AGENDA
IRVINE RANCH WATER DISTRICT
BOARD OF DIRECTORS
REGULAR MEETING

March 25, 2013

PLEDGE OF ALLEGIANCE

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

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

NOTICE

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

COMMUNICATIONS TO THE BOARD

1. A. Written:

   B. Oral: Mrs. Joan Irvine Smith's assistant 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.

CONSENT CALENDAR	Next Resolution No. 2013-12	Items 3-10

3. MINUTES OF REGULAR BOARD MEETING

   Recommendation: That the minutes of the March 11, 2013 Regular Board Meeting and the March 14, 2013 Adjourned Regular Board Meeting be approved as presented.

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

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

CONSENT CALENDAR – Continued	Next Resolution No. 2013-12	Items 3-10

5. FEBRUARY 2013 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report and the Monthly Interest Rate Swap Summary for February 2013; approve the February 2013 Summary of Payroll ACH payments in the total amount of $1,356,292 and approve the February 2013 Accounts Payable Disbursement Summary of Warrants 336721 through 337404, workers' compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of $13,286,966.

6. STRATEGIC MEASURES DASHBOARD

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

7. NOTICE OF RELEASE SECTION III, PARAGRAPH G OF QUITCLAIM DEED PER INSTRUMENT NO. 2005000536288, OFFICIAL RECORDS - GREAT PARK NEIGHBORHOOD – DISTRICT 8

Recommendation: That the Board adopt a Resolution approving execution of the Notice of Release of Section III, Paragraph G of Quitclaim Deed per Instrument No. 2005000536288, Official Records - Great Park Neighborhood – District 8.

Reso No. 2013-

8. ORANGE PARK ACRES DOMESTIC WATER PRESSURE REGULATING STATIONS AND FIRE FLOW IMPROVEMENTS FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Orange Park Acres Domestic Water Pressure Regulating Stations and fire flow improvements, projects 11409 (1287) and 11410 (1297); authorize the filing of a Notice of Completion; and authorize the release of retention 35 days after filing of the Notice of Completion.

9. PLANNING AREA 40 CYPRESS VILLAGE PHASE 3B BUDGET AND EXPENDITURE AUTHORIZATION

Recommendation: That the Board authorize the addition of project 30416 (4318) in the amount of $165,000 to the Fiscal Year 2012-13 Capital Budget and approve an Expenditure Authorization in the amount of $165,000 for Planning Area 40 Phase 3B IRWD Capital Facilities, project 30416 (4318).

CONSENT CALENDAR – Continued **Next Resolution No. 2013-12** **Items 3-10**

10. STOCKDALE INTEGRATED BANKING PROJECT ENVIRONMENTAL COMPLIANCE VARIANCE

Recommendation: That the Board approve an increase to the Fiscal Year 2012-13 Capital Budget in the amount of $55,000 for project 11645 (3766) for additional environmental compliance work; and approve an Expenditure Authorization for project 11645 (3766) in the amount of $55,000 for the additional environmental compliance work, staff and legal time.

ACTION CALENDAR

11. MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION AND FLOOD PROTECTION IMPROVEMENTS BUDGET AND EXPENDITURE AUTHORIZATION INCREASES AND CONTRACT CHANGE ORDER

Recommendation: That the Board authorize a budget increase to the MWRP Phase 2 Expansion project 20214 (1599) in the amount of $2,365,300, from $66,615,300 to $68,980,600; authorize a budget increase to the MWRP Phase 2 Expansion project 30214 (1706) in the amount of $1,488,500, from $44,164,200 to $45,652,700; authorize a budget increase to the MWRP Flood Protection Improvements project 20542 (1150) in the amount of $185,700, from $5,215,500 to $5,401,200; authorize a budget increase to the MWRP Flood Protection Improvements project 30542 (1118) in the amount of $208,400, from $3,304,500 to $3,512,900; approve Expenditure Authorizations in the amount of $2,365,300 for project 20214 (1599), $1,488,500 for project 30214 (1706), $404,500 for project 20542 (1150), and $404,100 for project 30542 (1118); and approve Contract Change Order No. 90 with Filanc in the amount of $410,000 for extended overhead costs for the MWRP Phase 2 Expansion and Flood Protection Improvements, projects 20214 (1599), 30214 (1706), 20542 (1150) and 30542 (1118).

12. MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES CONSTRUCTION AWARD AND CONSTRUCTION PHASE AUTHORIZATIONS

Recommendation: That the Board find that the irregularities in the bid of Filanc/Balfour Beatty Joint Venture, did not affect the bid amount or give the bidder a competitive advantage over other bidders and waive the irregularities; authorize the General Manager to execute a construction contract with Filanc/Balfour Beatty Joint Venture, in the amount of $163,465,940; authorize the General Manager to execute a Professional Services Agreement with Black & Veatch in the amount of $12,509,031 for construction management and engineering services during construction; authorize the General Manager to

ACTION CALENDAR - Continued

execute a Professional Services Agreement with ARCADIS-US in the amount of $2,931,368 for construction management services; authorize the General Manager to execute a Professional Services Agreement with HDR Engineering in the amount of $2,834,476 for construction management services; authorize the General Manager to execute a Professional Services Agreement with NMG Geotechnical in the amount of $588,972 for geotechnical services and pile inspection services; authorize the General Manager to execute a Professional Services Agreement with Borchard Surveying in the amount of $206,680 for surveying services; authorize the General Manager to execute a Professional Services Agreement with Dudek in the amount of $94,616 for third-party project review services; authorize the General Manager to approve Environ Variance No. 5 for $25,000 for air permitting services; authorize a budget decrease for the MWRP Biosolids and Energy Recovery Facilities project 20847 (1617) in the FY 2012-13 Capital Budget for the design and bidding phase in the amount of $159,119,800, from $174,579,000 to $15,459,200; authorize the addition of the MWRP Biosolids and Energy Recovery Facilities project 21146 (4286) for the construction phase to the FY 2012-13 Capital Budget in the amount of $196,465,500; and approve an Expenditure Authorization in the amount of $196,465,500 for the MWRP Biosolids and Energy Recovery Facilities, project 21146 (4286).

13. PLANNING AREA 18 ZONE 3-4 AND ZONE B-C BOOSTER PUMP STATIONS CONSULTANT SELECTION

Recommendation: That the Board approve Expenditure Authorizations in the amounts of $210,000 and $105,000 for projects 10446 (1648) and 30446 (1063), respectively, and authorize the General Manager to execute a Professional Services Agreement with Lee & Ro, Inc. in the amount of $499,648 for engineering design, bidding support, and construction support services for the Planning Area 18 Zone 3-4 and the Zone B-C Booster Pump Stations, projects 10446 (1648) and 30446 (1063).

14. DYER ROAD WELL FIELD WELL NOS. 2 AND 5 REHABILITATIONS AND ON-CALL HYDROGEOLOGIST CONSULTANT SELECTION

Recommendation: That the Board authorize the addition of DRWF No. 2 and DRWF No. 5 Rehabilitation project 11693 (4326) in the amount of $706,000 to the FY 2012-13 Capital Budget; authorize the addition of a 3-year Domestic Water System Well Rehabilitation Program project 11672 (4327) in the amount of $2,097,900 to the FY 2012-13 Capital Budget; authorize the addition of a 3-year Recycled Water System Well Rehabilitation Program project 30402 (4328) in the amount of $1,029,000 to the FY 2012-13 Capital Budget; approve an Expenditure Authorization in the amount of $79,000 for the DRWF No. 2 and DRWF No. 5 Rehabilitation project 11693 (4326); approve an Expenditure Authorization in the

ACTION CALENDAR - Continued

amount of $196,400 for the 3-year Domestic Water System Well Rehabilitation Program project 11672 (4327); approve an Expenditure Authorization in the amount of $106,000 for the 3-year Recycled Water System Well Rehabilitation Program project 30402 (4328); authorize the General Manager to execute a Professional Services Agreement in the amount of $102,194 with Richard C. Slade & Associates for design and construction phase services for the DRWF No. 2 and DRWF No. 5 Rehabilitation project 11693 (4326); authorize the General Manager to execute a Professional Services Agreement in the amount of $150,000 with Richard C. Slade & Associates for on-call well rehabilitation design and construction phase services for future well rehabilitation projects; and authorize the General Manager to execute a Professional Services Agreement in the amount of $150,000 with geoscience for on-call well rehabilitation design and construction phase services for future well rehabilitation projects.

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.

15. A. General Manager's Report

B. Directors' Comments

C. CLOSED SESSION:

1). Conference with Legal Counsel relative to litigation – Government Code Section 54956.9(d)(4) - initiation of litigation (one potential case) (potential settlement – professional services).

2) Conference with Real Property Negotiator (Government Code Section 54956.8).
Property: State project water entitlements to be added to various parcels –
Portions of Sections 25, 26, 34, and 35 of T23S R19E MDB&M
Negotiating Parties: Carpenteria Valley Water District and Dudley Ridge Water District
Agency Negotiator: Paul Cook, General Manager
Purpose of Negotiations: Price and Terms of Payment

OTHER BUSINESS - Continued

D. OPEN SESSION: Reporting of any Actions(s) as determined in Closed Session.

E. Adjourn

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

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

March 25, 2013
Prepared and
Submitted by: L. Bonkowski
Approved by: P. Cook

CONSENT CALENDAR

MINUTES OF BOARD MEETINGS

SUMMARY:

Provided are the minutes of the March 11, 2013 Regular Board meeting and the March 14, 2013 Adjourned Regular Board meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE MARCH 11, 2013 REGULAR BOARD MEETING AND THE MARCH 14, 2013 ADJOURNED REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – Minutes – March 11, 2013
Exhibit "B" – Minutes – March 14, 2013

EXHIBIT "A"

MINUTES OF REGULAR MEETING – MARCH 11, 2013

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President Reinhart on March 11, 2013 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Matheis (arrived at 5:08 p.m.), Reinhart, LaMar, Swan and Withers (arrived at 5:15 p.m.)

Directors Absent: None

Also Present: General Manager Cook, Director of Risk Management and Treasury Jacobson, Executive Director of Engineering Burton, Executive Director of Water Policy Heiertz, Director of Water Resources Weghorst, Assistant Director of Conservation Sanchez, Legal Counsel Arneson, Secretary Bonkowski, Ms. Christine Compton, Mr. Jim Reed, Mr. Bruce Newell, Mr. Mike Hoolihan, Mr. Ray Bennett, Mr. Peter Gonzalez, Mr. John Dayer, Mr. Ken Drake, Mr. Jeff Thomas, and other members of the public and staff.

WRITTEN COMMUNICATION: None.

ORAL COMMUNICATION:

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

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.

The Municipal Water District of Orange County's Vice President, Mr. Jeff Thomas, presented to the Board of Directors a refund check for excess Tier 2 contingency funds for water.

PRESENTATION

RESOLUTION OF COMMENDATION FOR PETER GONZALEZ

General Manager Cook presented Mr. Peter Gonzalez a resolution commending his 33 years of service to the District. On MOTION by Swan, seconded and unanimously carried, the following resolution was adopted by title:

RESOLUTION NO. 2013 –8

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
PETER GONZALEZ FOR HIS DEDICATED AND
LOYAL SERVICE TO THE DISTRICT.

CONSENT CALENDAR

On MOTION by LaMar, seconded and unanimously carried, CONSENT CALENDAR ITEMS 4 THROUGH 16 WERE APPROVED AS FOLLOWS:

4. MINUTES OF REGULAR BOARD MEETINGS

Recommendation: That the minutes of the February 11, 2013 Regular Board Meeting and the February 14, 2013 Adjourned Regular Board Meeting be approved as presented.

5. 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.

6. JANUARY 2013 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report and the Monthly Interest Rate Swap Summary for January 2013; approve the January 2013 Summary of Payroll ACH payments in the total amount of $1,397,905, and approve the January 2013 accounts payable Disbursement Summary of Warrants 335832 through 336720, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of $18,242,425.

CONSENT CALENDAR (CONTINUED)

7. ORANGE PARK ACRES DOMESTIC WATER PRESSURE REGULATING STATIONS AND FIRE FLOW IMPROVEMENTS CONTRACT CHANGE ORDER

Recommendation: That the Board authorize the General Manager to approve Contract Change Order No. 1 with Paulus Engineering, Inc. in the amount of $68,888.08 for the Orange Park Acres Domestic Water Pressure Regulating Stations and Fire Flow Improvements, projects 10409 (1287) and 10410 (1297).

8. TRABUCO LIFT STATION EMERGENCY STORAGE BASIN EXPENDITURE AUTHORIZATION

Recommendation: That the Board approve an Expenditure Authorization in the amount of $286,000 for the Trabuco Lift Station Emergency Storage Basin, project 21113 (3724).

9. ADDENDUM NO. 2 TO THE BAKER WATER TREATMENT PLANT FINAL ENVIRONMENTAL IMPACT REPORT

Recommendation: That the Board approve Addendum No. 2 to the Baker Water Treatment Plant Project Final Environmental Impact Report, including the determinations set forth in the addendum and modifications to the project.

10. QUITCLAIM OF REAL PROPERTY – IRVINE LAND COMPANY LLC, BAKE PARKWAY/LAKE FOREST DRIVE EXTENSION, PLANNING AREAS 18 AND 39

Recommendation: That the Board adopt the following resolution by title approving execution of the quitclaim deed to Irvine Land Company LLC.

RESOLUTION NO. 2013 – 9

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

11. QUITCLAIM OF REAL PROPERTY – SOUTHERN CALIFORNIA EDISON COMPANY, BAKE PARKWAY/LAKE FOREST DRIVE EXTENSION, PLANNING AREAS 18 AND 39

Recommendation: That the Board adopt the following resolution by title approving execution of the quitclaim deed to Southern California Edison Company.

RESOLUTION NO. 2013 – 10

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT APPROVING
EXECUTION OF THE QUITCLAIM DEED TO
SOUTHERN CALIFORNIA EDISON COMPANY

12. UPCOMING PROJECTS STATUS REPORT

Recommendation: Receive and file.

13. WELL 107 REPLACEMENT WELL DRILLING AND EQUIPPING CONTRACT CHANGE ORDER AND FINAL ACCEPTANCE

Recommendation: That the Board authorize the General Manager to execute Contract Change Order No. 10 with Pascal & Ludwig Constructors in the credit amount of ($166,239.70) for project 11432 (1403); accept construction of Well 107 Replacement Well Drilling and Equipping; 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.

14. WELLS 21 AND 22 DESALTER PROJECT WELLHEAD FACILITIES FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Wells 21 and 22 Desalter Project Wellhead Facilities, project 10286 (1081), 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.

15. RESOLUTION AUTHORIZING SIGNATURE OF A FUNDING AGREEMENT AND RELATED DOCUMENTS FOR PROPOSITION 50 GRANT FUNDING FOR WELL 115 REPLACEMENT PROJECT

Recommendation: That the Board authorize execution of a funding agreement for Well 115 Replacement project for grant funding of $1,916,300 and agree to requirements including a matching fund requirement of at least 50%, and adopt the following resolution by title authorizing signature of a funding agreement and related documents for funding under the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Proposition 50).

CONSENT CALENDAR (CONTINUED)

RESOLUTION NO. 2013- 11

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT AUTHORIZING SIGNATURE
OF A FUNDING AGREEMENT AND RELATED DOCUMENTS FOR
FUNDING UNDER THE WATER SECURITY, CLEAN DRINKING
WATER, COASTAL AND BEACH PROTECTION ACT OF 2002 (PROPOSITION 50)

16. 2013 STATE LEGISLATIVE UPDATE

Recommendation: That the Board take a "SUPPORT" position on AB 803 (Hueso); and that staff continue to research how other states have enabled electronic storage of documents, and to continue working with IRWD's association and industry partners over the next year to build a coalition of support for an electronic retention/storage legislative proposal.

ACTION CALENDAR

WELLS 21 AND 22 DESALTER PROJECT PIPELINES – CONTRACT CHANGE ORDER

Executive Director of Engineering Burton reported that Contract Change Order (CCO) No. 16 with Flatiron West, Inc. addresses resolution of several changed conditions and extra work issues encountered while completing the installation of the 24-inch product water pipeline. A relatively minor credit adjustment to a bid item quantity associated with permit-related costs for the OCSD interconnection work is also included.

Mr. Burton said that the product water pipeline changes were associated with encountering a variety of existing utilities that were not identified in the plans, a changed trenching condition requiring removal of approximately 5,300 linear feet of cement treated base averaging about 36 inches in trench depth, and added changeable message sign boards at the City of Tustin's direction. The majority of costs presented in this CCO is associated with a conflict between an existing IRWD 36-inch casing and 12-inch water main encountered during the first attempt at boring and jacking the 42-inch product water pipeline casing under the Santa Fe Channel. Mr. Burton said that the existing 36-inch casing was encountered in the direct path of the new product water pipeline alignment at approximately 50 feet into the first bore attempt at the Santa Fe Channel crossing. This conflict necessitated abandonment of the first bore and a redesigned alignment for the new product water pipeline crossing. The revised design placed the new pipeline alignment approximately eight feet deeper than the original alignment and utilized the same locations for the jacking and receiving pits in order to avoid additional backfill and re-excavation costs. A supplemental shoring system was designed and installed around the existing shoring system to support the extra excavation depth. It took over three months to confirm the conflict, redesign the pipeline crossing, abandon the original bore, place supplemental shoring, excavate the additional depth, and resume the boring effort at the new depth. The effort to establish the original shored jacking pit and first 50 feet of casing pipe took about two and a half

weeks. This time comparison illustrates the impact of the change and the extended duration, which significantly factor into the added costs.

Mr. Burton said that two additional changed conditions significantly impacted the revised jack and bore work at the Santa Fe Channel. Increased ground water infiltration and very hard soil conditions (caliche) were encountered at the deeper excavation depth. On multiple occasions, the work encountered unexpected water flowing up through the bottom of the active excavation. The groundwater and caliche soil conditions, coupled with the limited equipment access due to the deep confined area at the bottom of the pits, unexpectedly extended the excavation and boring operation. The cumulative total cost requested by Flatiron for the change items outlined in CCO No. 16 was $958,587.65. Of that amount, $774,935.26 was associated with the Santa Fe Channel work. Staff reviewed the submitted costs and supporting information and engaged in negotiations for corrections and adjustments, which resulted in a substantiated reduced cost total of $781,774.78.

Director Withers reported that he participated in for this Committee meeting telephonically, and that the Committee concurred with the staff recommendation. On MOTION by Withers, seconded and unanimously carried, THE BOARD APPROVED CONTRACT CHANGE ORDER NO. 16 IN THE AMOUNT OF $781,774.78 TO FLATIRON WEST, INC. FOR THE WELLS 21 AND 22 DESALTER PROJECT PIPELINES, PROJECT 10286 (1081).

INITIAL DISINFECTION FACILITY CHLORINE INJECTION LINE REPLACEMENT BUDGET ADDITION AND EXPENDITURE AUTHORIZATION

Executive Director of Engineering Burton reported that in 1997, the Irvine Disinfection Facility (IDF) was constructed as part of the Dyer Road Well Field (DRWF) Disinfection Facilities and Well 16 project. The IDF provides initial disinfection with chlorine gas for water leaving the DRWF before it reaches the Primary Disinfection Facility (PDF) where ammonia and chlorine are injected to produce a chloramine residual. Mr. Burton said that the IDF has been out of service since November 26, 2012 due to a series of leaks and other failures of the existing 4-inch schedule 80 CPVC chlorine solution line.

Mr. Burton said that this project will replace the chlorine solution injection line at IDF with Hastelloy C-276 pipe within the existing 8-inch ductile iron containment pipe, similar to the PDF chemical line replacement project. Replacement of the IDF chlorine injection line is a high priority for optimal operation of the DRWF.

