business review and assessment for CIS recommendation.

Nevada Power | **Serving 770,000 electric accounts. Project Director responsible for successful CIS integration and Mobile Workforce installation.**

ONEOK | Serving 2 million natural gas accounts. Project Director responsible for successful CIS integration and Mobile Workforce installation.

OPPD | Serving 290,000 electric accounts. Project Director responsible for business planning for Mobile implementation and CIS integration.

PacifiCorp | Serving 1.6 million electric accounts. Project Director responsible for successful CIS integration and Mobile Workforce installation.

PEPCO | Serving 730,000 electric accounts. Responsible for the upgrade and integration of Mobile scheduling and dispatching software for mobile fleet.

South River EMC | Electric COOP serving 30,000 electric accounts. Consultant responsible for reviewing current CIS system and making recommendations for process/system functionality improvement.

United Illuminating | Serving 330,000 electric accounts. Project Director responsible for successful CIS integration and Mobile Workforce installation.

Westar Energy | Serving 500,000 electric accounts. Project Director for Mobile Workforce implementation and Materials Management integration.

RELEVANT WORK EXPERIENCE

Five Point Partners, LLC

Director; 2009 – present

TMG Consulting, Inc. (acquired by Five Point in February 2009)

Senior Consultant and Project Manager, 2007-2009

Turnpoint Solutions; 2005-2006

Senior Management Consultant

Axiom / SPL; 2001-2005

Project Director

Responsible for Professional Services for process requirements, delivery, and implementation of software to internal and external applications including CIS, Mobile Workforce Management, and Meter management.

Southern Company; 1998-2001

South Western Electric Board (SCES); England (Consultant)

Completed business process review; evaluated and implemented process changes within the call center, billing, and customer registration processes during the privatization (deregulation) of the retail gas supply market.

Municipal Electric Authority; Thailand (Consultant)

Provided business review and process analysis and recommendations in reorganizing the Customer Service process for the Government of Thailand.

Southern Co. Energy Solutions (Manager)

Managed residential and commercial security business which included marketing, advertising, sales (\$18 mm annually), installation, service, billing and customer service. Established and managed SCES unregulated business Call Center.

Georgia Power Company; 1970-1998**General Manager of Customer Service**

Liaison for the implementation of Customer/ CIS for Southern Company. Included system requirements, process definition, training, and implementation for Customer Service employee base.

Responsible for 2 call centers (7x24 with call volume of 6mm), policies and procedures, revenue accounting, CIS, collections, meter reading, and training for a customer base of 1.8mm.

EDUCATION**BBA** - Accounting; Georgia Southern University

James Scheid, Director

James brings 15 years of experience in enterprise architecture, information technology development, technical consulting, and technical program management. His areas of focus include: custom systems development, software architecture assessment and design, and service oriented architecture deployments. He has developed and managed numerous complex enterprise architecture and technology projects for utility, software, professional services, and manufacturing industries.

INDUSTRY EXPERIENCE

Highlights from selected projects that James has been involved with:

- Served as Technology Manager Subject Matter Expert for various Application Planning projects.
- Served as Program Director for Application Environment and Infrastructure Outsourcing.
- Managed operations of entire technology environment, including production and non-production environments for Oracle CC&B, ERP, work management and other packages.
- Managed database (e.g., Oracle, SQL Server, etc.), AIX operating systems, and hardware management for all environments.
- Served as technical architect for infrastructure and application issues.
- Served as Project Manager for Hardware Migration Project.
- Responsible for migration of IBM pSeries hardware to new p560s.
- Responsible for coordination of all applications, databases, and operating systems across the enterprise.
- Served as Technical Program Manager for Oracle Utilities CC&B Implementation. Involved in the technical architecture design, including server sizing, configuration and installation. Assisted in the integration of the ERP and CIS solutions using the client's EAI infrastructure. This included the identification of all interfaces between the two systems and designing the best solution to connect the systems within the client's preferred infrastructure.
- Responsible for conversion, interface and architecture teams.
- Evaluated and selected EAI, software version control, and change management software.
- Analyzed existing interfaces and designed future interfaces for CIS system migration.

- Responsible for analysis and recommendations surrounding conversion from AS/400 based system to an UNIX/Oracle system.
- Developed architecture methodologies that facilitated the client becoming self-sufficient in their daily practices.
- Responsible for development of Proprietary Enterprise Portfolio Management (EPM) Software.
- Managed technical resources.
- Led architectural design of software components for EPM.
- Designed and developed technical architecture foundation for EPM.
- Researched, developed, and constructed applications and proofs of concept using variety of technologies (e.g., Java, Struts, JDBC, CORBA, XML, XSLT, C++, WebServices, .Net, and EJB).
- Constructed a load testing environment and load testing the application using the Mercury suite of products (e.g., LoadRunner, WinRunner).
- Developed internet application for consumer based computer models, introducing a Java\COBRA based application architecture.
- Designed and developed a bill of materials entry and reporting application.

RELEVANT WORK HISTORY

Five Point Partners 2009 – current

Director of Technology

BE Consulting (Northridge Systems), 2007- 2009

Senior Director

Alliance Data Systems, 2004 - 2007

Senior Manager

Novient, Inc., 1998 - 2003

Director of Technology

Alliance Data Systems, 2004 - 2007

Senior Manager

Monorail Inc., 1996 – 1998

Technical Systems Engineer

EDUCATION

Bachelor of Applied Science - Mercer University, Macon, GA

Project fee schedule

Five Point proposes a fixed fee of \$96,000 to complete the CIS Requirements and Systems Implementer RFP. This fee includes Business Process Review. If IRWD decides not to use the Business Process Review services, then the fixed fee is \$78,000. The detailed fee schedule by task and activity appears in Attachment A.

Over the course of the three-month project, the Project Manager will be staffed on the project full-time. The Technology Manager and Business Process Analyst will devote one and three weeks respectively to the project to conduct their specific tasks.

Resource	Rate	Hours	Total Fees
Project Manager	\$150	480	\$72,000
Technology Manager	\$150	40	\$6,000
Business Process Analyst	\$150	120	\$18,000
Total		720	\$96,000

Five Point will bill upon achieving the milestones outlined in the table below. Five Point payment terms are 30 days.

Milestone	Milestone Billing
2.0 Survey Existing System & Develop Requirements	\$60,000
3.0 Prepare Requirements Document	\$8,400
4.0 Prepare RFP	\$27,600
Total Estimated Professional Fees	\$96,000

Project travel expenses

Travel expenses are outlined in the table below. The estimate includes airfare, hotel, rental car, meals, airport parking and other incidental expenses for three nights per trip in a hotel. Five Point will work with IRWD to keep expenses minimized by booking advanced airfares and using any corporate hotel rates that may be available.

Resource	Total Trips	Estimated Expenses Per Trip	Estimated Total Expenses
Project Manager	12	\$5,800	\$17,400
Technology Manager	1	\$1,600	\$1,600
Business Process Analyst	3	\$1,600	\$4,800
Total			\$23,800

References for similar engagements

Five Point has extensive water utility experience. We have conducted over 60 system selections and application plans for 53 water utilities. In addition, we have worked for a number of California public and municipal utilities, which has provided us with an opportunity to work with utilities engaged in water conservation. A listing of water utilities we have worked with in the last five years is shown below:

Customer	Project Name	Utility Type	Customers	Services
American Water	CIS & SI Solution Procurement for CIS and EAM	Investor-Owned Utility	3,300,000	W
Arvada, CO	CIS Solution Procurement	Water Municipal	36,000	WW, SW
Cleveland Water Division, OH	CIS Solution Procurement	Water Municipal	467,000	W, WW
Denver, CO Water	CIS Solution Procurement, Implementation QA	Water Municipal	220,000	W, WW
Fort Lauderdale, FL	CIS Solution Procurement	Water Municipal	60,000	W, WW, SW, D
LA County	CIS Solution Procurement	Water Municipal	60,000	W
Los Angeles Department of Water, Power	CIS Solution Procurement, Implementation QA	Municipal Electric and Water	1,500,000	E, W
National Water Commission (Jamaica)	CIS Implementation	Water Municipal	430,000	W, WW
NV Elmar	CIS, EAM Application Plan, Solution Procurement	Water Municipal	40,000	E
Owensboro Municipal Utilities	CIS, FIS, EAM/WMS Solution Procurement	Water and Electric Municipal	50,000	E, W
Region of Peel, Canada	CIS Application Plan	Water Municipal	260,000	W, WW
Regional Water Authority	CIS Application Plan	Water Municipal	130,000	W, WW
Snohomish County PUD	CIS Solution Procurement	Public Electric and Water	307,000	E, W
Topeka, Kansas	CIS Solution Procurement	Water Municipal	60,000	W, WW
United Water Resources	CIS Strategy, CIS Solution Procurement, Implementation QA	Water Municipal	660,000	WW
Web Aruba NV	CIS Implementation QA	Investor-Owned Utility	35,000	W
Winnipeg, Manitoba	CIS Solution Procurement, CIS Implementation QA	Water Municipal	190,000	W, WW

(E=Electric, G=Gas, W=Water, WW=Wastewater, S=Security, SW=Solid Waste, D=Drainage, T=Telco)

*Client is Confidential at their request.

Client Profiles and References

We are providing the following client profiles and references for IRWD's review. These are some of Five Point's recent and current clients where we have assisted in the selection of the CIS and Systems Implementer. Cleveland Water, Denver Water, LADWP, San Francisco PUC and United Water all selected Oracle CC&B.

Cleveland Water 1201 Lakeside Ave. Cleveland, OH 44114			
Michael Rotunno Acting Commissioner of IT Michael_Rotunno@clevelandwater.com , 216-664-2444 ext 4680			
Client information	Services provided	Selection information	Project dates
Type: Municipal Services: Water, Wastewater Accounts Served: 467,000 Population Served: 1,500,000 Project System: CIS	Evaluation & Selection Installation QA PMO CIS Enhancements	Vendor Selected: Oracle CC&B CIS	Project Start: 01/2007 Project End: ACTIVE Go-Live: 09/2009

Challenge

The legacy billing system was custom developed utilizing COBOL, DB2, and operated on the IBM AS/400.

Solution

Five Point Partners was initially hired to lead the CIS evaluation and selection effort. CWD ultimately selected Bearingpoint/PWC to implement the Oracle CC&B solution operating in a hosted environment provided by IBM.

Five Point was hired to provide Project Management Office services, including Project Administration, Change Management and Quality Assurance.

Five Point worked with the integrator to insure a baseline comprehensive Change Management work program was created and implemented the necessary changes. Five Point worked with CWD and the Integrator to insure the execution of the Organizational Change Management

Plan adhered to the practices of the software implementation and to create an Organizational Structure and Position Analysis Plan, which established what the future Organization and individual positions would look like. Five Point worked closely with CWD to Administer the Organization Impact and Risk Management plan to implement associated role changes and budgetary impacts. And, Five Point worked with the entire project team to document Business Process Changes and the organizational impact.

Five Point assisted in the process of analyzing, documenting and facilitating proposed Policy and Ordinance changes and followed each through to resolution and approval.

Five Point worked with the Implementer and CWD to develop a comprehensive communication program which encompassed all aspects of communication throughout the project and served as the conduit to the rest of the project team to ensure that communications remained consistent throughout the project regarding all aspects of Organizational and Process changes.

Five Point was also hired to provide “client-side” services to supplement the CWD staff for the implementation project. Five Point consultants are on-site and working with Bearingpoint /PwC and Oracle to provide Business/Functional Analysis, Programming Analysis, Technical Architecture/System Administration, Change Management and Project Management Office Administration

Result

This project met its scheduled go-live in September 2009. Five Point has continued to provide regulatory enhancements as requested by CWD.

Denver Water 1200 W. 12th Ave Denver, CO 80204				Chris Dermody Director of IT 303-628-6262 chrisdermody@denverwater.org
Client information	Services provided	Selection information	Project dates	
Type: Municipality Services: Water, Wastewater Accounts Served: 220,000 Project System: CIS	Evaluation & Selection Installation QA	Vendor selected: Oracle CC&B	Project start: 11/2006 Project end: 11/2009	

Challenge

Denver Water moved to replace their existing Customer Billing system - AIM, Tap Sales system - WASA, Payment Reconciliation System - PRS and Miscellaneous Accounts Receivable system – MARS, with a new CIS. Additionally, Denver Water has partnered with the City of Denver Wastewater Management Division for years and provides billing services for common City of Denver customers.

Denver Water faces the challenge of supplying water to a population located in semi-arid conditions. Water conservation and unique rate structures are at the forefront of this initiative.

Solution

Following two failed efforts to implement a new CIS, Denver Water contracted with Five Point to initiate a process to evaluate and select a new CIS. Due to the utility's previous experiences the selection process moved slowly and methodically. Denver Water selected Oracle CC&B solution with BearingPoint as the implementer.

Result

Denver Water kicked off their CIS Implementation in January 2008 with Five Point providing QA and Project Oversight. The system went live in July 2009.

LA County Water 1000 South Fremont Ave. Alhambra, CA 91803		Greg Even, P.E. Project Manager Waterworks & Sewer Maintenance Division (626) 300-3331 geven@dpw.lacounty.gov	Ray Razo Co-Project Manager (626) 300-3383 rrazo@dpw.lacounty.gov
Client information	Services provided	Selection information	Project dates
Type: Government Services: Water Accounts Served: 60,000 Population Served: 195,000 Project System: CIS	Business Process Review Evaluation & Selection Quality Assurance	Vendor selected: Harris	Project start: 01/2007 Project end: 1/8/2011

Challenge

The District administers and maintains five Waterworks Districts and the Marina del Rey Water System. The legacy system, WBS, was a mainframe-based system that was custom developed and installed in 1987. The software vendor no longer supported the system and there was limited internal technical support and the system lacks basic functionality.

Solution

Five Point was hired to initiate a CIS evaluation and selection process to replace its legacy billing system.

Five Point initially completed a Business Process Assessment Report which included detailed mapping all of the current business process and data flows. Documentation of recommendations for changes in Business processes based on known best/common practices was provided to enhance LA County's mission of "Exceeding Customer Expectations." Five Point completed an RFP to accommodate these business requirements.

Result

The County released their RFP in January 2008. Five Point assisted in the evaluation of the RFP responses and participated in contract negotiations. The vendor of choice (Harris – Advanced) was awarded the contract in November 2008.

Five Point provided Quality Assurance Services and Quality Control on a monthly basis during the implementation period.

Los Angeles Department of Water and Power

111 N. Hope Street
 Los Angeles, CA 90012

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 Chief Information Officer
 Information Technology Services
 Division
Matthew.Lampe@LADWP.com
 (213) 367-2553

Armando Bolivar
 Contract Administrator
Armando.Bolivar@LADWP.com
 (213) 367-1529

Client information	Services provided	Selection information	Project dates
Type: Municipality Services: Electric, Water Accounts Served: 1,500,000	Evaluation & Selection Quality Assurance	Software vendor selected: Oracle CC&B SI selected: PwC	Project start: 9/2009 Project end: ACTIVE

Challenge

In the third quarter of 2009, Los Angeles Department of Water and Power (LADWP), the nation's largest municipal utility, decided to replace its existing water and electric utility customer information, billing, accounting, reporting and collections system (CIS). The current CIS was based on a legacy mainframe and was driven by manual processes. The system did not provide required flexibility for changing rate models, complex billings and other emerging business requirements driven by LADWP's Smart Grid program.

Result

Five Point was selected by LADWP to provide overall Quality Assurance for the deployment of the new CIS, MDM and Mobile Dispatch software solutions. Five Point assisted the client in the development of the proposals, scoring of the responses and the negotiation of the contracts with both the Systems Implementer and the Software Vendors. LADWP selected Oracle's CC&B with PwC as the Systems Implementer. Five Point has been retained in multiple roles on the project – Quality Assurance for CIS, MDM and MDS, Subject Matter Experts on CIS and MDM, Project Management Office as well as to serve as a liaison on the client's Smart Grid initiative. We are currently in discussions with LADWP to provide additional change management and training services.

San Francisco PUC 1 Dr. Carlton B Goodlett Place San Francisco, CA 94102		Hans Loffeld Director, IT Services 415-551-4302 hloffeld@sflower.org	
Client information	Services provided	Selection information	Project dates
Type: Municipal Services: Energy, Water, Wastewater Accounts served: 169,000 Population served: 770,000 Project system: CIS	Application planning Evaluation & selection Installation QA	Vendor selected: Oracle CC&B System Implementer: Oracle	Project start: 03/2007 Project end: 07/2009

Challenge

SFPUC wanted to determine the feasibility of having a single billing system to accommodate the complex business rules required by the electricity enterprise, in addition to its standard water and wastewater operations. The utility was also highly interested in acquiring a “customer-centric” CIS application to allow them to track specific customer relationships as they moved within the City. SFPUC also wanted to address the need to utilize an in-house programming staff to maintain the legacy CIS application, among other challenges.

Solution

Five Point was hired to examine alternatives, provide recommendations, and evaluate the feasibility of replacing the existing billing system. Five Point met with division leaders, confirmed the organizational goals, researched costs of the alternatives, and analyzed the competencies of the existing CIS application. Five Point provided an application plan, with analysis of the various options available to SFPUC and ranked the recommendations.

Based on the application plan, SFPUC chose a commercial, off-the-shelf CIS application and re-engaged Five Point for a CIS product evaluation and selection effort. Five Point reviewed the current computing environment, identified the commission’s core strategies, confirmed the target computing environment, formalized requirements, developed both a RFI and a RFP, and assisted in evaluating vendor proposals. Five Point facilitated the solution confirmation, due diligence, and contract negotiations phases.

Result

After examining many of the commercial, off-the-shelf CIS products in the marketplace, SFPUC selected the Oracle CC&B CIS, to be implemented by Oracle and operated by SFPUC internal resources. Five Point provided QA Implementation and other project services during this implementation.

United Water 200 Old Hook Rd Harrington Park, NJ 07640			Glenn Clark, Director, Application Development 201- 634-4259 Glenn.Clark@UnitedWater.com
Client information	Services provided	Selection information	Project dates
Type: Investor Services: Water, Wastewater Accounts Served: 670,000	Evaluation & Selection Implementation QA	Product Selected: Oracle CC&B Implementer Selected: Accenture	Project Start: 09/2008 Project End: ACTIVE

Challenge

United Water (UW) was looking to take advantage of technology newer than its 20-year-old legacy CIS application. In addition, it wanted to operate its CIS internally as opposed to using an outsourced solution. In investigating such a change, the utility needed to ensure that the various business rules required by its 30 different business units in 8 different states could be accommodated in a new CIS application. As with other utilities, UW wanted to take advantage of a more “customer-centric” CIS application, a data environment that allowed them easier access to utility customer & billing data, and an application that would more easily integrate with other enterprise systems.

Solution

Five Point was engaged to rate alternatives, develop recommendations, and to assess the viability of replacing the existing mainframe CIS system. Five Point interviewed the leaders of various business units, validated the goals of the utility, examined the costs of the different alternatives, examined the capabilities of the existing application, and worked with United Water to develop a list of over 2,400 specific application requirements. Five Point worked with the utility to develop an RFP, to evaluate the various vendor proposals, and to select both a commercial, off-the-shelf CIS application and a system integrator. Five Point also helped UW to confirm the overall proposed solution, to conduct due diligence activities for both vendors, and to carry out contract negotiations with each vendor.

Results

After examining many of the commercial, off-the-shelf CIS products in the marketplace, UW selected Oracle’s CC&B. In addition, UW chose Accenture to implement the application. The utility plans to operate CC&B in-house using internal resources. Five Point is providing project Quality Assurance services during this implementation

Winnipeg - Water and Waste Department

7th Floor, 457 Main Street
 Winnipeg, MB R3B 1B5

Lucy Szkwarek
 CISS Project
 Business Team Manager
 (204) 986-3144

Client information	Services provided	Selection information	Project dates
Type: Public Services: Water, Wastewater Accounts Served: 190,000 Population Served: 750,000 Project System: CIS	Evaluation & Selection Installation QA	Vendor selected: Oracle	Project start: 07/2006 Project end: 12/2009

Challenge

The prior Water and Waste Department utility billing system had been in operation for over 30 years. The mainframe-based system needed to be replaced with a solution that performs all critical business processes using up-to-date best practices.

Solution

A Five Point team of consultants utilizing our selection methodology, worked with the client to select Oracle Utilities Customer Care and Billing and Oracle Utilities Business Intelligence software packages to meet the City's utility billing requirements.

Five Point was engaged to provide critical industry knowledge and procurement expertise throughout the selection process and Quality Assurance/Quality Control oversight throughout the implementation project.

Result

The CC&B system went live in June 2009 with Oracle as the systems implementer and Five Point providing QA/QC services.

Conclusion

Thank you for the opportunity to provide our proposal to assist IRWD with its CIS Requirements and Systems Implementer RFP. We believe that our services are distinguished in the market based on the following differentiators.

Uniquely Qualified

We have assisted over 100 utilities with their CIS Solution Procurements and Systems Implementer selections. With experience dating back to 1992, we offer a proven approach that has been refined and continually updated to reflect current market conditions. We augment our project team with subject matter experts to provide expertise in key areas, including technology. This breadth of experience provides our clients with the deep expertise they need to implement their solutions effectively.

“Solution” Procurement

Due to the experience and breadth of expertise of our consultants, we take a holistic approach to the system and SI selection process – which is why we prefer to use the term *Solution Procurement*. Five Point intimately understands the inner workings of public utilities both from a business process and technology integration perspective. We apply that understanding during the procurement process to ensure that our clients select both a product and System Integrator that can deliver the “Solution” needed to fulfill their business objectives.

In addition to evaluating each software product’s functions and technical architecture, Five Point provides services that evaluate each vendor’s implementation approach in detail. Many selection firms are product focused when the ultimate success of the project is dependent on the quality of the implementation.

Vendor and Systems Implementation Contract Knowledge

Five Point has negotiated more solution and implementation contracts than any other consulting firm with over 100 successful negotiations. Our knowledge of utility industry system implementations is unparalleled in the industry.

Our extensive knowledge enables us to assist with contract issues and



expectations during implementations. We have resolved many issues on behalf of our clients over the years to keep their implementations on track.

A Proven Return on Investment

Organizations that employ Five Point for Solution Procurement services typically save a multiple of our fees in direct savings. Our extensive experience negotiating license, maintenance and support, and implementation contracts yields measurable benefits in savings and quality. This value creation is particularly true in Solution Procurement projects where we can utilize our database of recent, comparable transactions to help our clients negotiate favorable contracts.

Attachment A

Detailed Fee Schedule by Task and Activity appears on the following pages.