Director Withers said that this item was reviewed and approved by the Engineering and Operations Committee on February 19, 2013. On MOTION by Withers, seconded and unanimously carried, THE BOARD AUTHORIZED THE ADDITION OF PROJECT 11669 (4285) IN THE AMOUNT OF $1,117,300 TO THE FY 2012-13 CAPITAL BUDGET AND APPROVED AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF $83,000 FOR THE INITIAL DISINFECTION FACILITY CHLORINE INJECTION LINE REPLACEMENT, PROJECT 11669 (4285).

EAST ORANGE COUNTY WATER DISTRICT/IRWD JOINT WELL PLANNING REPORT – CONSULTANT SELECTION

General Manager Cook reported that IRWD and EOCWD are interested in conducting a planning level study of a potential Joint Well Project. Mr. Cook said that the proposed Joint Well Project would serve current demands within the EOCWD retail service area and future IRWD demands within the sphere of influence of the City of Orange. The planning study will consider two potential well sites; one owned by EOCWD and the other owned by IRWD.

Mr. Ray Bennett said that a Request for Proposals was issued to five consulting firms. Proposals were received from HDR with Wildermuth Environmental Inc., Richard C. Slade with Tetra Tech Inc., Intera with GEI Consultants and Geoscience with AKM Consulting Engineers. The proposals were reviewed and ranked by EOCWD and IRWD staff based on project understanding, technical approach, project team qualifications and experience. Based on an evaluation of the proposals, staff and EOCWD recommend the project be awarded to the Richard C. Slade (RCS) team.

Director Withers reported that this item was reviewed and approved by the Engineering and Operations Committee on February 19, 2013. In response to Director Swan's inquiry, staff confirmed that the expenditure was for a consultant to perform due diligence work to study two potential well sites at this time. On MOTION by Withers, seconded and unanimously carried, THE BOARD AUTHORIZED A BUDGET INCREASE TO THE FY 2012-13 CAPITAL BUDGET FOR PROJECT 11686 (4287) BY $79,700; APPROVED AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF $79,700 FOR PROJECT 11686 (4287); AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH RICHARD C. SLADE & ASSOCIATES IN THE AMOUNT NOT TO EXCEED $63,900 TO PREPARE THE EOCWD/IRWD JOINT WELL PLANNING REPORT; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A MEMORANDUM OF UNDERSTANDING WITH EOCWD, SUBJECT TO NON-SUBSTANTIVE CHANGES, THAT PROVIDES FOR THE EQUAL SHARING OF COSTS TO PREPARE THE PLANNING REPORT.

NEWPORT BAY WATERSHED TMDL PROGRAM FY 2012-13 WORK PLAN AND BUDGET APPROVAL AND COST-SHARE AUTHORIZATION

General Manager Cook reported that the Newport Bay Watershed Committee, which funds ongoing nutrient, fecal coliform and toxics monitoring studies, has submitted a budget to its stakeholders for formal approval. In 1999, IRWD joined the committee, and in 2012, a new three-year agreement with revised cost-sharing, Cooperative Agreement D11-066 was executed. Per the terms of the agreement, a new work plan and budget are submitted each year to the stakeholders for formal approval.

Assistant Director of Conservation Sanchez reported on the key tasks which are included in the work plan including continued efforts on development of the selenium TMDL, habitat surveys and studies; continuation of the Nutrient Regional Monitoring Program (NRMP); organochlorines (OC) analysis of fish and egg tissues for the OC TMDL; and Development of reports for the revision of the Fecal Coliform TMDL.

Director LaMar reported that this item was reviewed and approved by the Water Resources Policy and Communications Committee on March 7, 2013. On MOTION by LaMar, seconded and unanimously carried, THE BOARD APPROVED THE NEWPORT BAY WATERSHED TMDL PROGRAM FISCAL YEAR 2012-13 WORK PLAN AND BUDGET IN ACCORDANCE WITH THE TERMS OF COUNTY OF ORANGE COOPERATIVE AGREEMENT D11-066, AND AUTHORIZED PAYMENT OF IRWD'S $99,898 COST-SHARE.

POSEIDON RESOURCES LETTER OF INTENT

Executive Director of Water Resources Heiertz reported that in early 2008, Poseidon approached a number of Orange County water agencies to begin negotiations for the purchase of the desalinated water from the proposed Huntington Beach plant. Mr. Heiertz said that in May 2008, 11 agencies, including IRWD, entered into a Memorandum of Understanding (MOU) regarding the review and potential purchase of water from this facility which expired on June 30, 2011. He said that IRWD issued a "Letter of Intent Regarding Potential Water Purchase Agreement" to Poseidon on July 9, 2009 expressing conditional interest in purchasing up to 6,000 acre-feet per year of desalinated water. The conditions included that the price of water be below the Metropolitan Water District of Southern California (MWD) Tier 1 rate and that the project meet IRWD water quality requirements.

Mr. Heiertz said that Poseidon Resources currently estimates the cost of water delivered through the South Delivery System to be approximately $1,812 per acre-foot including conveyance costs. This estimated cost includes engineering, procurement and design, construction, startup, conveyance and operation costs. He said that if 6,000 acre-feet per year were to be purchased from Poseidon in lieu of MWD water, IRWD's annual cost of water would increase by $5,790,000, increasing the District's total water purchase budget (imported water purchases plus OCWD Replenishment Assessment payments) by over 20%. He said that this cost is more than twice the current MWD Tier 1 price, which exceeds the pricing condition included in the current IRWD Letter of Intent (LOI). Current water purchase projections for FY 2013-14 call for approximately 9,500 acre feet to be purchased from MWD for the potable system with about 7,000 acre feet serving the Los Alisos rate area because it is not included in the OCWD groundwater basin.

President Reinhart requested the recommendation to revoke the LOI be voted on separately from the recommended revised policy principles on seawater desalination. The consensus of the Board was to proceed with two separate motions. Director Swan made a motion, which was seconded by Director Reinhart, to revoke the current non-binding LOI to purchase water from the project based on the cost of the water and that IRWD should continue to negotiate with Poseidon Resources on water quality and other issues related to the proposed ocean desalination project that could impact IRWD. Prior to taking a Board vote on this item, President LaMar said that this item was reviewed by the Water Resources Policy and Communications Committee on March 7, 2013 and discussed his concerns relative to the increased costs of water. He said that he concurred with the staff recommendation to revoke the current non-binding LOI to purchase water from the project. Both Directors Swan and Matheis said they were in concurrence with Director LaMar's comments that these increased costs were not acceptable. Director Reinhart said he would recommend that IRWD continue to be involved with Poseidon relative to water quality, and other issues, and suggested participating in the LOI for a very minimal amount.

Following discussion, Director LaMar said he would like to offer a substitute motion to the pending motion, to defer both the Poseidon Resources LOI and the revised policy position to the second Board meeting in April. Director Swan did not agree to withdraw his motion. On MOTION by LaMar, seconded by Withers and carried, (Swan voting no), BOTH THE POSEIDON RESOURCES LETTER OF INTENT AND THE REVISED POLICY POSITION ON DESALINATION WERE DEFERRED TO THE APRIL 22, 2013 BOARD MEETING.

GENERAL MANAGER'S COMMENTS

General Manager Cook reminded the Board of this Thursday's Wells 21 and 22 dedication. Mr. Cook said that a tour of the treatment plant has been scheduled with Mayor Steven Choi of the City of Irvine on April 2, 2012 along with President Reinhart and staff. He further said that tomorrow a tour of the San Joaquin Wildlife Sanctuary will be held with Ms. Danica Dawson, Congressman John Campbell's legislative aid with Director Matheis and staff.

DIRECTORS' COMMENTS

Director Matheis reported that she will be attending a Water Education Federation Executive Briefing in Sacramento on Thursday, an ACWA Region III meeting in Auburn on Friday where she will be moderating a session, and that on March 17, she will be attending a WateReuse conference in Monterey where she will again be moderating a session. She further said that she attended a City of Lake Forest luncheon to meet the Mayor, and an ACWA Legislative Symposium in Sacramento.

Director Withers said that he attended the City of Lake Forest luncheon last week and that on Wednesday he will be attending a LAFCO Commission meeting and an OCSD Administrative Committee meeting.

Director Swan reported on his attendance at WACO, an ACWA Region 10 meeting in Sacramento, an ACWA Watershed financing meeting in Sacramento, an OCWA lunch meeting, a Newport Bay Watershed Board meeting, a Chamber of Commerce meeting in Newport Beach, and a CASA and ACWA conference, both in Washington, DC.

Director LaMar reported on his attendance at a WACO Planning meeting, an ACWA Legislative Symposium in Washington, DC, and an ACWA Integrated Watershed Work Group meeting in Sacramento.

Director Reinhart reported on his attendance at a recent tour of the District facilities with Board Member Felicia Marcus of the State Water Resources Control Board and staff, and a WateReuse Board meeting in Washington, DC.

CLOSED SESSION

President Reinhart said that the following Closed Session would be held with legal counsel relative to: 1) ANTICIPATED LITIGATION – Government Code Section 54956.9(d)(2) – significant exposure to litigation (one potential case), and 2) ANTICIPATED LITIGATION – Government Code Section 54956.9(d)(4) – initiation of litigation (one potential case) (potential settlement – construction contractor).

OPEN SESSION

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

ADJOURNMENT

President Reinhart adjourned the meeting to March 14, 2013 at 10:00 a.m. to hold a Wells 21 and 22 Dedication at 1221 Edinger Avenue, Tustin, CA 92780

APPROVED and SIGNED this 25th day of March, 2013.

_____

President, IRVINE RANCH WATER DISTRICT

_____

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

_____

Legal Counsel - Bowie, Arneson, Wiles & Giannone

EXHIBIT "B"

MINUTES OF ADJOURNED REGULAR MEETING – MARCH 14, 2013

The adjourned regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 10:15 a.m. by President Reinhart on March 14, 2013 in the District's Well Sites 21 and 22, 1221 Edinger Avenue, Tustin, California.

Directors Present: LaMar, Withers, Reinhart, and Swan

Directors Absent: Matheis

Also Present: General Manager Cook, Executive Director of Engineering and Planning Burton, Executive Director of Water Resources Heiertz, Director of Water Resources Weghorst, Director of Public Affairs Beeman, Legal Counsel Arneson, Principle Engineer Mori, Mr. Bill Steel, United States Bureau of Reclamation, and members of the public and staff.

WRITTEN COMMUNICATION: None.

ORAL COMMUNICATION: None.

PRESENTATION

WELLS 21 AND 22 REHABILITATION, PIPELINES AND WATER TREATMENT PLANT DEDICATION

A dedication ceremony was held at the Wells 21 and 22 site with presentations from General Manager Cook, President Reinhart and Mr. Bill Steel of the United States Bureau of Reclamation (USBR). Following the dedication, attendees proceeded on a self guided tour of the facility.

RECESS AND RECONVENE

President Reinhart declared a recess at 11:30 a.m. to travel to a project partners' lunch. Upon arrival at McCormick & Schmicks' restaurant, 2000 Main Street, Irvine, the meeting was reconvened with Directors LaMar, Reinhart and Swan present along with staff, and representatives from USBR.

ADJOURNMENT

There being no further business, President Reinhart adjourned the meeting at 1:00 p.m.

APPROVED and SIGNED this 25th day of March, 2013.

_____

President, IRVINE RANCH WATER DISTRICT

Secretary, IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Legal Counsel - Bowie, Arneson, Wiles and Giannone

March 25, 2013
Prepared and
Submitted by: N. Savedra
Approved by: P. Cook

CONSENT CALENDAR

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

SUMMARY:

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

Events/Meetings

Steven LaMar

3/27/13	Assemblyman Don Wagner's Grand Opening & Open House of New District Office
4/03/13	IRWD meeting with Sacramento legislators and lobbyist, Maureen O'Haren,

Mary Aileen Matheis

3/12/13	Meeting & Tour of San Joaquin Marsh Tour w/ Danica Dawson, Legislative Aide
3/21/13	Orange County Forum – State of the County OC Community Indicators Report
3/27/13	Assemblyman Don Wagner's Grand Opening & Open House of New District Office

Douglas Reinhart

3/20/13	Meeting with OCWD Board Director Stephen Sheldon
3/27/13	South County Agencies Meeting
4/01/13	Monthly meeting with Paul Cook regarding District activities
4/04/13	MWDOC Board & Member Agency Elected Officials' Forum
4/11/13	Santa Ana River Watershed 2013 Conference

Peer Swan

3/15/13	ACWA California Water Task Force Committee Meeting, Sacramento
4/26-29/13	CASA Spring Conference, Newport Beach, CA

John Withers

3/22/13	Chapman University Schmid College of Science & Technology–World Water Day
4/11/13	Santa Ana River Watershed 2013 Conference

RECOMMENDATION:

THAT THE BOARD RATIFY/APPROVE THE MEETINGS AND EVENTS FOR STEVEN LaMAR, MARY AILEEN MATHEIS, DOUGLAS REINHART, PEER SWAN AND JOHN WITHERS AS DESCRIBED.

LIST OF EXHIBITS:

None

March 25, 2013
Prepared by: Jacobson/Fournier
Submitted by: Cheryl Clary
Approved by: Paul Cook

CONSENT CALENDAR

FEBRUARY 2013 TREASURY REPORTS

SUMMARY:

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

A. The Investment Summary Report for February 2013. This Investment Summary Report is in conformity with the 2013 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 February 28, 2013, as outlined in Exhibit "B".

C. The Summary of Payroll ACH payments in the total amount of $1,356,292, as outlined in Exhibit "C".

D. The February 28, 2013 Disbursement Summary of warrants 336721 through 337404, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of $13,286,966, as outlined in Exhibit "D".

FISCAL IMPACTS:

As of February 28, 2013, the book value of the investment portfolio was $335,747,242, with a 0.34% rate of return and a market value of $335,935,343. Based on the District's December 31, 2012 quarterly real estate investment rate of return of 10.18%, the District's weighted average return for the fixed income and real estate investments was 2.07%.

As of February 28, 2013, the total notional amount of the interest rate swap portfolio was $130 million of fixed payer swaps. Cash accrual in February from all swaps was negative $559,617 and negative $4,939,257 fiscal year to date.

Payroll ACH payments totaled $1,356,292 and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll and water purchases for February totaled $13,286,966.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

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

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE TREASURER'S INVESTMENT SUMMARY REPORT AND THE MONTHLY INTEREST RATE SWAP SUMMARY FOR FEBRUARY 2013; APPROVE THE FEBRUARY 2013 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF $1,356,292 AND APPROVE THE FEBRUARY 2013 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 336721 THROUGH 337404, WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF $13,286,966.

LIST OF EXHIBITS:

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

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

Exhibit "A"

02/28/13

PRICE	SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON	YIELD	YTFC	ORIGINAL COST	CARRY VALUE	MARKET VALUE (1) 2/28/2013	UNREALIZED GAIN/(LOSS)(2)
100.11%	01/15/13			03/31/13		LAIF	State of California Tsy.	$50,000,000		0.300%		$50,000,000.00	$50,000,000.00	50,056,361.55	56,361.55
100.11%	01/15/13			03/31/13		LAIF-JPA	State of California Tsy.	50,000,000		0.300%		$50,000,000.00	$50,000,000.00	50,056,361.55	56,361.55
100.11%	01/15/13			03/18/13		LAIF BABS	State of California Tsy.	42,532,839		0.300%		$42,532,838.86	$42,532,838.86	42,580,783.19	47,944.33
100.00%	02/22/13			03/01/13		B of A Tsy. Reserves	Bank of America	6,929,038		0.009%		$6,929,038.42	6,929,038.42	6,929,038.42	
100.31%	05/23/11	N/A	N/A	04/11/13	Aaa/AAA/AAA	FHLMC - Note	Fed Home Loan Mortgage Bank	5,000,000	1.720%	0.517%		5,112,550.00	5,006,697.46	5,015,350.00	8,652.54
99.99%	12/20/12	N/A	N/A	12/19/13	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	10,000,000	0.190%	0.183%		10,000,700.00	10,000,563.46	9,999,200.00	(1,363.46)
100.37%	04/24/12	N/A	N/A	12/23/13	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Bank	5,000,000	0.625%	0.304%		5,026,600.00	5,012,993.75	5,018,550.00	5,556.25
101.15%	07/11/12	N/A	N/A	02/25/14	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Bank	5,000,000	1.375%	0.301%		5,086,800.00	5,052,169.18	5,057,250.00	5,080.82
100.14%	05/23/12	N/A	N/A	05/23/14	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.350%	0.394%		4,995,600.00	4,997,299.73	5,006,850.00	9,550.27
101.52%	04/18/12	N/A	N/A	05/28/14	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.375%	0.354%		5,107,250.00	5,063,096.43	5,076,000.00	12,903.57
100.06%	04/26/12	One Time	04/26/13	10/27/14	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Mortgage Bank	5,000,000	0.600%	0.425%		5,008,700.00	5,005,749.07	5,002,950.00	(2,799.07)
100.33%	01/30/12	One Time	01/30/14	01/30/15	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.750%	0.500%	0.500%	5,024,850.00	5,015,871.35	5,016,406.00	534.65
100.33%	01/30/12	One Time	01/30/14	01/30/15	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	10,000,000	0.750%	0.453%	0.453%	10,059,000.00	10,037,682.48	10,032,812.00	(4,870.48)
100.00%	02/09/12	Continuous	05/09/12	02/09/15	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.460%	0.480%	0.700%	4,997,000.00	4,998,056.57	5,000,150.00	2,093.43
100.00%	03/14/12	Continuous	09/12/12	03/12/15	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.550%	0.601%	0.855%	4,992,500.00	4,994,915.37	5,000,200.00	5,284.63
100.06%	04/18/12	Continuous	04/16/13	04/16/15	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.600%	0.617%	0.651%	4,997,500.00	4,998,225.07	5,003,000.00	4,774.93
99.86%	12/18/12	Continuous	03/18/13	06/18/15	Aaa/NA/NR	FFCB - Note	Fed Farm Credit Bank	10,000,000	0.320%	0.360%	0.720%	9,990,000.00	9,990,800.44	9,986,200.00	(4,600.44)
99.96%	12/27/12	Continuous	03/26/13	06/26/15	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	10,000,000	0.375%	0.375%	0.375%	10,000,000.00	10,000,000.00	9,996,000.00	(4,000.00)
100.11%	08/28/12	Continuous	08/27/13	08/27/15	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	10,000,000	0.480%	0.480%	0.480%	10,000,000.00	10,000,000.00	10,010,500.00	10,500.00
100.02%	09/17/12	Continuous	09/17/13	09/17/15	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.480%	0.482%	0.482%	4,999,750.00	4,999,787.67	5,000,850.00	1,062.33
100.02%	09/17/12	Continuous	09/17/13	09/17/15	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.480%	0.455%	0.472%	5,001,250.00	5,001,061.64	5,000,850.00	(211.64)
100.02%	09/25/12	Quarterly	09/25/13	09/25/15	Aaa/AA+/NR	FHLMC - Note	Fed Home Loan Mortgage Bank	5,000,000	0.500%	0.470%	0.490%	5,001,500.00	5,001,284.93	5,001,000.00	(284.93)
100.00%	09/28/12	Continuous	12/28/12	09/28/15	NA/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.450%	0.470%	0.470%	4,997,000.00	4,997,421.92	5,000,015.00	2,593.08
100.08%	10/17/12	One Time 2yr	10/09/14	10/09/15	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.480%	0.460%	0.466%	5,002,000.00	5,001,751.61	5,004,200.00	2,448.39
99.92%	11/29/12	Quarterly	05/15/13	11/16/15	NA/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.500%	0.500%	0.500%	5,000,000.00	5,000,000.00	4,995,800.00	(4,200.00)
100.04%	11/30/12	Quarterly	05/24/13	11/24/15	Aaa/AA+/NR	FHLMC - Note	Fed Home Loan Mortgage Bank	5,000,000	0.500%	0.500%	0.500%	5,000,000.00	5,000,000.00	5,001,850.00	1,850.00
99.77%	12/18/12	Continuous	03/18//13	12/18/15	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	10,000,000	0.400%	0.425%	0.701%	9,992,500.00	9,993,000.00	9,977,400.00	(15,600.00)
99.93%	12/21/12	Continuous	03/21/13	12/21/15	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.410%	0.418%	0.510%	4,998,750.00	4,998,829.91	4,996,250.00	(2,579.91)
99.86%	01/15/13	N/A	07/15/13	01/15/16	NA/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.375%	0.390%		4,997,750.00	4,997,807.53	4,993,200.00	(4,607.53)
99.95%	01/17/13	Quarterly	07/15/13	01/15/16	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.500%	0.500%	0.500%	5,000,000.00	5,000,000.00	4,997,350.00	(2,650.00)
100.86%	08/23/12	N/A	N/A	06/20/13		CA ST-RANS-A1	State of California	3,500,000	2.500%	0.430%	0.430%	3,559,535.00	3,527,888.49	3,530,205.00	2,316.51
	SUB-TOTAL							$312,961,877				$313,410,962.28	$313,154,831.34	$313,342,932.71	$188,101.38
	RESTRICTED CASH (Swap Collateral Deposits)														
100.00%						Collateral Deposit	Citi-Group	$13,802,411		0.150%		$13,802,410.71	$13,802,410.71	13,802,410.71	
100.00%						Collateral Deposit	Merrill Lynch	$8,790,000		0.150%		$8,790,000.00	$8,790,000.00	8,790,000.00	
	SUB-TOTAL							$22,592,411				$22,592,410.71	$22,592,410.71	$22,592,410.71	
	TOTAL INVESTMENTS							$335,554,288				$336,003,372.99	$335,747,242.05	$335,935,343.42	
						Petty Cash						3,300.00			
					Recent Dec Bal	Bank Bal.	Bank of America					($842,174.43)			
												$335,164,498.56			

(1) LAIF market value is as of the most recent quarter-end as reported by LAIF.
Security market values are determined using Bank of New York ("Trading Prices"), Bloomberg and/or broker dealer pricing.
(2) Gain (loss) calculated against carry value using the trading value provided by Bank of New York/or Brokers
(3) Real estate rate of return is based on most recent quarter end return

This Investment Summary Report is in conformity with the 2013 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures.

Outstanding Variable Rate Debt	$363,000,000
Net Outstanding Variable Rate Debt (Less $130 million fixed-payer swaps)	$233,000,000
Investment Balance:	$335,164,499
Investment to Variable Rate Debt Ratio:	144%
Portfolio - Average Number of Days To Maturity	418

	Investment Portfolio	Real Estate Portfolio (3)	Weighted Avg. Return
February	0.34%	10.18%	2.07%
January	0.36%	10.18%	2.10%
Change	-0.02%		

IRVINE RANCH WATER DISTRICT
SUMMARY OF MATURITIES

02/28/13

PORTFOLIO $335,554,288

DATE	TOTAL	%	LAIF	AGENCIES	VRDO	MONEY MARKET SAVINGS & SWEEP	Collateral * Deposit	CAL REV NOTES
3/13	$172,054,288	51.27%	$142,532,839			6,929,038	$22,592,411	
04/13	$5,000,000	1.49%		5,000,000				
05/13								
06/13	$3,500,000	1.04%						3,500,000
07/13								
8/13								
09/13								
10/13								
11/13								
12/13	$15,000,000	4.47%		15,000,000				
1/14								
2/14								
SUB-TOTAL	$195,554,288	58.28%	$142,532,839	20,000,000	-	6,929,038	$22,592,411	$3,500,000
13 Months - 3 YEARS								
3/1/2014 - 3/31/2014	$5,000,000	1.49%		5,000,000				
4/1/2014 - 6/30/2014	$10,000,000	2.98%		10,000,000				
7/1/2014 - 9/30/2014								
10/1/2014 - 12/31/2014	$5,000,000	1.49%		5,000,000				
1/1/2015 - 3/31/2015	$25,000,000	7.45%		25,000,000				
4/1/2015 - 6/30/2015	$25,000,000	7.45%		25,000,000				
07/1/30/2015 - 9/30/2015	$30,000,000	8.94%		30,000,000				
10/1/2015 - 12/30/15	$30,000,000	8.94%		30,000,000				
01/01/16 - 03/31/2016	$10,000,000	2.98%		10,000,000				
TOTALS	$335,554,288	100.00%	$142,532,839	160,000,000	-	6,929,038	$22,592,411	$3,500,000
% OF PORTFOLIO			42.48%	47.68%		2.06%	6.73%	1.04%

* Return of posted collateral is dependant on interest rates.

IRVINE RANCH WATER DISTRICT
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL
February 28, 2013

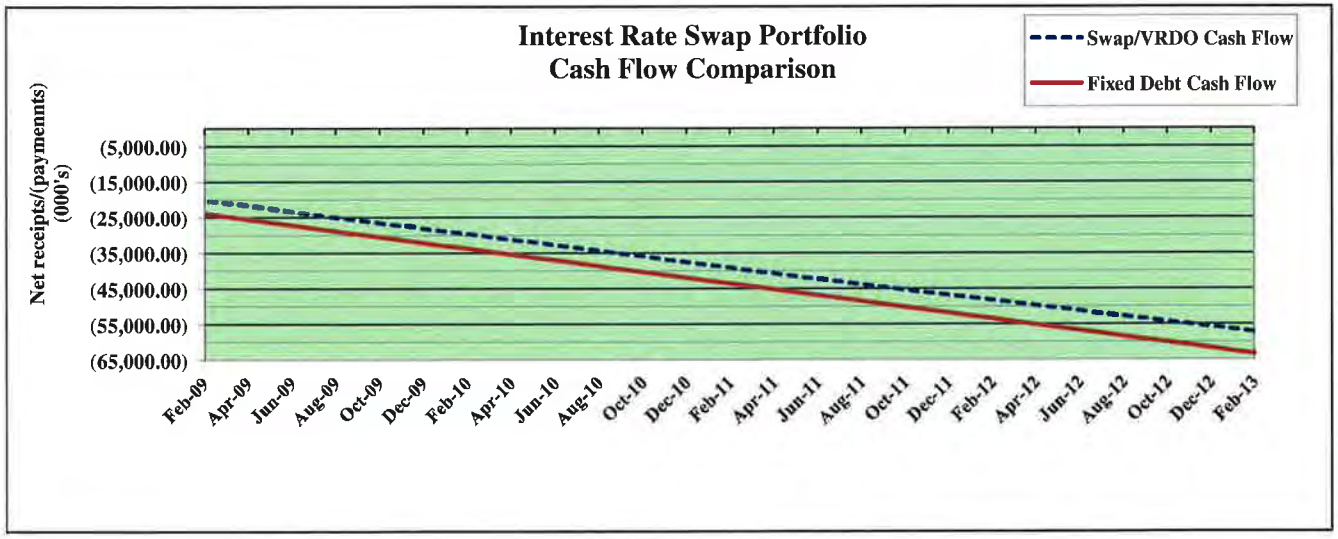
Exhibit "B"

LIBOR Avg %	Prior Mo.	Current Mo.	12-Mo Avg
	0.20%	0.20%	0.23%

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	6.3	ML	$ 20,000,000	FXP	LIBOR	6.200%	$ (99,741)	$ (89,876)	$ (793,165)	$ (5,836,012)	$ 13,857,118	$ (6,142,882)
6/4/2006	6/4/2019	6.3	CG	$ 20,000,000	FXP	LIBOR	6.200%	$ (99,741)	$ (89,876)	(793,165)	(5,836,012)	13,852,507	(6,147,493)
6/17/2006	6/17/2019	6.3	CG	$ 30,000,000	FXP	LIBOR	6.140%	$ (148,139)	$ (133,387)	(1,177,899)	(8,645,186)	20,854,568	(9,145,432)
3/10/2007	3/10/2029	16.0	ML	$ 30,000,000	FXP	LIBOR	5.687%	$ (136,765)	$ (123,239)	(1,087,514)	(7,640,932)	17,062,138	(12,937,862)
3/10/2007	3/10/2029	16.0	CG	$ 30,000,000	FXP	LIBOR	5.687%	$ (136,765)	$ (123,239)	(1,087,514)	(7,640,932)	16,997,343	(13,002,657)
Totals/Weighted Avgs		10.8		$ 130,000,000			5.949%	$ (621,151)	$ (559,617)	$ (4,939,257)	$ (35,599,075)	$ 82,623,674	$ (47,376,326)
Total Current Year Active Swaps				$ 130,000,000				$ (621,151)	$ (559,617)	$ (4,939,257)	$ (35,599,075)	$ 82,623,674	$ (47,376,326)

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
Total Current Year Active & Terminated Swaps		$ 130,000,000	$ (621,151)	$ (559,617)	$ (4,939,257)	$ (35,599,075)	$ 82,623,674	$ (47,376,326)



Cash Flow Comparison Synthetic Fixed vs. Fixed Rate Debt	
	Cash Flow to Date
Synthetic Fixed =	$57,113,679
Fixed Rate =	$63,321,211

Assumptions:
- Fixed rate debt issued at 5.10% in Jun-06, and 4.93% in Mar-07 (estimated TE rates - Bloomberg)
- 'Synthetic' includes swap cash flow + interest + fees to date

Exhibit "C"

MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS

February
2013

DATE	AMOUNT	VENDOR	PURPOSE
2/8/2013	674,002.25	BANK OF AMERICA	ACH Payments for Payroll
2/22/2013	682,289.74	BANK OF AMERICA	ACH Payments for Payroll
	$1,356,291.99		

IRWD Ledger — Payment Register For 01-FEB-13 To 28-FEB-13 — Report Date: 04-MAR-2013 08:48
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								
336721		07-FEB-13	Cheryl Kelly		100.01	11-FEB-13	100.01	Reconciled
336722		07-FEB-13	Chris Kinner		220.00			Negotiable
336723		07-FEB-13	Debbie Kanoff		606.06	11-FEB-13	606.06	Reconciled
336724		07-FEB-13	Douglas Reinhart		1,113.84	11-FEB-13	1,113.84	Reconciled
336725		07-FEB-13	Ian Swift		765.51	19-FEB-13	765.51	Reconciled
336726		07-FEB-13	Jeffrey Dugan		165.00	15-FEB-13	165.00	Reconciled
336727		07-FEB-13	Jose Martinez		190.08			Negotiable
336728		07-FEB-13	Rex Rajewski		145.00	14-FEB-13	145.00	Reconciled
336729		07-FEB-13	Richard Gallegos		90.00	08-FEB-13	90.00	Reconciled
336730		07-FEB-13	AERO COMPRESSOR CO		529.63	11-FEB-13	529.63	Reconciled
336731		07-FEB-13	AFLAC		5,747.26	11-FEB-13	5,747.26	Reconciled
336732		07-FEB-13	AIRGAS-WEST, INC.		531.69	11-FEB-13	531.69	Reconciled
336733		07-FEB-13	ALEXANDER CONTRACT SERVICES INC		100,503.30	13-FEB-13	100,503.30	Reconciled
336734		07-FEB-13	ALTERMAN, RUSS		131.72	14-FEB-13	131.72	Reconciled
336735		07-FEB-13	AMERICAN MESSAGING SERVICES LLC		282.73	12-FEB-13	282.73	Reconciled
336736		07-FEB-13	ANALYTICAL SENSORS & INSTRUMENTS, LTD.		706.78	11-FEB-13	706.78	Reconciled
336737		07-FEB-13	ANTHEM BLUE CROSS		415.62	14-FEB-13	415.62	Reconciled
336738		07-FEB-13	APD CONSULTANTS INC		3,685.00	12-FEB-13	3,685.00	Reconciled
336739		07-FEB-13	AQUA-METRIC SALES COMPANY		782.72	11-FEB-13	782.72	Reconciled
336740		07-FEB-13	ARIZONA INSTRUMENT LLC		1,516.87	11-FEB-13	1,516.87	Reconciled
336741		07-FEB-13	ARMORCAST PRODUCTS COMPANY		3,214.73	11-FEB-13	3,214.73	Reconciled
336742		07-FEB-13	ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA		34,322.08	14-FEB-13	34,322.08	Reconciled
336743		07-FEB-13	AT&T		2,874.32	14-FEB-13	2,874.32	Reconciled
336744		07-FEB-13	BDC SPECIAL WASTE		200.00	11-FEB-13	200.00	Reconciled
336745		07-FEB-13	BEST DRILLING AND PUMP, INC.		37,667.50	13-FEB-13	37,667.50	Reconciled
336746		07-FEB-13	BIOMAGIC INC		4,447.25	13-FEB-13	4,447.25	Reconciled
336747		07-FEB-13	BOOT WORLD INC		3,467.22	20-FEB-13	3,467.22	Reconciled
336748		07-FEB-13	BOWIE, ARNESON, WILES & GIANNONE		32,352.06	12-FEB-13	32,352.06	Reconciled
336749		07-FEB-13	C WELLS PIPELINE MATERIALS INC		10,735.74	20-FEB-13	10,735.74	Reconciled
336750		07-FEB-13	CALIFORNIA ARROYO FUND, INC.		25.65	11-FEB-13	25.65	Reconciled
336751		07-FEB-13	CALIFORNIA BARRICADE INC		4,650.06	12-FEB-13	4,650.06	Reconciled

IRWD Ledger — Payment Register For 01-FEB-13 To 28-FEB-13 — Report Date: 04-MAR-2013 08:48
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								
336752		07-FEB-13	CAPTIVE AUDIENCE MARKETING INC.		85.32	12-FEB-13	85.32	Reconciled
336753		07-FEB-13	CASA		18,000.00	15-FEB-13	18,000.00	Reconciled
336754		07-FEB-13	CH2M HILL, INC		21,252.00	15-FEB-13	21,252.00	Reconciled
336755		07-FEB-13	CITY OF IRVINE		2,738.60	08-FEB-13	2,738.60	Reconciled
336756		07-FEB-13	CLEAN ENERGY FUELS		1,267.48	25-FEB-13	1,267.48	Reconciled
336757		07-FEB-13	CLEARINGHOUSE		528.45	12-FEB-13	528.45	Reconciled
336758		07-FEB-13	COASTAL TRAFFIC SYSTEMS, INC		510.00	13-FEB-13	510.00	Reconciled
336759		07-FEB-13	COLONIAL LIFE & ACCIDENT INSURANCE CO.		1,739.80	12-FEB-13	1,739.80	Reconciled
336760		07-FEB-13	CONEYBEARE INC		1,901.88	13-FEB-13	1,901.88	Reconciled
336761		07-FEB-13	CONSTRUCTION SERVICES INC		1,000.49	12-FEB-13	1,000.49	Reconciled
336762		07-FEB-13	CREDENTIAL CHECK CORPORATION		294.62	11-FEB-13	294.62	Reconciled
336763		07-FEB-13	CUMMINS CAL PACIFIC LLC		1,869.01	11-FEB-13	1,869.01	Reconciled
336764		07-FEB-13	DANG, TIFFANY		408.95	11-FEB-13	408.95	Reconciled
336765		07-FEB-13	DANIELS, COLETTE		130.80	22-FEB-13	130.80	Reconciled
336766		07-FEB-13	DATA CLEAN CORPORATION		513.25	12-FEB-13	513.25	Reconciled
336767		07-FEB-13	DERIGO, BIRGIT		117.59	11-FEB-13	117.59	Reconciled
336768		07-FEB-13	DLT SOLUTIONS INC		12,716.14	14-FEB-13	12,716.14	Reconciled
336769		07-FEB-13	DUDEK		2,088.13	12-FEB-13	2,088.13	Reconciled
336770		07-FEB-13	DYCKHOFF, MAX		64.48	19-FEB-13	64.48	Reconciled

336771	07-FEB-13	ELECTRABOND	1,025.00	12-FEB-13	1,025.00	Reconciled
336772	07-FEB-13	ESSCO PUMPS AND CONTROLS	22,219.92	14-FEB-13	22,219.92	Reconciled
336773	07-FEB-13	FERGUSON WATERWORKS	3,609.90	11-FEB-13	3,609.90	Reconciled
336774	07-FEB-13	FIDELITY SECURITY LIFE INSURANCE COMPANY	6,019.84	14-FEB-13	6,019.84	Reconciled
336775	07-FEB-13	FIRST CHOICE SERVICES	250.16	12-FEB-13	250.16	Reconciled
336776	07-FEB-13	FISHER SCIENTIFIC COMPANY LLC	1,445.20	11-FEB-13	1,445.20	Reconciled
336777	07-FEB-13	FLW SERVICE CORPORATION	570.13	08-FEB-13	570.13	Reconciled
336778	07-FEB-13	FORTIS RESOURCE PARTNERS INC	6,837.60	13-FEB-13	6,837.60	Reconciled
336779	07-FEB-13	FRANCHISE TAX BOARD	1,757.66	22-FEB-13	1,757.66	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
336780		07-FEB-13	FRANK LA PLACA EXTERMINATING INC		175.00	08-FEB-13	175.00	Reconciled
336781		07-FEB-13	GARCIA, LETICIA		228.93	20-FEB-13	228.93	Reconciled
336782		07-FEB-13	GILBERT, ESTHER		20.60	11-FEB-13	20.60	Reconciled
336783		07-FEB-13	GRAINGER		192.39	11-FEB-13	192.39	Reconciled
336784		07-FEB-13	HARDY & HARPER INC		767.98	11-FEB-13	767.98	Reconciled
336785		07-FEB-13	HARPER & ASSOCIATES ENGINEERING INC		742.50			Negotiable
336786		07-FEB-13	HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY		158.98	11-FEB-13	158.98	Reconciled
336787		07-FEB-13	HILL BROTHERS CHEMICAL COMPANY		19,909.40	12-FEB-13	19,909.40	Reconciled
336788		07-FEB-13	HOME DEPOT USA INC		166.20	19-FEB-13	166.20	Reconciled
336789		07-FEB-13	HONG, JUNGNEE		26.62	15-FEB-13	26.62	Reconciled
336790		07-FEB-13	HUNSAKER & ASSOCIATES IRVINE		1,456.00	12-FEB-13	1,456.00	Reconciled
336791		07-FEB-13	II FUELS INC		32,681.15	13-FEB-13	32,681.15	Reconciled
336792		07-FEB-13	INDUSTRIAL ELECTRIC MACHINERY LLC		5,121.34	19-FEB-13	5,121.34	Reconciled
336793		07-FEB-13	INDUSTRIAL METAL SUPPLY CO		34.75	11-FEB-13	34.75	Reconciled
336794		07-FEB-13	INDUSTRIAL SHOE CO		3,581.01	08-FEB-13	3,581.01	Reconciled
336795		07-FEB-13	INORGANIC VENTURES INC		172.43	12-FEB-13	172.43	Reconciled
336796		07-FEB-13	INTERNAL REVENUE SERVICE		25.00	13-FEB-13	25.00	Reconciled
336797		07-FEB-13	INTERNAL REVENUE SERVICE		1,481.85	14-FEB-13	1,481.85	Reconciled
336798		07-FEB-13	INWESCO INCORPORATED		6,176.40	13-FEB-13	6,176.40	Reconciled
336799		07-FEB-13	IRVINE PIPE & SUPPLY INC		567.91	14-FEB-13	567.91	Reconciled
336800		07-FEB-13	IRWD EMPLOYEE ASSOCIATION		430.00	22-FEB-13	430.00	Reconciled
336801		07-FEB-13	IRWD-PETTY CASH CUSTODIAN		656.03	11-FEB-13	656.03	Reconciled
336802		07-FEB-13	JOHN G. ALEVIZOS D.O. INC.		2,711.00	11-FEB-13	2,711.00	Reconciled
336803		07-FEB-13	JOHN MICHAEL COVAS		134.00	15-FEB-13	134.00	Reconciled
336804		07-FEB-13	JONES & STOKES ASSOCIATES, INC		1,787.50	13-FEB-13	1,787.50	Reconciled
336805		07-FEB-13	KAJU SOFT TOFU RESTAURANT		452.14	19-FEB-13	452.14	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
336806		07-FEB-13	KB HOMES		71.98	15-FEB-13	71.98	Reconciled
336807		07-FEB-13	KEELING, INGELISA		209.85	11-FEB-13	209.85	Reconciled
336808		07-FEB-13	KIM, WILLIAM T		16.00	12-FEB-13	16.00	Reconciled
336809		07-FEB-13	KPRS CONSTRUCTION SERVICES, INC		303.09	12-FEB-13	303.09	Reconciled
336810		07-FEB-13	KPRS CONSTRUCTION SERVICES, INC		177.23	12-FEB-13	177.23	Reconciled
336811		07-FEB-13	KS DIRECT LLC		5,877.19	12-FEB-13	5,877.19	Reconciled
336812		07-FEB-13	LANCER SALES USA,		343.64	15-FEB-13	343.64	Reconciled