ID	Task Name	Duration	Work	Cost	Resource Names
1	IRWD Requirements Analysis and RFP Preparation Project	63 days	640 hrs	\$96,000.00	
2	Phase 1 - Project Initiation and Management	8 days	64 hrs	\$9,600.00	
3	Project Planning, Tracking, and Reporting	5 days	40 hrs	\$6,000.00	
4	Review Project Scope, Objectives, Resources, and Logistics	1 day	8 hrs	\$1,200.00	Project Manager
5	Finalize Project Plan and Scheduling	2 days	16 hrs	\$2,400.00	Project Manager
6	Develop Governance Model Including Communications and Reporting	2 days	16 hrs	\$2,400.00	Project Manager
7	Project Kick Off Planning and Execution	3 days	24 hrs	\$3,600.00	
8	Schedule Kickoff Meeting and Advise Participants	0 days	0 hrs	\$0.00	Project Manager
9	Prepare Kickoff Material	2 days	16 hrs	\$2,400.00	Project Manager
10	Conduct Kick-Off Meeting	1 day	8 hrs	\$1,200.00	Project Manager
11					
12	Phase 2 - Survey Existing System and Develop Requirements	27 days	336 hrs	\$50,400.00	
13	Understand Existing UB and CSR Systems, Documentation, and Processes	10 days	72 hrs	\$10,800.00	
14	Review Current Applications and Systems Documentation	3 days	24 hrs	\$3,600.00	Project Manager
15	Interview Relevant Subject Matter Experts	3 days	24 hrs	\$3,600.00	Project Manager
16	Observe UB, CSR, and Conservation Processes	2 days	16 hrs	\$2,400.00	Project Manager
17	Review UB and CSR Associated Applications Interfaces with Other Systems	2 days	8 hrs	\$1,200.00	Technology Manager[50%]
18	Develop Key Process Requirements for UB, CSR, and Associated Systems	17 days	232 hrs	\$34,800.00	
19	Review All Notes and Observations from Introductory Week	2 days	16 hrs	\$2,400.00	Project Manager
20	Develop Detailed Business Requirements	7 days	56 hrs	\$8,400.00	
21	Review STAR Default Requirement Set for IRWD Services	3 days	24 hrs	\$3,600.00	Project Manager
22	Integrate IRWD-Specific Process Requirements into Default Requirements	2 days	16 hrs	\$2,400.00	Project Manager
23	Integrate IRWD-Specific Technical Requirements into Default Requirements	2 days	16 hrs	\$2,400.00	Project Manager
24	Conduct Business Process Review	15 days	120 hrs	\$18,000.00	Business Process Manager
25	Conduct Review Sessions to Review and Finalize Process Requirements	5 days	40 hrs	\$6,000.00	Project Manager
26	Develop Key Technical Requirements for the CC&B Implementation	4 days	32 hrs	\$4,800.00	
27	Develop Architecture and Sizing Requirements	1 day	8 hrs	\$1,200.00	Technology Manager
28	Develop Software Requirements	1 day	8 hrs	\$1,200.00	Technology Manager
29	Develop Data Conversion Requirements	1 day	8 hrs	\$1,200.00	Technology Manager
30	Develop Interface Requirements	0.5 days	4 hrs	\$600.00	Technology Manager
31	Propose Design and Build Standards	0.5 days	4 hrs	\$600.00	Technology Manager
32					
33	Phase 3 - Prepare Requirements Document	7 days	56 hrs	\$8,400.00	
34	Prepare the First Draft of the Combined Requirements Set	1 day	8 hrs	\$1,200.00	Project Manager
35	Review and Validate the Detailed Requirements with District Staff	3 days	24 hrs	\$3,600.00	Project Manager
36	Prepare the final draft of the Requirements Document	3 days	24 hrs	\$3,600.00	Project Manager
37					
38	Phase 4 - Prepare RFP for Implementation Services	24 days	184 hrs	\$27,600.00	
39	Develop Common Format for Requirements and Vendor Approaches	6 days	48 hrs	\$7,200.00	
40	Develop RFP Templates for Specific Vendor Submissions	4 days	32 hrs	\$4,800.00	Project Manager
41	Incorporate STAR Requirements Set into RFP Structure	2 days	16 hrs	\$2,400.00	Project Manager
42	Develop Evaluation Criteria to be Used in Selection Process	4 days	32 hrs	\$4,800.00	

ID	Task Name	Duration	Work	Cost	Resource Names
43	Develop Scoring and Weighting Values and Ranking Approach	3 days	24 hrs	\$3,600.00	Project Manager
44	Describe the Vendor Response Scoring Process	1 day	8 hrs	\$1,200.00	Project Manager
45	Develop the Draft RFP to Include the Detailed Requirements	13 days	96 hrs	\$14,400.00	
46	Develop the RFP First Draft	4 days	32 hrs	\$4,800.00	Project Manager
47	Review of Draft by Project Committee	5 days	40 hrs	\$6,000.00	Project Manager
48	Review of Draft by Procurement	4 days	16 hrs	\$2,400.00	Project Manager[50%]
49	Review of Draft by Other Stakeholders	2 days	8 hrs	\$1,200.00	Project Manager[50%]
50	Deliver Final RFP Document	1 day	8 hrs	\$1,200.00	Project Manager



**ADDENDUM TO PROPOSAL FOR
IRVINE RANCH WATER DISTRICT
TO PROVIDE
CONSULTING SERVICES TO PERFORM ORACLE
UTILITIES CUSTOMER CARE AND BILLING DETAILED
REQUIREMENTS ANALYSIS AND ASSISTANCE WITH THE
PREPARATION OF A REQUEST FOR PROPOSAL FOR
IMPLEMENTATION SERVICES**

NOVEMBER 1, 2011



November 1, 2011

Mr. Tony Mossbarger
Director of Administrative Services
Irvine Ranch Water District
15600 Sand Canyon Ave.
Irvine, CA 92618

Dear Mr. Mossbarger:

Thank you for your interest in the Optional Services presented in our proposal for Consulting Services to Perform Oracle Utilities Customer Care and Billing Detailed Requirements Analysis and Assistance with the Preparation of a Request for Proposal for Implementation Services. We are delighted that you have chosen to work with Five Point Partners ("Five Point"), and we are pleased to present this addendum to our original proposal.

This addendum outlines the scope, schedule and pricing for solution evaluation, scoping and contract negotiations services.

Should you have any questions regarding this addendum, please do not hesitate to contact me. We are looking forward to working with IRWD.

Sincerely,



Richard Charles
President
Five Point Partners, LLC
(214) 530-5989 x720

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Optional Services Approach

Data Quality Assessment

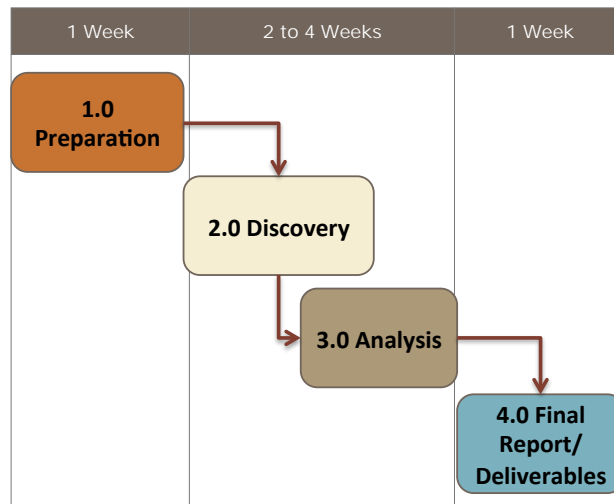
Five Point offers a *Data Quality Assessment* service, which is typically a four to six week effort. The Data Quality Assessment is performed during the RFP process to determine data platform and environment requirements, define data-related Statement of Work (SOW) activities, and to perform an initial quality assessment of primary data entities. The Data Quality Assessment is based on a defined set of activities, and intended to support the RFP and systems integrator (SI) selection process. This assessment will provide a more precise estimate of the level of effort required to scrub and convert the data for the new CC&B system, and this information can be used as inputs into the CC&B implementation plan.

The Data Quality Assessment will:

- Lead to a thorough description of pertinent data environments
- Drive definition of data requirements
- Identify specific SOW data-related activities
- Provide high level quality assessment of key data entities
- Quantify initial Data Cleansing level of effort
- Compile critical information for RFP development

Performing a Data Quality Assessment allows us to properly estimate the Data Conversion and Cleansing part of the Implementation Plan. The duration of the assessment depends upon the availability of system/database documentation and the availability of a knowledgeable Irvine Ranch Water District Technical Resource, who will assist in writing specific queries against the legacy system's data.

Five Point recommends conducting the Data Quality Assessment in four phases as outlined in the diagram below:



1.0 Preparation

In this step, we will gather information about the Data Quality Assessment Team (IRWD and Five Point Partners resources) and confirm roles & responsibilities of the team members. We will establish expectations for turnaround time of action items and duration of activities and identify general and special security requirements, data/system access constraints per IRWD Policies. We will also finalize the key tasks to be performed, create an overall timeline for the project and develop a detailed project plan.

2.0 Discovery

In this step, the team gathers information about all the systems that use the CIS data. We organize the data by preparing a data quality assessment copybook, which can be extended and used to create a data conversion copybook during data conversion activities. The copybook captures information about the existing CIS system architecture, specifically the various data sources and high-level data flow between the systems. We create a list of master objects in the CIS system/database and their key attributes, gather the business rules associated with these key attributes and determine the data quality indicators and IRWD requirements. If there is not enough documentation about the database(s), relationship between the entities/tables and database constraints in the physical database, then this stage will also involve documenting those relationships.

3.0 Analysis

This step analyzes the information about the data, data quality indicators and the data itself. An assessment of the quality of the data (e.g., cleanliness, thoroughness, consistency) is performed in this phase. A copy of the production database or a staging database with extracts loaded from the production database will be used for analysis. We execute various queries

and/or data quality assessment tools against the copy of production data and make an assessment whether the data quality requirements are met or not.

Parts of this stage may overlap with the Discovery phase.

4.0 Final Report/Deliverables

This step summarizes the results and conclusions of the Analysis phase and compiles the Final Report and other deliverables for IRWD.

Additional Solution Procurement Services

Our complete Solution Procurement services include Requirements Gathering, RFP Development, Solution Evaluation, Solution Scoping and Confirmation as well as Contract Negotiations. We included Requirements Gathering and RFP Development (steps 1.0 through 4.0) in our original proposal, and provide descriptions and pricing for the remaining services below.



5.0 Vendor Proposals

During this step the SIs are working on their responses, and typically we recommend a Q&A period be allowed along with a pre-bid conference. If desired, Five Point would be pleased to assist during this step, specifically helping answer the questions that are submitted and participating in the pre-bid call(s). We generally recommend allowing the SIs four to six weeks to develop their responses.

6.0 Solution Evaluation

This process begins when the SI proposals are received. The activities conducted in this stage are designed to evaluate each vendor solution thoroughly and ultimately determine a solution/vendor of choice. This phase is typically one of the most intense and requires broad participation from the IRWD team.

This step includes an onsite presentation/demo to review each shortlist SI's proposed solution (we envision two to four short-listed providers). During this event, the SI will demonstrate its implementation approach and how it intends to address integration and product gaps. Each SI follows a structured outline, which includes demonstration of some of the key business processes. The Business Process Analyst attends the demonstrations in addition to the Technology or other required SME. Five Point spends a significant effort reviewing the services, tools and approach that the SI follows in order to understand what aspects of the

implementation IRWD will be expected to lead or provide resources for. The IRWD personnel attending the demonstration will grade the presentation and note positive and negative comments.

During this review we also evaluate elements that will be critical to the implementation and IRWD's ability to work with the SI effectively, including:

- **Testing.** We will determine what level of support the SI provides for each type of testing: System, Integration, Volume and User Acceptance Testing. We will determine if the SI provides standard test scripts, test data and other testing tools.
- **Software Configuration.** We will determine what level of support the SI provides for Software Configuration and testing of the configuration. We will understand if the Configuration and testing extends to IRWD's current custom rates.
- **Data conversion.** We will determine what the SI provides related to data conversion and what client-side support the SI recommends. These activities may include extraction, conversion, decisions related to historical data that will be converted, how data discrepancies will be handled, data scrubbing, etc. We will understand how much of this responsibility may fall on IRWD.
- **Business Process Analysis.** We will determine what level of support the SI provides for Business Process Analysis work, including the documentation of the new business processes that will be executed using the new solution.
- **Change Management and Training.** We will determine if the SI offers Change Management and customized training for the new business processes or if the training is limited to standard Oracle CC&B product training.
- **Terms and Conditions.** We will request a standard Master Agreement and Statement of Work from each Systems Implementer to understand if there are any contractual limitations.

Other areas that will be reviewed with the SI include Bill Print and Correspondence, Reporting, Business Intelligence, Implementation Architecture and Production Architecture, Performance Support, Communication and Readiness. The information gathered from the SI will assist Five Point and IRWD in understanding which aspects of these areas are included in the SI's proposal. This step takes roughly a month to complete, which provides two weeks to review and score responses, a week of planning, and a week of presentations by the short-listed vendors.

IRWD benefits from our extensive experience in facilitating the Solution Evaluation process, including coordinating demonstrations of the product and the proposed solution. Five Point reviews products at the *solution* level to ensure that they can be fully integrated into IRWD's environment. We have worked with hundreds of groups of client evaluators, and we understand how to reach consensus on a solution and build support.

7.0 Solution Scope

The output of the Solution Evaluation step is a ranked listing of the SI responses, complete with scorings and comments that support identifying the preferred SI, or finalist. The Solution Scope entails an in-depth review of the finalist's response to confirm the assumptions and scope of activities required for a successful implementation. Our Solution Scope step is critical to the success of the implementation and scoping of the implementation prior to contract negotiations. Our approach is based on our experience working with vendors and systems implementers on over 100 contracts. By conducting additional due diligence on the solution, both parties (IRWD and the SI) fully understand what is expected of them, significantly reducing the need for costly change orders during implementation.

Once the finalist is identified, the work is focused on due diligence activities to further investigate the SI's approach and confirm the scope of activities required for a successful implementation. Over a four or five day period, the SI finalist presents all of the key business processes to the Five Point and IRWD team so that the team fully understands how the key areas of the business will improve through the use of the software, its configuration and integration. In addition, discussions continue regarding the implementation responsibilities of the SI, Vendor and IRWD.

Like the Solution Evaluation step, the Solution Scope step will require significant participation from the IRWD core team, and IRWD SMEs will be called upon to attend various sessions during the weeklong review. At the end of the review, we will be able to understand which implementation gaps IRWD will need to fill based on what has been proposed. We will also be able to determine if the SI can offer some additional services even if they have not been included in their proposal. After this thorough understanding between IRWD and the SI is achieved, we ask the SI to submit a Best and Final Offer (BAFO).

8.0 Solution Confirmation

When the SI's BAFO has been received, we further negotiate the terms with the SI, and final evaluation activities take place. This work builds upon the due diligence activities to ensure that all solution components have been identified, priced accordingly and that IRWD has confirmed that the solution remains the optimal solution to move forward with into contract negotiations.

The implementation plan is also developed in this phase. Five Point's Client-Side Delivery Support (CSDS) Practice Lead, Subject Matter Experts and Solution Procurement Project Manager work diligently on the Implementation Plan so that when the contracts are executed, the project is ready to begin. The implementation plan outlines how IRWD will participate in the implementation by either leading an area such as Testing or participating with SMEs in Data Conversion.

Five Point's Solution confirmation step minimizes change orders during the implementation phase because the full scope of the solution has been completed prior to contract negotiations.

9.0 Contract Negotiation

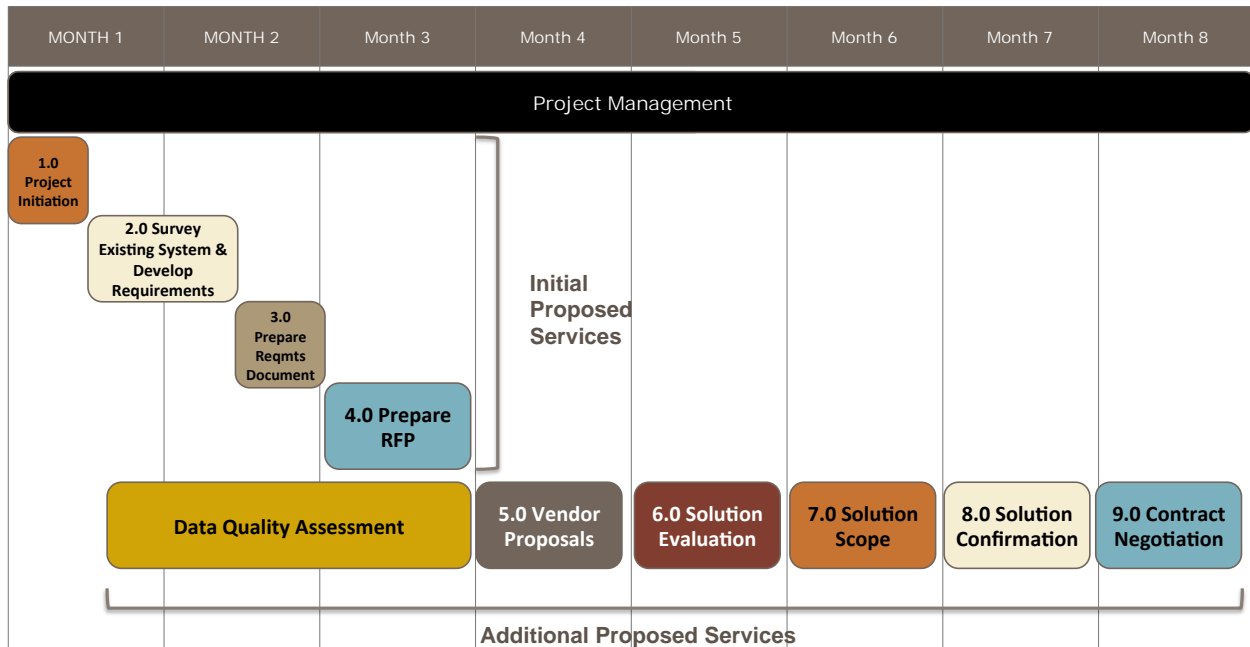
This work focuses on the development of the statement of work and contracts for implementation. These activities may be for multiple vendors, i.e. software, service, hardware and third party implementation partners. If requested, Five Point will work with various IRWD departments such as legal and purchasing to complete the contract negotiation process.

As noted earlier, we have negotiated over 100 successful contracts, and we believe this experience would greatly help IRWD craft an agreement with the SI that ensures the greatest likelihood of success while minimizing your risks. We are already familiar with what vendors and systems implementers present in their standard contracts and statements of work, and we provide solutions to minimize IRWD's risk.

Typically we provide this service on a Time & Materials (T&M) basis, as the level of effort is highly dependent upon what roles and tasks IRWD would like to assume. Typically, our CSDS Practice Lead assists with the Contract Negotiation process and recommendations. His hourly rate and estimated expense per trip appear in the Project Fee Schedule tables.

Project Schedule

Five Point anticipates that the project will take an additional five months to complete, which when combined with the original bid, is a total of eight months. The schedule below outlines how the initial phases and the additional services are scheduled.



Project Fee Schedule

Data Quality Assessment

Five Point proposes a not-to-exceed total of \$25,200 to complete the Data Quality Assessment. The Data Quality Analyst will work full-time on the effort for approximately four to six weeks.

We anticipate the Data Quality Analyst will have to make two trips to IRWD, each estimated at \$1,600, for a total expense estimate of \$3,200.

Additional Solution Procurement Services

Five Point will bill for the additional services upon achieving the milestones outlined in the table below. Five Point payment terms are 30 days.

Milestone	Milestone Billing
5.0 Vendor Proposals	\$6,000
6.0 Solution Evaluation	\$33,600
7.0 Solution Scope	\$30,600
8.0 Solution Confirmation	\$29,200
9.0 Contract Negotiation	Time & Materials
Total Estimated Professional Fees	\$99,400

For the Solution Procurement additional services, the Project Manager is full-time for most of the project. The Business Analyst will attend the demos of the short-listed SIs during Solution Evaluation, and the Client-Side Delivery Support Practice Lead and Technology SME will attend demos in the Solution Scope Phases and develop the Implementation Plan in the Solution Confirmation phase.

Resource	Rate	Hours	Total Fees
Project Manager	\$150	448	\$67,200
CSDS Practice Lead	\$175	88	\$15,400

Business Process Analyst	\$150	40	\$6,000
Technology and other SMEs	\$150	72	\$10,800
Total		680	\$99,400

Project travel expenses

Travel expenses for the Additional Procurement Support Services are outlined in the table below. The estimate includes airfare, hotel, rental car, meals, airport parking and other incidental expenses for three nights per trip in a hotel. Five Point will work with IRWD to keep expenses minimized by booking advanced fares and using any corporate hotel rates that may be available. Additional trips for T&M Contract Negotiation activities are not included.

Resource	Total Trips	Estimated Expenses Per Trip	Estimated Total Expenses
Project Manager	10	\$1,340	\$13,400
CSDS Practice Lead	3	\$1,590	\$4,770
Technology Manager	2	\$1,590	\$3,180
Business Process Analyst	1	\$1,590	\$1,590
Total			\$22,940

IRVINE RANCH WATER DISTRICT
Expenditure Authorization

Exhibit "B"

Project Name: ORACLE PHASE 2 - TECH AND UB
 Project No: 11615 EA No: 2

ID Split: Miscellaneous
 Improvement District (ID) Allocations

Project Manager: MOSSBARGER, ANTHONY
 Project Engineer: MOSSBARGER, ANTHONY
 Request Date: December 5, 2011

ID No.	Allocation %	Source of Funds
101	100.0	REPLACEMENT FUND**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$800,000
This Request:	\$115,000
Total EA Requests:	\$915,000
Previously Approved Budget:	\$800,000
Budget Adjustment Requested this EA:	\$115,000
Updated Budget:	\$915,000
Budget Remaining After This EA	\$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	15,000	0	15,000	15,000	0	15,000	1/12	6/13
ENGINEERING DESIGN - OUTSIDE	100,000	800,000	900,000	100,000	800,000	900,000	5/10	6/13
ENGINEERING - CA&I IRWD	0	0	0	0	0	0	5/11	6/13
Contingency - % Subtotal	\$0	\$0	\$0	\$0	\$0	\$0		
Subtotal (Direct Costs)	\$115,000	\$800,000	\$915,000	\$115,000	\$800,000	\$915,000		
Estimated G/A - 180.00% of direct labor*	\$27,000	\$0	\$27,000	\$27,000	\$0	\$27,000		
Total	\$142,000	\$800,000	\$942,000	\$142,000	\$800,000	\$942,000		
Direct Labor	\$15,000	\$0	\$15,000	\$15,000	\$0	\$15,000		

*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: _____ 12-5-11

Department Director: _____ 12-5-11

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 \$961,000. 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.

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: ORACLE PHASE 2 - TECH AND UB
 Project No: 21615 EA No: 2

ID Split: Miscellaneous

Project Manager: MOSSBARGER, ANTHONY
 Project Engineer: MOSSBARGER, ANTHONY
 Request Date: December 5, 2011

Improvement District (ID) Allocations

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

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$800,000
This Request:	\$115,000
Total EA Requests:	\$915,000
Previously Approved Budget:	\$800,000
Budget Adjustment Requested this EA:	\$115,000
Updated Budget:	\$915,000
Budget Remaining After This EA	\$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	15,000	0	15,000	15,000	0	15,000	1/12	6/13
ENGINEERING DESIGN - OUTSIDE	100,000	800,000	900,000	100,000	800,000	900,000	5/11	6/13
ENGINEERING - CA&I IRWD	0	0	0	0	0	0	5/11	6/13
Contingency - % Subtotal	\$0	\$0	\$0	\$0	\$0	\$0		
Subtotal (Direct Costs)	\$115,000	\$800,000	\$915,000	\$115,000	\$800,000	\$915,000		
Estimated G/A - 180.00% of direct labor*	\$27,000	\$0	\$27,000	\$27,000	\$0	\$27,000		
Total	\$142,000	\$800,000	\$942,000	\$142,000	\$800,000	\$942,000		
Direct Labor	\$15,000	\$0	\$15,000	\$15,000	\$0	\$15,000		

*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: _____

12-5-11

Department Director: _____

12-5-11

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 \$961,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

December 12, 2011

Prepared and

Submitted by: G. Heiertz

Approved by: Paul Cook



ACTION CALENDAR

GREEN ACRES PROJECT AGREEMENT

SUMMARY:

Starting in July 1996, the Irvine Ranch Water District, Orange County Water District (OCWD), Orange County Sanitation District (OCSD), and the City of Newport Beach entered into a series of agreements (GAP Agreements) to convey recycled water from the IRWD Michelson Water Recycling Plant (MWRP) to serve OCWD's Green Acres Project (GAP) customers. The GAP intertie allows IRWD to operate the MWRP on a year-round basis, thus avoiding the need for IRWD to acquire additional wastewater treatment capacity in OCSD treatment facilities at a significant cost.

As the GAP Agreements will expire on January 15, 2012, staff has negotiated a replacement agreement that includes a 15-year extension and slightly modified terms. Staff recommends that the Board authorize execution of the new agreement entitled "Agreement for Irvine Ranch Water District Interties to Orange County Water District Green Acres Project and Groundwater Replenishment System and Orange County Sanitation District Outfall" subject to non-substantive changes by the General Manager and Legal Counsel.

BACKGROUND:

Starting in July 1996, IRWD, OCWD, OCSD and Newport Beach entered into a series of agreements to convey recycled water from the MWRP to serve OCWD's GAP customers. Flow not utilized by the GAP customers can also be discharged to the OCSD outfall. The GAP intertie allows IRWD to operate the MWRP on a year-round basis, thus avoiding the need for IRWD to acquire additional wastewater treatment capacity in OCSD treatment facilities at significant cost. As the GAP Agreements will expire on January 15, 2012, staff has negotiated a replacement agreement, provided as Exhibit "A", which includes a 15-year extension and slightly modified terms as discussed below.

Under the existing agreements, IRWD owns the intertie (including the intertie meter and vault), associated telemetry equipment upstream of the intertie meter vault on University Drive, and the outfall connection meter at OCSD's Plant No. 2. Provided in the new agreement, IRWD agrees to assume ownership of an additional 1,300 feet of 24-inch diameter pipeline in University Drive between the intertie meter vault and the point of connection with the OCWD GAP II pipeline in Jamboree Road. OCWD is planning to construct and own additional facilities to connect the GAP to the Groundwater Replenishment System (GWRS) that will allow water conveyed through the intertie for treatment by this system.

IRWD will be permitted to discharge up to eight million gallons per day (MGD) through the intertie for use by GAP, GWRS, or through the OCSD outfall. IRWD will not be entitled to any compensation for the discharge of recycled water to the intertie, except when specifically requested by OCWD to meet GAP or GWRS supply needs. Under the current agreements,

OCWD pays a minimal amount to IRWD for any water delivered to GAP customers. OCWD will not be entitled to any compensation for treating or disposing of recycled water delivered through the intertie. IRWD will compensate OCSD for the operation and maintenance of the ocean outfall at their actual cost for any water discharged to the outfall through the intertie. The cost of outfall operation and maintenance will be apportioned between OCSD and IRWD annually on a flow weighted basis.

Intentional discharges of recycled water to San Diego Creek and Newport Bay are prohibited.

IRWD will be responsible for the quality and its suitability of recycled water delivered through the intertie for use by the GAP and GWRS. Water quality reports will be provided by IRWD on a regular basis. The parties will perform daily meter reads of water conveyed through the intertie and outfall facilities. The representatives of each party shall meet periodically to provide and receive input on scheduling of recycled water discharges to the intertie, GAP, GWRS and the outfall, and to address any operational or maintenance concerns. The agreement is intended to remain in effect until January 15, 2027.

FISCAL IMPACTS:

Continued use of the GAP intertie will preclude the need for IRWD to seek alternative disposal methods that would be costly. The cost would depend on the alternative selected.