		INC.				
336813	07-FEB-13	LD ANDERSON INC	458.69	13-FEB-13	458.69	Reconciled
336814	07-FEB-13	LEE, JIN SANG	447.20	11-FEB-13	447.20	Reconciled
336815	07-FEB-13	LIFE TECHNOLOGIES CORPORATION	157.79	11-FEB-13	157.79	Reconciled
336816	07-FEB-13	MC MASTER CARR SUPPLY CO	5,270.50	15-FEB-13	5,270.50	Reconciled
336817	07-FEB-13	MGH PAINTING INC	2,280.00	11-FEB-13	2,280.00	Reconciled
336818	07-FEB-13	MISSION COMMUNICATIONS LLC	8,738.40	19-FEB-13	8,738.40	Reconciled
336819	07-FEB-13	MUNICIPAL MAINTENANCE EQUIPMENT INC	5,779.25	13-FEB-13	5,779.25	Reconciled
336820	07-FEB-13	MUTUAL PROPANE	134.89	12-FEB-13	134.89	Reconciled
336821	07-FEB-13	NATIONAL READY MIXED CONCRETE CO	802.87	11-FEB-13	802.87	Reconciled
336822	07-FEB-13	NINYO & MOORE	1,957.50	11-FEB-13	1,957.50	Reconciled
336823	07-FEB-13	NORTHERN SAFETY CO INC	239.70	11-FEB-13	239.70	Reconciled
336824	07-FEB-13	OCEAN BLUE ENVIRONMENTAL SERVICES INC	857.51	12-FEB-13	857.51	Reconciled
336825	07-FEB-13	OLIN CORPORATION	8,479.98	19-FEB-13	8,479.98	Reconciled
336826	07-FEB-13	ON ASSIGNMENT LAB SUPPORT	1,244.80	11-FEB-13	1,244.80	Reconciled
336827	07-FEB-13	ONESOURCE DISTRIBUTORS LLC	19,355.86	14-FEB-13	19,355.86	Reconciled
336828	07-FEB-13	ORANGE COUNTY FIRE AUTHORITY	1,228.00	11-FEB-13	1,228.00	Reconciled
336829	07-FEB-13	ORANGE COUNTY TREASURER	5,749.06	14-FEB-13	5,749.06	Reconciled
336830	07-FEB-13	PACIFIC HYDROTECH CORPORATION	195,868.70	14-FEB-13	195,868.70	Reconciled
336831	07-FEB-13	PARK WEST LANDSCAPE	1,164.19	26-FEB-13	1,164.19	Reconciled
336832	07-FEB-13	PAULUS ENGINEERING INC	16,278.30	12-FEB-13	16,278.30	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
336833		07-FEB-13	PAYNE & FEARS LLP		637.50	08-FEB-13	637.50	Reconciled
336834		07-FEB-13	PEARPOINT		448.68	11-FEB-13	448.68	Reconciled
336835		07-FEB-13	PERS LONG TERM CARE		1,003.81	11-FEB-13	1,003.81	Reconciled
336836		07-FEB-13	PETERSON, JEROME		135.46	13-FEB-13	135.46	Reconciled
336837		07-FEB-13	PONTON INDUSTRIES INC		1,547.00	15-FEB-13	1,547.00	Reconciled
336838		07-FEB-13	PRAXAIR DISTRIBUTION INC		175.52	11-FEB-13	175.52	Reconciled
336839		07-FEB-13	PRE-PAID LEGAL SERVICES INC		1,301.26	13-FEB-13	1,301.26	Reconciled
336840		07-FEB-13	PRUDENTIAL OVERALL SUPPLY		3,280.88	11-FEB-13	3,280.88	Reconciled
336841		07-FEB-13	QIAN, JENNY		14.65	12-FEB-13	14.65	Reconciled
336842		07-FEB-13	QUICKEL PAVING INC		8,220.00	12-FEB-13	8,220.00	Reconciled
336843		07-FEB-13	RAINBOW DISPOSAL CO INC		482.22	08-FEB-13	482.22	Reconciled
336844		07-FEB-13	RAM AIR ENGINEERING INC		2,266.17	11-FEB-13	2,266.17	Reconciled
336845		07-FEB-13	RED WING SHOES		12,215.77	13-FEB-13	12,215.77	Reconciled
336846		07-FEB-13	REGER, TONI		3.39	19-FEB-13	3.39	Reconciled
336847		07-FEB-13	RJS SOFTWARE SYSTEMS INC		9,856.92	14-FEB-13	9,856.92	Reconciled
336848		07-FEB-13	Robert Ashby		449.95	11-FEB-13	449.95	Reconciled
336849		07-FEB-13	RUDAY, ALISON		12.39	19-FEB-13	12.39	Reconciled
336850		07-FEB-13	SANTA ANA BLUE PRINT		3,362.63	13-FEB-13	3,362.63	Reconciled
336851		07-FEB-13	SCHINDLER ELEVATOR CORPORATION		176.40	14-FEB-13	176.40	Reconciled
336852		07-FEB-13	SHAMROCK SUPPLY CO INC		648.80	08-FEB-13	648.80	Reconciled
336853		07-FEB-13	SHOETERIA INDUSTRIAL		5,987.48	15-FEB-13	5,987.48	Reconciled
336854		07-FEB-13	SMOKETREE IRVINE HOA		3,070.86	13-FEB-13	3,070.86	Reconciled
336855		07-FEB-13	SOUTH COAST WATER DISTRICT		2,743.14	11-FEB-13	2,743.14	Reconciled
336856		07-FEB-13	SOUTHERN CALIFORNIA EDISON COMPANY		86,747.71	11-FEB-13	86,747.71	Reconciled
336857		07-FEB-13	SOUTHERN CALIFORNIA SECURITY CENTER, INC.		747.76	14-FEB-13	747.76	Reconciled
336858		07-FEB-13	SPENCE, JANET		26.81	26-FEB-13	26.81	Reconciled

Bank Account Currency: USD (US Dollar)
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								
336859		07-FEB-13	SULLY-MILLER CONTRACTING CO.		75,924.00	12-FEB-13	75,924.00	Reconciled
336860		07-FEB-13	SULLY-MILLER CONTRACTING CO.		3,996.00	12-FEB-13	3,996.00	Reconciled
336861		07-FEB-13	SUPERMEDIA LLC		71.25	13-FEB-13	71.25	Reconciled
336862		07-FEB-13	TAHBOUB, LAMA		133.54	08-FEB-13	133.54	Reconciled
336863		07-FEB-13	TESTAMERICA LABORATORIES, INC		384.30	12-FEB-13	384.30	Reconciled
336864		07-FEB-13	THYSSENKRUPP ELEVATOR		212.45	11-FEB-13	212.45	Reconciled
336865		07-FEB-13	UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA		640.50	13-FEB-13	640.50	Reconciled
336866		07-FEB-13	UNITED PARCEL SERVICE INC		66.55			Negotiable
336867		07-FEB-13	US PEROXIDE LLC		19,717.56	15-FEB-13	19,717.56	Reconciled
336868		07-FEB-13	USA MOBILITY WIRELESS INC		70.92	12-FEB-13	70.92	Reconciled
336869		07-FEB-13	VASU & ASSOC.		25.07			Negotiable
336870		07-FEB-13	VERIZON CALIFORNIA INC		227.50	12-FEB-13	227.50	Reconciled
336871		07-FEB-13	VERIZON WIRELESS SERVICES LLC		79.75	14-FEB-13	79.75	Reconciled
336872		07-FEB-13	VULCAN MATERIALS COMPANY		2,209.89	11-FEB-13	2,209.89	Reconciled
336873		07-FEB-13	VWR INTERNATIONAL, LLC		55.16	11-FEB-13	55.16	Reconciled
336874		07-FEB-13	WASTE MANAGEMENT OF ORANGE COUNTY		1,643.36	11-FEB-13	1,643.36	Reconciled
336875		07-FEB-13	WAXIE'S ENTERPRISES, INC		1,397.43	11-FEB-13	1,397.43	Reconciled
336876		07-FEB-13	WEST COAST SAFETY SUPPLY INC		1,482.68	13-FEB-13	1,482.68	Reconciled
336877		07-FEB-13	WIRELESS WATCHDOGS, LLC		976.00	14-FEB-13	976.00	Reconciled
336878		07-FEB-13	WORKFLOWONE		2,338.88	11-FEB-13	2,338.88	Reconciled
336879		07-FEB-13	WORLDWIDE CORPORATE HOUSING, L.P.		3,611.17	11-FEB-13	3,611.17	Reconciled
336880		07-FEB-13	WORSDELL, APRIL		108.49	13-FEB-13	108.49	Reconciled
336881		07-FEB-13	YOON, TAESUB		30.00			Negotiable
336882		07-FEB-13	YORK INSURANCE SERVICES GROUP INC - CA		7,228.50	14-FEB-13	7,228.50	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
336883		08-FEB-13	BOWIE, ARNESON, WILES & GIANNONE	PAY	30,480.96	12-FEB-13	30,480.96	Reconciled
336884		08-FEB-13	Douglas Reinhart	HOME	335.58	11-FEB-13	335.58	Reconciled
336885		12-FEB-13	JCI JONES CHEMICALS INC	CINCINNATI	2,054.18	19-FEB-13	2,054.18	Reconciled
336886		12-FEB-13	STATE BOARD OF EQUALIZATION	SACRAMENTO 1	2,000.00			Negotiable
336887		13-FEB-13	CALIFORNIA DEPT OF HEALTH SVCS	RICHMOND	5,975.00	25-FEB-13	5,975.00	Reconciled
336888		14-FEB-13	Alvaro Alfaro		170.98			Negotiable
336889		14-FEB-13	Andrew Parr		60.00	20-FEB-13	60.00	Reconciled
336890		14-FEB-13	Anthony Mossbarger		22.65	19-FEB-13	22.65	Reconciled
336891		14-FEB-13	Armando Morell		151.19	19-FEB-13	151.19	Reconciled
336892		14-FEB-13	Barkev Meserlian		25.00			Negotiable
336893		14-FEB-13	Bradley Jackson		345.00	22-FEB-13	345.00	Reconciled
336894		14-FEB-13	Bryan Clinton		130.00	25-FEB-13	130.00	Reconciled
336895		14-FEB-13	Dan Legault		745.87	22-FEB-13	745.87	Reconciled
336896		14-FEB-13	Jacob Moeder		25.00			Negotiable
336897		14-FEB-13	Jeffrey Smyth		189.13			Negotiable
336898		14-FEB-13	John Withers		639.42	22-FEB-13	639.42	Reconciled
336899		14-FEB-13	Jorge Figueroa		183.58	19-FEB-13	183.58	Reconciled
336900		14-FEB-13	Martin Perez		230.00	21-FEB-13	230.00	Reconciled
336901		14-FEB-13	Peer Swan		135.97	19-FEB-13	135.97	Reconciled
336902		14-FEB-13	Peter Gonzalez		915.88	15-FEB-13	915.88	Reconciled
336903		14-FEB-13	A&A WIPING CLOTH CO		509.76	19-FEB-13	509.76	Reconciled
336904		14-FEB-13	A&G INSTRUMENT SERVICE AND CALIBRATION, INC.		1,217.32	20-FEB-13	1,217.32	Reconciled
336905		14-FEB-13	ACCESS ELECTRIC		1,326.00	20-FEB-13	1,326.00	Reconciled

			INC.				
336906		14-FEB-13	ADS LLC	1,936.50			Negotiable
336907		14-FEB-13	APEX DATA CONSULTING	4,000.00	15-FEB-13	4,000.00	Reconciled
336908		14-FEB-13	AQUA-METRIC SALES COMPANY	18,097.60			Negotiable
336909		14-FEB-13	ARCADIS U.S., INC.	1,918.00	19-FEB-13	1,918.00	Reconciled
336910		14-FEB-13	ASSOCIATED POWER INC	1,952.51	15-FEB-13	1,952.51	Reconciled
336911		14-FEB-13	AT&T	121.50			Negotiable
336912		14-FEB-13	AT&T	1,949.73	21-FEB-13	1,949.73	Reconciled
336913		14-FEB-13	AT&T	3,522.38	19-FEB-13	3,522.38	Reconciled
336914		14-FEB-13	BCGR	385.00	15-FEB-13	385.00	Reconciled
336915		14-FEB-13	BIOMAGIC INC	7,438.35	21-FEB-13	7,438.35	Reconciled
336916		14-FEB-13	BORCHARD SURVEYING & MAPPING, INC.	6,492.50			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
336917		14-FEB-13	BRENNTAG PACIFIC INC		12,909.89	21-FEB-13	12,909.89	Reconciled
336918		14-FEB-13	C WELLS PIPELINE MATERIALS INC		11,842.20			Negotiable
336919		14-FEB-13	CALIFORNIA BARRICADE INC		3,832.50	15-FEB-13	3,832.50	Reconciled
336920		14-FEB-13	CANON BUSINESS SOLUTIONS INC		1,012.50	19-FEB-13	1,012.50	Reconciled
336921		14-FEB-13	CANON FINANCIAL SERVICES INC		13,425.96	22-FEB-13	13,425.96	Reconciled
336922		14-FEB-13	CANON SOLUTIONS AMERICA INC		11,122.66	21-FEB-13	11,122.66	Reconciled
336923		14-FEB-13	CEPA OPERATIONS, INC		290.00	21-FEB-13	290.00	Reconciled
336924		14-FEB-13	CH2M HILL, INC		1,151.28	19-FEB-13	1,151.28	Reconciled
336925		14-FEB-13	CITY OF IRVINE		4,644.80	19-FEB-13	4,644.80	Reconciled
336926		14-FEB-13	CITY OF ORANGE		1,229.00	20-FEB-13	1,229.00	Reconciled
336927		14-FEB-13	CITY OF TUSTIN		104.39	15-FEB-13	104.39	Reconciled
336928		14-FEB-13	CNC ENGINEERING, INC		715.00	20-FEB-13	715.00	Reconciled
336929		14-FEB-13	COALITION FOR ENVIRONMENTAL PROTECTION, RESTORATION AND DEVELOPMENT		3,000.00			Negotiable
336930		14-FEB-13	CONDITION MONITORING SERVICES INC		4,927.50	19-FEB-13	4,927.50	Reconciled
336931		14-FEB-13	CONEYBEARE INC		33,101.00	25-FEB-13	33,101.00	Reconciled
336932		14-FEB-13	CR & R INCORPORATED		12.20	20-FEB-13	12.20	Reconciled
336933		14-FEB-13	D & G SIGNS		259.20	25-FEB-13	259.20	Reconciled
336934		14-FEB-13	DETECTION INSTRUMENTS CORP		603.43	25-FEB-13	603.43	Reconciled
336935		14-FEB-13	DISCOVERY SCIENCE CENTER		3,942.00	20-FEB-13	3,942.00	Reconciled
336936		14-FEB-13	EAST ORANGE COUNTY WATER DISTRICT		8,826.44	21-FEB-13	8,826.44	Reconciled
336937		14-FEB-13	EMEDCO		168.27	21-FEB-13	168.27	Reconciled
336938		14-FEB-13	EMPLOYEE BENEFIT SPECIALIST, INC		825.00	19-FEB-13	825.00	Reconciled
336939		14-FEB-13	ESA PWA		3,959.55	20-FEB-13	3,959.55	Reconciled
336940		14-FEB-13	FEDEX		940.56	19-FEB-13	940.56	Reconciled
336941		14-FEB-13	FEDEX NATIONAL LTL, INC		500.47	20-FEB-13	500.47	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
336942		14-FEB-13	FISHER SCIENTIFIC COMPANY LLC		1,328.54	19-FEB-13	1,328.54	Reconciled
336943		14-FEB-13	FIVE POINT PARTNERS LLC		10,290.99	22-FEB-13	10,290.99	Reconciled
336944		14-FEB-13	FLW SERVICE CORPORATION		3,304.92	20-FEB-13	3,304.92	Reconciled
336945		14-FEB-13	FORTIS RESOURCE PARTNERS INC		5,008.00	20-FEB-13	5,008.00	Reconciled
336946		14-FEB-13	FT ZIEBARTH COMPANY		25,156.66	21-FEB-13	25,156.66	Reconciled
336947		14-FEB-13	GOOGLE INC.		1,089.84	19-FEB-13	1,089.84	Reconciled
336948		14-FEB-13	GRAINGER		2,942.69	19-FEB-13	2,942.69	Reconciled

336949	14-FEB-13	HACH COMPANY	196.91	19-FEB-13	196.91	Reconciled
336950	14-FEB-13	HARPER & ASSOCIATES ENGINEERING INC	1,915.00			Negotiable
336951	14-FEB-13	HILL BROTHERS CHEMICAL COMPANY	5,221.30	20-FEB-13	5,221.30	Reconciled
336952	14-FEB-13	HOME DEPOT USA INC	857.01	26-FEB-13	857.01	Reconciled
336953	14-FEB-13	IQM2 INC.	850.00	20-FEB-13	850.00	Reconciled
336954	14-FEB-13	IRON MOUNTAIN INFORMATION MANAGEMENT INC	1,624.74	19-FEB-13	1,624.74	Reconciled
336955	14-FEB-13	IRVINE PIPE & SUPPLY INC	2,135.62	15-FEB-13	2,135.62	Reconciled
336956	14-FEB-13	J.R. FILANC CONSTRUCTION COMPANY INC.	13,584.12	21-FEB-13	13,584.12	Reconciled
336957	14-FEB-13	JCI JONES CHEMICALS INC	5,505.50	19-FEB-13	5,505.50	Reconciled
336958	14-FEB-13	KELLY SERVICES INC	15,390.00	21-FEB-13	15,390.00	Reconciled
336959	14-FEB-13	LA HABRA FENCE COMPANY INC	2,615.00	22-FEB-13	2,615.00	Reconciled
336960	14-FEB-13	LAGUNA BEACH COUNTY WATER DISTRICT	4,173.72	20-FEB-13	4,173.72	Reconciled
336961	14-FEB-13	LENOVO UNITED STATES INC	11,935.97	21-FEB-13	11,935.97	Reconciled
336962	14-FEB-13	LUBRICATION ENGINEERS, INC.	530.59	19-FEB-13	530.59	Reconciled
336963	14-FEB-13	MAILFINANCE INC	9,931.08	22-FEB-13	9,931.08	Reconciled
336964	14-FEB-13	MARKET-THINK LLC	3,900.00	26-FEB-13	3,900.00	Reconciled
336965	14-FEB-13	MC FADDEN-DALE INDUSTRIAL	143.44	19-FEB-13	143.44	Reconciled
336966	14-FEB-13	MC MASTER CARR SUPPLY CO	543.61	19-FEB-13	543.61	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
336967		14-FEB-13	MERCHANTS LANDSCAPE SERVICES INC		7,280.00	20-FEB-13	7,280.00	Reconciled
336968		14-FEB-13	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		1,500.00	15-FEB-13	1,500.00	Reconciled
336969		14-FEB-13	NATIONAL READY MIXED CONCRETE CO		690.16	19-FEB-13	690.16	Reconciled
336970		14-FEB-13	NATURES IMAGE INC		852.00	19-FEB-13	852.00	Reconciled
336971		14-FEB-13	NEWPORT BAY CONSERVANCY		5,025.00			Negotiable
336972		14-FEB-13	NINYO & MOORE		2,289.50	19-FEB-13	2,289.50	Reconciled
336973		14-FEB-13	OLIN CORPORATION		23,743.33	25-FEB-13	23,743.33	Reconciled
336974		14-FEB-13	ORANGE COUNTY VECTOR CONTROL DISTRICT		1,183.31			Negotiable
336975		14-FEB-13	ORANGE COUNTY WATER DISTRICT		3,086.50	21-FEB-13	3,086.50	Reconciled
336976		14-FEB-13	PACIFIC COAST BOLT CORP		62.19	19-FEB-13	62.19	Reconciled
336977		14-FEB-13	PAPER DEPOT DOCUMENT DESTRUCTION LLC		850.85	15-FEB-13	850.85	Reconciled
336978		14-FEB-13	PARKHOUSE TIRE INC		3,053.21	22-FEB-13	3,053.21	Reconciled
336979		14-FEB-13	PINNACLE LANDSCAPE COMPANY		6,560.00	20-FEB-13	6,560.00	Reconciled
336980		14-FEB-13	PIVOT INTERIORS INC		65.97	15-FEB-13	65.97	Reconciled
336981		14-FEB-13	POLLARDWATER.COM		5,949.58	25-FEB-13	5,949.58	Reconciled
336982		14-FEB-13	PONTON INDUSTRIES INC		1,012.51	22-FEB-13	1,012.51	Reconciled
336983		14-FEB-13	PRAXAIR DISTRIBUTION INC		317.31	19-FEB-13	317.31	Reconciled
336984		14-FEB-13	PROCESS PUMP SALES INC		1,304.40	22-FEB-13	1,304.40	Reconciled
336985		14-FEB-13	PSOMAS		663.71	19-FEB-13	663.71	Reconciled
336986		14-FEB-13	QUALITY LAWN SERVICE		1,880.00	15-FEB-13	1,880.00	Reconciled
336987		14-FEB-13	QUICKEL PAVING INC		1,060.00	15-FEB-13	1,060.00	Reconciled
336988		14-FEB-13	RAM AIR ENGINEERING INC		593.00	19-FEB-13	593.00	Reconciled
336989		14-FEB-13	ROYAL WHOLESALE ELECTRIC		333.06	15-FEB-13	333.06	Reconciled
336990		14-FEB-13	S & J SUPPLY CO INC		15,366.41	20-FEB-13	15,366.41	Reconciled
336991		14-FEB-13	SANTA ANA CITY OF		39,521.04			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
336992		14-FEB-13	SHAMROCK SUPPLY CO INC		917.38	15-FEB-13	917.38	Reconciled
336993		14-FEB-13	SHORTERIA INDUSTRIAL		861.33	22-FEB-13	861.33	Reconciled
336994		14-FEB-13	SOUTH COAST WATER CO.		191.68	19-FEB-13	191.68	Reconciled
336995		14-FEB-13	SOUTHERN CALIFORNIA EDISON COMPANY		29,104.52	15-FEB-13	29,104.52	Reconciled
336996		14-FEB-13	SOUTHERN CALIFORNIA SECURITY CENTER, INC.		42.34	21-FEB-13	42.34	Reconciled
336997		14-FEB-13	STANTEC CONSULTING SERVICES INC.		5,101.42	22-FEB-13	5,101.42	Reconciled
336998		14-FEB-13	SYNAGRO SOUTH, LLC		17,457.80	22-FEB-13	17,457.80	Reconciled
336999		14-FEB-13	TANGRAM ONSITE		341.59	19-FEB-13	341.59	Reconciled
337000		14-FEB-13	TETRA TECH, INC		9,910.73	22-FEB-13	9,910.73	Reconciled
337001		14-FEB-13	THE GAS COMPANY		148.39	25-FEB-13	148.39	Reconciled
337002		14-FEB-13	THE PLUMBERS WAREHOUSE		533.52	19-FEB-13	533.52	Reconciled
337003		14-FEB-13	TROPICAL PLAZA NURSERY INC		8,311.68	20-FEB-13	8,311.68	Reconciled
337004		14-FEB-13	TRUGREEN LANDCARE LLC		932.96	19-FEB-13	932.96	Reconciled
337005		14-FEB-13	UNITED PARCEL SERVICE INC		35.01	19-FEB-13	35.01	Reconciled
337006		14-FEB-13	UNITED SITE SERVICES OF CALIFORNIA INC		253.29	19-FEB-13	253.29	Reconciled
337007		14-FEB-13	UNITED STATES POST OFFICE		25,000.00	25-FEB-13	25,000.00	Reconciled
337008		14-FEB-13	UNITED STATES POSTAL SERVICE		35,000.00	25-FEB-13	35,000.00	Reconciled
337009		14-FEB-13	UNITED STATES POSTAL SERVICE		89.30	22-FEB-13	89.30	Reconciled
337010		14-FEB-13	US PEROXIDE LLC		9,561.32	22-FEB-13	9,561.32	Reconciled
337011		14-FEB-13	VA CONSULTING, INC		1,880.00	15-FEB-13	1,880.00	Reconciled
337012		14-FEB-13	WALTERS WHOLESALE ELECTRIC		3,484.15	15-FEB-13	3,484.15	Reconciled
337013		14-FEB-13	WASTE MANAGEMENT OF ORANGE COUNTY		2,088.33	19-FEB-13	2,088.33	Reconciled
337014		14-FEB-13	WAXIE'S ENTERPRISES, INC		1,712.94	19-FEB-13	1,712.94	Reconciled
337015		14-FEB-13	WECK LABORATORIES INC		347.00	19-FEB-13	347.00	Reconciled

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Payment Document : IRWD CHECK								
337016		14-FEB-13	WEST COAST SAND & GRAVEL INC.		811.57	15-FEB-13	811.57	Reconciled
337017		14-FEB-13	WESTERN EXTERMINATOR COMPANY		8,227.50	21-FEB-13	8,227.50	Reconciled
337018		14-FEB-13	YSI INCORPORATED		3,712.75	19-FEB-13	3,712.75	Reconciled
337019		14-FEB-13	MCR TECHNOLOGIES INC		3,173.73	20-FEB-13	3,173.73	Reconciled
337020		14-FEB-13	NATIONAL READY MIXED CONCRETE CO		1,002.02	19-FEB-13	1,002.02	Reconciled
337021		14-FEB-13	PYRAMID WIRE AND CABLE		1,943.39	22-FEB-13	1,943.39	Reconciled
337022		14-FEB-13	US PEROXIDE LLC		12,636.27	22-FEB-13	12,636.27	Reconciled
337023		14-FEB-13	WEST COAST SAND & GRAVEL INC.		511.67	15-FEB-13	511.67	Reconciled
337024		14-FEB-13	Shavonne Mays	HOME	9.60			Negotiable
337025		14-FEB-13	FERGUSON, DAVID	PAY	3,725.86	21-FEB-13	3,725.86	Reconciled
337026		14-FEB-13	REED, JAMES D	PURCHASE_PAY	2,012.65	20-FEB-13	2,012.65	Reconciled
337027		21-FEB-13	Andrew Brown		280.00			Negotiable
337028		21-FEB-13	Bryan Clinton		105.00	25-FEB-13	105.00	Reconciled
337029		21-FEB-13	Colton Martin		215.00			Negotiable
337030		21-FEB-13	David Mazzarella		40.26			Negotiable
337031		21-FEB-13	David Paulson		105.00	22-FEB-13	105.00	Reconciled
337032		21-FEB-13	Debbie Kanoff		704.37	22-FEB-13	704.37	Reconciled
337033		21-FEB-13	Frederick Bertsch		1,341.45			Negotiable
337034		21-FEB-13	Jose Silva		220.00	22-FEB-13	220.00	Reconciled
337035		21-FEB-13	Ken Pfister		130.00			Negotiable
337036		21-FEB-13	Rory Moore		105.00	27-FEB-13	105.00	Reconciled
337037		21-FEB-13	Truc Mai Bertsch		15.07	25-FEB-13	15.07	Reconciled
337038		21-FEB-13	A & Y ASPHALT		22,233.00	26-FEB-13	22,233.00	Reconciled

			CONTRACTORS INC				
337039		21-FEB-13	AAF INTERNATIONAL	1,782.33	25-FEB-13	1,782.33	Reconciled
337040		21-FEB-13	ABRUDAN, OANA	22.85	27-FEB-13	22.85	Reconciled
337041		21-FEB-13	ACTION ELECTRIC CORP	538.16	26-FEB-13	538.16	Reconciled
337042		21-FEB-13	AIRGAS-WEST, INC.	340.88	25-FEB-13	340.88	Reconciled
337043		21-FEB-13	ALGON, MERAV	24.93			Negotiable
337044		21-FEB-13	ALL AMERICAN ASPHALT	790.17	25-FEB-13	790.17	Reconciled
337045		21-FEB-13	ANTHEM BLUE CROSS	4,037.20	25-FEB-13	4,037.20	Reconciled
337046		21-FEB-13	AT&T	47.85	26-FEB-13	47.85	Reconciled
337047		21-FEB-13	AT&T	15.60	26-FEB-13	15.60	Reconciled
337048		21-FEB-13	AT&T	3,506.61			Negotiable
337049		21-FEB-13	AZIMY, ELLIE	87.32	25-FEB-13	87.32	Reconciled
337050		21-FEB-13	BARTOLIC, PATRICK	59.11			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
337051		21-FEB-13	BATTERY SPECIALTIES		593.31			Negotiable
337052		21-FEB-13	BATTERY SYSTEMS INC		1,451.00	25-FEB-13	1,451.00	Reconciled
337053		21-FEB-13	BILL'S SWEEPING SERVICE INC		460.00	25-FEB-13	460.00	Reconciled
337054		21-FEB-13	BIOMAGIC INC		2,169.48	25-FEB-13	2,169.48	Reconciled
337055		21-FEB-13	BMP SOLUTIONS		994.18	27-FEB-13	994.18	Reconciled
337056		21-FEB-13	BORCHARD SURVEYING & MAPPING, INC.		3,237.50			Negotiable
337057		21-FEB-13	BRUCE NEWELL		1,316.00	25-FEB-13	1,316.00	Reconciled
337058		21-FEB-13	CALIFORNIA BARRICADE INC		4,785.76	25-FEB-13	4,785.76	Reconciled
337059		21-FEB-13	CATALINA MATERIAL HANDLING		4,512.00	26-FEB-13	4,512.00	Reconciled
337060		21-FEB-13	CAVISTON, MIKE		20.00			Negotiable
337061		21-FEB-13	CDW GOVERNMENT LLC		820.85			Negotiable
337062		21-FEB-13	CHEN, HSIU		49.93			Negotiable
337063		21-FEB-13	CHO DESIGN ASSOCIATES, INC		990.00			Negotiable
337064		21-FEB-13	CITY CIRCUIT BREAKERS		3,626.64	22-FEB-13	3,626.64	Reconciled
337065		21-FEB-13	CITY OF NEWPORT BEACH		5,160.33			Negotiable
337066		21-FEB-13	CITY OF NEWPORT BEACH		1,182.25	25-FEB-13	1,182.25	Reconciled
337067		21-FEB-13	CLA-VAL COMPANY		2,232.27	26-FEB-13	2,232.27	Reconciled
337068		21-FEB-13	COASTAL IGNITION & CONTROLS, INC		4,745.31	26-FEB-13	4,745.31	Reconciled
337069		21-FEB-13	COASTAL TRAFFIC SYSTEMS, INC		1,020.00	25-FEB-13	1,020.00	Reconciled
337070		21-FEB-13	COMMERCIAL CLEANING SYSTEMS INC		240.00	22-FEB-13	240.00	Reconciled
337071		21-FEB-13	COMMERCIAL DOOR OF ORANGE COUNTY, INC.		274.70	25-FEB-13	274.70	Reconciled
337072		21-FEB-13	CONEYBEARE INC		637.50	25-FEB-13	637.50	Reconciled
337073		21-FEB-13	CPI-INTERNATIONAL, INC		535.11	25-FEB-13	535.11	Reconciled
337074		21-FEB-13	DECKSIDE POOL SERVICE		218.92	22-FEB-13	218.92	Reconciled
337075		21-FEB-13	DEE JASPAR & ASSOCIATES, INC.		6,802.72			Negotiable
337076		21-FEB-13	DEVENDRAN, BALAJI		34.80			Negotiable
337077		21-FEB-13	DIRECTV INC		94.99	25-FEB-13	94.99	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
337078		21-FEB-13	DUDNEY, CHRISTINE		89.12	27-FEB-13	89.12	Reconciled
337079		21-FEB-13	EAGLE LIFT		979.64	26-FEB-13	979.64	Reconciled
337080		21-FEB-13	EDAW INC		250.25			Negotiable
337081		21-FEB-13	EI&C ENGINEERING INC		1,425.00	26-FEB-13	1,425.00	Reconciled
337082		21-FEB-13	ENVIRONMENTAL EXPRESS INC		1,524.46	27-FEB-13	1,524.46	Reconciled
337083		21-FEB-13	EQUIPMENT DIRECT INC		293.93	22-FEB-13	293.93	Reconciled
337084		21-FEB-13	EXPRESSAIR		282.00			Negotiable
337085		21-FEB-13	EXTERRAN ENERGY SOLUTIONS LP		5,910.62			Negotiable

337086	21-FEB-13	FARRELL & ASSOCIATES	177.12	25-FEB-13	177.12	Reconciled
337087	21-FEB-13	FARWEST CORROSION CONTROL CO	620.54	25-FEB-13	620.54	Reconciled
337088	21-FEB-13	FERGUSON WATERWORKS	4,024.08	25-FEB-13	4,024.08	Reconciled
337089	21-FEB-13	FISERV	11,599.06			Negotiable
337090	21-FEB-13	FISHER SCIENTIFIC COMPANY LLC	1,360.06	25-FEB-13	1,360.06	Reconciled
337091	21-FEB-13	GANJI, DHANALAXMI	12.14			Negotiable
337092	21-FEB-13	GARZA INDUSTRIES, INC	475.20	22-FEB-13	475.20	Reconciled
337093	21-FEB-13	GJ AUTOMOTIVE EQUIPMENT CO INC	503.00	22-FEB-13	503.00	Reconciled
337094	21-FEB-13	GP ELECTRIC MOTOR SERVICE	6,022.90			Negotiable
337095	21-FEB-13	GRAINGER	2,153.05	25-FEB-13	2,153.05	Reconciled
337096	21-FEB-13	GRAMSTAD, MADELEINE	524.65			Negotiable
337097	21-FEB-13	H2O INNOVATION USA INC	8,499.01			Negotiable
337098	21-FEB-13	HACH COMPANY	1,609.75	25-FEB-13	1,609.75	Reconciled
337099	21-FEB-13	HALVERSON, VIRGINIA	24.22	25-FEB-13	24.22	Reconciled
337100	21-FEB-13	HDR ENGINEERING INC	8,184.25			Negotiable
337101	21-FEB-13	HENDERSON, DANIEL	58.00	22-FEB-13	58.00	Reconciled
337102	21-FEB-13	HILL BROTHERS CHEMICAL COMPANY	1,243.60	22-FEB-13	1,243.60	Reconciled
337103	21-FEB-13	HOME DEPOT USA INC	382.14			Negotiable
337104	21-FEB-13	HUSTAD, NATALIE	44.34	27-FEB-13	44.34	Reconciled
337105	21-FEB-13	INDUSTRIAL ELECTRIC MACHINERY LLC	5,121.34			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
337106		21-FEB-13	IRVINE COMMUNITY DEVELOPMENT		720.56	25-FEB-13	720.56	Reconciled
337107		21-FEB-13	IRVINE PIPE & SUPPLY INC		1,689.68			Negotiable
337108		21-FEB-13	IRWD-PETTY CASH CUSTODIAN		1,143.68	22-FEB-13	1,143.68	Reconciled
337109		21-FEB-13	JCI JONES CHEMICALS INC		4,174.23	25-FEB-13	4,174.23	Reconciled
337110		21-FEB-13	JOHN CRANE, INC.		1,857.74	25-FEB-13	1,857.74	Reconciled
337111		21-FEB-13	JOHN G. ALEVIZOS D.O. INC.		317.00	25-FEB-13	317.00	Reconciled
337112		21-FEB-13	JONES, ROSIE		30.00			Negotiable
337113		21-FEB-13	JWC ENVIRONMENTAL		2,128.31	25-FEB-13	2,128.31	Reconciled
337114		21-FEB-13	KIM, DOREEN		36.26			Negotiable
337115		21-FEB-13	KIM, HYEKYUNG		79.25	25-FEB-13	79.25	Reconciled
337116		21-FEB-13	LAGUNA BEACH COUNTY WATER DISTRICT		4,155.87			Negotiable
337117		21-FEB-13	LAND FORMS LANDSCAPE CONSTRUCTION		103.54			Negotiable
337118		21-FEB-13	Lars Oldewage		779.33	22-FEB-13	779.33	Reconciled
337119		21-FEB-13	LCS TECHNOLOGIES, INC.		12,562.50			Negotiable
337120		21-FEB-13	LEE, HYUNGJOO		353.61			Negotiable
337121		21-FEB-13	LEE, MICHELLE		43.71	25-FEB-13	43.71	Reconciled
337122		21-FEB-13	LEU, ANGELA		165.79			Negotiable
337123		21-FEB-13	LEVIN, DESMOND		747.25	27-FEB-13	747.25	Reconciled
337124		21-FEB-13	LOPER, JAMES		27.78			Negotiable
337125		21-FEB-13	MC FADDEN-DALE INDUSTRIAL		28.40	22-FEB-13	28.40	Reconciled
337126		21-FEB-13	MC MASTER CARR SUPPLY CO		884.83	25-FEB-13	884.83	Reconciled
337127		21-FEB-13	MCGREGOR, PRISCILLA		29.71			Negotiable
337128		21-FEB-13	MEGA RV CORP		174.27			Negotiable
337129		21-FEB-13	MESA ORCHARD & ASSOCIATES		111.32	22-FEB-13	111.32	Reconciled
337130		21-FEB-13	MOREAU, KELSEY		25.88	25-FEB-13	25.88	Reconciled
337131		21-FEB-13	MOUSE GRAPHICS		160.65	22-FEB-13	160.65	Reconciled
337132		21-FEB-13	NGHIEM, HUNG		42.40			Negotiable
337133		21-FEB-13	NOVELL INC		2,275.00	25-FEB-13	2,275.00	Reconciled
337134		21-FEB-13	O'HAREN GOVERNMENT RELATIONS		13,000.00			Negotiable
337135		21-FEB-13	OCTA		779.00	26-FEB-13	779.00	Reconciled
337136		21-FEB-13	OLIN CORPORATION		2,709.39	25-FEB-13	2,709.39	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
337137		21-FEB-13	ON ASSIGNMENT LAB SUPPORT		1,244.80	25-FEB-13	1,244.80	Reconciled
337138		21-FEB-13	ONESOURCE DISTRIBUTORS LLC		615.34	25-FEB-13	615.34	Reconciled
337139		21-FEB-13	ORANGE COUNTY TREASURER		9,524.94	26-FEB-13	9,524.94	Reconciled
337140		21-FEB-13	ORANGE, COUNTY OF		36,741.79	26-FEB-13	36,741.79	Reconciled
337141		21-FEB-13	ORLOFF, JACQUELINE		164.62			Negotiable
337142		21-FEB-13	PACIFIC GAS AND ELECTRIC COMPANY		370.62	27-FEB-13	370.62	Reconciled
337143		21-FEB-13	PARING DOWN, INC		30.22	25-FEB-13	30.22	Reconciled
337144		21-FEB-13	PASCAL & LUDWIG CONSTRUCTORS		93,080.90	26-FEB-13	93,080.90	Reconciled
337145		21-FEB-13	PASCAL & LUDWIG CONSTRUCTORS		625.10	22-FEB-13	625.10	Reconciled
337146		21-FEB-13	PINNACLE TOWERS LLC		592.11	25-FEB-13	592.11	Reconciled
337147		21-FEB-13	PIVOT INTERIORS INC		38.38	22-FEB-13	38.38	Reconciled
337148		21-FEB-13	PONTON INDUSTRIES INC		3,096.97			Negotiable
337149		21-FEB-13	PREFERRED PROPERTY		28.82	22-FEB-13	28.82	Reconciled
337150		21-FEB-13	PRINCIPAL LIFE INSURANCE		24,554.19			Negotiable
337151		21-FEB-13	PSB THE MARKETING SUPERSOURCE		2,362.50	22-FEB-13	2,362.50	Reconciled
337152		21-FEB-13	PSOMAS		490.50	25-FEB-13	490.50	Reconciled
337153		21-FEB-13	QUINTILONE, AMY		17.68	25-FEB-13	17.68	Reconciled
337154		21-FEB-13	REACH EMPLOYEE ASSISTANCE INC		845.60	22-FEB-13	845.60	Reconciled
337155		21-FEB-13	RED WING SHOES		200.00	25-FEB-13	200.00	Reconciled
337156		21-FEB-13	RESPONSE ENVELOPE, INC		3,035.35	25-FEB-13	3,035.35	Reconciled
337157		21-FEB-13	ROGERSON, TOM L		261.16			Negotiable
337158		21-FEB-13	ROST, CAROL		44.00			Negotiable
337159		21-FEB-13	SAN DIEGO FLUID SYSTEM TECH		24.56	26-FEB-13	24.56	Reconciled
337160		21-FEB-13	SANTIAGO AQUEDUCT COMMISSION		9,146.83			Negotiable
337161		21-FEB-13	SCHMIDT, MATTHEW		34.31	25-FEB-13	34.31	Reconciled
337162		21-FEB-13	SCOTT HEALTH & SAFETY		364.27	27-FEB-13	364.27	Reconciled
337163		21-FEB-13	SEQUEL CONTRACTORS, INC.		430.53			Negotiable
337164		21-FEB-13	SHIN, SOO		131.58			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
337165		21-FEB-13	SIRIUS COMPUTER SOLUTIONS INC		5,934.39			Negotiable
337166		21-FEB-13	SOUTH ORANGE COUNTY REGIONAL CHAMBER OF COMMERCE		2,500.00	26-FEB-13	2,500.00	Reconciled
337167		21-FEB-13	SOUTHERN CALIFORNIA EDISON COMPANY		194,667.66	27-FEB-13	194,667.66	Reconciled
337168		21-FEB-13	SOUTHERN COUNTIES LUBRICANTS LLC		2,397.19	22-FEB-13	2,397.19	Reconciled
337169		21-FEB-13	SOUTHWEST VALVE & EQUIPMENT		1,689.68	27-FEB-13	1,689.68	Reconciled
337170		21-FEB-13	SPARKLETTS		232.58			Negotiable
337171		21-FEB-13	STANTEC CONSULTING SERVICES INC.		24,617.45			Negotiable
337172		21-FEB-13	STATE BOARD OF EQUALIZATION		410.00			Negotiable
337173		21-FEB-13	TALELE, SONALI		28.32			Negotiable
337174		21-FEB-13	TAYYAB ALI, MUHAMMAD		30.80			Negotiable
337175		21-FEB-13	TETRA TECH, INC		15,915.56			Negotiable
337176		21-FEB-13	THE GAS COMPANY		2,118.53	27-FEB-13	2,118.53	Reconciled
337177		21-FEB-13	THE NEW HOME COMPANY		160.00			Negotiable
337178		21-FEB-13	THOMAS HARDER & CO		960.00	25-FEB-13	960.00	Reconciled
337179		21-FEB-13	TIC INVESTMENT COMPANY		719.54	25-FEB-13	719.54	Reconciled
337180		21-FEB-13	TIC-IPG-COMMON		2,765.76	26-FEB-13	2,765.76	Reconciled
337181		21-FEB-13	TIC-SPECTRUM OFFICE		1,876.95	26-FEB-13	1,876.95	Reconciled
337182		21-FEB-13	TING, ALLEN		35.22			Negotiable