ENVIRONMENTAL COMPLIANCE:

Extension of this agreement 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 operation 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 December 8, 2011.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE PRESIDENT TO EXECUTE THE AGREEMENT ENTITLED "AGREEMENT FOR IRVINE RANCH WATER DISTRICT INTERTIES TO ORANGE COUNTY WATER DISTRICT GREEN ACRES PROJECT AND GROUNDWATER REPLENISHMENT SYSTEM AND ORANGE COUNTY SANITATION DISTRICT OUTFALL" SUBJECT TO NON-SUBSTANTIVE CHANGES BY THE GENERAL MANAGER AND LEGAL COUNSEL.

LIST OF EXHIBITS:

Exhibit "A" – Agreement for Irvine Ranch Water District Interties to Orange County Water District Green Acres Project and Groundwater Replenishment System and Orange County Sanitation District Outfall

EXHIBIT "A"

AGREEMENT FOR IRVINE RANCH WATER DISTRICT INTERTIES TO ORANGE COUNTY WATER DISTRICT GREEN ACRES PROJECT AND GROUNDWATER REPLENISHMENT SYSTEM AND ORANGE COUNTY SANITATION DISTRICT OUTFALL

This Agreement ("Agreement"), dated this _____ day of _____, 2011, is made and entered into by and between ORANGE COUNTY WATER DISTRICT, a district organized and existing pursuant to the Orange County Water District Act, Chapter 924 of the California Statutes of 1933, as amended ("OCWD"), IRVINE RANCH WATER DISTRICT, a California water district organized and existing pursuant to the California Water District Law, California Water Code Section 34000 *et seq.* ("IRWD"), ORANGE COUNTY SANITATION DISTRICT, a county sanitation district organized and existing pursuant to the County Sanitation District Act, California Health & Safety Code Sections 4700 *et seq.* ("OCSD") and the CITY OF NEWPORT BEACH ("CNB"), a municipality incorporated under state law in 1906. OCWD, IRWD, OCSD and CNB are sometimes individually referred to herein as a "Party" and collectively as the "Parties."

RECITALS:

WHEREAS, OCWD, IRWD and the CNB entered into an agreement, entitled "Agreement," dated July 17, 1996, as amended by Revised Amendment to Agreement dated September 18, 1996, and Amendment No. 2 to Agreement dated December 18, 1996 (the "1996 Intertie Agreement"), providing for, among other things, the construction and operation of an intertie (the "Intertie") to convey recycled water from IRWD's Michelson Water Reclamation Plant (MWRP) to OCWD's Green Acres Phase II pipeline ("GAP II"); and

WHEREAS, the 1996 Intertie Agreement further provided for the execution of an agreement between OCWD and OCSD's predecessor agencies, and such agreement, entitled "Second Amended and Restated Agreement for Utilization of Reclaimed Wastewater," was entered into on January 15, 1997 (the "Wastewater Utilization Agreement"), pursuant to which OCSD is obligated to accept from OCWD a minimum quantity of recycled water; and

WHEREAS, OCWD, IRWD, OCSD's predecessor agencies and the CNB entered into an agreement, entitled "Agreement For Operation of Green Acres Project Intertie and Outfall Connection," dated April 15, 1998 (the "1998 Operating Agreement"), establishing operating agreements and conditions for the use of the Intertie, GAP II and a connection (the "Outfall Connection") between GAP II and the ocean outfall at OCSD's Plant No. 2 in the City of Huntington Beach (the "Outfall"); and

WHEREAS, OCWD and OCSD entered into an agreement, entitled "Joint Exercise of Powers Agreement for the Development, Operation and Maintenance of the Groundwater Replenishment System and the Green Acres Project," dated November 12, 2002, as amended by Amendment No. 1 dated October 15, 2003, and Amendment No. 2 dated April 26, 2006 (the "2002 Agreement"), which, among other things, incorporated certain provisions of the Wastewater Utilization Agreement and terminated the Wastewater Utilization Agreement; and

WHEREAS, the 2002 Agreement was replaced by an agreement, entitled the "Amended Joint Exercise of Powers Agreement for the Development, Operation and Maintenance of the Groundwater Replenishment System and the Green Acres Project", dated May 5, 2010 (the "2010 OCWD-OCSD GWRS Agreement") which preserved all the rights and obligations set forth in those portions of the 2002 Agreement incorporated by reference in the 2010 OCWD-OCSD GWRS Agreement; and

WHEREAS, OCWD was issued producer/user water recycling requirements for the Groundwater Replenishment System ("GWRS") by the California Regional Water Quality Control Board, Santa Ana Region ("RWQCB"), which include findings of fact made by the California Department of Public Health ("CDPH"), via Order No.R8-2004-002 and Amending Order No. R8-2008-0058 (the "GWRS permit"); and

WHEREAS, both the 1996 Intertie Agreement and the 1998 Operating Agreement, by their respective terms, will expire on January 15, 2012, the end of the fifteen (15) year term described in the 2002 Agreement and the 2010 OCWD-OCSD GWRS Agreement("the "Prior Expiration Date"); and

WHEREAS, the Parties desire to enter into this Agreement to consolidate, modify and replace the 1996 Intertie Agreement and the 1998 Operating Agreement (collectively, the "Prior Agreements"), in order to continue the operation of the Interties, GAP II and the Outfall Connections following the Prior Expiration Date; and

WHEREAS, the effective date of this Agreement (the "Effective Date") shall be January 16, 2012 and

WHEREAS, this Agreement is a successor agreement to the 1996 Intertie Agreement and the 1998 Operating Agreement; and

WHEREAS, OCSD and IRWD entered into a Memorandum of Understanding dated February 11, 1987 (the "1987 Source Control MOU") to memorialize, among other things, that IRWD's source control program shall in no instance be less stringent than OCSD's source control program.

WHEREAS, the Parties in the 1996 Intertie Agreement stipulated terms and conditions for IRWD to supply Recycled Water to the IRWD planned Wetlands Water Supply Project (WWSP) and allow under specified conditions for the discharge of said Recycled Water to San Diego Creek and Newport Bay if the Basic Integrated Reuse Project (GAP II and the Intertie) was not constructed by October 1, 1997.

WHEREAS, the Parties in the 1996 Intertie Agreement completed the Basic Integrated Reuse Project prior to October 1, 1997 and IRWD constructed the WWSP to use San Diego Creek water as supply water for the wetlands in lieu of recycled water.

NOW, THEREFORE, in consideration of the promises and covenants herein contained, OCWD, IRWD, OCSD and CNB agree as follows:

AGREEMENT:

Section 1. Ownership of Facilities. The facilities described below in this Section are schematically depicted on Exhibits "A-1," "A-2," "B" and "C," which are attached hereto and incorporated herein by this reference.

1.1 IRWD Facilities. IRWD owns (i) the Intertie, Intertie meter and vault, associated telemetry equipment and all associated appurtenances upstream of the downstream side of the Intertie meter vault on University Drive, as depicted in Exhibit A-1, and (ii) the Outfall Connection Telemetry and Cla Valve at OCSD's Plant No. 2. In addition, OCWD and IRWD agree that IRWD will assume ownership from OCWD of approximately 1,300 feet of 24-inch diameter pipeline (the "Connector Line") in University Drive between the downstream side of the Intertie meter vault and the point of connection with the OCWD GAP II pipeline in Jamboree Road that was designed and constructed by IRWD as part of the Basic Integrated Reuse Project, as depicted in Exhibit A-2. Bonita Creek Park, which is served from the Bonita Creek Park dedicated service line off of the Connector Line, will continue to be an OCWD GAP customer.

1.2 OCWD Facilities. OCWD owns (i) GAP II and associated telemetry equipment and all associated appurtenances downstream of the point of connection between the OCWD GAP II pipeline and the Connector Line in Jamboree Road, (ii) the Bonita Creek Park dedicated service line downstream of the point of connection thereof with the Connector Line, and (iii) all other Green Acres Project ("GAP") and GAP II facilities not included in Paragraph 1.1 or 1.3 hereof, and shall own and maintain (iv) the microfiltration feed ("MFF"), trickling filter ("TF"), activated sludge ("AS"), and IRWD feed ("IT") meters and GWRS Screening Facility & Overflow Weir and shall own (iv) a new connection ("GWRS Connection") to be constructed as provided in this Agreement between OCSD Plant No. 1 Secondary Effluent Junction Box 6 ("SEJB6") and the 24" GAP pipeline located in Garfield Avenue immediately south of OCSD's Plant No. 1 facility, as depicted in Exhibit C, such that the IRWD flows described in Section 4 can be supplied as influent to OCWD's GWRS project. The GWRS Connection shall include a flow control valve, pressure reducing valve and flow metering device to measure the volume of the IRWD Recycled Water to the GWRS system. The flow metering device shall include remote flow indication at OCSD and OCWD control centers. The device shall be equipped with a flow totalizer and a continuous recorder that logs the time, date, and flow volume. The GWRS Connection shall also incorporate an accessible sample point with suitable pressure regulation. OCSD shall be given the opportunity to review and approve the choice of metering equipment and components, and sample point location.

1.3 OCSD Facilities. OCSD owns the Outfall Connection exclusive of all associated telemetry but exclusive of the meter, as depicted in Exhibit B.

Section 2. Maintenance of Facilities. The Parties agree that each of the facilities and appurtenant equipment and telemetry shall be maintained and operated by the Party owning it as set forth in Section 1.

Section 3. Construction of GWRS Connection. OCWD shall design and construct the GWRS Connection. The GWRS Connection shall be designed and constructed to be capable of accepting flows delivered by IRWD in the amounts specified in Section 4, through the Intertie and GAP II and conveying such flows to the GWRS via OCSD's SEJB6.

Section 4. Discharge of Recycled Water Flows by IRWD. IRWD shall be entitled to discharge at its sole discretion up to 8 million gallons per day (mgd) of water treated in accordance with the standards set forth in California Code of Regulations Title 22 ("Recycled Water") to the Intertie at any time. IRWD shall provide notice to OCWD at least thirty (30) days prior to each scheduled date for commencement or cessation of the discharge of Recycled Water to the Intertie. During such times as IRWD elects to discharge Recycled Water to the Intertie, IRWD will, at a minimum, discharge sufficient Recycled Water to satisfy the average demands of GAP customers as determined by OCWD, up to 4 mgd. IRWD understands that OCWD will not operate the GAP plant, clearwell, pump stations or Santa Ana GAP Reservoir whenever IRWD is delivering Recycled Water to the Intertie. Until OCSD completes its "J-109" project, GAP customers could generate up to 8 mgd of demand, and IRWD agrees to make a good faith effort to accommodate this demand when electing to discharge Recycled Water to the Intertie. IRWD agrees not to operate the Intertie on an intermittent basis, but rather to attempt in good faith to operate the Intertie on a continuous basis for each Intertie delivery season that IRWD elects to commence discharges of Recycled Water to the Intertie.

4.1 Compensation for Recycled Water Discharged to the Intertie. IRWD will not be entitled to any compensation for the discharge of Recycled Water to the Intertie, except when specifically requested by OCWD in writing to discharge Recycled Water to meet GAP or GWRS supply needs. If Recycled Water is requested by OCWD, then OCWD agrees to compensate IRWD for the specifically requested flows at a rate equivalent to IRWD's cost to provide tertiary treatment and the cost to deliver the Recycled Water to OCWD at the Intertie when surplus Recycled Water is available. If Recycled Water is not available, then OCWD will compensate IRWD for the specifically requested flows at a rate equivalent to MWD full service untreated water rate.

Section 5. Acceptance of Recycled Water Flows.

5.1 Acceptance in GWRS Facilities. OCWD may accept any Recycled Water discharged by IRWD to the Intertie for use to supply GAP users or for treatment by the GWRS. Recycled Water that is discharged by IRWD to the Intertie shall be deemed to have been delivered through the GWRS Connection to the Outfall (as described in Section 5.2) if it is discharged by IRWD to the Intertie when GWRS is not receiving any influent water and the control valve at the GWRS Connection is in the open position. The quantities of Recycled Water delivered to GAP or GWRS and deemed to have been delivered to the Outfall shall be determined from meter readings as provided in Section 12.2. OCWD will not be entitled to any compensation for treating or disposing of Recycled Water.

5.2 Acceptance of up to 8 mgd in OCSD Outfall. OCSD shall accept up to 5 mgd of Recycled Water not accepted by OCWD and deemed to have been discharged by IRWD through the GWRS Connection to the Outfall. The IRWD water that flows through the GWRS Connection at SEJB6 reaches the OCSD outfall by overflowing the weir at the GWRS

Screening Facility and flowing through SEJB6 to OCSD's Plant No. 1 Secondary Effluent Junction Box 3 to the Outfall pipelines transporting flow to the Outfall pumping facilities. OCSD shall accept up to an additional 3 mgd of Recycled Water discharged by IRWD directly to the Outfall Connection.

5.3 No Required Flow. Nothing in this Agreement shall require IRWD to deliver any Recycled Water to GAP II.

5.4 LRP Payments. IRWD relinquishes any claim to receive Local Resources Program (LRP) subsidy payments from The Metropolitan Water District of Southern California for Recycled Water delivered to the Intertie.

5.5 No Required Acceptance for GWRS. Nothing in this Agreement shall require OCWD to accept any Recycled Water from IRWD for use in, treatment by or discharge through GWRS.

Section 6. Access to IRWD's Outfall Connection Telemetry. To obtain access to OCSD's property for routine and scheduled maintenance or repairs of the Outfall Connection telemetry and Cla Valve, IRWD shall provide OCSD with written or electronic notice one (1) week or more prior to the date of the maintenance to comply with any and all security provisions adopted or instituted by OCSD, with respect to access into and across OCSD property. The security provisions shall also ensure that persons using IRWD's access license on OCSD's property, including, but not limited to any regular full-time, temporary, part-time or limited-term employees of IRWD or of an IRWD contractor, are made aware of OCSD security access provisions and restrictions. In the event of an emergency, IRWD shall notify OCSD by telephone prior to access. OCSD hereby confirms, ratifies and continues in effect the non-exclusive license conveyed to IRWD pursuant to the 1998 Outfall Connection Agreement for access to the Outfall Connection Cla Valve and telemetry and for such access purposes over the portions of OCSD's Plant 2 property depicted on Exhibit "B"; provided, that OCSD may modify the license area or designated access route from time to time following written notice to IRWD.

Section 7. Shutdown of IRWD's Flows to OCSD's Outfall. The Outfall Connection is intended to be used for the disposal of Recycled Water delivered by IRWD through the Intertie and GAP II, at any time elected by IRWD as specified in Section 4, which is in excess of the amount accepted into GAP and the GWRS under Sections 5.1 and 5.2. It may be necessary for OCSD to temporarily shut down Recycled Water deliveries into the Outfall via either the GWRS Connection or the Outfall Connection for scheduled or emergency maintenance or repairs or during conditions of high flows through the Outfall, such as in storm events. During such shutdowns, IRWD agrees to divert any flow of Recycled Water, in excess of the amount being accepted into GAP and from the GAP II system into the GWRS, to either the OCSD Main Street Pump Station or, if possible, to IRWD storage facilities. OCSD shall provide IRWD with written notice one (1) week prior to the date of any scheduled maintenance or repair. In the event of emergency high flow conditions or maintenance requiring a shutdown of the Recycled Water deliveries into the Outfall, OCSD shall give reasonable notice to IRWD by telephone prior to the shutdown. OCSD shall use reasonable efforts to schedule maintenance and repairs during the non-rainy season.

Section 8. Pumping, Operation & Maintenance and Dechlorination Costs. At the end of each fiscal year, OCSD will estimate the cost per gallon of pumping Recycled Water flows (i) delivered from the Outfall Connection into the Outfall, and (ii) not used by OCWD and deemed to have been delivered through the GWRS Connection to the Outfall, using actual costs for operation and maintenance of the Outfall for the previous 12 months, and will compute the total pumping, operation and maintenance, and dechlorination costs for such fiscal year, using the information generated by OCWD pursuant to Section 12.2 hereof and the cost formulas set forth in Sections 8.1 and 8.2. IRWD shall pay the annual pumping, operation and maintenance, and dechlorination costs to OCSD annually, not later than December 31, 2012, and not later than December 31 of each year thereafter. Each annual payment shall constitute payment of the costs for annual pumping, operation and maintenance, and dechlorination for the Recycled Water flows from the Outfall Connection into the Outfall and the GWRS Connection into the Outfall during the fiscal year ended on June 30 preceding the December 31 payment date. OCSD shall, on or before September 30 following the close of the fiscal year, provide a written statement to IRWD setting forth the calculation of the pumping, operation and maintenance, and dechlorination costs for that fiscal year. OCSD shall periodically review all costs related to operating the Outfall and, if deemed necessary, adjust the cost factor used for determining the total Outfall pumping, operation and maintenance, and dechlorination costs (the variable "E" as used in the formulas in Sections 8.1 and 8.2) without amending this Agreement, by giving sixty (60) days advance notice to IRWD. IRWD has the right to examine all costs and calculations used by OCSD in determining IRWD's total cost.

8.1 Cost Formula for outfall flows via GWRS Connection. The formulas below will be used to compute IRWD's annual cost for flows deemed to have been delivered through the GWRS connection (OCWD IT Meter) to the Outfall for a given fiscal year period.

During any period when GWRS is off or GWRS operations are reduced to a level below the low flow influent levels of OCSD's Reclamation Plant No. 1, all flows discharged by IRWD will be charged.

Prior to OCWD storage tanks becoming operational and during periods when GWRS is operational above the minimum daily flows at Reclamation Plant No. 1, flows delivered between the hours of X am and X am will be assumed to enter the GWRS system and will not be charged. Flows delivered during the remaining portion of the day will be charged. The operations committee may periodically review the actual GWRS operations to determine if the hours need to be adjusted to better reflect IRWD flows actually entering the GWRS system.

After OCWD storage tanks become operational and during periods when GWRS is operational above the minimum daily flows at Reclamation Plant No. 1, the total flow to be charged will be based on the following formula:

$$X = (A - (B - C)) * (E / D)$$

X = Cost to IRWD for Operation of the Ocean Outfall in \$'s

A = IRWD Flow to the GWRS Connection at OCWD's IT Meter in MG

B = OCWD Flow to the GWRS Microfiltration Unit at OCWD's MFF Meter in MG
 C = OCSD Influent Flow to Reclamation Plant No. 1 in MG
 D = OCSD Total Effluent Flow to Ocean Outfall System in MG
 E = OCSD Costs to Operate and Maintain the Ocean Outfall System in \$'s
 Where if A-(B-C) is less than zero use \$0 for charges to IRWD. Where (B-C) is a negative number, use 0.

All flow totalization numbers will be recorded and reported on a daily basis by OCWD (values A, B and C above). OCWD will report four daily values on a monthly basis: A, B, C, and (A-(B-C)). OCWD will make the information available to IRWD and OCSD on a monthly basis. On an annual basis, before the billing invoice to IRWD is generated by OCSD, OCSD will calculate the total annual cost of operations and maintenance of the outfall system for the prior year (value E) and totalize the annual outfall flow for the prior year (value D). The Joint Staff Operating Committee may revise this formula as operating circumstances necessitate such revision(s) without amending this Agreement. As part of any review, all parties must maintain the concept that IRWD's water is considered to be last into GWRS and first flows to the ocean outfall system when flows are spilling to the ocean outfall system.

Outfall costs include, but are not limited to, actual costs of pumping, dechlorination, and operation and maintenance costs IRWD has the right to examine all costs and calculations used by OCSD in determining IRWD's total cost.

8.2 Cost Formula for outfall flows via the Outfall Connection at Plant 2. The formula to be used to compute IRWD's annual cost for flows delivered through the Outfall Connection at Plant 2 for a given fiscal year period is as follows:

$$Y = (F / D) * E$$

Y= Annual Cost to IRWD for Operation of the Ocean Outfall in \$'s
 F = Annual IRWD Flow through the Outfall Connection Meter in MG
 D = Annual OCSD Effluent flow To Ocean Outfall System in MG
 E = Annual OCSD Costs to Operate and Maintain the Ocean Outfall System in \$'s

Outfall costs include, but are not limited to, actual costs of pumping, dechlorination, and operation and maintenance costs. Initially, these calculations will be done using the totalized annual flows from IRWD and OCSD. The Parties' designated staff representatives may revise formulas in Sections 8.1 and this 8.2 pursuant to Section 12 if and when they determine that operating circumstances necessitate such revision(s), and such revisions may be effected without amending this Agreement. In such event, each revised formula shall be set forth in an addendum hereto.

Section 9. Determination of Flow Delivered. IRWD's payment to OCSD pursuant to Section 8 for the costs of pumping, operation and maintenance, and dechlorination shall be based on the quantity of Recycled Water discharged by IRWD and metered into the Outfall Connection and the quantity deemed to have been delivered through the GWRS Connection into the Outfall pursuant to Paragraph 5.1.

Section 10. Source Control.

10.1 In accordance with both: (a) the 2010 OCWD-OCSD GWRS Agreement and (b) the GWRS permit, OCSD shall maintain a comprehensive industrial wastewater pretreatment and pollutant source control program for controlling the discharge of wastes from point sources including in those areas serviced by IRWD. OCSD's current source control program addressing these requirements includes: (a) monitoring and testing of federally regulated categorical and locally regulated non-categorical industrial discharges, (b) a non-point source program for discharges with the potential to adversely affect GWRS performance and water quality, (c) the planning and development of non-industrial source controls for contaminants, and (d) the regulatory authority to prohibit the discharge of pollutants to the sewer causing OCSD effluent to be unsuitable for reclamation, as contained within OCSD Ordinance No. OCSD-39. For the Recycled Water discharged by IRWD that may supply GWRS that includes any specific contaminant specified by CDPH, both now and in the future, as harmful or potentially harmful to human health and drinking water supplies, and/or affects GWRS performance and water quality, OCSD shall develop and implement a pollution source control strategy for that constituent.

10.2 In the event that any contaminants, either known as of the date of this Agreement or discovered after that date, are found in IRWD Recycled Water which require removal in order for the GWRS to meet current or future GWRS permit requirements, RWQCB, and/or CDPH standards, then IRWD, OCWD, and OCSD will meet and confer in good faith regarding: (a) the appropriate type of source control and/or water treatment needed to address the contaminants; (b) the appropriate sharing of cost for the construction and operation of any necessary treatment facilities; and/or (c) the development and implementation of additional source control strategies. IRWD shall supply trunkline sampling and /or analytical support for all sewer investigations aimed at determining the source or sources of any such contaminant discovered in IRWD's Recycled Water. OCSD's liability for IRWD's Recycled Water shall extend only to the development and implementation of the additional source control strategies; and shall not include the costs of any construction and/or operation of needed treatment facilities. In the event that IRWD Recycled Water is found to contain contaminants in a concentration that affects OCWD's ability to reclaim the GWRS Specification Influent and/or OCSD's ability to meet its NPDES discharge limits, and OCSD's source control strategies prove unable to mitigate the concentration of said constituent, then OCSD reserves the right to reject and refuse to accept the IRWD Recycled Water to GWRS. To assist in the identification of contaminant sources or other factors that may affect GWRS performance, IRWD shall provide information concerning all chemicals (e.g., polymers and coagulants) used in the IRWD wastewater and/or solids treatment processes (e.g., manufacturer, type, chemical composition, etc.) if requested by OCWD or OCSD.

10.3 IRWD shall indemnify, defend and hold harmless OCWD from any and all liability for any damage to GWRS for noncompliance of terms, conditions and requirements contained in Section 10 – Source Control of this Agreement and the successor provision(s) of any amendments to this Agreement.

Section 11. Discharges to San Diego Creek. IRWD will use the Intertie under the terms and conditions of this Agreement whenever IRWD elects to discharge Recycled Water and

will not make intentional discharges of Recycled Water from MWRP to San Diego Creek and Newport Bay.

Section 12. Reporting. IRWD shall provide OCWD and OCSD with a monthly report for each calendar month during an operation period for the Intertie, by the thirtieth (30th) day of the following month. Such monthly reports shall include the following information:

12.1 Water Quality Data. Final effluent water quality data from MWRP, including, at minimum, the daily results for coliform, electrical conductivity (maximum, minimum and average for each day) and chlorine residual (maximum, minimum and average for each day), and monthly sampling results for total dissolved solids, pH, carbonate, bicarbonate, calcium, magnesium, boron, chloride, sodium, calculated sodium adsorption ratio (SAR) and adjusted SAR. Results for other constituents that are routinely measured in the final effluent shall also be included. The report shall include the dates of sample collection and units used for reporting. Upon written notification by OCWD or OCSD, IRWD shall test for additional constituents based on operational and regulatory needs of OCWD or OCSD.

12.2 Meter Readings. IRWD will provide daily readings, in both acre feet and million gallons, of the quantity of water delivered through the Intertie meter on University Drive and the quantity of excess flow delivered through the Outfall Connection meter. OCWD will provide daily readings of the quantity of water delivered to the GWRS Connection (IT Meter) for treatment by OCWD and total water delivered to the MFF meter. OCSD will provide daily readings of the quantity of influent flow to Plant No. 1 and total effluent flow to the Outfall. The Parties' designated staff representatives may revise the designated meters to be read and meter reading responsibilities pursuant to Section 12 as they determine that operating circumstances necessitate; and such revision(s) may be made by said representatives without amending this Agreement. In such event, the revised meter reading requirements shall be set forth in an addendum hereto.