337183	21-FEB-13	TRAN, KEN		30.35			Negotiable
337184	21-FEB-13	UNITED PARCEL SERVICE INC		92.21	25-FEB-13	92.21	Reconciled
337185	21-FEB-13	US BANK NAT'L ASSOCIATION NORTH DAKOTA		50,465.37			Negotiable
337186	21-FEB-13	UTILITY SYSTEMS SCIENCE & SOFTWARE INC.		1,250.00			Negotiable
337187	21-FEB-13	VERIZON CALIFORNIA INC		219.65	27-FEB-13	219.65	Reconciled
337188	21-FEB-13	VULCAN MATERIALS COMPANY		1,357.79	25-FEB-13	1,357.79	Reconciled

IRWD Ledger — Payment Register For 01-FEB-13 To 28-FEB-13 — Report Date: 04-MAR-2013 08:48
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								
337189		21-FEB-13	WALTON MOTORS & CONTROLS INC		7,315.91			Negotiable
337190		21-FEB-13	WELLS SUPPLY COMPANY		850.50	22-FEB-13	850.50	Reconciled
337191		21-FEB-13	WELLS TAPPING SERVICE INC		335.00	27-FEB-13	335.00	Reconciled
337192		21-FEB-13	WEST COAST SAND & GRAVEL INC.		721.36	22-FEB-13	721.36	Reconciled
337193		21-FEB-13	WESTERN AV		5,197.72			Negotiable
337194		21-FEB-13	WESTERN WATER WORKS SUPPLY COMPANY		19,558.69			Negotiable
337195		21-FEB-13	WESTIN ENGINEERING, INC		5,400.00			Negotiable
337196		21-FEB-13	WINDWOOD GLEN APTS		10.03			Negotiable
337197		21-FEB-13	ZEBRON CONTRACTING INC		18,740.00			Negotiable
337198		21-FEB-13	ACTION ELECTRIC CORP		433.80	26-FEB-13	433.80	Reconciled
337199		21-FEB-13	ALMEGA ENVIRONMENTAL & TECHNICAL SERVICES		8,054.70	27-FEB-13	8,054.70	Reconciled
337200		21-FEB-13	CANON SOLUTIONS AMERICA INC		214.12	25-FEB-13	214.12	Reconciled
337201		21-FEB-13	CLEARINGHOUSE		528.45	26-FEB-13	528.45	Reconciled
337202		21-FEB-13	FRANCHISE TAX BOARD		1,757.66			Negotiable
337203		21-FEB-13	GENTERRA CONSULTANTS INC		1,825.14	22-FEB-13	1,825.14	Reconciled
337204		21-FEB-13	INTERNAL REVENUE SERVICE		25.00	27-FEB-13	25.00	Reconciled
337205		21-FEB-13	INTERNAL REVENUE SERVICE		1,469.65	27-FEB-13	1,469.65	Reconciled
337206		21-FEB-13	IRWD EMPLOYEE ASSOCIATION		430.00	22-FEB-13	430.00	Reconciled
337207		21-FEB-13	PERS LONG TERM CARE		2,007.62			Voided
337208		21-FEB-13	PRENDERGAST, T.J.	TUSTIN	320.75	27-FEB-13	320.75	Reconciled
337209		21-FEB-13	STRAUSS, KAREN	IRVINE	175.00			Negotiable
337210		22-FEB-13	PERS LONG TERM CARE	PASADENA 2	1,003.81			Negotiable
337211		22-FEB-13	DUDLEY RIDGE WATER DISTRICT	PAY	15,586.64			Negotiable
337212		25-FEB-13	BELLEWICK COMMUNITY ASSOCIATION	PAY	160.00			Negotiable

IRWD Ledger — Payment Register For 01-FEB-13 To 28-FEB-13 — Report Date: 04-MAR-2013 08:48
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								
337213		26-FEB-13	CHARLES Z FEDAK & COMPANY	PURCHASE	10.00			Voided
337214		26-FEB-13	CHARLES Z FEDAK & COMPANY	PURCHASE	10,770.00			Negotiable
337215		26-FEB-13	CHARLES Z FEDAK & COMPANY	PURCHASE	10,700.00			Negotiable
337216		26-FEB-13	JCI JONES CHEMICALS INC	CINCINNATI	2,627.47			Negotiable
337217		26-FEB-13	ATTORNEY GENERAL'S REGISTRY OF CHARITABLE TRUSTS	SACRAMENTO	150.00			Negotiable
337218		26-FEB-13	FRANCHISE TAX BOARD	SACRAMENTO 1	10.00			Negotiable
337219		26-FEB-13	FRANCHISE TAX	SACRAMENTO	10.00			Negotiable

		BOARD	1			
337220	26-FEB-13	FRANCHISE TAX BOARD	SACRAMENTO 1	10.00		Negotiable
337221	26-FEB-13	FRANCHISE TAX BOARD	SACRAMENTO 1	10.00		Negotiable
337222	26-FEB-13	FRANCHISE TAX BOARD	SACRAMENTO 1	10.00		Negotiable
337223	28-FEB-13	SARKISIAN, JOHN	IRVINE	80.80		Negotiable
337224	28-FEB-13	CERTIFIED BIO SERVICES, LLC	UPLAND	22,871.00		Voided
337225	28-FEB-13	CAPISTRANO UNIFIED SCHOOL DISTRICT	SAN JUAN CAPIST	15.00		Negotiable
337226	28-FEB-13	AMODT, MARIANNE	IRVINE	298.50		Negotiable
337227	28-FEB-13	Amy McNulty		42.00		Negotiable
337228	28-FEB-13	Cheryl Clary		37.33		Negotiable
337229	28-FEB-13	Didene Martin		170.00		Negotiable
337230	28-FEB-13	Eric Akiyoshi		43.34		Negotiable
337231	28-FEB-13	Fiona Sanchez		87.58		Negotiable
337232	28-FEB-13	Jose Silva		188.94		Negotiable
337233	28-FEB-13	Kenneth Erwin		20.00		Negotiable
337234	28-FEB-13	Leslie Bonkowski		194.83		Negotiable
337235	28-FEB-13	Thomas Bonkowski		28.36		Negotiable
337236	28-FEB-13	A & Y ASPHALT CONTRACTORS INC		225.00		Negotiable
337237	28-FEB-13	AAF INTERNATIONAL		641.58		Negotiable
337238	28-FEB-13	ADT SECURITY SERVICES INC		791.36		Negotiable
337239	28-FEB-13	AFLAC		6,215.52		Negotiable
337240	28-FEB-13	AGILENT TECHNOLOGIES, INC.		815.40		Negotiable
337241	28-FEB-13	AIRGAS-WEST, INC.		574.39		Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
337242		28-FEB-13	AKM CONSULTING ENGINEERS, INC.		39,122.00			Negotiable
337243		28-FEB-13	ALBERT, HARRY		379.94			Negotiable
337244		28-FEB-13	AMERICAN WATER WORKS ASSOC		238.00			Negotiable
337245		28-FEB-13	ANDRY, DORAN		496.05			Negotiable
337246		28-FEB-13	APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC		68.86			Negotiable
337247		28-FEB-13	APX ENCLOSURES INC		1,668.85			Negotiable
337248		28-FEB-13	AQUA-METRIC SALES COMPANY		792.99			Negotiable
337249		28-FEB-13	ARC		117.34			Negotiable
337250		28-FEB-13	ASSOCIATED POWER INC		1,970.59			Negotiable
337251		28-FEB-13	AT&T		4,782.57			Negotiable
337252		28-FEB-13	BADGER METER INC		51,564.60			Negotiable
337253		28-FEB-13	BATTERY SPECIALTIES		5,445.20			Negotiable
337254		28-FEB-13	BILL'S SWEEPING SERVICE INC		805.00			Negotiable
337255		28-FEB-13	BIOMAGIC INC		7,774.76			Negotiable
337256		28-FEB-13	BK FOUNTAIN WORKS		664.24			Negotiable
337257		28-FEB-13	BLATERIC, DAVID		419.00			Negotiable
337258		28-FEB-13	CALIBRATE, INC.		2,548.00			Negotiable
337259		28-FEB-13	CALIFORNIA BARRICADE INC		2,190.00			Negotiable
337260		28-FEB-13	CANON SOLUTIONS AMERICA INC		2,266.40			Negotiable
337261		28-FEB-13	CH2M HILL, INC		29,624.00			Negotiable
337262		28-FEB-13	CHEM TECH INTERNATIONAL INC		4,923.60			Negotiable
337263		28-FEB-13	CITY OF IRVINE		253,286.80			Negotiable
337264		28-FEB-13	CITY OF LAKE FOREST		10,061.70			Negotiable
337265		28-FEB-13	CITY OF TUSTIN		494.40			Negotiable
337266		28-FEB-13	CLA-VAL COMPANY		1,536.32			Negotiable
337267		28-FEB-13	CLEANTECH OC		500.00			Negotiable
337268		28-FEB-13	COASTAL IGNITION & CONTROLS, INC		4,641.11			Negotiable
337269		28-FEB-13	COLONIAL LIFE & ACCIDENT INSURANCE CO.		1,695.43			Negotiable
337270		28-FEB-13	COMMERCE ENERGY INC		306.60			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
337271		28-FEB-13	COMMERCIAL COATING RESOURCE INC		4,800.00			Negotiable
337272		28-FEB-13	COMMERCIAL DOOR OF ORANGE COUNTY, INC.		224.13			Negotiable
337273		28-FEB-13	CONEYBEARE INC		11,382.48			Negotiable
337274		28-FEB-13	CORELOGIC INC		18.00			Negotiable
337275		28-FEB-13	CORTECH ENGINEERING, INC		6,351.45			Negotiable
337276		28-FEB-13	COX COMMUNICATIONS		223.64			Negotiable
337277		28-FEB-13	CREDENTIAL CHECK CORPORATION		411.90			Negotiable
337278		28-FEB-13	DAAS, RUBA		72.68			Negotiable
337279		28-FEB-13	DAN'S MACHINE TOOL, INC		25.00			Negotiable
337280		28-FEB-13	DATA CLEAN CORPORATION		826.25			Negotiable
337281		28-FEB-13	DUDEK		5,801.25			Negotiable
337282		28-FEB-13	EMA INC		12,020.00			Negotiable
337283		28-FEB-13	ENVIRONMENTAL EXPRESS INC		961.60			Negotiable
337284		28-FEB-13	ENVIRONMENTAL WATER MANAGEMENT INC		3,000.00			Negotiable
337285		28-FEB-13	EQUIPCO SALES & SERVICE		8,395.80			Negotiable
337286		28-FEB-13	EXCHANGE CLUB OF IRVINE		500.00			Negotiable
337287		28-FEB-13	FARRELL & ASSOCIATES		263.52			Negotiable
337288		28-FEB-13	FEDEX		197.18			Negotiable
337289		28-FEB-13	FERGUSON WATERWORKS		7,737.12			Negotiable
337290		28-FEB-13	FIREHOSEDIRECT.COM		1,435.87			Negotiable
337291		28-FEB-13	FISHER SCIENTIFIC COMPANY LLC		4,244.34			Negotiable
337292		28-FEB-13	FLEET SOLUTIONS LLC		4,041.90			Negotiable
337293		28-FEB-13	FOUNTAIN VALLEY PAINTS		425.61			Negotiable
337294		28-FEB-13	Frederick Bertsch		448.29			Negotiable
337295		28-FEB-13	GARDENWARE		1,016.40			Negotiable
337296		28-FEB-13	GCI CONSTRUCTION, INC.		10,212.50			Negotiable
337297		28-FEB-13	GEORGE YARDLEY CO INC		674.26			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
337298		28-FEB-13	GEOSCIENCE SUPPORT SERVICES INC		26,190.00			Negotiable
337299		28-FEB-13	GRAINGER		2,171.45			Negotiable
337300		28-FEB-13	HARMSWORTH ASSOCIATES		7,650.00			Negotiable
337301		28-FEB-13	HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY		158.98			Negotiable
337302		28-FEB-13	HILL BROTHERS CHEMICAL COMPANY		20,697.80			Negotiable
337303		28-FEB-13	HOME DEPOT USA INC		616.33			Negotiable
337304		28-FEB-13	HOPKINS TECHNICAL PRODUCTS INC		11,879.21			Negotiable
337305		28-FEB-13	HUNSAKER & ASSOCIATES IRVINE		2,563.00			Negotiable
337306		28-FEB-13	HYDRA-SHIELD MANUFACTURING		1,390.50			Negotiable
337307		28-FEB-13	IBM CORPORATION		220.32			Negotiable
337308		28-FEB-13	IDEXX DISTRIBUTION, INC		7,566.48			Negotiable
337309		28-FEB-13	INDUSTRIAL METAL SUPPLY CO		247.00			Negotiable
337310		28-FEB-13	IRVINE COMMUNITY DEVELOPMENT		40.29			Negotiable
337311		28-FEB-13	IRVINE PIPE & SUPPLY INC		666.75			Negotiable
337312		28-FEB-13	JOHN G. ALEVIZOS D.O. INC.		27.00			Negotiable
337313		28-FEB-13	JOHNSON-PELTIER		3,481.50			Negotiable
337314		28-FEB-13	JUHASZ, ADAM		18.23			Negotiable
337315		28-FEB-13	KELLY SERVICES INC		6,180.20			Negotiable
337316		28-FEB-13	KILL-N-BUGS TERMITE AND PEST CONTROL SERVICES		3,420.00			Negotiable
337317		28-FEB-13	KIM, JUNGUK		836.43			Negotiable

337318	28-FEB-13	KOIKE, THEODORE	44.40			Negotiable
337319	28-FEB-13	KONECRANES INC	349.00			Negotiable
337320	28-FEB-13	LAGUNA BEACH COUNTY WATER DISTRICT	2,200.93			Negotiable
337321	28-FEB-13	LENOVO UNITED STATES INC	518.29			Negotiable
337322	28-FEB-13	LOFLIN, MONICA	32.94			Negotiable
337323	28-FEB-13	LOWES, JAMES	20.00			Negotiable
337324	28-FEB-13	LUBRICATION ENGINEERS, INC.	8,919.89			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
337325		28-FEB-13	MARVIN GARDENS LLC		2,719.38			Negotiable
337326		28-FEB-13	MAYLE, LARRY		159.42			Negotiable
337327		28-FEB-13	MBC APPLIED ENVIRONMENTAL SCIENCES		1,250.00			Negotiable
337328		28-FEB-13	MC FADDEN-DALE INDUSTRIAL		83.38			Negotiable
337329		28-FEB-13	MC MASTER CARR SUPPLY CO		1,501.63			Negotiable
337330		28-FEB-13	MERCHANTS LANDSCAPE SERVICES INC		2,755.22			Negotiable
337331		28-FEB-13	MIN, MIHIE		68.59			Negotiable
337332		28-FEB-13	MOBILE MODULAR MANAGEMENT CORPORATION		1,111.32			Negotiable
337333		28-FEB-13	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		72,400.00			Negotiable
337334		28-FEB-13	MUTUAL PROPANE		241.32			Negotiable
337335		28-FEB-13	NEPTUNE TECHNOLOGY		36,936.00			Negotiable
337336		28-FEB-13	NEW PIG CORPORATION		836.30			Negotiable
337337		28-FEB-13	NEWPORT WINDOW MAINTENANCE INC		2,314.00			Negotiable
337338		28-FEB-13	NWRI		1,590.10			Negotiable
337339		28-FEB-13	OCEAN BLUE ENVIRONMENTAL SERVICES INC		4,874.69			Negotiable
337340		28-FEB-13	OLIN CORPORATION		16,600.22			Negotiable
337341		28-FEB-13	ONESOURCE DISTRIBUTORS LLC		167.40			Negotiable
337342		28-FEB-13	ORANGE COUNTY TREASURER		322.06			Negotiable
337343		28-FEB-13	ORANGE COUNTY TREASURER		219.50			Negotiable
337344		28-FEB-13	PAC RIM ENGINEERING		2,875.00			Negotiable
337345		28-FEB-13	PACIFIC COAST BOLT CORP		9,791.20			Negotiable
337346		28-FEB-13	PARADA PAINTING INC		26,299.80			Negotiable
337347		28-FEB-13	PARKHILL, SMITH & COOPER, INC.		3,500.00			Negotiable
337348		28-FEB-13	PEI		506.80			Negotiable
337349		28-FEB-13	POLLARDWATER.COM		8,898.56			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
337350		28-FEB-13	PONTON INDUSTRIES INC		5,068.95			Negotiable
337351		28-FEB-13	PRAXAIR DISTRIBUTION INC		3,828.39			Negotiable
337352		28-FEB-13	PRE-PAID LEGAL SERVICES INC		1,270.00			Negotiable
337353		28-FEB-13	PSOMAS		18,058.00			Negotiable
337354		28-FEB-13	RBF CONSULTING		6,983.59			Negotiable
337355		28-FEB-13	RBF CONSULTING		6,060.00			Negotiable
337356		28-FEB-13	RED WING SHOES		603.72			Negotiable
337357		28-FEB-13	REFRIGERATION SUPPLIES		234.79			Negotiable
337358		28-FEB-13	ROAD BUILDERS INC		989.27			Negotiable
337359		28-FEB-13	RODGERS, CAREN		67.70			Negotiable
337360		28-FEB-13	SANTA ANA BLUE PRINT		914.44			Negotiable

337361	28-FEB-13	SANTA ROSA NEIGHBORHOOD ASSOC		1,605.71		Negotiable
337362	28-FEB-13	SECURTEC DISTRICT PATROL INC		12,760.00		Negotiable
337363	28-FEB-13	SIRIUS COMPUTER SOLUTIONS INC		4,693.48		Negotiable
337364	28-FEB-13	SOUTH COAST ANSWERING SERVICE		550.80		Negotiable
337365	28-FEB-13	SOUTHERN CALIFORNIA EDISON COMPANY		132,634.74		Negotiable
337366	28-FEB-13	SOUTHERN CALIFORNIA SECURITY CENTER, INC.		620.24		Negotiable
337367	28-FEB-13	SPARKLETTS		98.49		Negotiable
337368	28-FEB-13	SPECTER INSTRUMENTS		395.00		Negotiable
337369	28-FEB-13	SS MECHANICAL CORPORATION		950.00		Negotiable
337370	28-FEB-13	STATE WATER RESOURCES CONTROL BOARD		543.00		Negotiable
337371	28-FEB-13	STATE WATER RESOURCES CONTROL BOARD		505.00		Negotiable
337372	28-FEB-13	T AND S LARSEN MAINTENANCE		400.00		Negotiable
337373	28-FEB-13	TAIT ENVIRONMENTAL SERVICES INC		950.00		Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
337374		28-FEB-13	TECHKO MAID, INC.		94.61			Negotiable
337375		28-FEB-13	TEKDRAULICS		918.00			Negotiable
337376		28-FEB-13	TESTAMERICA LABORATORIES, INC		192.15			Negotiable
337377		28-FEB-13	TETRA TECH, INC		11,862.52			Negotiable
337378		28-FEB-13	THE SUMMIT AT THE TURTLE RIDGE		393.52			Negotiable
337379		28-FEB-13	THYSSENKRUPP ELEVATOR		212.45			Negotiable
337380		28-FEB-13	TIC-ICDC		625.00			Negotiable
337381		28-FEB-13	TRENCH SHORING COMPANY		283.40			Negotiable
337382		28-FEB-13	TROPICAL PLAZA NURSERY INC		26,238.05			Negotiable
337383		28-FEB-13	TRUCPARCO		1,525.26			Negotiable
337384		28-FEB-13	TRUGREEN LANDCARE LLC		308.40			Negotiable
337385		28-FEB-13	UNITED PARCEL SERVICE INC		42.21			Negotiable
337386		28-FEB-13	URS CORPORATION		171,508.76			Negotiable
337387		28-FEB-13	US PEROXIDE LLC		12,448.65			Negotiable
337388		28-FEB-13	VA CONSULTING, INC		5,400.00			Negotiable
337389		28-FEB-13	VERIZON CALIFORNIA INC		325.82			Negotiable
337390		28-FEB-13	VERIZON WIRELESS SERVICES LLC		6,774.81			Negotiable
337391		28-FEB-13	VPSI INC		34,356.00			Negotiable
337392		28-FEB-13	WAXIE'S ENTERPRISES, INC		1,091.75			Negotiable
337393		28-FEB-13	WECK LABORATORIES INC		515.00			Negotiable
337394		28-FEB-13	WEST COAST SAND & GRAVEL INC.		961.42			Negotiable
337395		28-FEB-13	WONG, CINDY		35.55			Negotiable
337396		28-FEB-13	YEARRLY, SANDRA		300.00			Negotiable
337397		28-FEB-13	YORKE ENGINEERING LLC		1,183.00			Negotiable
337398		28-FEB-13	YOUTH EMPLOYMENT SERVICE OF THE HARBOR AREA, INC.		2,500.00			Negotiable
337399		28-FEB-13	UNIVERSITY OF CALIFORNIA, LOS ANGELES	LOS ANGELES	15.00			Negotiable
337400		28-FEB-13	UNIVERSITY OF SOUTHERN CALIFORNIA	LOS ANGELES	10.00			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status

Payment Document : IRWD CHECK								
337401	28-FEB-13	MONTECIDO AT PORTOLA HILLS ASSOCIATION	LAGUNA HILLS	1,860.03				Negotiable
337402	28-FEB-13	DEMERS, LUCIEN	IRVINE	4,490.00				Negotiable
337403	28-FEB-13	NEWPORT REAL ESTATE SERVICES INC	PAY	1,678.50				Negotiable
337404	28-FEB-13	CERTIFIED BIO SERVICES, LLC	UPLAND	22,871.00				Negotiable
		Payment Document Subtotal:		3,841,268.66			2,040,440.75	
Payment Document : IRWD Wire								
9793	07-FEB-13	CALPERS	SACRAMENTO	356,004.36				Negotiable
9794	08-FEB-13	YORK INSURANCE SERVICES GROUP INC - CA	PAY	9,413.12				Negotiable
9795	12-FEB-13	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	6,607.23				Negotiable
9796	12-FEB-13	SUMITOMO MITSUI BANKING CORPORAION	NEW YORK	1,155.42				Negotiable
9797	12-FEB-13	U.S. BANK NATIONAL ASSOCIATION	PAY	4,123.30				Negotiable
9798	12-FEB-13	BANK OF AMERICA	SAN FRANCISCO	4,727.43				Negotiable
9799	12-FEB-13	BANK OF AMERICA	SAN FRANCISCO	122,071.74				Negotiable
9800	12-FEB-13	SUMITOMO MITSUI BANKING CORPORAION	NEW YORK	3,538.52				Negotiable
9801	12-FEB-13	BANK OF NEW YORK MELLON TRUST COMPANY NA		1,748.80				Negotiable
9802	12-FEB-13	INTERNAL REVENUE SERVICE	FRESNO	138,648.85				Negotiable
9803	12-FEB-13	FRANCHISE TAX BOARD	SACRAMENTO	38,551.44				Negotiable
9804	12-FEB-13	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	10,192.22				Negotiable
9805	12-FEB-13	WILLIAMS, TWYLA	PARKER	658.62				Negotiable
9806	12-FEB-13	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	500.17				Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
9807		12-FEB-13	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	1,991.98			Negotiable
9808		12-FEB-13	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	9,597.97			Negotiable
9809		12-FEB-13	GREAT WEST	DENVER	82,453.22			Negotiable
9810		12-FEB-13	CALPERS	SACRAMENTO	80,003.20			Negotiable
9811		14-FEB-13	YORK INSURANCE SERVICES GROUP INC - CA	PAY	4,622.79			Negotiable
9812		20-FEB-13	YORK INSURANCE SERVICES GROUP INC - CA	PAY	6,211.97			Negotiable
9813		20-FEB-13	YORK INSURANCE SERVICES GROUP INC - CA	PAY	7,863.12			Negotiable
9814		25-FEB-13	INTERNAL REVENUE SERVICE	FRESNO	141,338.17			Negotiable
9815		25-FEB-13	FRANCHISE TAX BOARD	SACRAMENTO	38,641.07			Negotiable
9816		25-FEB-13	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	10,367.76			Negotiable
9817		25-FEB-13	WILLIAMS, TWYLA	PARKER	658.62			Negotiable
9818		25-FEB-13	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	500.17			Negotiable
9819		25-FEB-13	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	1,991.98			Negotiable
9820		25-FEB-13	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	10,001.17			Negotiable
9821		25-FEB-13	GREAT WEST	DENVER	84,005.46			Voided
9822		25-FEB-13	CALPERS	SACRAMENTO	73,881.73			Negotiable
9823		25-FEB-13	MUNICIPAL WATER	FOUNTAIN	1,427,589.89			Negotiable

March 25, 2013
Prepared and Submitted by: Various
Approved by: Paul Cook

CONSENT CALENDAR

STRATEGIC MEASURES DASHBOARD

SUMMARY:

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

RECOMMENDATION:

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

EXHIBITS:

Exhibit "A" – Strategic Measures Dashboard
Exhibit "B" – Dyer Road Wellfield Status
Exhibit "C" – Reservoir Data

IRVINE RANCH WATER DISTRICT

Exhibit "A"

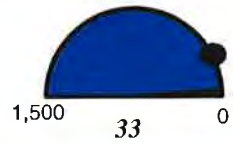
STRATEGIC MEASURES DASHBOARD

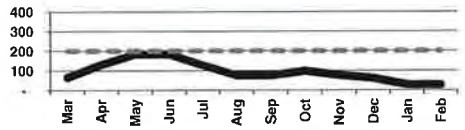
February 2013

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

Reliability-Potable/Nonpotable

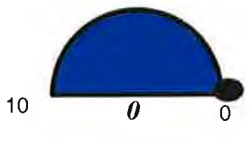
Target <= 200 customer hours
out of service this month

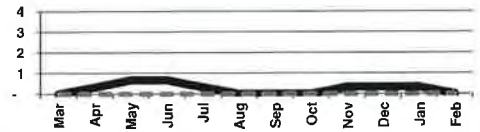




Sewer Spills

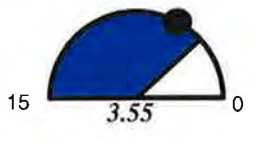
Target = 0 Spills
this month

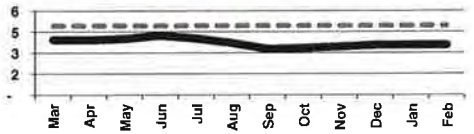




OCSD CORF Flows

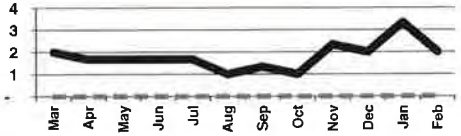
Target <=4.95 MGD
CORF flow to OCSD this month





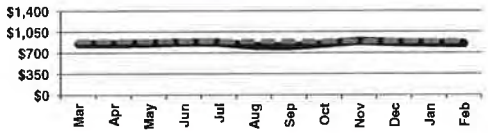
OSHA Recordables

Target = 0 reportable accidents
this month



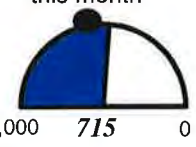
Water System Cost--Potable

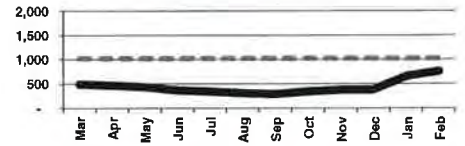
Target <=$893/af delivered
this month



Water System Cost--Nonpotable

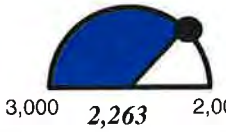
Target <= $1,022/af delivered
this month

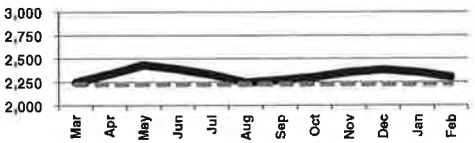




Wastewater Cost

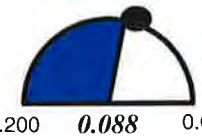
Target <= $2,228/MG processed
this month

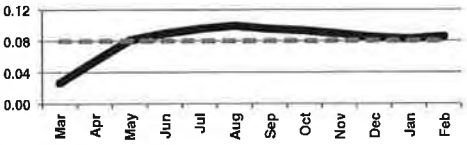




MWRP Energy Cost per kwh

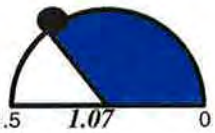
Target <=0.080 cost per kWh
this month

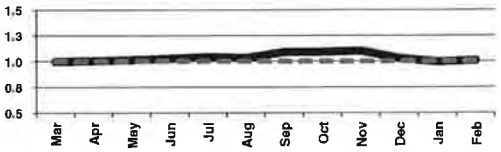




Real Property Performance

Target >= 1.0 (net income/goal)
last month





● Target shown on gauge
00.00 Figure for Current Month

Target shown on trend graph
3-month rolling average

IRVINE RANCH WATER DISTRICT

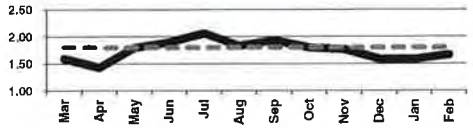
STRATEGIC MEASURES DASHBOARD

February 2013

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

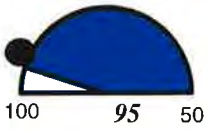
Overhead Ratio

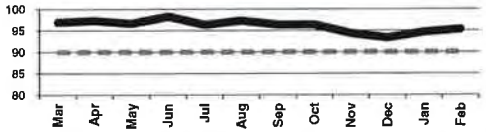
Target <= 1.80 (G&A expenses/ direct labor) this month



Customer Satisfaction

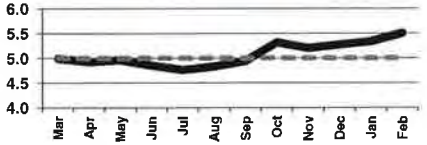
Target >= 90% satisfaction this month





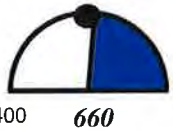
Employee Satisfaction

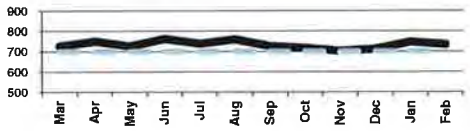
Target >= 5.0 score this month



DATS Well Production

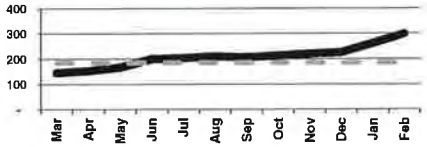
Target >= 700 af this month





IDP Treated Water

Target >= 185 af this month



● Target shown on gauge

00.00 Figure for Current Month

▪▪▪▪▪▪▪▪▪ Target shown on trend graph

━━━━ 3-month rolling average

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Reliability-Potable/Nonpotable

MONTHLY STATUS REPORT

Metric Owner: Water Ops

Definition of Measure:

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

Method:

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

Data Collection

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

Explanation of Variance

1. None

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	65.10	200.00
April 2012	231.20	200.00
May 2012	252.60	200.00
June 2012	66.30	200.00
July 2012	62.80	200.00
August 2012	96.30	200.00
September 2012	68.70	200.00
October 2012	130.00	200.00
November 2012	34.10	200.00
December 2012	20.80	200.00
January 2013	29.50	200.00
February 2013	32.70	200.00

From: March 2012
Thru: February 2013
Goal: 200.00

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Sewer Spills

MONTHLY STATUS REPORT

Metric Owner: Gregory Springman Collection System Manager

Definition of Measure:

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

Method:

Total number of IRWD sewer spills

Data Collection

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

Explanation of Variance

1. April, 2012-Newport Coast Marriott, blockage occurred in a sewer easement due to root intrusion. 50 gals SSO with 50 gals of wastewater released into the environment. All wastewater spilled soaked into the grass covered easement.
2. November, 2012 - Irvine, blockage caused by grease in a 8-in VCP sewer main. Volume estimated at 2,200 gals SSO with 1,000 gals of wastewater contained and recovered.
3. May, 2012 - MWRP North interceptor trunk sewer main break caused by pile driving activities during MWRP expansion. The break occurred on the 48" VCP trunk sewer main. 9,425 gals SSO with 9,425 gals of wastewater contained and recovered.

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	0	0
April 2012	1.00	0
May 2012	1.00	0
June 2012	0	0
July 2012	0	0
August 2012	0	0
September 2012	0	0
October 2012	0	0
November 2012	1.00	0
December 2012	0	0
January 2013	0	0
February 2013	0	0

From: March 2012
Thru: February 2013
Goal: 0

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

OCSD CORF Flows

MONTHLY STATUS REPORT

Metric Owner: Wayne Posey Director of Wastewater Operations

Definition of Measure:

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

Method:

IRWD's CORF flow is derived by using the actual Main Street Flume Meter flow and subtracting the MWRP biosolid discharge flow and all non Revenue Area 14 (IRWD) flows tributary to the Main Street Flume meter/MWRP and adding in the San Joaquin Hills Planned Community flow and flow discharges from the Gas Recovery System (Formerly Laidlaw) for the FY four calendar months with the highest flow totals multiplied by three, averaging the result thereof with the same result of the same calculation for the preceding two fiscal years and adding in the current IBC transfer flow.
Note: All of the Newport Coast flows with the exception of the San Joaquin Hills Planned Community and Gas Recovery System flow are excluded from IRWD's CORF flow calculation. The OCSD's 1988 Downcoast Area Agreement only requires for IRWD to provide local wastewater collection service and requires OCSD to provide wastewater regional collection, transmission, treatment and disposal for that area.

Data Collection

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

Explanation of Variance

1. None

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	3.84	4.95
April 2012	3.95	4.95
May 2012	4.25	4.95
June 2012	4.53	4.95
July 2012	3.33	4.95
August 2012	3.27	4.95
September 2012	3.26	4.95
October 2012	3.54	4.95
November 2012	3.55	4.95
December 2012	3.55	4.95
January 2013	3.55	4.95
February 2013	3.55	4.95

From: March 2012
Thru: February 2013
Goal: 4.95

OSHA Recordables

MONTHLY STATUS REPORT

Metric Owner: Ken Erwin District Safety& Security Manager

Definition of Measure:

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

Method:

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

Data Collection

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

Explanation of Variance

1. None

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	1.00	0
April 2012	2.00	0
May 2012	2.00	0
June 2012	1.00	0
July 2012	2.00	0
August 2012	0	0
September 2012	2.00	0
October 2012	1.00	0
November 2012	4.00	0
December 2012	1.00	0
January 2013	5.00	0
February 2013	0	0

From: March 2012
Thru: February 2013
Goal: 0

Water System Cost--Potable

MONTHLY STATUS REPORT

Metric Owner: Denise To-Nguyen Accountant

Definition of Measure:

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

Method:

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

Data Collection

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

Explanation of Variance

1. The positive variance identified on the dashboard is due to sales exceeding budget by 291 acre feet.

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	858.00	832.00
April 2012	846.00	828.00
May 2012	887.00	826.00
June 2012	893.00	824.00
July 2012	836.00	776.00
August 2012	726.00	812.00
September 2012	866.00	766.00
October 2012	960.00	920.00
November 2012	849.00	808.00
December 2012	813.00	914.00
January 2013	916.00	855.00
February 2013	816.00	893.00

From: March 2012
Thru: February 2013
Goal: 893.00

Water System Cost--Nonpotable

MONTHLY STATUS REPORT

Metric Owner: Denise To-Nguyen Accountant

Definition of Measure:

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

Method:

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

Data Collection

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

Explanation of Variance

1. The primary driver for the variance from actual to budget is sales exceeded the budgeted target by 315 acre feet. Sales in the non-potable system are generally much lower in January and February, driving the cost per acre foot up.