Section 13. Staff Representatives. Each Party shall appoint one staff representative and one alternate staff representative to work with the staff representatives and alternate representatives of the other Parties to facilitate communication between the parties and aid in the administration of this Agreement. The parties shall give full consideration to all joint recommendations of the staff representatives. The staff representatives shall meet periodically, but at least once a year, to perform such tasks as may be assigned to them by the parties from time to time, including, but not limited to, the following: provide and receive input on scheduling of Recycled Water discharges to the Intertie, GAP, GWRS and the Outfall; address operational concerns in the use and maintenance of the Intertie and GAP II; and address any other operational matters as deemed necessary.

Section 14. Notices. Any notice or other document and all billings and payments required or permitted to be given by any Party hereto to another Party shall be deemed received upon delivery in person to the recipient or upon deposit in the United States mail in the State of California, with postage prepaid, and addressed to the Party for whom intended at the following address:

To OCSD: Orange County Sanitation District
P.O. Box 8127
Fountain Valley, CA 92728-8127
Attention: Director of Engineering/AGM
Telephone: (714) 593-7300
E-mail: jherberg@ocsd.com

To OCWD: Orange County Water District
18700 Ward Street
P.O. Box 8300
Fountain Valley, CA 92728-8300
Attention: Director of Engineering
Telephone: (714) 378-3200
E-mail: dyoungblood@ocwd.com

To IRWD: Irvine Ranch Water District
15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000
Attention: General Manager
Telephone: (949) 453-5590
E-mail: cook@irwd.com

To CNB: City of Newport Beach

Newport Beach, CA 9_____

Attention:
Telephone:
E-mail:

Section 15. Effectiveness of Agreement; Term. This Agreement shall become effective on the Effective Date, and the Prior Agreements shall remain in effect through January 15, 2012. The term of this Agreement shall expire on the fifteenth (15th) anniversary of the Effective Date.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first hereinabove written.

[Signatures on the following page.]

ORANGE COUNTY WATER DISTRICT

By: _____
President

By: _____
General Manager

**APPROVED AS TO FORM:
Rutan & Tucker LLP**

By: _____
Joel Kuperberg
General Counsel, Orange County
Water District

IRVINE RANCH WATER DISTRICT

By _____
President, Board of Directors

By _____
Secretary

**APPROVED AS TO FORM:
BOWIE, ARNESON,
WILES & GIANNONE**

By _____

ORANGE COUNTY SANITATION DISTRICT

By _____
Chair, Board of Directors

By _____
Clerk of the Board

APPROVED AS TO FORM:
BRADLEY R. HOGIN,
GENERAL COUNSEL

By _____

CITY OF NEWPORT BEACH

APPROVED AS TO FORM:

By: _____
City Attorney


By: _____
City Manager

Exhibit A-1 (IRWD producing)

Exhibit A-2 (IRWD producing)

Exhibit B (IRWD producing)

Exhibit C (OCWD producing)

December 12, 2011
Prepared By: K. Welch/P. Weghorst
Submitted By: G. Heiertz
Approved By: Paul Cook 

ACTION CALENDAR

STORAGE OPTION WITH ANTELOPE VALLEY-EAST KERN WATER AGENCY AND KERN COUNTY WATER AGENCY FEES

SUMMARY:

In June 2011, IRWD executed a letter agreement for a Pilot Exchange Program with Antelope Valley-East Kern Water Agency (AVEK) that allows AVEK to store a portion of AVEK's unused State Water Project (SWP) Table A water in IRWD's Strand Ranch Integrated Banking Project (Water Bank) on an unbalanced exchange basis. The letter agreement provides AVEK the ability to store up to 5,000 AF of Table A water.

AVEK has requested to exercise an option in the agreement which allows, at IRWD's sole discretion, to increase AVEK deliveries up to 10,000 AF. In addition, Kern County Water Agency (KCWA) has implemented an administration fee for third party non-member transactions which will require an amendment to the agreements for the Pilot Exchange Programs with both AVEK and Carpinteria Valley Water District (CVWD). Staff recommends the Board approve the following:

1. Authorize the General Manager to exercise the option in the Pilot Exchange Program Agreement with AVEK to increase the amount of water to be delivered from 5,000 AF to up to 10,000 AF; and
2. Authorize staff to work with Legal Counsel to prepare amendments to Pilot Exchange Program agreements with both AVEK and CVWD for payment and reimbursement of half of the KCWA third party administration fees and authorize the General Manager to execute the amendments to the Pilot Exchange Program agreements.

BACKGROUND:

In March 2011, the Board approved a Pilot Exchange Program which would allow the District to store a portion of AVEK's unused Table A water in the Water Bank on an unbalanced exchange basis. The Pilot Program applies provisions of AVEK's SWP Contract with the Department of Water Resources (DWR) that allows for unbalanced exchanges where a minimum of 50 percent of the water to be delivered to IRWD would need to be returned to AVEK within ten years.

The District and AVEK entered into a letter agreement for a Pilot Exchange Program on June 6, 2011 for AVEK to store up to 5,000 AF of Table A water. This agreement is attached is Exhibit "A". The agreement contains a provision which provides for IRWD, at its sole discretion, to allow AVEK to increase the amount of water it can deliver from 5,000 AF up to 10,000 AF. AVEK has expressed an interest in exercising this option in the Pilot Exchange Program and staff recommends approving the increase of allowable storage to 10,000 AF for AVEK.

Metropolitan as Exchangee:

Metropolitan has consented to IRWD securing SWP water from AVEK pursuant to the executed Coordinated Operating, Water Storage, Exchange and Delivery Agreement (Metropolitan Agreement) between IRWD, Metropolitan and Municipal Water District of Orange County (MWDOC). This agreement establishes the framework by which Metropolitan will act as the Exchangee in unbalanced exchanges of SWP water on behalf of IRWD. Metropolitan's consent was provided through their signature on the letter agreement and their further consent to increase the amount of AVEK's deliveries to 10,000 AF is not necessary.

Kern County Water Agency Fees:

In September 2009, the Kern County Water Agency (KCWA) Board approved a third party wheeling fee for transactions involving non-member units. Until recently, the KCWA had not implemented this fee for any non-member transaction. The KCWA has informed staff that the KCWA Board will not approve the transaction request for delivery of water from either of IRWD's Pilot Exchange Programs with AVEK or CVWD until the associated third party administration fees are paid. The requested fee is based on \$5 per acre-foot with a minimum fee of \$7,500 and a maximum fee of \$75,000 per transaction. Staff has been inquiring with the KCWA to obtain clarification for the basis of the fee.

Payment for Fees for CVWD: The administrative fee for the CVWD Pilot Exchange Program for 1,500 AF is \$7,500. CVWD requested that IRWD pay the entire fee of \$7,500 for the transaction and that they will sign (subject to CVWD Board approval) an amendment to the letter agreement with IRWD requiring them to reimburse IRWD for half of the fee at the time that they take delivery of their share of the water upon recovery from the Water Bank. In order not to delay the delivery of CVWD's water into storage, the administrative fee in the amount of \$7,500 was submitted to KCWA on December 6, 2011 under the authority of the General Manager.

Payment of Fees for AVEK: The KCWA administrative fee for the AVEK Pilot Exchange Program will be \$50,000 for 10,000 AF of water. AVEK staff has requested further explanation of the KCWA administrative fee and its implementation prior to agreeing to make payment. Staff is coordinating a meeting between the parties to discuss the fee. It is expected that AVEK will approve payment of the fee to KCWA and AVEK has asked staff to prepare an amendment to the letter agreement with IRWD requiring them to reimburse IRWD for half of the fee at the time that they take delivery of their share of the water upon recovery from the Water Bank.

Preparation of Agreement Amendments: Staff requests the Board authorize staff to work with Legal Counsel to prepare amendments to the Pilot Exchange Program agreements with AVEK and CVWD to reflect payment of the KCWA third party administration fees with CVWD and AVEK being required to reimburse IRWD for half of the fees at the time that they take delivery of their shares of the water upon recovery from the Water Bank.

FISCAL IMPACTS:

The costs of SWP water secured by IRWD are established within the Metropolitan Agreement. Assuming that IRWD's share of the AVEK or CVWD Exchange Water are delivered directly to Metropolitan's reservoirs, IRWD's total cost of water from the Pilot Programs and delivered to IRWD's service area will be Metropolitan's Full Service Tier-1 rate for treated supply (currently \$744 per AF) that is in effect at the time IRWD takes delivery of the water at its service connection plus MWDOC's surcharge of \$4.25 per AF. The total cost for IRWD's share of the water from Metropolitan's reservoirs will be \$748 per AF. If Metropolitan chooses to deliver IRWD's share to the Water Bank and that water is recovered from the Water Bank by exchange rather than by direct use of pumping wells, then IRWD's total cost of water from the Pilot Exchange Programs and delivered to IRWD's service area will be \$770 per AF. If recovery occurs by pumping wells then IRWD's total cost of water will be \$825 per AF which is below Metropolitan's Tier-2 full service rate at \$873 per AF for water (including MWDOC's surcharge).

The KCWA third party administration fee of \$7,500 and \$50,000 AF for the CVWD and AVEK Pilot Exchange Programs will be funded from the District's Operating Budget with reimbursements for half of the fees being provided to IRWD upon delivery of water back to CVWD and AVEK.

ENVIRONMENTAL COMPLIANCE:

A Final Environmental Impact Report (FEIR) for the Strand Ranch Integrated Water Banking Project 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. The FEIR evaluates the delivery of SWP water to the Strand Ranch Integrated Water Banking Project and to IRWD's service area through Metropolitan facilities. AVEK and Central Coast Water Authority (on behalf of CVWD) have both filed a Notice of Exemption for their respective Exchange Programs with IRWD as required by Department of Water Resources

COMMITTEE STATUS:

This item was not reviewed by a committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXERCISE THE OPTION IN THE PILOT EXCHANGE PROGRAM AGREEMENT WITH AVEK TO INCREASE THE AMOUNT OF WATER TO BE DELIVERED FROM 5,000 AF TO UP TO 10,000 AF, AND AUTHORIZE STAFF TO WORK WITH LEGAL COUNSEL TO PREPARE AN AMENDMENT TO PILOT EXCHANGE PROGRAM AGREEMENTS WITH BOTH AVEK AND CVWD FOR PAYMENT AND REIMBURSEMENT OF HALF OF THE KCWA THIRD PARTY ADMINISTRATION FEES AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE AMENDMENTS TO THE PILOT EXCHANGE PROGRAM AGREEMENTS.

EXHIBITS:

Exhibit "A" – Pilot Exchange Agreement with AVEK

EXHIBIT "A"



IRVINE RANCH WATER DISTRICT

15600 Sand Canyon Ave., P.O. Box 57000, Irvine, CA 92619-7000 (949) 453-5300

June 6, 2011

Honorable Board of Directors
Antelope Valley-East Kern Water Agency
6500 West Avenue N
Palmdale, CA 93551

Re: Short-Term Water Storage Partnership – Pilot Exchange Program

Dear Members of the Board:

Please be advised that that the Board of Directors of Irvine Ranch Water District (“IRWD”) has determined to proceed with the six-year pilot exchange program (“Pilot Program”) with Antelope Valley-East Kern Water Agency (“AVEK”) (IRWD and AVEK collectively are referred to as the “Parties” and each individually may be referred to as a “Party”). The “Pilot Program” means the program described in “(4/4/2011) Terms of Pilot Exchange Program” (“Term Sheet”) which is attached hereto as Exhibit “A” and incorporated herein by this reference. When you have countersigned below to indicate your acceptance, this letter will be an agreement between IRWD and AVEK that will constitute the “Pilot Program Agreement” referred to in the Term Sheet. Capitalized terms used herein and not otherwise defined shall have the definitions given such terms in the Term Sheet. The Pilot Program will be governed by the terms and conditions of the Term Sheet. In addition, the Pilot Program will be governed by the following terms and conditions of this letter agreement, each and all of which terms and conditions are intended to supplement said Term Sheet and, to the extent inconsistent therewith, are intended to amend and replace said Term Sheet:

1. Mediation: The Parties agree that any and all disputes, claims or controversies regarding the Pilot Program, the Term Sheet, or this letter agreement, shall be submitted to mediation in a mutually agreeable venue and if the matter is not resolved through mediation, then it may be submitted to any court of competent jurisdiction. Any affected Party may commence mediation by providing the other Party a written request for mediation, setting forth the subject of the dispute and the relief requested. The Parties shall cooperate with one another in selecting a mediator and in scheduling the mediation proceedings. The Parties covenant that they shall participate in the mediation in good faith, and that they shall share equally in costs charged by the mediator. All offers, promises, conduct and statements, whether oral or written, made in the course of the mediation by any of the Parties, their agents, employees, experts and attorneys, and by the mediator or any of the mediator’s employees, are confidential, privileged and inadmissible for any purpose, including impeachment, in any arbitration or other proceeding involving the Parties, provided that evidence that is otherwise admissible or discoverable shall not be rendered

inadmissible or non-discoverable as a result of its use in the mediation. The provisions of this letter agreement with respect to mediation may be enforced by any Court of competent jurisdiction, and the Party seeking such enforcement shall be entitled to an award of all costs, fees and expenses, including attorneys' fees, to be paid by the Party against whom such enforcement is ordered.

2. Release and Indemnification: IRWD and its officers, agents, or employees shall not be liable for the control, carriage, handling, use, disposal, or distribution of Exchange Water upstream of the IRWD POD, or for the control, carriage, handling, use, disposal, or distribution of IRWD Return Water downstream of the AVEK POD, nor for any claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal or distribution of such water, unless such damages or claims are a result of negligent, intentional or reckless misconduct on the part of IRWD.

AVEK and its officers, agents, and employees shall not be liable for the control, carriage, handling, use, disposal, or distribution of Exchange Water downstream of IRWD POD or for the control, carriage, handling, use, disposal, or distribution of Return Water upstream of the AVEK POD, nor for any claim of damage of any nature whatsoever, including, but not limited to, property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal, or distribution of such water, unless such damages or claims are a result of negligent, intentional or reckless misconduct on the part of AVEK.

Neither IRWD nor AVEK shall be liable to the other for any claims related to the impairment of the quality of water as a result of storage in the IRWD and/or RRBWSD facilities or the aquifer from any cause.

Each Party will indemnify, defend, and hold the other harmless from any claims made by landowners in the respective Party's service area (in the case of IRWD, the service area will also include RRBWSD's boundaries) as a result of activities of the indemnifying party or its diversion, control, carriage, handling, use, disposal or distribution of water into and out of storage in its performance under the Term Sheet or this letter agreement, and any claims relating to any third party claiming a prior right, or interference with their right, to water delivered from one Party to the other.

Each Party shall at all times indemnify, defend and save the other Party free and harmless from, and pay in full, any and all causes of action, claims, liabilities, obligations, demands, losses, judgments, damages or expenses, including reasonable attorney fees and costs ("claims") in any manner arising out of or connected with the indemnifying Party's activities in its performance under the Term Sheet or this letter agreement or its diversion, control, carriage, handling, use, disposal or distribution of water into and out of storage, excepting any loss, damage or expense and claims for loss, damage or expense resulting in any manner from the negligent act or acts of the other Party, or its Board of Directors, officers, representatives, consultants, contractors, agents or employees.

In the event a Party entitled to indemnification is made a party to any action, lawsuit, or other adversarial proceeding alleging negligent or wrongful conduct on the part of an indemnifying Party, then (1) the indemnifying Party shall provide a defense to the other or, at the indemnitee's option, reimburse the indemnitee its costs of defense, including reasonable attorneys' fees, incurred in defense of such claims, and (2) the indemnifying Party shall promptly pay any final judgment or portion thereof rendered against the indemnitee(s).

3. Notices: All written notices required to be given pursuant to the terms of the Term Sheet or this letter agreement shall be either (i) personally delivered, (ii) deposited in the United States express mail or first class mail, registered or certified, return receipt requested, postage prepaid, (iii) delivered by overnight courier service, or (iv) delivered by facsimile transmission or e-mail, provided that the original of such notice is sent by certified United States mail, postage prepaid, or by overnight courier, no later than one (1) business day following such facsimile transmission or email. All such notices shall be deemed delivered upon actual receipt (or upon first attempt at delivery pursuant to the methods specified in clauses (i), (ii) or (iii) above if the intended recipient refuses to accept delivery). All such notices shall be delivered to the addresses shown in this letter agreement or to such other address as the receiving Party may from time to time specify by written notice to the other Party given in the manner provided herein.

4. Representations and Warranties:

- (A) Each of the Parties represents and warrants to the other Party that each is a duly organized or constituted entity, with all requisite power to carry out its obligations under the Term Sheet and this letter agreement, and that the execution, delivery and performance of these documents have been duly authorized by all necessary action of the board of directors or other governing body of such Party, and shall not result in a violation of such Party's organizational documents.
- (B) AVEK represents and agrees that AVEK has and, at all times during the term of this agreement shall have, insurance coverage for its facilities and operations, including those facilities owned or operated by AVEK and those operations by AVEK involved in the delivery of Exchange Water to the IRWD POD and receipt of Return Water from the AVEK POD.
- (C) AVEK has legally enforceable rights to the Exchange Water and to deliver the Exchange Water to IRWD and to carry out its performance under the terms of this letter agreement.
- (D) AVEK represents and warrants that entry into this letter agreement does not create or result in the breach of any other agreement to which AVEK is a party or to which AVEK is otherwise subject to or bound.
- (E) AVEK represents and warrants that, to its knowledge at the time AVEK executed this letter agreement, there is no pending or threatened litigation involving AVEK that will affect this letter agreement.

- (F) IRWD represents and agrees that IRWD has and, at all times during the term of this Agreement shall have, insurance coverage for its facilities and operations, including those facilities owned or operated by IRWD and those operations by IRWD involved in the receipt of Exchange Water from the IRWD POD and delivery of Return Water to the AVEK POD.
- (G) IRWD represents and warrants that entry into this letter agreement does not create or result in the breach of any other agreement to which IRWD is a party or to which IRWD is otherwise subject to or bound.
- (H) IRWD has legally enforceable rights to carry out its performance under the terms of this letter agreement.
- (I) IRWD represents and warrants that, to its knowledge at the time IRWD executed this letter agreement, there is no pending or threatened litigation involving IRWD that will affect this letter agreement.
- (J) Prior to commencement of the delivery of Exchange Water pursuant hereto, there has been completed an environmental review under CEQA with respect to the Strand Ranch Integrated Banking Project and the use of water therein by IRWD, and the Project EIR was certified on May 27, 2008. To IRWD's knowledge, no actions or proceedings have been initiated attacking the validity of such Project EIR.
- (K) The Parties have relied on the forgoing representations, warranties, and covenants as a material inducement to execute this letter agreement, and should any material representation not be correct or true, it shall constitute a material breach of this letter agreement.

5. Increase in Maximum Account Balance; Expansion and Long-Term Agreement: IRWD, at its sole discretion, may offer AVEK the ability to increase the delivery of Exchange Water and the Maximum Account Balance and/or extend the term of this letter agreement, including the period during which AVEK may deliver Exchange Water, as specified in the Term Sheet paragraph entitled "Quantity," by giving a written notice to AVEK, without the need for any amendment of this letter agreement.

The Parties may enter into a long-term exchange program agreement based on terms agreeable to both Parties that would provide for the storage and exchange of AVEK State Water Project water supplies using increased storage, recharge and recovery capacity that may become available as IRWD successfully expands its Water Banking programs and facilities in the future.

6. Termination For Breach. Either Party may terminate this letter agreement if the other Party breaches any material obligation under this letter agreement and such breach continues for a period of sixty (60) days, or such other period as may be reasonable under the circumstances, after the date on which written notice is issued by the non-breaching Party. The non-breaching

Party shall be entitled to seek any and all legal or equitable damages and/or remedies as a result of the breaching Party's breach.

In the event that either IRWD or AVEK is in material default of this Agreement, the non-defaulting Party shall provide written notice to the defaulting Party, identifying with reasonable specificity the nature of the claimed default. If the defaulting Party has not cured the event(s) of material default which is (are) identified in the notice required by this section within twenty (20) business days after receipt of written notification, or such other period as is reasonable under the circumstances, the non-defaulting Party shall be entitled to any and all remedies which may be available to it at law or in equity. This provision is not intended to provide a separate termination right, which is set forth in the first paragraph of this Section.

7. Governing Law: The Term Sheet and this letter agreement shall be construed and enforced in accordance with the laws of the State of California.
8. Amendments: No amendment of the Term Sheet or this letter agreement shall be binding upon the Parties unless it is in writing and executed by both of the Parties.
9. Further Action: The Parties agree to and shall take such further action and execute and deliver such additional documents as may be reasonably required to effectuate the Pilot Program, consistent with each and all of the terms and conditions of the Term Sheet and this letter agreement.
10. Assignment: No Party shall assign or otherwise transfer its rights or obligations in, under or to the Pilot Program, the Term Sheet, or this letter agreement, in whole or in part, without the prior written consent of the other Party. All covenants and agreements contained in the Term Sheet and this letter agreement shall bind and inure to the benefit of the Parties' respective successors and permitted assigns.
11. Force Majeure; Change In Law. The respective obligations of each Party hereto shall be suspended while it is prevented from complying by acts of God; war; riots; civil insurrection; acts of civil or military authority; fires; floods; earthquakes; labor accidents or incidents; rules and regulations of any federal, state, or other governmental agency (other than the Parties themselves); changes in law, rules, or regulations of any federal, state or other governmental agency (other than the Parties themselves); or other cause of the same or other character any of which are beyond the reasonable control of such Party (collectively, "Force Majeure"). In the event of a suspension due to the foregoing, the Party whose obligations are suspended shall promptly notify the other Party in writing of such suspension and the cause and estimated duration of such suspension.

The Party providing such notice shall be excused from fulfilling its obligations under this Agreement until such time as the Force Majeure has ceased to prevent performance or other remedial action is taken, at which time the Party shall promptly notify the other Party of the resumption of its obligations under this letter agreement. Any Party rendered unable to fulfill any of its obligations by reason of a Force Majeure shall exercise due diligence to remove such

inability with reasonable dispatch within a reasonable time period and mitigate the effects of the Force Majeure. The relief from performance shall be of no greater scope and of no longer duration than is required by the Force Majeure.

12. Joint Drafting and Negotiation: The Term Sheet and this letter agreement have been jointly negotiated and drafted. The language of each shall be construed as a whole according to its fair meaning and without regard to or aid of Civil Code Section 1654 or similar judicial rules of construction. Each Party acknowledges that it has had the opportunity to seek the advice of experts and legal counsel prior to executing said documents and that it is fully aware of and understands all of their respective terms and the legal consequences thereof.

13. Headings. Headings used in this letter agreement are for reference only and shall not affect the construction of this letter agreement.

14. No Third Party Beneficiaries. No third party beneficiaries are intended by the Parties hereto, and no third party shall be entitled to claim or enforce any rights under this letter agreement.

15. Severability. In the event that any provision of this letter agreement is determined by a court to be invalid, the court shall reform the provision in a manner that is both consistent with the terms of this letter agreement taken as a whole and legally valid. The remainder of this letter agreement shall not be affected thereby.

16. Successors and Permitted Assigns. All covenants and agreements contained in this letter agreement by or on behalf of any of the Parties shall bind and inure to the benefit of their respective successors and permitted assigns under Section 10, whether so expressed or not.

17. Approval by DWR. The effectiveness of this letter agreement shall be contingent upon consent to the herein-described transaction by The Metropolitan Water District of Southern California, as indicated by its signature below, and approval of the herein-described transaction by the California Department of Water Resources. If The Metropolitan Water District of Southern California does not consent, or the California Department of Water Resources disapproves the transaction described herein, this letter agreement shall terminate; provided, the Parties may mutually agree to and make any modifications of this letter agreement that they determine are necessary to gain such consent or approval.

By its signature hereon, IRWD accepts the Term Sheet as amended and supplemented by the terms and provisions contained in this letter agreement. Please indicate the acceptance of AVEK of the Term Sheet, as amended and supplemented by the terms and provisions contained in this letter agreement, by signing and returning the enclosed copy. Thank you for your cooperation.

The Parties intend that this letter agreement and the Term Sheet are consistent with, and are entered into by IRWD pursuant to, that certain Water Banking and Exchange Program Agreement between Rosedale-Rio Bravo Water Storage District (RRBWSD) and IRWD dated as

of January 13, 2009.

Sincerely,

*not as
in form*
[Signature]

IRVINE RANCH WATER DISTRICT

By: *[Signature]*
General Manager

By: *[Signature]*
Secretary

READ, APPROVED AND ACCEPTED:

ANTELOPE VALLEY-EAST KERN WATER AGENCY

By: *[Signature]*
Title: *President of the board*

By: *[Signature]*
Secretary

CONSENT:

In accordance with Paragraph 3.2 of that agreement entitled "Coordinated Operating, Water Storage, Exchange and Delivery Agreement," (the "COA") dated as of April 21, 2011, by and among The Metropolitan Water District of Southern California ("Metropolitan"), the Municipal Water District of Orange County and the Irvine Ranch Water District, and in accordance with Section 15(d) of Metropolitan's State Water Project Contract with the California Department of Water Resources, THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA hereby provides its written consent to IRWD's acquisition of State Water Project Water on Metropolitan's behalf as described in the Pilot Program defined herein, so long as that water meets the requirements of Section 3.1(a) of the COA.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

By: *[Signature]*
Title: *GENERAL MANAGER*

By: _____
Secretary

EXHIBIT "A"

(4/4/2011)

Antelope Valley-East Kern Water Agency and Irvine Ranch Water District

Terms of Pilot Exchange Program

GENERAL TERMS

- Parties:** Irvine Ranch Water District ("IRWD"); Antelope Valley-East Kern Water Agency ("AVEK")
- Description:** The IRWD seeks to enter into a Pilot Exchange Program (Pilot Program) with AVEK as described in this Summary of Proposed Terms ("Term Sheet") pursuant to a Pilot Program Agreement (as defined below). The AVEK and IRWD Pilot Program will provide for IRWD to store a portion of AVEK's unused State Water Project (SWP) water in IRWD's Integrated Strand Ranch Banking Project (Water Bank) for the benefit of both agencies. The Pilot Program will provide for storage of up to 5,000 AF of AVEK water on a 2 for 1 basis as described under Pilot Program Terms.
- Effective Date:** April 1, 2011.
- Term:** Six (6) years from the Effective Date or as mutually extended by the Parties.
- IRWD's Strand Ranch:** The IRWD Integrated Strand Ranch Water Banking Project located in Kern County is owned by IRWD and operated by Rosedale-Rio Bravo Water Storage District (Rosedale). IRWD holds the first priority rights to use of the Strand Ranch recharge facilities except for when the Kern River Watermaster offers water to all takers willing to sign a notice/order or the Kern River Watermaster offers Kern River water to the California Aqueduct / Kern River Intertie. Under such conditions, Rosedale has first priority right to the use of the recharge

facilities. IRWD holds first priority rights to use of the Strand Ranch Recovery facilities. IRWD's water banking capacity limitations are as follows:

Recharge Capacity: Approximately 100 cfs and 17,500 acre-feet per year

Recharge Area: 502 acres

Recovery Capacity: Approximately 36 cfs and 17,500 acre-feet per year

Storage Capacity: 50,000 acre-feet

Cross Valley Canal Turnouts: 200 cfs

Expansions: IRWD will be making best efforts to expand its water banking capacities. The Pilot Program Agreement shall include language allowing for IRWD and AVEK to jointly agree to enter into a Long-term Program Agreement under terms agreeable to both agencies. This Long-term Program Agreement shall include provisions for IRWD's consideration to increase the storage, recharge, and recovery limits allocated to the Exchange Program with AVEK as IRWD successfully expands the water bank.

Non-Binding Effect: This Term Sheet is intended to be a non-binding statement of the terms of the proposed transaction. It is subject to the negotiation, execution and delivery of a Pilot Program Agreement by IRWD and AVEK not inconsistent with the basic terms and conditions set forth herein. AVEK and IRWD will provide usual and customary representations and warranties including: 1) title to Exchange Water as described below; 2) the adequacy of Exchange Water and; 3) authority to transfer unbalanced portions of Exchange Water pursuant to the Pilot Program Agreement to IRWD.

General Expenses: Each party shall be responsible for its own fees and expenses arising out of the negotiation and execution of agreements related to this transaction, obtaining necessary approvals, and the like.

- Coordination:** IRWD and AVEK shall jointly coordinate with the California Department of Water Resources (DWR), Metropolitan Water District of Southern California and the Kern County Water Agency in the development of all approvals and agreements necessary to deliver Exchange Water to the Water Bank and to deliver Return Water to AVEK as described below. IRWD and AVEK shall each be responsible for their own costs associated for such coordination.
- CEQA Compliance:** Both parties shall comply with CEQA and cooperate with one another with respect to CEQA compliance that may be required by the California Department of Water Resources for the proposed Pilot Program. IRWD has already conducted environmental review under CEQA for the Water Bank that takes into consideration the delivery of SWP water to the Water Bank. Rosedale and IRWD independently certified and approved the Water Bank Project on May 27, 2008. IRWD and AVEK will share equally any additional costs associated with environmental review deemed necessary for delivering AVEK Exchange Water into storage. Both IRWD and AVEK shall separately be responsible for any other environmental review necessary to implement the Pilot Program within their own respective service areas.
- Permit Costs:** No permits are expected to be required for the Pilot Program; however IRWD and AVEK will share equally any and all regulatory and permitting fees that might come to be required during the implementation of the Pilot Program.
- Water Rights:** It is expressly agreed, understood, and acknowledged by IRWD that any existing or future delivery of Exchange Water to the Water Bank by AVEK will not result in or be considered a sale or transfer of AVEK's contractual rights to SWP Table A water.

Pilot Program

Agreement: Contract language to be incorporated into the pilot exchange program agreement between the Parties.

PILOT PROGRAM TERMS

Exchange Water: AVEK will supply SWP Table A water or schedulable Article 21 water to the Water Bank available to AVEK as a result of allocations of Table A water to AVEK under its SWP Contract with DWR (Exchange Water).

Quantity: Up to 5,000 acre-feet of Exchange Water may be delivered to the Water Bank by AVEK within the first year of the execution of the Pilot Program Agreement with a maximum cumulative account balance limited to the lesser of 5,000 acre-feet or the total amount of Exchange Water delivered to the Water Bank within the first year (Maximum Account Balance). In addition, IRWD at its sole discretion may offer AVEK the ability to increase deliveries of Exchange Water and the Maximum Account Balance limit up to 10,000 AF and/or extend the term of this agreement to allow delivery of Exchange Water to the Water Bank.

Quality: The quality of water delivered to the Water Bank and returned to AVEK will be limited as follows:

If and to the extent that either party delivers water to and into the California Aqueduct, the quality of water shall meet the water quality standards established by DWR for pump-in to the California Aqueduct.

Availability: Although not intended as a project commitment, AVEK presently foresees that it may make Exchange Water available for delivery to the Water Bank if the hydrology of the SWP system results in the California Department of Water Resources declaring allocation levels of ____% or higher. The Exchange Water will be available as per Delivery Schedule below and upon completion of

environmental review, agreements and permits for the programs contemplated by this agreement. The availability of Exchange Water shall be determined in AVEK's sole discretion in accordance with the Quantity limit defined above. The availability of recharge and storage capacity beyond the Quantity limits described above will be determined in IRWD's sole discretion.

Delivery Points: AVEK will deliver Exchange Water to the IRWD point of delivery (IRWD POD) which will be the Strand Ranch Turnouts on the Cross Valley Canal or other Rosedale diversion locations as specified by Rosedale, or thereabouts. IRWD will deliver Return Water, as defined below, to the AVEK point of delivery (AVEK POD) which will be Check 28 of the California Aqueduct.

Return Water: Water that IRWD delivers to AVEK (Return Water) will occur by either (i) an exchange of banked water for SWP water or other water already in the California Aqueduct, or (ii) recovery of water from the Water Bank wells with subsequent delivery through the Cross Valley Canal to the California Aqueduct.

Delivery Schedule: AVEK may deliver Exchange Water within the first year of the execution of the Pilot Program Agreement. IRWD shall provide Return Water at a time when requested by AVEK at an annual rate of no more than one-third of the portion of the Maximum Account Balance due to be returned to AVEK after losses. For example, if the AVEK portion of the Maximum Account Balance after losses were 2,125 acre-feet, then Return Water would be provided at a rate not to exceed 708 acre-feet per year. The construction of IRWD's Strand Ranch Integrated Banking Project recovery facilities is not yet completed, and IRWD estimates the recovery facilities will be available for use by February 2012. IRWD shall use its best reasonable efforts to complete construction of such recovery facilities on or before such time. To the extent IRWD is unable to provide requested Return Water to AVEK because Strand Ranch Integrated Banking Project recovery facilities are not completed, the time during which AVEK may schedule return of the water shall be adjusted by mutual agreement.

Consideration: IRWD will remit Return Water equal to one-half of the Exchange Water placed into storage less applicable losses (as described below) by the end of the 5th full calendar year after the associated recharge event. The other one-half of the Exchange Water placed into storage less applicable losses shall be deemed transferred to IRWD. AVEK's share of the Exchange Water less applicable losses may not remain in storage beyond the end of the 5th full calendar year after completion of the associated recharge event.

Losses: Exchange Water stored will be subject to the loss provisions of any applicable "Memorandum of Understanding" between Rosedale and adjoining entities applicable to or affecting the Pilot Program. Losses for banking operations currently are fifteen percent (15%) for evaporation, migration and out-of county use. IRWD and AVEK agree that all losses will be shared equally.

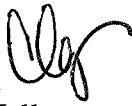
Costs: Costs associated with the Pilot Program will be paid as follows:


- (i) IRWD will pay all variable costs actually incurred by AVEK associated with making the Exchange Water available for recharge at the IRWD POD in Kern County and charges assessed by Rosedale for the recharge of the water at the Water Bank. These costs are currently estimated at \$30.00 per acre-foot and are comprised of the current \$27 Unit Variable OMP&R Component of Transportation Charge in the State Water Project in Reach 13-b of the California Aqueduct and an administrative charge assessed by Rosedale that will be about \$3 per AF consistent with that certain Water Banking and Exchange Program Agreement (Banking Agreement) between Rosedale and IRWD dated as of January 13, 2009. AVEK will reimburse IRWD for 50 percent of these costs paid by IRWD upon IRWD's delivery of Return Water to AVEK.

- (ii) AVEK will pay all fixed costs associated with making all Exchange Water available for recharge, including water that will be allocated to both AVEK and IRWD.
- (iii) IRWD will pay all variable costs associated with delivery of the Exchange Water through the Cross Valley Canal (CVC) and into the recharge basins. These costs are for use of two pumping plants on the CVC and are currently estimated at \$7.00 per acre-foot. AVEK will reimburse IRWD for 50 percent of these variable costs paid by IRWD upon IRWD's delivery of Return Water to AVEK.
- (iv) AVEK will reimburse IRWD for all costs incurred by IRWD in the recovery and/or exchange of Return Water from Storage at the Water Bank. Recovery costs associated with extraction are estimated at \$65 per acre-foot and are comprised of current groundwater pumping costs of \$62 per acre-foot and an administrative charge assessed by Rosedale that will be about \$3 per AF consistent with the Banking Agreement. The actual groundwater pumping cost will be dependent on water surface elevations and may be less if recovered via an exchange through Rosedale or another agency. AVEK will pay all conveyance and canal pumping costs associated with the delivery of Return Water to the AVEK POD and to its service area.
- (v) IRWD will pay all costs associated with the recovery and/or exchange of its share of water from storage at the Water Bank including all conveyance costs and pumping costs to its respective service area.

December 12, 2011

Prepared by: S. Malloy

Submitted by: K. Burton 

Approved by: Paul Cook 

ACTION CALENDAR

MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION AND FLOOD PROTECTION IMPROVEMENTS CONTRACT CHANGE ORDER AND EXPENDITURE AUTHORIZATION

SUMMARY:

The Michelson Water Recycling Plant (MWRP) Phase 2 Expansion and Flood Protection Improvements are currently being constructed by J. R. Filanc Construction Company (Filanc). Staff recommends that the Board:

- Approve an Expenditure Authorization in the amount of \$334,300 for the MWRP Biosolids and Energy Recovery Facilities Project; and
- Approve Contract Change Order (CCO) No. 52 in an amount of \$284,442 to the MWRP Phase 2 Expansion Project to install a 36-inch stormwater pipeline for the MWRP Biosolids and Energy Recovery Facilities Project.

BACKGROUND:

Construction of the MWRP Phase 2 Expansion and Flood Protection Improvements project was awarded to 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".

Change Order No. 52:

The MWRP Biosolids and Energy Recovery Facilities Project is currently in design by Black & Veatch. The location of the future biosolids facilities constitutes a large land area that currently drains stormwater and nuisance flows to the San Joaquin Marsh. To comply with permits these flows need to be routed back to the MWRP liquid treatment plant. The most reliable way to do this is to divert the flows to Pond C and then utilize an existing pipeline to bring the flow back to the MWRP post storm event. The design includes a stormwater pump station, 550 feet of 36-inch stormwater pipeline that would take stormwater from the biosolids site west to Pond C, and an associated headwall at Pond C. The alignment of the stormwater pipeline is shown in Exhibit "B".

The pipeline would be located outside the flood wall that is currently being constructed by Filanc as part of the MWRP Phase 2 Expansion and Flood Protection Improvements. Construction of the pipeline would be far more difficult if it is performed after the masonry wall has been constructed because of space limitations and potential adverse effects to the habitat. Therefore, staff requested Filanc submit a change request to perform the work. Since Filanc is currently constructing the portion of the flood wall where the pipeline would be located, time is critical. The material of the pipe, HDPE, was specifically selected for availability, shorter submittal

Action Calendar: Michelson Water Recycling Plant Phase 2 Expansion and Flood Protection Improvements – Contract Change Order and Expenditure Authorization

December 12, 2011

Page 2

review process, and easier installation. Other materials would require a longer lead time from the manufacturer, a longer review process as well as installation.

CCO No. 52 includes the construction of the 36-inch HDPE pipeline and the associated headwall. Staff has reviewed the change request as shown in Exhibit “C”, negotiated changes with Filanc, and recommends approval. The Change Order summary is shown in Exhibit “D”.

FISCAL IMPACTS:

The MWRP Biosolids and Energy Recovery Facilities, Project 20847 (1617), is included in the FY 2011-12 Capital Budget. An Expenditure Authorization is requested as shown in the table below and in Exhibit “E” to fund CCO No. 52.

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
20847 (1617)	\$163,869,000	-\$0-	\$163,869,000	\$19,057,700	\$334,300	\$19,392,000

ENVIRONMENTAL COMPLIANCE:

The Michelson Water Recycling Plant Phase 2 Expansion and Flood Protection Improvements, Projects 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, was certified by the lead agency on February 27, 2006.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on December 8, 2011.

RECOMMENDATION:

THAT THE BOARD APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$334,300 FOR MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES, PROJECT 20847 (1617); AND APPROVE CONTRACT CHANGE ORDER NO. 52 TO INSTALL A 36-INCH STORMWATER PIPELINE FOR THE MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES PROJECT IN AN AMOUNT OF \$284,442, WITH J. R. FILANC CONSTRUCTION COMPANY FOR THE MWRP PHASE 2 EXPANSION PROJECT 20214 (1599) AND 30214 (1706).

LIST OF EXHIBITS:

- Exhibit “A” – Project Overview Diagram
- Exhibit “B” – Location of 36-Inch Stormwater Pipeline
- Exhibit “C” – Change Order No. 52
- Exhibit “D” – Construction Change Order Summary
- Exhibit “E” – Expenditure Authorization



Overview of MWRP Phase 2 Expansion



EXHIBIT "A"

36" HDPE STORMWATER LINE

Exhibit "B"

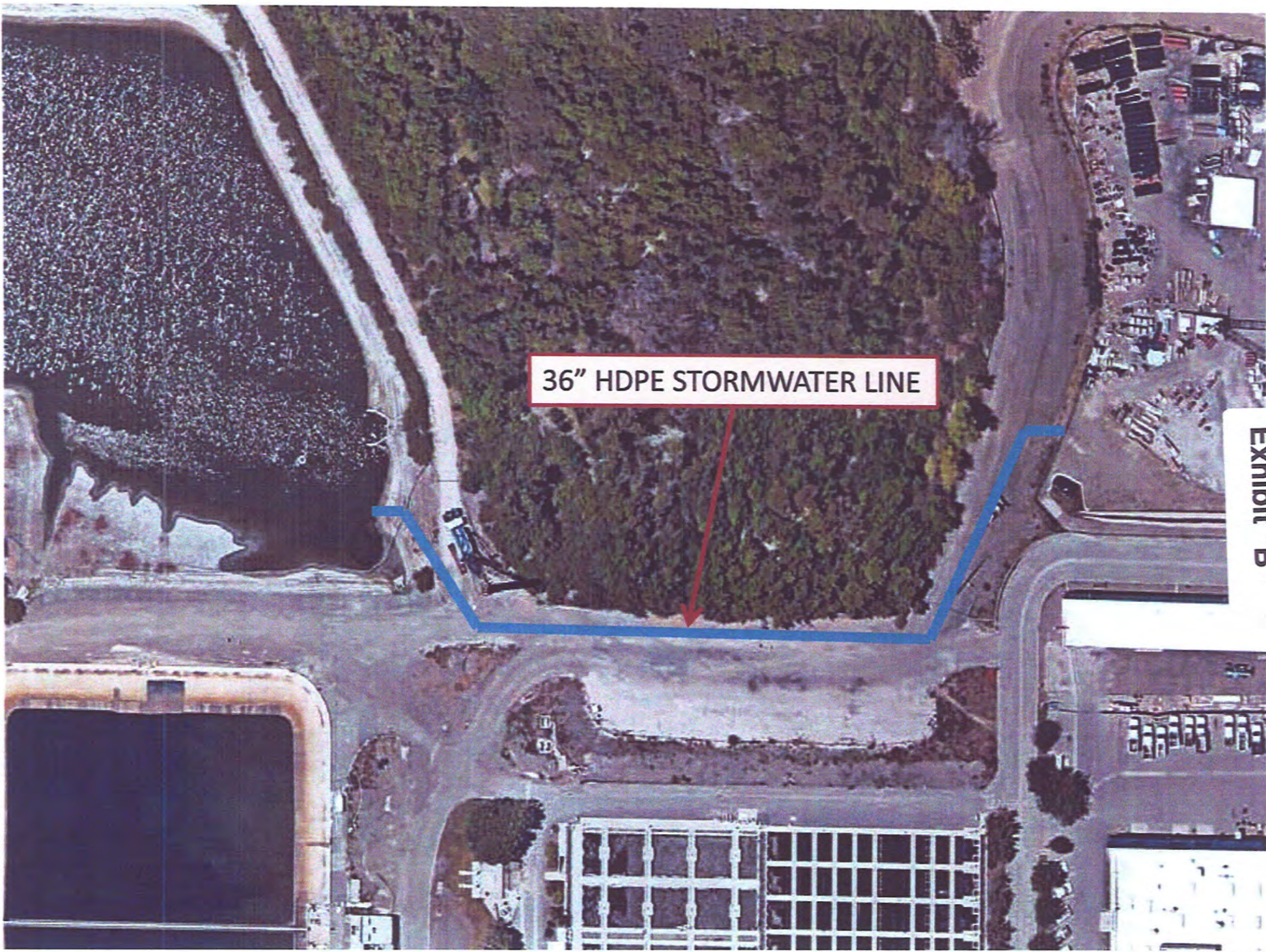


EXHIBIT "D"

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214, 28542, 30214, and 34542
Construction Summary**

Contractor: J R Filac 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	
1	Approved by Director of Engineering and Construction on November 19, 2009 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. 1.2 Installation of Bollards - The Contractor installed bollards around the IRWD MWRP Phase 2 Field Office Trailer and K-rails around the Interim storm hypochlorite System to protect from traffic. 1.3 Relocation of 4-inch Natural Gas Pipeline	A	(\$6,561.60)	\$195.40	\$0.00	\$195.40	0.0%	\$87,479,450.00	0	0	1,094	8/1/2012
2	Approved by Director of Engineering and Construction on December 3, 2009 2.1 Previously Approved Change Request #4 - Tree Removal and Grinding at Flood Improvements and Duck Club 2.2 Previously Approved NOPE #1 - Demolish Abandoned Building 2.3 Repair of 10-inch PVC Groundwater Line at the New Headworks Area	A D B	6,696.00 7,641.87 1,680.17	\$16,018.04	\$195.40	\$16,213.44	0.0%	\$87,495,663.44	0	0	1,094	8/1/2012
3	Approved by Director of Engineering and Construction on December 18, 2009 3.1 Construct Temporary Access Road to Staging Area 3	A	-	\$0.00	\$16,213.44	0.0%	\$87,495,663.44	0	0	1,094	8/1/2012	
4	Approved on January 25, 2010 4.1 Upsize Area 600 Aeration Blower from 350 to 500 hp 4.2 4.3 Upsizing Soft Starters for Area 700 Blowers from 350 to 450 hp Infrared Windows to Measure Slurry Currents	C C A	66,355.57 41,529.75 36,064.78	\$143,950.10	\$16,213.44	\$160,163.54	0.2%	\$87,639,613.54	0	0	1,094	8/1/2012
5	Approved by Director of Engineering and Construction on December 29, 2009 5.1 Relocation of K-rail to Allow Construction Equipment access for pond maintenance (PR 10942)	D	5,081.52	\$5,081.52	\$160,163.54	0.2%	\$87,644,695.06	0	0	1,094	8/1/2012	
6	Approved by Engineering & Operations Comm on January 19, 2010 6.1 W/AS and Skimming Pumps Replacement (PR 20779)	D	77,478.00	\$77,478.00	\$165,245.06	0.3%	\$87,722,173.06	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 Filas Construction
 Design Engineer: HDR

Change Order	Description	Category	Contract Amount										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	
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		\$10,214.87	\$242,723.06	\$252,937.93	\$252,937.93	0.3%	\$87,732,387.93	0	0	1,094	8/1/2012
8	Approved by Board of Directors Approved on February 22, 2010 8.1 Delete Bld Item A.28 - System Integration 8.2 System Integration Coordination and SCADA Hardware Procurement	A A	\$ (1,624,460.00) \$ 488,639.25		\$252,937.93	-\$882,882.82	-\$882,882.82	-1.0%	\$86,596,567.18	0	0	1,094	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	-\$918,947.60	-1.1%	\$86,560,502.40	0	0	1,094	8/1/2012	
10	Approved by AGM 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	-\$918,947.60	-\$911,984.15	-1.0%	\$86,567,465.85	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
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) 11.2 Exploratory Excavation for Duct Bank at MPS-2 electrical building 11.3 Provide chain operators and chains, and grease fittings for plug valves for the WAS/Skimming Pumps Replacement Project (PR 20779) (CR #036)	B B D	\$15,782.97 \$3,035.98 \$2,214.78	\$21,033.73	-\$911,984.15	-\$890,950.42	-1.0%	\$86,388,499.58	0	0	0	1,094	8/1/2012
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 Reheating the 18-inch diameter drain line at HRC (CR #019) 15.2 Credit for Slab Penetration Modifications, Detail P17 (RFI 0102) (CR #032)	A 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

MWRFP Phase 2 Expansion and Flood Protection Improvements
 FR 20214, 20542, 20214, and 30542
 Construction Summary

Contractor: J R Filane 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	Original Days	Previous Change Orders		Original 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) Approved by Director of Engineering and Construction Approved on July 28, 2010	B	(\$55,420.00)	-\$55,420.00	-\$849,728.38	-\$905,148.38	-\$985,148.38	-1.0%	\$86,574,301.62	0	0	0	1,094	8/1/2012
18	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 \$5,407.26	\$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 \$4,303.99 \$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) Approved from Board of Directors	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 on August 23, 2010 21.1 Valve Vaults Modifications (CR 020) Approved by Director of Engineering and Construction Approved on August 26, 2010	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 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%	\$86,930,366.84	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 SCR 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 Filac 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	Original Days	Original Days	Revised Total Contract Days						
24	Approved by Engineering and Operations Committee Approved on September 21, 2010 UVF Piping Modifications at Chlorine Contact Tanks (CR 056)	A	(\$52,172.00)	-\$52,172.00	-\$505,513.36	-\$557,685.56	-\$557,685.56	-\$557,685.56	-\$557,685.56	-\$557,685.56	-\$557,685.56	0	0	0	0	0	1,094	8/1/2012	
25	Approved by Board of Directors Approved on September 27, 2010 Modifications to Campus Drive Entrance (CR 022)	A	\$186,651.45	\$186,651.45	-\$371,034.11	-\$371,034.11	-\$371,034.11	-\$371,034.11	-\$371,034.11	-\$371,034.11	-\$371,034.11	0	0	0	0	0	1,094	8/1/2012	
26	Approved by Director of Engineering and Construction Approved on October 20, 2010 Change of Strut Material from FRP to Stainless Steel 316/install CATS Cable from PLC 1600 to PLC 9 (CR 074) [PR 20214, 30214]	A	\$1,339.18	\$1,339.18	\$3,509.94	\$3,509.94	\$1,957.62	\$324.07	\$9,101.41	\$2,560.52	0	0	0	0	0	0	0	1,094	8/1/2012
26.2	Existing Primary Sludge Pump Room Demolition and Modifications (CR 076) [PR 20214, 30214]	C	\$3,509.94	\$3,509.94	0	0	0	0	0	0	0	0	0	0	0	0	0	1,094	8/1/2012
26.3	Fence Repair at SCE Substation (CR 078) [PR 20214, 30214]	B	\$1,957.62	\$1,957.62	0	0	0	0	0	0	0	0	0	0	0	0	0	1,094	8/1/2012
26.4	SIC Electrical and Controls and Milestone Revisions (CR 079) [PR 20214, 30214]	B	\$324.07	\$324.07	0	0	0	0	0	0	0	0	0	0	0	0	0	1,094	8/1/2012
26.5	Change to more Energy Efficient Air Conditioning Units (Five Total) (Submittal 15604-001) (CR 081) [PR 20214, 30214]	A	\$9,101.41	\$9,101.41	0	0	0	0	0	0	0	0	0	0	0	0	0	1,094	8/1/2012
26.6	Grouting of the Sodium Hypochlorite Tanks at their Permanent Site (CR 084) [PR 20214, 30214]	A	\$2,560.52	\$2,560.52	0	0	0	0	0	0	0	0	0	0	0	0	0	1,094	8/1/2012
27	Approved by Engineering & Operations Committee Approved on November 4, 2010 Primary Sedimentation Tanks Flo-Clip Baffles Value Engineering (CR 080)	A	(\$58,157.82)	-\$58,157.82	-\$409,799.19	-\$409,799.19	-\$409,799.19	-\$409,799.19	-\$409,799.19	-\$409,799.19	-\$409,799.19	0	0	0	0	0	1,094	8/1/2012	
28	Approved by GM Approved on November 24, 2010 Ducts for Future Phase 3 MBR (RFI 44) (RFI 016)	A	\$32,021.80	\$32,021.80	-\$370,273.95	-\$370,273.95	-\$370,273.95	-\$370,273.95	-\$370,273.95	-\$370,273.95	-\$370,273.95	0	0	0	0	0	1,094	8/1/2012	
28.2	Sodium Hypochlorite LCP Modifications (CR 071) Approved by Director of Engineering & Construction Approved on December 22, 2010	A	\$7,503.44	\$7,503.44	-\$346,309.34	-\$346,309.34	-\$346,309.34	-\$346,309.34	-\$346,309.34	-\$346,309.34	-\$346,309.34	0	0	0	0	0	1,094	8/1/2012	
29.1	MBR Aeration Piping Access Platforms (CR-066)	A	\$14,074.73	\$14,074.73	0	0	0	0	0	0	0	0	0	0	0	0	0	1,094	8/1/2012
29.2	Electrical Conduit Installation near MWRP Phase 2 Trailers (Unfinished Conditions) (CR 077)	B	\$9,889.88	\$9,889.88	0	0	0	0	0	0	0	0	0	0	0	0	0	1,094	8/1/2012

MWRP Phase 2 Expansion and Flood Protection Improvements
 PR 20214, 20542, 20214, 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	Original 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 Paragraph Submittal 16441-002 (CR 093) Pending Approval from Engineering & Operations Committee Approval scheduled for January 18, 2011	C A	\$20,880.97 \$27,803.13	\$48,684.10	-\$346,309.34	-\$297,625.24	-0.3%	\$87,181,824.76	0	0	1,094	8/1/2012
31	31.1 Modifications at Campus Drive Access (CR 085) Approved by Director of Engineering & Construction Approved on January 31, 2011	A	\$61,136.74	\$61,136.74	-\$297,625.24	-\$236,488.50	-0.3%	\$87,242,961.50	0	0	1,094	8/1/2012
32	32.1 Delete Groat Fillet and Add Embeds at Headworks Grit Chambers (CR 090) 32.2 LCPs for Vertical Recirculating Choppert 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	1,094	8/1/2012
33	Pending Approval from Board of Directors Pending Approval on February 28, 2011 33.1 Revised obiturne feed to filters (CR-038) 33.2 PEPS meter vaults and bypass piping revisions (CR-039) 33.3 MFS-2 Pump Discharge Pipe Modifications (NOPE #003)/CR-040 33.4 Modifications to MPS-2 Building Due to Unknown Duct Banks (RFI 160) (CR-049) 33.5 WAS/Foam Pump Revisions (CR-053) 33.6 Floodwall Revisions per County of Orange and FEMA comments (CR-083) 33.7 Modifications to Grating Supports at PST Splitter Box (CR-102) 33.8 Change to NIEMA 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 headers (CR-113)	C C D B C A C A B 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 \$3,238.14	\$282,840.15	-\$212,185.35	\$70,654.80	0.1%	\$87,550,104.80	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.F. Filane Construction
 Design Engineer: HDK

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	Original Days		Revised Total Contract Days
34	Approved by Director of Engineering & Construction Approved on March 23, 2011			\$21,344.36	\$70,654.80	\$92,499.36	\$87,479,450.00	0.1%	\$87,571,940.36	0	0	1,094	8/1/2012
34.1	Groundwater Well Modifications (CR-041) [PR 20214, 30214]	A	\$2,338.20										
34.2	Bypass for Shutdown at HRC Vault (CR-106) [PR 20214, 30214]	A	\$11,200.90										
34.3	Removal and Disposal of Abandoned 8-inch Reclaimed Water Line in the area of North Inflow Interceptor Junction Structure (CR-111) [PR 20214, 30214]	B	\$3,039.17										
34.4	Additional Pipe Supports for 20" PE at MBR (CR-135) [PR 20214, 30214]	B	\$2,811.22										
34.5	Repair existing 6-in Reclaimed Water Line near Headworks (CR-138) [PR 20214, 30214]	C	\$2,455.07										
35	Approved by Asst. GM Approved on April 18, 2011			\$43,741.00	\$92,499.36	\$136,240.36	\$87,615,690.36	0.2%	\$87,639,205.33	0	0	1,094	8/1/2012
35.1	Area 600 Blower Discharge Modifications (CR-055) [PR 20214, 30214]	A	\$28,785.00										
35.2	Area 600 Blower Structural Support Modifications (CR-077) [PR 20214, 30214]	B	\$14,956.00										
36	Approved by Director of Engineering and Construction Approved on May 16, 2011			\$23,514.97	\$136,240.36	\$159,755.33	\$87,639,205.33	0.2%	\$87,639,205.33	0	0	1,094	8/1/2012
36.1	Area 300 Primary Sedimentation and Area 700 Membrane Bioreactors FRP Launder Modifications (CR-087) [PR 20214, 30214]	A	\$4,757.27										
36.2	Area 700 Membrane Bioreactors GIE Piping Modifications (CR-136) [PR 20214, 30214]	B	\$16,933.64										
36.3	Addition of speed feedback on Various variable speed pumps (Chemical Systems) (CR-116) [PR 20214, 30214]	A	\$1,824.06										
37	Approved by Assistant GM Approved on May 30, 2011			\$46,369.50	\$159,755.33	\$206,124.83	\$87,685,574.83	0.2%	\$87,685,574.83	0	0	1,094	8/1/2012
37.1	Replacement of Existing Area 600 Discharge Pipe Coupling (CR-117) [PR 20214, 30214]	A	\$14,011.85										
37.2	Modifications to Primary Sedimentation Tank Embeds and Cover Plates (CR-125) [PR 20214, 30214]	A	\$6,751.65										
37.3	Increase of Bid Item A.8 - Additional Pre-drilling of Piles (CR-098) - 3,658 LF @ \$71/E [PR 20214, 30214]	B	\$25,606.00										
38	Approved by Director of Engineering and Construction Approved on May 30, 2011			\$24,692.00	\$206,124.83	\$230,816.83	\$87,710,266.83	0.3%	\$87,710,266.83	0	0	1,094	8/1/2012
38.1	Two-Sided (Split Face) Masonry for Flood Protection Improvements (CR-088) [PR 20542, 30542]	C	\$19,704.00										
38.2	Architectural Modifications of MBR Building per Revised Drawing A-702 (CR-149) [PR 20214, 30214]	C	\$4,988.00										

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

Contractor: J R Filano 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	Original Days	Revised Total Contract Days		
39	Approved by Engineering & Operations Committee Approved on June 21, 2011 39.1 Additional Architectural Modifications at High Rate Clarifier (CR-082) [PR 20214, 30214]	A	\$60,515.80	\$60,515.80	\$230,816.83	\$291,332.63	0.3%	\$87,770,782.63	0	0	0	1,094	8/1/2012
40	Approved on June 23, 2011 40.1 Double Containment Piping Modification for Sodium Hypochlorite System (CR-095) [PR 20214, 30214/Oracle 1599, 40.2 Change of Enclosure from NEMA 4 to NEMA 4X SS for Chopper Pumps in CR-097 (CR-133) [PR 20214, 40.3 Sodium Hypochlorite Tank Pad at PST Odor Control (CR-146) [PR 20214, 30214/Oracle 1599, 1706]	A	\$16,157.16	\$23,214.05	\$291,332.63	\$314,546.68	0.4%	\$87,793,996.68	0	0	0	1,094	8/1/2012
41	Approved Assistant GM Approved on June 24, 2011 41.1 MFS-2 replacement of existing valves (NOPE #4) (CR-126) [PR 20214, 30214/Oracle 1599, 1706] 41.2 Graybar Modifications per RFI 372 (CR-144) [PR 20214, 30214/Oracle 1599, 1706] 41.3 Steel Joists Modifications Due to Additional Load Requirements per Submittal 05221-001 (CR-153) [PR 20214, 30214/Oracle 1599, 1706]	A	\$35,068.26	\$48,005.26	\$314,546.68	\$362,551.94	0.4%	\$87,842,001.94	0	0	0	1,094	8/1/2012
42	Approved by Engineering & Operations Committee Approved on July 13, 2011 42.1 MBR, Aeration and Permeate Piping Modifications (CR-048) [PR 20214, 30214/Oracle 1599, 1706]	B	\$59,150.74	\$59,150.74	\$362,551.94	\$421,702.68	0.5%	\$87,901,152.68	0	0	0	1,094	8/1/2012
43	Approved by Board of Directors Approved on July 25, 2011 43.1 Pipelines and Utilities for Future Biosolids (CR-017) (PR 20847/Oracle 1617) 43.2 Biosolids Sewer Force Main (CR-045) (PR 20847/Oracle 1617) 43.3 Geotechnical Investigation at Staging Area 2 for Biosolids Project (CR 157) (PR 20847/Oracle 1617)	D	\$503,272.17	\$1,132,283.71	\$421,702.68	\$1,553,986.39	1.8%	\$89,033,436.39	120	0	120	1,214	11/29/2012
44	Pending Approval from Director of Engineering & Construction Approval Pending on August 18, 2011 44.1 Chemical Systems Pump Pad Modifications (CR-105) (PR 20214, 30214/Oracle 1599, 1706) 44.2 Installation of 6" Gate Valve and Change of Pipe Size on PW near SII Junction (CR-140) (PR 20214, 30214/Oracle 1599, 1706) 44.3 PLC-300 additional I/O to accommodate VFD change of Primary Sludge Pumps (PR 20214, 30214/Oracle 1599, 1706) 44.4 Non-compensable lime extension of Milestone 5 - Floodwall Installation delay due to FEMA review and regulatory compliance	A	\$1,833.71	\$24,974.48	\$1,553,986.39	\$1,578,960.87	1.8%	\$89,058,410.87	0	0	120	1,214	11/29/2012

MWRP Phase 2 Expansion and Flood Protection Improvements
 PR 20214, 20942, 30214, and 30542
 Construction Summary

Contractor: J R Filanc Construction
 Design Engineer: HDR

Change Order	Description	Category	Contract Amount										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	Original Days	Can. Total C.O. days		Revised Total Contract Days			
45	Approved by Director of Engineering & Construction Approved on August 29, 2011 45.1 Deletion of Monorail and Door Modifications at Headworks (CR-103) (PR 20214,30214/Oracle 1599,1706) 45.2 Hollow Metal Door Modifications (CR-156) (PR 20214,30214/Oracle 1599,1706) 45.3 Miscellaneous T&M (CR-166) (PR 20214,30214/Oracle 1599,1706)	A A B	\$3,570.03 \$7,396.38 \$13,969.46	\$24,935.87	\$1,578,960.87	\$1,603,896.74	1.8%	\$89,083,346.74	0	0	0	0	0	0	0	1,214	11/29/2012
46	Approved by Board of Directors Approved on September 26, 2011 46.1 Replacement of Sand Canyon Zone A and Associated Piping, Valves, and Appurtenances (CR-130) (PR 30038/Oracle 1643) 46.2 As Needed Polishing Related to Strainer Replacement and Pipe Installation (CR-130) (PR 30038/Oracle 1643)	D D	\$455,216.07 \$21,573.30	\$476,789.37	\$1,603,896.74	\$2,080,686.11	2.4%	\$89,560,136.11	0	0	0	0	0	0	0	1,214	11/29/2012
47	Approved on October 13, 2011 47.1 Installation of Davits at PST, MBR, SBW Walkway, and HRC (CR-134) (PR 20214 (1599)/30214 (Oracle 1706)) 47.2 Miscellaneous T&M Work (CR-183) (PR 20214 (1599)/30214 (Oracle 1706))	A B	\$6,153.02 \$18,062.88	\$24,215.90	\$2,080,686.11	\$2,104,902.01	2.4%	\$89,584,352.01	0	0	0	0	0	0	0	1,214	11/29/2012
48	Approved by Director of Engineering & Construction Approved on October 18, 2011 48.1 Primary splitter box low pressure air pipe material and restraints (CR-162)(PR 20214 (1599)/30214 (Oracle 1706)) 48.2 FRP Launder Modifications at MBR, RAS Box (CR-168)(PR 20214 (1599)/30214 (Oracle 1706)) 48.3 Concrete with PVC behind Auto Shop (CR-112)(PR 20214 (1599)/30214 (Oracle 1706)) 48.4 Door Hardware Modifications per RFI-0339 (CR-139)(PR 20214 (1599)/30214 (Oracle 1706)) 48.5 SBW Pumps Low Level Circuit modifications (CR-178)(PR 20214 (1599)/30214 (Oracle 1706)) 48.6 Site Lighting Modifications (CR-068)(PR 20214 (1599)/30214 (Oracle 1706))	C C B C C C	\$6,583.45 \$4,318.00 \$1,262.67 \$7,428.82 \$2,261.42 \$3,006.57	\$24,860.93	\$2,104,902.01	\$2,129,762.94	2.4%	\$89,609,212.94	0	0	0	0	0	0	0	1,214	11/29/2012

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

Contractor: J R Filare 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	
49	Pending Approval from Board of Directors Pending Approval on October 24, 2011 Biosolids Indicator Piles (CR-175)/PR 20847 (1617)	D	\$318,886.24	\$318,886.24	\$2,129,762.94	\$2,448,649.18	2.8%	\$89,928,099.18	0	120	1,214	8/1/2012
50	Pending Approval from Director of Engineering & Construction Submitted for Approval on November 21, 2011 50.1 Odor scrubber cleaning at Primary Sedimentation Tanks (CR-158) (PR 20214,30214/Oracle 1599,1706) 50.2 Existing Ductbank Modifications (CR-185) (PR 20214,30214/Oracle 1599,1706) 50.3 Additional Concrete Fillers at High Rate Clarifier (CR-188) (PR 20214,30214/Oracle 1599,1706)	A B C	\$2,564.33 \$13,764.46 \$8,629.05	\$24,957.84	\$2,448,649.18	\$2,473,607.02	2.8%	\$89,953,057.02	0 0 0	120	1,214	11/29/2012
51	Pending Approval from Director of Engineering & Construction Submitted for Approval on November 22, 2011 51.1 Filter Pump Station-2 (PPS-2) Potable Water Line Addition (CR-172) (PR 20214 (1599)/30214 (Oracle 1706)) 51.2 Potable 8-Inch Drain Line from High Rate Clarifier to Manhole #3 (CR-197) (PR 20214 (1599)/30214 (Oracle 1706))	A B	\$6,296.80 \$18,045.37	\$24,342.17	\$2,473,607.02	\$2,497,949.19	2.9%	\$89,977,399.19	0 0	120	1,214	11/29/2012
52	Pending Approval from Board of Directors Pending Approval on December 12, 2011 52.1 36" Stormwater Pipeline for the MWRP Biosolids and Energy Recovery Facilities Project (CR-174) (PR 20847 (1617))	D	\$284,442.00	\$284,442.00	\$2,497,949.19	\$2,782,391.19	3.2%	\$90,261,841.19	0	120	1,214	11/29/2012

	Contract Amount	% of Original Contract Amount
A - District Convenience/Initiation - Project Related	\$ 24,975.33	0.0%
B - Differing Site Conditions	\$ 284,127.31	0.3%
C - Design Oversight	\$ 114,465.48	0.1%
D - District Convenience/Initiation - Non-Project Related	\$ 2,358,823.07	2.7%
TOTAL (A+B+C+D)	\$ 2,782,391.19	3.2%
TOTAL (A+B+C - (CCO No. 8 - SCADA))	\$ 1,559,388.87	1.8%

IRVINE RANCH WATER DIS' EXHIBIT "E"

Expenditure Authorization

Project Name: MWRP BIOSOLIDS HANDLING & ENERGY RECOVERY FACILITY
 Project No: 20847 EA No: 6

ID Split: Miscellaneous

Project Manager: MALLOY, STEVEN
 Project Engineer: SPANGENBERG, CARL
 Request Date: November 16, 2011

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
211	10.5	CAPITAL FUND
212	4.5	BONDS YET TO BE SOLD**
213	.3	BONDS YET TO BE SOLD**
221	20.9	BONDS YET TO BE SOLD**
230	13.7	BONDS YET TO BE SOLD**
235	3.2	BONDS YET TO BE SOLD**
250	32.4	BONDS YET TO BE SOLD**
253	1.2	BONDS YET TO BE SOLD**
261	8.5	BONDS YET TO BE SOLD**
282	2.3	BONDS YET TO BE SOLD**
284	2.5	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$19,057,700
This Request:	\$334,300
Total EA Requests:	\$19,392,000
Previously Approved Budget:	\$163,869,000
Budget Adjustment Requested this EA:	\$0
Updated Budget:	\$163,869,000
Budget Remaining After This EA	\$144,477,000

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	12/13
ENGINEERING DESIGN - IRWD	0	600,000	600,000	0	600,000	600,000	7/10	6/12
ENGINEERING DESIGN - OUTSIDE	0	8,420,000	8,420,000	0	8,420,000	8,420,000	7/10	6/12
DESIGN STAFF FIELD SUPPORT	0	87,000	87,000	0	87,000	87,000	7/10	6/12
ENGINEERING - CA&I IRWD	18,400	50,000	68,400	0	3,000,000	3,000,000	7/12	7/15
ENGINEERING - CA&I OUTSIDE	0	5,955,000	5,955,000	0	6,630,000	6,630,000	7/12	7/15
CONSTRUCTION FIELD SUPPORT	0	10,000	10,000	0	98,700	98,700	7/12	7/15
CONSTRUCTION	300,000	2,683,000	2,983,000	0	136,800,000	136,800,000	7/12	7/15
LEGAL	0	15,000	15,000	0	100,000	100,000	7/10	7/15
WATER QUALITY	0	30,000	30,000	0	30,000	30,000	7/10	7/15
ENGINEERING ENVIRONMENTAL-OUTS	0	300,000	300,000	0	300,000	300,000	7/10	9/11
Contingency - 5.00% Subtotal	\$15,900	\$907,700	\$923,600	\$0	\$7,803,300	\$7,803,300		
Subtotal (Direct Costs)	\$334,300	\$19,057,700	\$19,392,000	\$0	\$163,869,000	\$163,869,000		
Estimated G/A - 180.00% of direct labor*	\$33,100	\$1,398,600	\$1,431,700	\$0	\$6,868,300	\$6,868,300		
Total	\$367,400	\$20,456,300	\$20,823,700	\$0	\$170,737,300	\$170,737,300		
Direct Labor	\$18,400	\$777,000	\$795,400	\$0	\$3,815,700	\$3,815,700		

*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:

Steve Malloy 11-21-11


Department Director:

Karin L. Benson 11-23-11

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 \$174,153,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

December 12, 2011  KNL

Prepared by: K. Lew/M. Cortez

Submitted by: K. Burton 

Approved by: Paul Cook 

ACTION CALENDAR

BAKE PARKWAY AND LAKE FOREST DRIVE DOMESTIC AND RECYCLED WATER PIPELINES REIMBURSEMENT AGREEMENT WITH IRVINE COMMUNITY DEVELOPMENT COMPANY FOR PLANNING AREA 39

SUMMARY:

The Bake Parkway and Lake Forest Drive projects will install IRWD capital facilities consisting of approximately 4,440 linear feet (LF) of 12-inch Zone 3 pipeline, 860 LF of 6-inch Zone B recycled water distribution pipelines, 2,025 LF of 24-inch Zone B recycled water transmission main, and 1,200 LF of 24-inch temporary aboveground Zone B transmission main. The capital facilities are being constructed by Irvine Community Development Company (ICDC) under the terms of a Reimbursement Agreement for Planning Area 39 approved on July 25, 2011. Staff recommends that the Board:

- Authorize the addition of Projects 11622 and 30372 to the FY 2011-12 Capital Budget for \$470,800 and \$1,052,300, respectively;
- Approve Expenditure Authorizations for Projects 10445, 11622, 30372, and 30445 in the amount of \$581,900, \$470,800, \$1,052,300, and \$156,200, respectively;
- Approve a Potential Change of Work in the amount of \$275,000 to the Reimbursement Agreement with ICDC for Planning Area 39 to construct the Bake Parkway 12-inch Zone 3 Domestic Water Pipeline, Project 11622;
- Authorize the General Manager to execute construction contracts in the amounts of \$282,800 and \$552,951.47 to the Reimbursement Agreement with ICDC for Planning Area 39 to construct Lake Forest Drive IRWD Capital Facilities, Projects 10445 and 30372; and

BACKGROUND:

ICDC is currently constructing street improvements for Bake Parkway and Lake Forest Drive as part of the overall development of Planning Area (PA) 39. A Site Plan is attached as Exhibit "A". IRWD capital domestic water (DW) and recycled water (RW) pipeline facilities will be constructed as a part of ICDC's street projects under the current Reimbursement Agreement with ICDC for PA 39. The IRWD improvements are summarized as follows:

Bake Parkway:

The limits of the Bake Parkway road extension are from the San Diego Creek to Lake Forest Drive. ICDC is currently constructing storm drain and street improvements for Bake Parkway and Lake Forest Drive, including the construction of the Bake Parkway Bridge over the San Diego Creek. ICDC publicly bid this work in the summer 2011 and has contracted with KEC Engineering for the construction.

The DW pipeline improvements were originally a part of the project; however, the improvement plans were not approved at the time ICDC bid the street improvements. This project will install approximately 1,100 LF of 12-inch DW pipeline and appurtenances in the proposed street extension of Bake Parkway. Approximately 400 feet of the 1,100 feet of 12-inch pipeline will be within the bridge over the San Diego Creek. Staff approved the DW improvement plans in October 2011. Staff agreed with ICDC's recommendation to request a contract change order from KEC Engineering to construct the pipeline improvements as part of the street improvements. It is preferable to construct the pipeline segment through the bridge as part of the bridge construction, as it would eliminate the construction scenario of two separate contractors working in and around the bridge site at the same time.

KEC Engineering submitted an initial change order cost of \$333,000 for the work. Staff and ICDC subsequently negotiated a cost of \$275,000 for the capital domestic water improvements. The domestic water improvements will be constructed under a Potential Change of Work (PCOW) to the current Reimbursement Agreement with ICDC for PA 39. ICDC's PCOW is equivalent to IRWD's Contract Change Order. The PCOW is attached as Exhibit "B".

Lake Forest Drive:

The limits of the Lake Forest Drive extension are from Bake Parkway to Romano, near Laguna Canyon Road. The IRWD capital facilities included in this project are 3,340 LF of 12-inch Zone 3 DW pipeline, 2,025 LF of permanent 24-inch Zone B RW transmission main, and 1,200 LF of temporary aboveground 24-inch Zone B RW transmission main.

ICDC contracted with Sukut for the mass grading and the construction of the temporary aboveground 24-inch Zone B RW pipeline. A temporary aboveground pipeline is required since mass grading for Lake Forest Drive will remove portions of the existing Zone B RW pipeline. The temporary line will maintain peak flow capacity to the Zone B service area from the existing Zone B reservoir. Sukut's bid amount for the invasion line is \$282,800; it was the lowest out of four bids submitted, as shown on Exhibit "C".

The permanent DW and RW pipeline improvements within Lake Forest Drive will be constructed by ICDC under a contract with FYDAQ when the mass grading has been completed. FYDAQ submitted a bid of \$552,951.42 for IRWD's capital facilities and was the lowest out of seven bids received as shown on Exhibit "C". The bid amount includes \$244,502.34 for the 12-inch DW pipeline and \$308,449.08 for the 24-inch RW pipeline.

Irvine Center Drive and 'A' Street

ICDC is constructing the 'A' Street improvements, including the intersection with Irvine Center Drive. The IRWD improvement is approximately 860 LF of 6-inch RW pipeline. ICDC has contracted with Kennedy Pipeline for the portion within the intersection of 'A' Street and Irvine Center Drive and with FYDAQ for the portion within 'A' Street for the PA 39 Phase 1 construction. Kennedy Pipeline's and FYDAQ's construction bid amounts for IRWD's facilities are \$29,120 and \$24,834.68, respectively. These bids were the lowest for IRWD facilities out of

a total of eight bids submitted as shown on Exhibit "C". These construction costs are included in the requested funding shown in the Fiscal Impacts table below.

Consultant Services:

For the above projects, consultant proposals were received for construction support services, construction surveying and geotechnical testing for the capital facilities as shown below:

Description of Work	Company	Fee Estimate for IRWD Facilities
Construction Administration Assistance (Engineer of Record)	Hunsaker (Bake Parkway) SAIC (Lake Forest – Temporary RW) SAIC (Lake Forest Phase 2 – Permanent Pipelines)	\$15,912 \$27,155 \$39,696
Surveying Services	Adams Streeter VA Consulting	\$11,150 \$1,880
Geotechnical Services	NMG Kling Consulting	\$5,522 \$12,763
Total		\$114,078

The consultant costs will be reimbursed under the terms of the Reimbursement Agreement with ICDC. Staff reviewed the proposals and found the scopes of work to be acceptable based on qualifications and costs. The contracts are under the General Manager's and Committee approval level.

FISCAL IMPACTS:

Projects 11622 (3585) and 30372 (3529) are not included in the FY 2011-12 Capital Budget. Staff recommends the Board authorize the addition of Projects 11622 and 30372 to the FY 2011-12 Capital Budget. Expenditure Authorizations are requested 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
10445 (1632)	\$827,200	\$-0-	\$ 827,200	\$-0-	\$ 581,900	\$ 581,900
11622 (3585)	\$-0-	\$ 470,800	\$ 470,800	\$-0-	\$ 470,800	\$ 470,800
30372 (3529)	\$-0-	\$1,052,300	\$1,052,300	\$-0-	\$1,052,300	\$1,052,300
30445 (1056)	\$413,600	\$-0-	\$ 413,600	\$-0-	\$ 156,200	\$ 156,200
Total	\$1,240,800	\$1,523,100	\$2,763,900	\$-0-	\$2,261,200	\$2,261,200

ENVIRONMENTAL COMPLIANCE:

The City of Irvine is the lead agency for CEQA compliance related to this project. Extension of this pipeline was included as part of the Environmental Impact Report for the Bake Parkway Extension Project, SCH #1985120404, certified January 2008.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee on December 8, 2011.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION OF PROJECT 11622 (3585) AND 30372 (3529) TO THE FY 2011-12 CAPITAL BUDGET IN THE AMOUNT OF \$470,800 AND \$1,052,300, RESPECTIVELY; APPROVE EXPENDITURE AUTHORIZATIONS FOR PROJECTS 10445 (1632), 11622 (3585), 30372 (3529), AND 30445 (1056) IN THE AMOUNTS OF \$581,900, \$470,800, \$1,052,300, AND \$156,200 RESPECTIVELY; APPROVE A POTENTIAL CHANGE OF WORK IN THE AMOUNT OF \$275,000 TO THE REIMBURSEMENT AGREEMENT WITH THE IRVINE COMMUNITY DEVELOPMENT COMPANY FOR PLANNING AREA 39 TO CONSTRUCT THE BAKE PARKWAY 12-INCH ZONE 3 DOMESTIC WATER PIPELINE, PROJECT 11622 (3585); AND APPROVE A CONSTRUCTION CONTRACT TO THE REIMBURSEMENT AGREEMENT WITH IRVINE COMMUNITY DEVELOPMENT COMPANY FOR PLANNING AREA 39 FOR \$282,800 AND \$552,951.47 FOR THE LAKE FOREST DRIVE IRWD CAPITAL FACILITIES, PROJECTS 10445 (1632) AND 30372 (3529).

LIST OF EXHIBITS:

- Exhibit "A" – Site Plan
- Exhibit "B" – Potential Change of Work
- Exhibit "C" – Bid Summary
- Exhibit "D" – Expenditure Authorizations

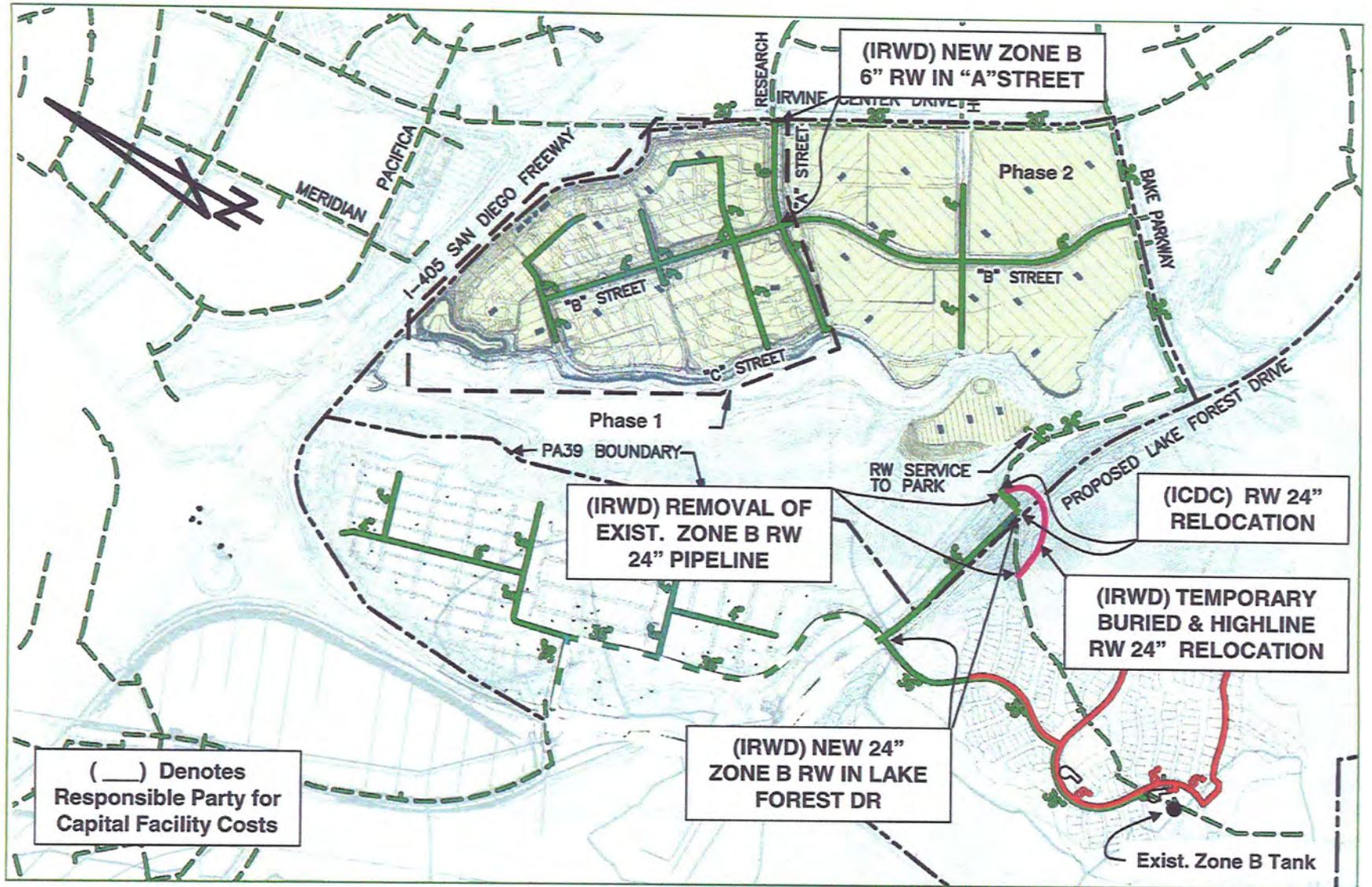
A-1



EXHIBIT "A"

PA 39 ICDC Development

A-3



RW PA 39 Phase 1 ICDC Development & Lake Forest Dr Improvements

Exhibit "B"

CHANGE NO.: 1
DATE: 11-28-11

POTENTIAL CHANGE OF WORK ACKNOWLEDGEMENT & VALUE (FOR IRWD CAPITAL IMPROVEMENTS)

The purpose of this form is to acknowledge a change in work for the intent of reimbursement of costs. Upon acceptance a change order will be issued.

IRWD P.O. No.: _____ ICDC Original PO No.: 4500034303
Owner: Irvine Community Development Company
Contractor/Consultants: _____
Sewer
Domestic Water x
Reclaim Water
Other Telemetry
Design Engineer: Hunsaker & Associates
IRWD Mgr. Randy Sundberg


Project Description: IRWD Capital Water Line, Spectrum 5, Bake Parkway 12-Inch DW

PART A – POTENTIAL CHANGE OF WORK:

Plan Revision Required: YES NO **Estimated Cost:** \$275,000

Change Initiated By: IRWD / Randy Sundberg

Work Description:
The contractor will install 12-DW starting at Bake Parkway and through the bridge at Bake as requested by the IRWD. The work is an IRWD Capital Improvement for the connection of transmission water mains. The work was competitively bid to three contractors. Kennedy Pipeline the low bidder, will work as subcontractor to KEC. The final amount of the contract and details will be completed this week. The amount will be less than the agreed estimated amount.

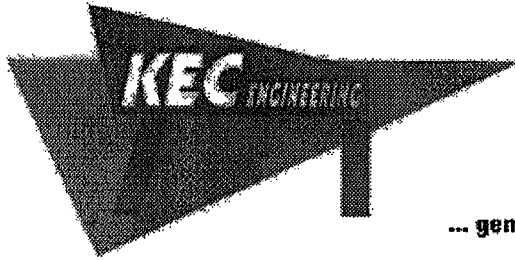
1. Submitted by:  11-28-11
Owner Representative / Date
- 2a. In IRWD's opinion the aforementioned work **does** **does not**
qualify as a potential change in work.
- 2b. IRWD comments (required if representative does not concur with the potential change):

- 2c. Reviewed by: _____
IRWD Representative / Date
3. Received and Recorded by: _____
Owner Representative / Date

PART B – CHANGE OF WORK VALUE: \$ _____

Detailed Backup Attached

1. Submitted by: _____
Owner Representative / Date
2. Recommended by: _____
IRWD Representative / Date



200 N. Sherman Avenue, Corona, California 92882-7162
 Telephone (951) 734-3010 Estimating Fax (951) 734-7987
 Lic. #701834

... general engineering contractors

To: ICDC	Contact: Bill Martin
Address: 550 Newport Center Dr., P.O. Box 6370 Newport Beach, CA 92660-7011 USA	Phone:
	Fax:
Project Name: ICDC Bake Pkwy/Lake Forest Dr. D. W. Zone 3 (e-mailed 9/14/11)	Bid Number: 7316
Project Location: Bake Parkway & Lake Forest Dr., Irvine, CA	Bid Date: 9/20/2011

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
1	Remove Tamp End Of Line Blow Off And Join Existing 12" Class 200 AWWA C900 PVC Domestic Water Main Per IRWD Std W-17	1.00	EACH	\$3,300.00	\$3,300.00
2	Install 12" Class 200 AWWA C900 PVC Domestic Water Main Per IRWD Std W-17	736.00	LF	\$118.00	\$86,848.00
3	Install 12" CML&C Steel Pipe (Steel Thickness Per Profile) Domestic Water Main Per IRWD Std W-17	392.00	LF	\$186.00	\$72,912.00
4	Install Fire Hydrant Assembly With 6" Lateral Per IRWD Std W-8	2.00	EACH	\$10,800.00	\$21,600.00
5	Install Fire Hydrant Assembly With 8" Lateral Per IRWD Std W-8	1.00	EACH	\$13,700.00	\$13,700.00
6	Install 12" Butterfly Valve FE X FE, Valve Box, And Bedding Per IRWD Std W-22, W-23, & W-17	3.00	EACH	\$6,300.00	\$18,900.00
7	Install 12" DIP 11.25 Degree Elbow (PO X PO) With Thrust Block Per IRWD Std W-16	4.00	EACH	\$2,100.00	\$8,400.00
8	Install 12" DIP 45 Degree Elbow (PO X PO) With Thrust Block Per IRWD Std W-16	2.00	EACH	\$1,200.00	\$2,400.00
9	Install 12" High Deflection Coupling Per IRWD Std W-17, Project Specifications And As Approved By IRWD	1.00	EACH	\$2,100.00	\$2,100.00
10	Not Used	0.00	UNIT	\$0.00	\$0.00
11	Install 1" Air Release & Vacuum Relief Valve Assembly Per IRWD Std W-11	1.00	EACH	\$10,400.00	\$10,400.00
12	Install Cathodic Protection Test Station At Each End Of CML&C Steel Pipe Per IRWD Std CP-1	1.00	EACH	\$1,400.00	\$1,400.00
13	Install At Each End Of Steel Casing; Cathodic Protection Test Stations Per IRWD Std CP-3 Location Of Test Box Shall Be Verified With IRWD Inspector Prior To Installation	2.00	EACH	\$1,700.00	\$3,400.00
14	Construct 20" Steel Casing, Spacers And End Seals Per Profile On Sheet 3 And IRWD Std W-21	62.00	LF	\$365.00	\$22,630.00
15	Install Casing Spacers And End Seals For Existing 24" RCP CASING (I = 16") PER IRWD Std W-21	3.00	EACH	\$861.00	\$2,583.00
16	Install Flexible Steel Coupling Per Detail 3 On Sheet 5 And Per IRWD Specifications	2.00	EACH	\$3,200.00	\$6,400.00
17	Install Welded Steel Gusselt Plate 2 Bolt Harness Restraint Assembly With Stainless Steel Bolts And Nuts Or Approved Equivalent Per Detail 3 On Sheet 5 And Per IRWD Specifications	2.00	EACH	\$4,500.00	\$9,000.00
18	Install Non-Conductive Pipe Roll Supports Per Plan, Details On Sheet 5 Per IRWD Specifications	14.00	EACH	\$510.00	\$7,140.00
19	Install Temporary End Of Line Flushout Assembly Per IRWD Std W-12	1.00	EACH	\$9,900.00	\$9,900.00
20	Sawcut, Remove, Slurry Bkfl. Trench, And Replace In Kind Existing AC Pavement Per City Of Irvine Std 223	291.00	SF	\$63.00	\$18,333.00

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
21	Cold Plane (Mill) 1-1/2" Min. Existing Pavement & Construct Variable Thickness Overlay (1-1/2" Min.) Asphalt Pavement Limits As Shown Per Plan.	956.00	SF	\$3.50	\$3,346.00
22	Sawcut, Remove & Replace In Kind Existing Curb And Gutter Per City Of Irvine Std 200	12.00	SF	\$425.00	\$5,100.00
23	Bond 1%	1.00	LS	\$3,331.00	\$3,331.00

Total Bid Price: ~~\$333,123.00~~

Notes:

- Bid is based off of plans received on 9-14-11.

\$275,000

*NEW PRICE PENDING
FINAL 275K OR LESS
USING KENNARD AS SUB
TO KEC.*

RIDGE

\$252,897 TO \$262,000

<p>ACCEPTED: The above prices, specifications and conditions are satisfactory and are hereby accepted.</p> <p>Buyer: _____</p> <p>Signature: _____</p> <p>Date of Acceptance: _____</p>	<p>CONFIRMED: KEC Engineering</p> <p>Authorized Signature: _____</p> <p>Estimator: J.P. Elfing 951-734-3010: jfm@kecengineering.com</p>
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Exhibit "C"

PRES-BID DATE: July 5, 2011
 PUBLIC BID OPENING DATE: August 2, 2011
 WITNESSED BY: ATTENDEES

BID SUMMARY
 Planning Area 42 Lake Forest Drive
 Future Assessment District Improvements - Contract A
 ACREAGE: 28 Acres
 TASK PC ID: LD-0813-60.05.cnd1

ENGINEER'S ESTIMATE HUNSAKER	LOW BIDDER SUKUT CONST.	2ND BIDDER STICE COMPANY	3RD BIDDER PINNICK	4TH BIDDER POST COMPANY
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COST ELEMENT ITEM	DESCRIPTION	QTY.	UNIT	TOTAL		UNIT PRICE		TOTAL		UNIT PRICE		TOTAL
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	
I.	LAKE FOREST DRIVE ROUGH GRADING PHASE 2											
D.	IRWD RECLAIMED WATER LINE											
44	SHUTDOWN, DRAIN, CUT, CAP, REMOVE AND DISPOSE OF EXISTING 24" ZONE B CHLOR RECLAIMED WATER PIPE	1	LS	80,000.00	80,000.00	5,000.00	5,000.00	10,000.00	10,000.00	5,775.00	5,775.00	7,500.00
				80,000.00		5,000.00		10,000.00		5,775.00		7,500.00
II.	OWNER'S OPTIONS											
	LAKE FOREST DRIVE STORM DRAIN IMPROVEMENTS - PH 2											
	OWNER may or may not include these items as part of the Contract											
P.	GENERAL - IRWD RECLAIMED WATER INVASION LINE											
9800490	Mobilization (NOT TO EXCEED 2% OF CONTRACT PRICE FOR SECTION Q)	1	LS	4,900.00	4,900.00	5,000.00	5,000.00	5,000.00	5,000.00	10,500.00	10,500.00	7,200.00
9800490	DEVELOP CONSTRUCTION WATER FOR (SECTION Q)	1	LS	3,675.00	3,675.00	300.00	300.00	5,000.00	5,000.00	10,000.00	10,000.00	10,000.00
9800490	IRWD RECLAIMED WATER INVASION LINE	1	LS	245,000.00	245,000.00	270,000.00	270,000.00	265,760.00	265,760.00	253,680.00	253,680.00	350,000.00
				245,000.00		270,000.00		265,760.00		253,680.00		350,000.00
9800720	PAYMENT AND PERFORMANCE BONDS - IRWD RECLAIMED WATER INVASION LINE	1	LS	3,675.00	3,675.00	2,500.00	2,500.00	2,125.08	2,125.08	4,410.00	4,410.00	7,200.00
				3,675.00		2,500.00		2,125.08		4,410.00		7,200.00
	TOTAL OWNER'S OPTION PRICE (SECTIONS P-R)			257,250.00		277,800.00		277,800.00		278,590.00		374,680.00
	GRAND TOTAL - (SECTION D, AND P-R)			337,250.00		282,800.00		287,695.08		284,385.00		381,900.00

BID SUMMARY

PLANNING AREA 38
 LAKE FOREST DRIVE PHASE 2 IRWD CAPITAL
 DOMESTIC WATER
 AND IRWD CAPITAL RECYCLED WATER
 IMPROVEMENTS
 Contract "B"

Task / PC ID No. LD-0039.ST.26.cn01
 Lineal Feet: domestic =3,340 reclaimed = 2025

ENGINEER'S ESTIMATE

LOW BIDDER

2ND BIDDER

3RD BIDDER

SAIC

FYDAQ

BOUDREAU

L&S

ITEM DESCRIPTION	QTY	UNIT	ENGINEER'S ESTIMATE		LOW BIDDER		2ND BIDDER		3RD BIDDER	
			UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
IRVINE RANCH WATER DISTRICT (IRWD) CAPITAL FACILITY IMPROVEMENTS LAKE FOREST DRIVE STREET IMPROVEMENTS - PH 2 (SECTIONS A-E) GENERAL										
A. MOBILIZATION (NOT TO EXCEED 2% OF CONTRACT PRICE FOR SECTION B-C)	1	LS	23800	23800	3000	3000	10750	10750	14000	14000
2 DEVELOP CONSTRUCTION WATER FOR (SECTION B-C) PROVIDE CONTINUOUS ACCESS, TRAFFIC CONTROL, AND STREET CLEANING AT LFD / ROMANO	1	LS	17850	17850	2000	2000	1300	1300	1600	1600
3 INTERSECTION FOR PROJECT DURATION RECYCLED WATER	1	LS	3500	3500	2500	2500	6000	6000	5650	5650
B. 4 INSTALL 2" AIR-VAC ASSEMBLY PER IRWD STD W-11	3	EA	5000	15000	3242.05	9726.15	4700	14100	4000	12000
INSTALL 24" CML&C WELDED STEEL CLASS 200										
5 WATERLINE & FITTINGS	2025	LF	250	506250	116.28	236467	114	230850	142	287550
6 INSTALL 12" BUTTERFLY VALVE PER IRWD STD W-22	1	EA	4000	4000	2651.07	2651.07	2800	2800	3500	3500
7 REMOVE TEMPORARY FLUSH-OUT AND JOIN EXISTING	1	LS	3000	3000	1500	1500	3800	3800	4900	4900
8 INSTALL 24" BUTTERFLY VALVE PER IRWD STD W-22	2	EA	15500	31000	7291.83	14583.66	7500	15000	15900	30800
9 CONSTRUCT 24" WATERLINE CONNECTIONS	2	EA	4000	8000	1800	3600	6000	12000	4400	8800
INSTALL CONCRETE SLOPE ANCHORS PER IRWD STD										
10 S-8	2	EA	4500	9000	2500	5000	1400	2800	890	1780
INSTALL 2" RECYCLED WATER METER SERVICE PER										
11 IRWD STD W-2	2	EA	5000	10000	3501.25	7002.5	4000	8000	2500	5000
REMOVE INTERFERRING PORTIONS OF EXISTING 24"										
12 CML&C PIPE	1	LS	15000	15000	1000	1000	5400	5400	1800	1800
13 REMOVE RECYCLED WATER INVASION LINE	1	LS	7500	7500	9429.83	9429.83	19000	19000	9500	9500
14 REMOVE RECYCLED WATER INVASION LINE SUPPORTS HARD MATERIAL EXCAVATION FOR FACILITIES	1	LS	7500	7500	5588.75	5588.75	7750	7750	1300	1300
C. 15 INSTALLATION DOMESTIC WATER	1	LS	10000	10000	4500	4500	9500	9500	9500	9500
INSTALL 12" PVC AWWA C-900 CLASS 200, DR-14										
16 WATERLINE & DI FITTINGS	3183	LF	46	143685	37.51	119769.43	40	127720	42	134106
INSTALL 12" CML&C WELDED STEEL CLASS 200										
17 WATERLINE AND FITTINGS PER IRWD STD W-20	245	LF	70	17150	61.1	14969.5	117	28665	175	42875
18 INSTALL 12" BUTTERFLY VALVE PER IRWD STD W-22	7	EA	4000	28000	2736.69	19156.83	2700	18900	3500	24500
19 CONSTRUCT 12" WATERLINE CONNECTION	1	EA	6000	6000	1500	1500	3000	3000	5000	5000
INSTALL CONCRETE SLOPE ANCHORS PER IRWD STD										
20 S-8	2	EA	3000	6000	2250	4500	1350	2700	890	1780
21 INSTALL TEMPORARY BLOW OFF PER IRWD STD. W-14	1	EA	3000	3000	1617.1	1617.1	3000	3000	1950	1950
22 REMOVE TEMPORARY FLUSH-OUT AND JOIN EXISTING	2	EA	2280	4560	1500	3000	2300	4600	3600	7200
23 FIRE HYDRANT ASSEMBLY PER IRWD STD W-8	6	EA	5500	33000	5285.99	31695.94	5800	34800	5050	30300
24 INSTALL 1" AIR-VAC ASSEMBLY PER IRWD STD W-11	4	EA	3000	12000	2413.23	9652.92	3600	14400	2700	10800
25 INSTALL 4" BLOW OFF PER IRWD STD W-14	1	EA	2500	2500	4735.26	4735.26	8000	8000	7000	7000
26 REMOVE DOMESTIC WATER INVASION LINE	1	LS	10000	10000	13878.38	13878.38	16000	16000	9000	9000
27 REMOVE DOMESTIC WATER INVASION LINE SUPPORTS HARD MATERIAL EXCAVATION FOR FACILITIES	1	LS	10000	10000	4000	4000	3500	3500	800	800
D. 28 INSTALLATION PAYMENT AND PERFORMANCE BONDS	1	LS	10000	10000	9454.5	9454.5	10500	10500	5500	5500
29 PAYMENT AND PERFORMANCE BONDS (SECTIONS B-C)	1	LS	17850	17850	7594.6	7594.6	10180	10180	11000	11000
TOTAL DELETABLE ITEMS - IRWD CAPITAL FACILITIES (A-D)				975145		\$652,951.42		634595		689491

BID SUMMARY

PLANNING AREA 39
 LAKE FOREST DRIVE PHASE 2 IRWD CAPITAL
 DOMESTIC WATER
 AND IRWD CAPITAL RECYCLED WATER
 IMPROVEMENTS
 Contract "B"
 Task / PC ID No. LD-0039.ST.25.cn01
 Lineal Feet: domestic =3,340 reclaimed = 2025

4TH BIDDER 5TH BIDDER 6TH BIDDER 7TH BIDDER
 KENNEDY LEATHERWOOD CLEARWATER STEVE BUBALO

ITEM DESCRIPTION	QTY	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
IRVINE RANCH WATER DISTRICT (IRWD) CAPITAL FACILITY IMPROVEMENTS LAKE FOREST DRIVE STREET IMPROVEMENTS - PH 2 (SECTIONS A-E)									
A. GENERAL MOBILIZATION (NOT TO EXCEED 2% OF CONTRACT PRICE FOR SECTION B-C)									
1	1	8500	8500	15000	15000	2500	2500	18000	18000
2	1	1500	1500	11000	11000	1500	1500	1000	1000
3	1	1500	1500	4000	4000	17900	17900	3000	3000
B. RECYCLED WATER									
4	3	3800	11400	5800	17400	3895	11685	4600	13500
5	2025	125	253125	140	283500	185	334125	180	364500
6	1	2100	2100	3300	3300	3275	3275	9500	3500
7	1	3000	3000	5800	5800	2500	2500	1000	1000
8	2	8500	17000	10600	21200	13800	27600	15000	30000
9	2	7500	15000	12000	24000	26625	51250	20000	40000
10	2	650	1300	1500	3000	4760	9520	4000	8000
11	2	4900	9800	5400	10800	7280	14560	2800	5600
12	1	750	750	4800	4800	5000	5000	1000	1000
13	1	4300	4300	22000	22000	15000	15000	1	1
14	1	2100	2100	7200	7200	5000	5000	1000	1000
C. DOMESTIC WATER									
15	1	1200	1200	7000	7000	8225	8225	7000	7000
16	3193	76	242868	50	159650	57	182001	80	255440
17	245	120	29400	150	36750	280	68600	230	58350
18	7	2400	16800	3300	23100	3275	22925	3500	24500
19	1	2500	2500	9800	9800	13725	13725	10000	10000
20	2	600	1200	1500	3000	2765	5530	2000	4000
21	1	1100	1100	3400	3400	5655	5655	2000	2000
22	2	2300	4600	2400	4800	2170	4340	1500	3000
23	8	4850	27900	8100	38600	8455	38730	9000	54000
24	4	3100	12400	3800	15200	3085	12280	4000	16000
25	1	8900	8900	7400	7400	5655	5655	3200	3200
26	1	4500	4500	17000	17000	7500	7500	3500	3500
27	1	800	800	10000	10000	1500	1500	1000	1000
D. PAYMENT AND PERFORMANCE BONDS									
28	1	1200	1200	4000	4000	6500	6500	5000	5000
29	1	10125	10125	10400	10400	12500	12500	8600	8600
TOTAL DELETABLE ITEMS - IRWD CAPITAL FACILITIES (A-D)			697488		774900		865061		841891

BID SUMMARY
 PLANNING AREA 39
 IRVINE CENTER DRIVE
 WET UTILITIES - CONTRACT "B4"
 PREVAILING WAGE
 TASK PC ID: "B4" LD-00398.ST.13.cr01

ENGINEER'S ESTIMATE REF	LOW BIDDER KENNEDY	2ND BIDDER L&S	3RD BIDDER KEC
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CHECK LIST
 Required Items to be included in bid package:

CODING*	ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL	Comments	UNIT PRICE	TOTAL	Comments	UNIT PRICE	TOTAL
II. DELETABLES ITEMS CONTRACT "B4" - IRVINE CENTER DRIVE IMPROVEMENTS:											
IRVINE RANCH WATER DISTRICT (IRWD) CAPITAL FACILITY (ITEMS MAY OR MAY NOT BE INCLUDED AS PART OF THE CONTRACT B4)											
D. GENERAL											
9600480	23 MOBILIZATION (NOT TO EXCEED 2% OF CONTRACT ITEMS D THROUGH E)	1	LS	\$1,000.00	\$1,000.00		\$500.00	\$500.00		\$500.00	\$500.00
9600480	24 DEVELOP CONSTRUCTION WATER (D-E)	1	LS	\$5,000.00	\$5,000.00		\$750.00	\$750.00		\$550.00	\$550.00
9600480	25 TRAFFIC CONTROL (D-E) *	1	LS	\$15,000.00	\$15,000.00		\$2,500.00	\$2,500.00		\$3,600.00	\$3,600.00
9600480	26 PAYMENT AND PERFORMANCE BONDS (D-E)	1	LS	\$20,000.00	\$20,000.00		\$430.00	\$430.00		\$2,250.00	\$2,250.00
E. RECLAIMED WATER - IRVINE CENTER DRIVE											
9600480	27 REPAIR AND REPLACE EXISTING PAVEMENT PER CITY OF IRVINE STANDARD PLAN 228	60	SF	\$10.00	\$600.00		\$34.00	\$2,040.00		\$45.00	\$2,700.00
9600480	28 INSTALL 20"x6" CUT-IN TEE (FO X FE WITHOUT VALVES) CLASS 200 PER IRWD STANDARD DRAWING NO. W-19	1	EA	\$4,000.00	\$4,000.00		\$19,950.00	\$19,950.00		\$8,500.00	\$8,500.00
9600480	29 INSTALL 6" RECLAIMED WATER PIPE (AWWA C-900 PVC, CLASS 200)	80	LF	\$20.00	\$1,600.00		\$95.00	\$7,600.00		\$145.00	\$11,600.00
9600480	30 INSTALL 6" GATE VALVE (FE X FE) CLASS 200 PER IRWD STANDARD DRAWING NO. W-22	1	EA	\$1,000.00	\$1,000.00		\$900.00	\$900.00		\$1,100.00	\$1,100.00
9600480	31 INSTALL 6" (FE X FO) CLASS 200 ADAPTOR WATER SERVICE AND METER	1	EA	\$250.00	\$250.00		\$350.00	\$350.00		\$190.00	\$190.00
9600480	32 ALL ELSE REQUIRED TO COMPLETE THE CAPITAL RECLAIMED WATER LINE (IRVINE CENTER DRIVE) AS SHOWN ON PLANS, SPECIFICATIONS & AGENCY STANDARDS, BUT NOT SHOWN ON SCHEDULE OF VALUES	1	LS	\$2,000.00	\$2,000.00		\$100.00	\$100.00		\$1.00	\$1.00
SUBTOTAL BID PRICE - DELETABLES ITEMS - IRVINE CENTER DRIVE (SECTION II):					\$50,450.00		\$26,120.00	\$26,120.00		\$31,031.00	\$31,031.00
											\$36,208.00

C-4

*Preliminary Cost Elements, subject to Finance and Project Management Approval.

4TH BIDDER CLEARWATER	5TH BIDDER ARB	6TH BIDDER BOUPPREAU	7TH BIDDER SULLY MILLER	8TH BIDDER FYDAG
Comments	Comments	Comments	Comments	Comments
UNIT PRICE	UNIT PRICE	UNIT PRICE	UNIT PRICE	UNIT PRICE
TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
\$1,500.00	\$750.00	\$800.00	\$1,500.00	\$1,000.00
\$1,500.00	\$1,000.00	\$300.00	\$2,200.00	\$500.00
\$2,500.00	\$10,200.00	\$5,600.00	\$600.00	\$1,000.00
\$700.00	\$750.00	\$600.00	\$480.00	\$810.29
\$20.00	\$45.00	\$25.00	\$51.00	\$750.00
\$15,000.00	\$6,000.00	\$13,000.00	\$7,350.00	\$5,000.00
\$170.00	\$68.00	\$98.00	\$91.00	\$26.01
\$2,000.00	\$3,200.00	\$300.00	\$1,600.00	\$1,189.15
\$500.00	\$725.00	\$160.00	\$9,000.00	\$0.01
\$500.00	\$8,300.00	\$7,600.00	\$1,700.00	\$500.00
<u>\$30,000.00</u>	<u>\$39,055.00</u>	<u>\$39,300.00</u>	<u>\$49,580.00</u>	<u>\$57,080.25</u>

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**BID SUMMARY
PLANNING AREA 39
'A' STREET
WET UTILITIES - CONTRACT "B1"
PREVAILING WAGE**

TASK PC ID: "B1" LD-0068-ST-05.crf01

CHECKLIST

Required items to be included in bid package:

ENGINEERS ESTIMATE RBF	LOW BIDDER FYDAG	2ND BIDDER CLEARWATER	3RD BIDDER LAS
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COINGS	ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL	Comments	UNIT PRICE	TOTAL	Comments	UNIT PRICE	TOTAL	Comments
V.	DELETABLES ITEMS CONTRACT "B1" - 'A' STREET - IRVINE RANCH WATER DISTRICT (IRWD) CAPITAL FACILITY IMPROVEMENTS. (ITEMS MAY OR MAY NOT BE INCLUDED AS PART OF THE CONTRACT B1)											
J. GENERAL	MOBILIZATION (NOT TO EXCEED 2% OF CONTRACT ITEMS J THROUGH K. RECLAIMED WATER - 'A' STREET NO. W-11)											
8600480	68	1	LS	\$1,500.00	\$1,500.00		\$750.00	\$750.00		\$1,500.00	\$1,500.00	
9600480	69	1	LS	\$5,000.00	\$5,000.00		\$1,500	\$1,500.00		\$1,500.00	\$1,500.00	
9600480	70	1	LS	\$15,000.00	\$15,000.00		\$0.01	\$0.01		\$1,000.00	\$1,000.00	
9600480	71	1	LS	\$20,000.00	\$20,000.00		\$382.54	\$382.54		\$500.00	\$500.00	
8600480	72	1	EA	\$2,800.00	\$2,800.00		\$1,852.86	\$1,852.86		\$2,000.00	\$2,000.00	
8600480	73	1	EA	\$1,300.00	\$1,300.00		\$925.35	\$925.35		\$1,750.00	\$1,750.00	
9600480	74	777	LF	\$20.00	\$15,540.00		\$17.75	\$13,791.75		\$20.00	\$15,540.00	
9600480	75	2	EA	\$1,000.00	\$2,000.00		\$1,188.15	\$2,376.30		\$1,200.00	\$2,400.00	
9600480	76	4	EA	\$500.00	\$2,000.00		\$300.00	\$1,200.00		\$115.00	\$460.00	
9600480	77	1	EA	\$300.00	\$300.00		\$0.01	\$0.01		\$500.00	\$500.00	
9600480	78	2	EA	\$260.00	\$520.00		\$0.01	\$0.02		\$50.00	\$100.00	
9600480	79	1	EA	\$210.00	\$210.00		\$0.01	\$0.01		\$250.00	\$250.00	
9600480	80	2	EA	\$300.00	\$600.00		\$0.01	\$0.02		\$250.00	\$500.00	
9600480	81	2	EA	\$250.00	\$500.00		\$0.01	\$0.02		\$250.00	\$500.00	
9600480	82	1	EA	\$2,000.00	\$2,000.00		\$1,583.69	\$1,583.69		\$2,000.00	\$2,000.00	
9600480	83	1	LS	\$5,000.00	\$5,000.00		\$500.00	\$500.00		\$500.00	\$500.00	
SUBTOTAL BID PRICE - DELETABLES ITEMS - 'A' STREET (SECTION V):					\$74,270.00							
SUBTOTAL BID PRICE - DELETABLES ITEMS - 'A' STREET (SECTION V):					\$31,000.00							
SUBTOTAL BID PRICE - DELETABLES ITEMS - 'A' STREET (SECTION V):					\$31,000.00							

\$31,000.00

PRE-BID MEETING DATE: July 29, 2011
 BID OPENING DATE: Sept. 1, 2011
 WITNESSED BY: K. Clemons
 M. Bohac

BID SUMMARY
 PLANNING AREA 39
 'A' STREET
 WET UTILITIES - CONTRACT 'B1'
 PREVAILING WAGE

TASK FC ID: "B1" LD-0038.ST.05.cm01

4TH BIDDER BOUDREAU	5TH BIDDER KENNEDY	6TH BIDDER ARB	7TH BIDDER KEC	8TH BIDDER SULLY MILLER
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COOR#	ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL	Comments	UNIT PRICE	TOTAL	Comments	UNIT PRICE	TOTAL	Comments	UNIT PRICE	TOTAL	Comments	
V.	DELETABLES ITEMS CONTRACT 'B1' - 'A' STREET - IRVINE RANCH WATER DISTRICT (IRWD) CAPITAL FACILITY IMPROVEMENTS:															
	(ITEMS MAY OR MAY NOT BE INCLUDED AS PART OF THE CONTRACT B1)															
J.	GENERAL															
8600480	68 MOBILIZATION (NOT TO EXCEED 2% OF CONTRACT ITEMS J THROUGH	1	LS	\$650.00	\$650.00		\$500.00	\$1,000.00		\$1,400.00	\$1,400.00		\$4,900.00	\$4,900.00		
8600480	69 DEVELOP CONSTRUCTION WATER (A-K)	1	LS	\$300	\$300.00		\$500	\$500.00		\$4,100	\$4,100.00		\$2,200	\$2,200.00		
8600480	70 TRAFFIC CONTROL (A-K) **	1	LS	\$1.00	\$1.00		\$250.00	\$250.00		\$1,400.00	\$1,400.00		\$800.00	\$800.00		
8600480	71 PAYMENT AND PERFORMANCE BONDS (A-K)	1	LS	\$625.00	\$625.00		\$758.00	\$758.00		\$700.00	\$700.00		\$1,077.00	\$1,077.00		
00480	K. RECLAIMED WATER - 'A' STREET															
00480	72 INSTALL 1" AIR & VACUUM RELEASE PER IRWD STANDARD DRAWING NO. W-11	1	EA	\$3,500.00	\$3,500.00		\$3,800.00	\$3,800.00		\$3,300.00	\$3,300.00		\$5,000.00	\$5,000.00		
00480	73 INSTALL TEMPORARY FLUSH-OUT ASSEMBLY PER IRWD STANDARD DRAWING NO. W-12	1	EA	\$600.00	\$600.00		\$550.00	\$550.00		\$900.00	\$900.00		\$3,300.00	\$3,300.00		
00480	74 INSTALL 6" RECLAIMED WATER PIPE (AWWA C-900 PVC, CLASS 200)	777	LF	\$24.00	\$18,648.00		\$38,073.00	\$38,073.00		\$50.00	\$38,850.00		\$73.00	\$56,721.00		
0480	75 INSTALL 2" GATE VALVE (FE X FE) CLASS 200 PER IRWD STANDARD DRAWING NO. W-22	2	EA	\$900.00	\$1,800.00		\$3,000.00	\$3,000.00		\$1,800.00	\$3,600.00		\$1,200.00	\$2,400.00		
0480	76 ADJUST 6" GATE VALVE COVER TO GRADE **	4	EA	\$350.00	\$1,400.00		\$2,200.00	\$2,200.00		\$300.00	\$1,200.00		\$385.00	\$1,340.00		
0480	77 INSTALL 6"x6" CROSS (FE X FE) CLASS 200 PER PLAN (THRUST BLOCK PER IRWD STANDARD DRAWING NO. W-16)	1	EA	\$400.00	\$400.00		\$300.00	\$300.00		\$1,900.00	\$1,800.00		\$900.00	\$600.00		
8600480	78 INSTALL 6"x4" REDUCER (FE X FO) CLASS 200 (THRUST BLOCK PER IRWD STANDARD DRAWING NO. W-16)	2	EA	\$85.00	\$166.00		\$250.00	\$424.00		\$800.00	\$1,600.00		\$800.00	\$1,600.00		
8600480	79 INSTALL 6" (CLASS 200) END CAP FOR RECYCLED WATER	1	EA	\$240.00	\$240.00		\$175.00	\$270.00		\$820.00	\$820.00		\$725.00	\$725.00		
8600480	80 INSTALL 22.5 DEGREE BEND CLASS 200 (THRUST BLOCK PER IRWD STANDARD DRAWING NO. W-16)	2	EA	\$200.00	\$400.00		\$300.00	\$700.00		\$600.00	\$1,200.00		\$760.00	\$1,520.00		
8600480	81 INSTALL 6" (FE X FO) CLASS 200 ADAPTOR WATER SERVICE AND	2	EA	\$160.00	\$320.00		\$220.00	\$440.00		\$1,050.00	\$1,000.00		\$6,100.00	\$12,200.00		
8600480	82 INSTALL 2" IRRIGATION METER PER IRWD STANDARD PLAN W-2	1	EA	\$2,000.00	\$2,000.00		\$125.00	\$2,700.00		\$4,100.00	\$4,100.00		\$10,500.00	\$10,500.00		
8600480	83 ALL ELSE REQUIRED TO COMPLETE THE CAPITAL RECLAIMED WATER LINE ('A' STREET) AS SHOWN ON PLANS, SPECIFICATIONS & AGENCY STANDARDS, BUT NOT SHOWN ON SCHEDULE OF VALUES	1	LS	\$1,500.00	\$1,500.00		\$200.00	\$3,900.00		\$1,500.00	\$1,500.00		\$3,800.00	\$3,800.00		
	SUBTOTAL BID PRICE - DELETABLES ITEMS - 'A' STREET (SECTION V):				\$51,301.00			\$65,885.00			\$78,470.00			\$108,785.00		

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*Preliminary Cost Elements, subject to Finance and Project Management Approval.

EXHIBIT "D"

IRVINE RANCH WATER DISTRI Expenditure Authorization

Project Name: PA39 DW PIPELINES (LAKE FOREST BAKE TO ROMANO)1632

Project No: 10445 EA No: 1

ID Split: Miscellaneous

Project Manager: CORTEZ, MALCOLM

Project Engineer: SUNDBERG, RANDALL

Request Date: November 4, 2011

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
130	100.0	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$581,900
Total EA Requests:	\$581,900
Previously Approved Budget:	\$827,200
Budget Adjustment Requested this EA:	\$0
Updated Budget:	\$827,200
Budget Remaining After This EA	\$245,300

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	10,000	0	10,000	(10,000)	20,000	10,000	7/11	9/11
ENGINEERING DESIGN - OUTSIDE	30,000	0	30,000	0	30,000	30,000	7/11	9/11
DESIGN STAFF FIELD SUPPORT	2,000	0	2,000	(3,000)	5,000	2,000	8/11	9/11
ENGINEERING - CA&I IRWD	30,000	0	30,000	10,000	20,000	30,000	9/11	8/12
ENGINEERING - CA&I OUTSIDE	50,000	0	50,000	20,000	30,000	50,000	9/11	8/12
CONSTRUCTION FIELD SUPPORT	5,000	0	5,000	0	5,000	5,000	9/11	8/12
CONSTRUCTION	400,000	0	400,000	(17,000)	640,000	623,000	9/11	8/12
LEGAL	2,000	0	2,000	0	2,000	2,000	8/11	8/12
Contingency - 10.00% Subtotal	\$52,900	\$0	\$52,900	\$0	\$75,200	\$75,200		
Subtotal (Direct Costs)	\$581,900	\$0	\$581,900	\$0	\$827,200	\$827,200		
Estimated G/A - 180.00% of direct labor*	\$84,600	\$0	\$84,600	(\$5,400)	\$90,000	\$84,600		
Total	\$666,500	\$0	\$666,500	(\$5,400)	\$917,200	\$911,800		
Direct Labor	\$47,000	\$0	\$47,000	(\$3,000)	\$50,000	\$47,000		

*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 \$931 additional documents, if any, which are hereby incorporated into this project is made under Treasury Regulation Section 1.150-2.

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: BAKE PKWY SAN DIEGO CRK TO LAKE FOREST DR (3585)

Project No: 11622 EA No: 1

ID Split: Miscellaneous

Project Manager: LEW, KELLY

Project Engineer: SUNDBERG, RANDALL

Request Date: November 8, 2011

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
130	100.0	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$470,800
Total EA Requests:	\$470,800
Previously Approved Budget:	\$0
Budget Adjustment Requested this EA:	\$470,800
Updated Budget:	\$470,800
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 DESIGN - IRWD	5,000	0	5,000	5,000	0	5,000	9/11	10/11
ENGINEERING DESIGN - OUTSIDE	30,000	0	30,000	30,000	0	30,000	9/11	10/11
DESIGN STAFF FIELD SUPPORT	1,000	0	1,000	1,000	0	1,000	9/11	10/11
ENGINEERING - CA&I IRWD	30,000	0	30,000	30,000	0	30,000	10/11	10/12
ENGINEERING - CA&I OUTSIDE	25,000	0	25,000	25,000	0	25,000	10/11	10/12
CONSTRUCTION FIELD SUPPORT	3,000	0	3,000	3,000	0	3,000	10/11	10/12
CONSTRUCTION	330,000	0	330,000	330,000	0	330,000	10/11	10/11
LEGAL	4,000	0	4,000	4,000	0	4,000	9/11	10/12
Contingency - 10.00% Subtotal	\$42,800	\$0	\$42,800	\$42,800	\$0	\$42,800		
Subtotal (Direct Costs)	\$470,800	\$0	\$470,800	\$470,800	\$0	\$470,800		
Estimated G/A - 180.00% of direct labor*	\$70,200	\$0	\$70,200	\$70,200	\$0	\$70,200		
Total	\$541,000	\$0	\$541,000	\$541,000	\$0	\$541,000		
Direct Labor	\$39,000	\$0	\$39,000	\$39,000	\$0	\$39,000		

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

EA Originator: _____ 11/9/11

Department Director: _____ 11/29/11

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 \$552,000. This debt is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. The official 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: LAKE FOREST DR.PA 39 24" BAKE TO ROMANO ORC=3529

Project No: 30372 EA No: 1

ID Split: Miscellaneous

Project Manager: CORTEZ, MALCOLM

Project Engineer: SUNDBERG, RANDALL

Request Date: November 4, 2011

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
212	29.2	BONDS YET TO BE SOLD**
221	29.3	BONDS YET TO BE SOLD**
230	21.3	BONDS YET TO BE SOLD**
261	20.2	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$1,052,300
Total EA Requests:	\$1,052,300
Previously Approved Budget:	\$0
Budget Adjustment Requested this EA:	\$1,052,300
Updated Budget:	\$1,052,300
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	15,000	0	15,000	15,000	0	15,000	7/11	9/11
ENGINEERING DESIGN - OUTSIDE	55,000	0	55,000	55,000	0	55,000	7/11	9/11
DESIGN STAFF FIELD SUPPORT	2,000	0	2,000	2,000	0	2,000	7/11	9/11
ENGINEERING - CA&I IRWD	50,000	0	50,000	50,000	0	50,000	9/11	7/12
ENGINEERING - CA&I OUTSIDE	70,000	0	70,000	70,000	0	70,000	9/11	7/12
CONSTRUCTION FIELD SUPPORT	5,000	0	5,000	5,000	0	5,000	9/11	7/12
CONSTRUCTION	800,000	0	800,000	800,000	0	800,000	9/11	7/12
LEGAL	5,000	0	5,000	5,000	0	5,000	7/11	7/12
Contingency - 5.00% Subtotal	\$50,300	\$0	\$50,300	\$50,300	\$0	\$50,300		
Subtotal (Direct Costs)	\$1,052,300	\$0	\$1,052,300	\$1,052,300	\$0	\$1,052,300		
Estimated G/A - 180.00% of direct labor*	\$129,600	\$0	\$129,600	\$129,600	\$0	\$129,600		
Total	\$1,181,900	\$0	\$1,181,900	\$1,181,900	\$0	\$1,181,900		
Direct Labor	\$72,000	\$0	\$72,000	\$72,000	\$0	\$72,000		

*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 \$1,206,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. The official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: PA39 RW PIPELINES (1056)
 Project No: 30445 EA No: 1
 Project Manager: CORTEZ, MALCOLM
 Project Engineer: SUNDBERG, RANDALL
 Request Date: November 9, 2011

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
230	100.0	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$156,200
Total EA Requests:	\$156,200
Previously Approved Budget:	\$413,600
Budget Adjustment Requested this EA:	\$0
Updated Budget:	\$413,600
Budget Remaining After This EA	\$257,400

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	10,000	0	10,000	0	20,000	20,000	7/11	7/12
ENGINEERING DESIGN - OUTSIDE	20,000	0	20,000	0	40,000	40,000	7/11	7/12
DESIGN STAFF FIELD SUPPORT	1,000	0	1,000	0	2,000	2,000	7/11	7/12
ENGINEERING - CA&I IRWD	10,000	0	10,000	0	20,000	20,000	8/11	6/14
ENGINEERING - CA&I OUTSIDE	20,000	0	20,000	0	40,000	40,000	8/11	6/14
CONSTRUCTION FIELD SUPPORT	1,000	0	1,000	0	2,000	2,000	8/11	6/14
CONSTRUCTION	80,000	0	80,000	0	250,000	250,000	8/11	6/14
LEGAL	0	0	0	0	2,000	2,000	7/11	6/14
Contingency - 10.00% Subtotal	\$14,200	\$0	\$14,200	\$0	\$37,600	\$37,600		
Subtotal (Direct Costs)	\$156,200	\$0	\$156,200	\$0	\$413,600	\$413,600		
Estimated G/A - 180.00% of direct labor*	\$39,600	\$0	\$39,600	\$0	\$79,200	\$79,200		
Total	\$195,800	\$0	\$195,800	\$0	\$492,800	\$492,800		
Direct Labor	\$22,000	\$0	\$22,000	\$0	\$44,000	\$44,000		

*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: *Randall Sundberg* 11/9/11
 Department Director: *Keith L. Burton* 11/29/11
 Finance: _____
 Board/General Manager: _____

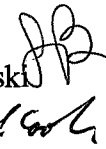
** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$503,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. It is the official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-

December 12, 2011

Prepared and

Submitted by: L. Bonkowski

Approved by: Paul Cook



ACTION CALENDAR

ANNUAL BOARD OF DIRECTORS' FEES

SUMMARY:

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

BACKGROUND:

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

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

FISCAL IMPACTS:

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

ENVIRONMENTAL COMPLIANCE:

Not applicable

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on November 22, 2011 and December 6, 2011.

RECOMMENDATION:

THAT THE BOARD EITHER ACCEPT OR DECLINE THE 5% SCHEDULED COMPENSATION INCREASE FOR CALENDAR YEAR 2012.

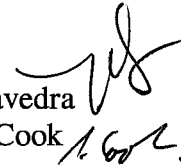
LIST OF EXHIBITS:

Exhibit "A" – Survey of Director Fees

**BOARD OF DIRECTORS PER DIEM SURVEY
As of October, 2011**

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

December 12, 2011
Prepared and
Submitted by: N. Savedra
Approved by: Paul Cook



ACTION CALENDAR

ELECTION OF OFFICERS FOR 2012

SUMMARY:

The Bylaws of the District provide that the President and Vice President shall be elected by the Board from among its members. The term of office of the President and Vice President is one year, or until the election and qualification of their successors. On December 13, 2010, Director Steven LaMar was elected to the office of President and Director Mary Aileen Matheis was elected to the office of Vice President.

While there are no formal election procedures set forth in the Bylaws, it is suggested that the General Manager be appointed temporary Chairman to conduct the election of President. The temporary Chairman would open nominations, accept nominations which need not be seconded, accept a motion to close the nominations, and conduct the balloting by voice vote. The President would then conduct the election of the Vice President in a similar manner.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT AN ELECTION BE CONDUCTED OF THE PRESIDENT AND VICE PRESIDENT OF THE BOARD OF DIRECTORS OF THE IRVINE RANCH WATER DISTRICT.

LIST OF EXHIBITS:

None.