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	536.00	493.00
April 2012	370.00	482.00
May 2012	410.00	479.00
June 2012	346.00	472.00
July 2012	279.00	319.00
August 2012	314.00	339.00
September 2012	297.00	321.00
October 2012	428.00	454.00
November 2012	420.00	448.00
December 2012	313.00	475.00
January 2013	1,256.00	1,281.00
February 2013	715.00	1,022.00

From: March 2012
Thru: February 2013
Goal: 1,022.00

Wastewater Cost

MONTHLY STATUS REPORT

Metric Owner: Wayne Posey Director of Wastewater Operations

Definition of Measure:

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

Method:

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

Data Collection

Data used for this measure are collected from the general ledger and from Orange County Sanitation District (OCSD) and Santa Margarita Water District (SMWD) staff. Costs and flows from OCSD District #7 are not included in the calculation. In order to track this item on a monthly basis, the labor included for the current month is based on the budget.

Explanation of Variance

1. Immaterial.

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	2,331.06	2,363.00
April 2012	2,467.50	2,401.00
May 2012	2,506.00	2,463.00
June 2012	2,194.00	2,491.00
July 2012	2,297.00	2,435.00
August 2012	2,250.00	2,346.00
September 2012	2,268.00	2,333.00
October 2012	2,392.00	2,409.00
November 2012	2,409.00	2,438.00
December 2012	2,353.00	2,452.00
January 2013	2,300.00	2,217.00
February 2013	2,263.00	2,228.00

From: March 2012
Thru: February 2013
Goal: 2,228.00

MWRP Energy Cost per kWh

MONTHLY STATUS REPORT

Metric Owner: Wayne Posey Director of Wastewater Operations

Definition of Measure:

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

Method:

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

Data Collection

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

Explanation of Variance

1. None

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	.08	.08
April 2012	.08	.08
May 2012	.08	.08
June 2012	.11	.08
July 2012	.10	.08
August 2012	.09	.08
September 2012	.09	.08
October 2012	.09	.08
November 2012	.08	.08
December 2012	.08	.08
January 2013	.09	.08
February 2013	.09	.08

From: March 2012
Thru: February 2013
Goal: .08

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Real Property Performance

MONTHLY STATUS REPORT

Metric Owner: Finance Debt and Investment Analyst

Definition of Measure:

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

Method:

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

Data Collection

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

Explanation of Variance

1. None

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	1.00	1.00
April 2012	1.02	1.00
May 2012	1.03	1.00
June 2012	1.03	1.00
July 2012	1.07	1.00
August 2012	1.00	1.00
September 2012	1.20	1.00
October 2012	1.08	1.00
November 2012	1.03	1.00
December 2012	.98	1.00
January 2013	.98	1.00
February 2013	1.07	1.00

From: March 2012
Thru: February 2013
Goal: 1.00

Overhead Ratio

MONTHLY STATUS REPORT

Metric Owner: Jessica Craig Accountant

Definition of Measure:

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

Method:

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

Data Collection

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

Explanation of Variance

1. The current month actual G&A rate is 1.55 which is lower than the projected rate of 1.80 for fiscal year 2012-13. The FYTD G&A rate, July through June, is 1.66 which brings the under applied G&A to ($1,486,185.60).

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	1.80	1.80
April 2012	1.50	1.80
May 2012	2.10	1.80
June 2012	2.10	1.80
July 2012	2.00	1.80
August 2012	1.40	1.80
September 2012	2.40	1.80
October 2012	1.60	1.80
November 2012	1.30	1.80
December 2012	1.88	1.80
January 2013	1.57	1.80
February 2013	1.55	1.80

From: March 2012
Thru: February 2013
Goal: 1.80

Customer Satisfaction

MONTHLY STATUS REPORT

Metric Owner: Gina Jackson Customer Service Manager

Definition of Measure:

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

Method:

Data Collection

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

Explanation of Variance

1. Total Overall Satisfaction =95%
   Satisfaction =93%
   Timely = 98%
   Phone = 96%
   Field Contact = 94%

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	95.00	90.00
April 2012	99.00	90.00
May 2012	96.00	90.00
June 2012	100.00	90.00
July 2012	93.00	90.00
August 2012	99.00	90.00
September 2012	97.00	90.00
October 2012	93.00	90.00
November 2012	93.00	90.00
December 2012	94.00	90.00
January 2013	97.00	90.00
February 2013	95.00	90.00

From: March 2012
Thru: February 2013
Goal: 90.00

Employee Satisfaction

MONTHLY STATUS REPORT

Metric Owner: Gretchen Maswadeh Human Resources Manager

Definition of Measure:

Level of employee satisfaction with employment at IRWD.

Method:

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

Data Collection

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

Explanation of Variance

1. 6 surveys were returned of 21 surveys sent (29%). 5 of 6 respondents (83%) rated satisfaction as 5 or 6 on a scale of 1 to 6. In the 12 month period ending February 2013, 102 surveys have been returned of 298 surveys sent (34%). 81 of 100 respondents (79%) rated satisfaction as 5 or 6 on a scale of 1 to 6. 12 month average rating is 5.20%

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	5.00	5.00
April 2012	4.77	5.00
May 2012	5.13	5.00
June 2012	4.67	5.00
July 2012	4.50	5.00
August 2012	5.33	5.00
September 2012	5.00	5.00
October 2012	5.64	5.00
November 2012	4.98	5.00
December 2012	5.20	5.00
January 2013	5.83	5.00
February 2013	5.50	5.00

From: March 2012
Thru: February 2013
Goal: 5.00

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

DATS Well Production

MONTHLY STATUS REPORT

Metric Owner: Tom Roberts Operations Manager

Definition of Measure:

Number of acre-feet of water produced by Dyer Road wells C-8 and C-9 to supply water to the Deep Aquifier Treatment System (DATS).

Method:

Summation of production from wells C-8 and C-9.

Data Collection

Data collected from meters at wells.

Explanation of Variance

1. None

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	689.00	700.00
April 2012	805.00	700.00
May 2012	685.00	700.00
June 2012	802.00	700.00
July 2012	733.00	700.00
August 2012	745.00	700.00
September 2012	703.00	700.00
October 2012	704.00	700.00
November 2012	702.00	700.00
December 2012	732.00	700.00
January 2013	811.00	700.00
February 2013	660.00	700.00

From: March 2012
Thru: February 2013
Goal: 700.00

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

IDP Treated Water

MONTHLY STATUS REPORT

Metric Owner: Tom Roberts Operations Manager

Definition of Measure:

Number of acre-feet of treated water produced by the Irvine Desalter Project (IDP).

Method:

Difference between final effuent volume and discharge to storm drain volume.

Data Collection

Data collected from final effluent and discharge to storm drain meters.

Explanation of Variance

MONTHLY DATA

Month	*Value*	*Goal*
March 2012	136.00	185.00
April 2012	187.00	185.00
May 2012	178.00	185.00
June 2012	235.00	185.00
July 2012	200.00	185.00
August 2012	196.00	185.00
September 2012	225.00	185.00
October 2012	218.00	185.00
November 2012	221.00	185.00
December 2012	239.00	185.00
January 2013	324.00	185.00
February 2013	336.00	185.00

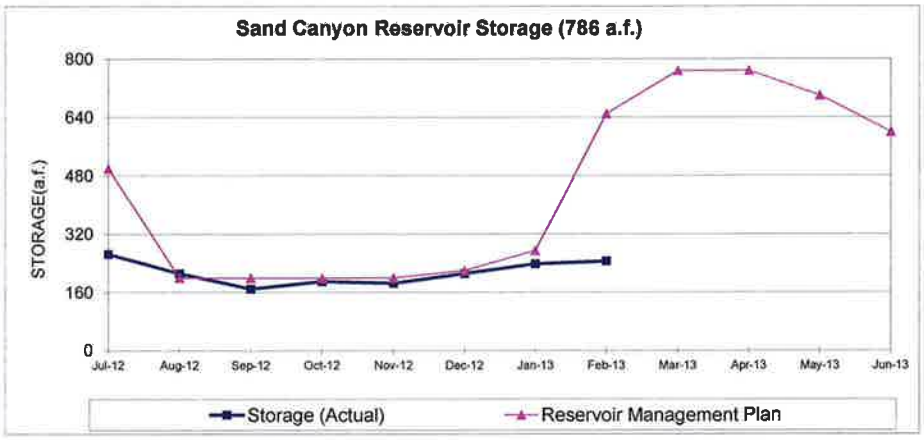
From: March 2012
Thru: February 2013
Goal: 185.00

EXHIBIT "B"

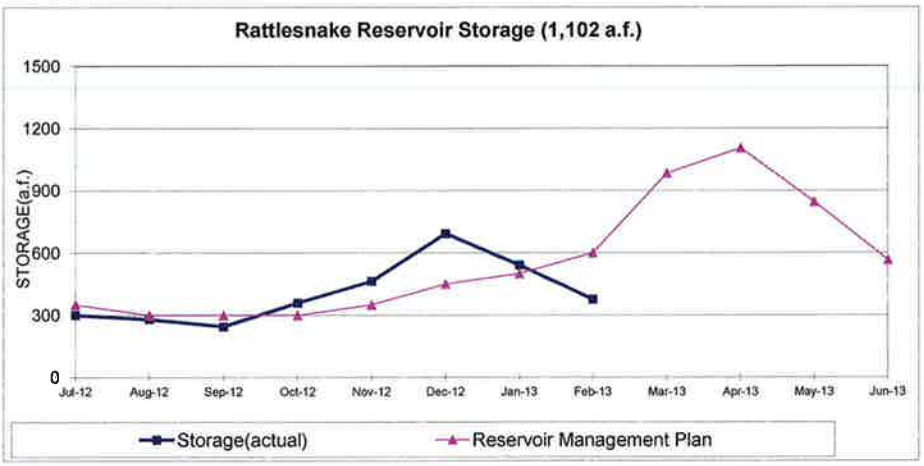
DYER ROAD WELL FIELD STATUS							Feb-2013
Well Number	Production Mo./YTD	Ref. Point Elevation	Depth to Water 2/28/2013	Water Level-MSL	Depth of Bowls	Bowl Setting-MSL	Feet of Water Above Intake
1	70.5 AF 1,090.9 AF	34	N/A	N/A	270	-236	N/A
2	0.0 AF 78.2 AF	37	86 Static	-50	270	-234	184
3	0.0 AF 0.7 AF	55	90 Static	-35	215	-160	125
4	228.6 AF 1,785.6 AF	38	139 Pumping	-101	216	-178	77
5	51.7 AF 926.1 AF	48	89 Static	-41	290	-242	201
6	90.8 AF 1,146.3 AF	43	89 Static	-46	250	-207	161
7	12.9 AF 671.8 AF	40	108 Static	-68	290	-250	182
C-8 DATS	372.1 AF 3,317.6 AF	37	135 Pumping	-98	305	-268	170
C-9 DATS	288.3 AF 2,565.5 AF	23	135 Pumping	-112	305	-282	170
10	329.2 AF 2,763.4 AF	47	158 Pumping	-111	250	-203	92
11	92.5 AF 615.0 AF	40	111 Static	-71	300	-260	189
12	220.3 AF 1,666.4 AF	51	167 Pumping	-116	300	-249	133
13	74.8 AF 642.5 AF	40	179 Pumping	-139	300	-260	121
14	168.5 AF 1,292.8 AF	47	108 Static	-61	311	-264	203
15	297.3 AF 2,879.5 AF	44	168 Pumping	-124	300	-256	132
16	63.6 AF 664.2 AF	47	109 Static	-62	280	-233	171
17	274.5 AF 2,330.6 AF	52	182 Pumping	-131	250	-199	68
18	91.3 AF 1,143.5 AF	45	104 Static	-59	300	-255	196
Clear production: FYTD:	2,066.5 AF for the month 19,697.5 AF						
DATS production: FYTD:	660.4 AF for the month 5,883.1 AF						

EXHIBIT "C"

RESERVOIR DATA FY 12-13



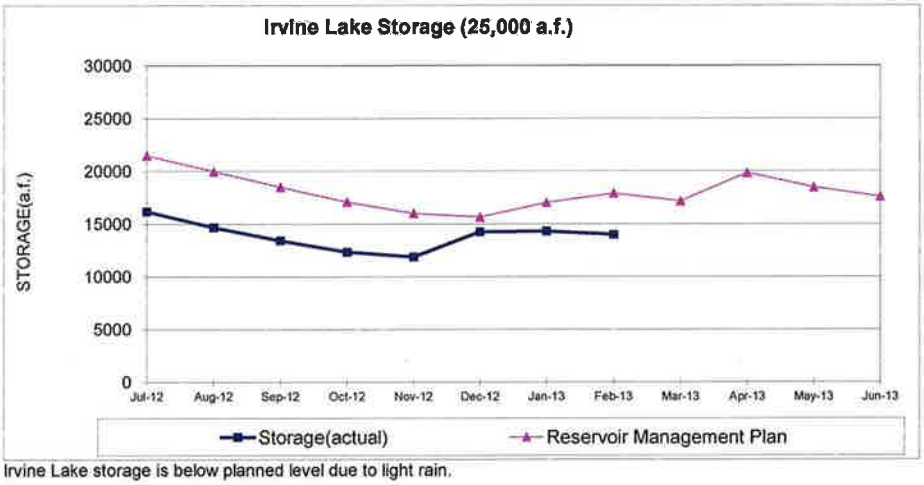
Sand Canyon Reservoir storage is below normal due to light rain.



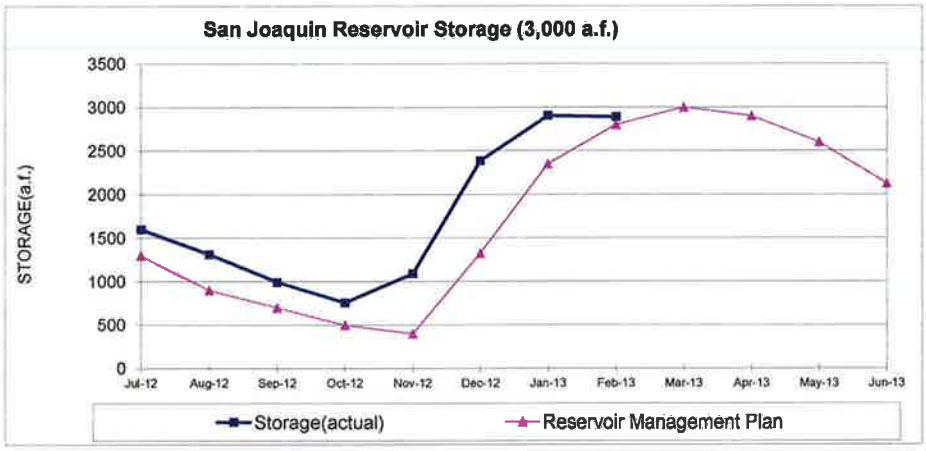
Rattlesnake Reservoir storage is below normal due to light rain.

Exhibit "C"

RESERVOIR DATA FY 12-13



Irvine Lake storage is below planned level due to light rain.



San Joaquin Reservoir storage is on track.

March 25, 2013
Prepared by: R. Thatcher/M. Hoolihan
Submitted by: K. Burton
Approved by: Paul Cook

CONSENT CALENDAR

NOTICE OF RELEASE SECTION III, PARAGRAPH G OF
QUITCLAIM DEED PER INSTRUMENT NO. 2005000536288, OFFICIAL RECORDS
GREAT PARK NEIGHBORHOOD – DISTRICT 8

SUMMARY:

When FivePoint Communities (FivePoint) acquired portions of the former MCAS El Toro in 2005 as Heritage Fields LLC, Orange County Water District (OCWD) and IRWD were working with the Navy on groundwater remediation within the base as part of the Irvine Desalter Project (IDP). A covenant was placed in the deed allowing OCWD and IRWD the right to take soil samples to test for hazardous substances as part of the IDP. FivePoint has requested that the area known as Great Parks Neighborhood District 8 be released from this covenant, and staff recommends that the Board grant this request.

BACKGROUND:

FivePoint acquired the property at the former El Toro Marine Corps Air Station as four parcels by four separate quitclaim deeds entitled "Quitclaim Deed and Environmental Restriction Pursuant to Civil Code Section 1471". As part of the acquisition of Parcel 1 of the base property per the deed recorded July 12, 2005 as Instrument No. 2005000536288 of Official Records of Orange County, a covenant per Section III, Paragraph G of said deed entitled "Covenant for Access and Sampling Rights Related to Groundwater Remediation," was placed allowing OCWD and IRWD the right to enter the property to take soil samples for the purpose of confirming that none of the current operations of the property owner resulted in the release of hazardous substances that could impact the treatment system associated with the IDP.

FivePoint is currently developing the first phase of residential development on a portion of Parcel 1 area known as District 8 which lies northeast of Irvine Boulevard and northwest of the University of California South Coast Field Station. FivePoint has requested that OCWD and IRWD release the area from the described covenant. IRWD staff has reviewed the request and determined that this area is outside of the groundwater remediation area and that FivePoint's current operation of developing this property for residential uses allow for the Notice of Release to proceed. The resolution authorizing this Notice of Release is attached as Exhibit "A", the Notice of Release form is attached as Exhibit "B", and a map showing the location of the released area is attached as Exhibit "C".

Staff recommends the area requested by Five Point be released from the covenant described above and that the Board approve the attached resolution quitclaiming this covenant.

FISCAL IMPACT:

None.

ENVIRONMENTAL COMPLIANCE:

This project is not subject to the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15061 (b) (3), in that CEQA applies only to projects that may result in a direct physical change in the environment or reasonably foreseeable indirect physical change in the environment.

COMMITTEE REVIEW:

Quitclaims and releases are not routinely taken to Committee prior to submittal for Board approval.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2013 - _____

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT APPROVING EXECUTION OF
THE NOTICE OF RELEASE OF SECTION III, PARAGRAPH G OF
QUITCLAIM DEED PER INSTRUMENT NO. 2005000536288,
OFFICIAL RECORDS, GREAT PARK NEIGHBORHOOD – DISTRICT 8

LIST OF EXHIBITS:

Exhibit "A" – Resolution
Exhibit "B" – Notice of Release
Exhibit "C" – Location Map

EXHIBIT "A"

RESOLUTION NO. 2013 -

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT
APPROVING EXECUTION OF A NOTICE OF RELEASE
RELATING TO SEC. III, PARAGRAPH G OF
QUITCLAIM DEED PER INST. NO. 2005000536288, O.R.
GREAT PARK NEIGHBORHOOD – DISTRICT 8

WHEREAS, FivePoint Communities acquired title as Heritage Fields LLC of a portion of the MCAS El Toro base per the quitclaim deed recorded July 12, 2005 as Instrument No. 2005000536288 of Official Records of Orange County, California; and

WHEREAS, Irvine Ranch Water District ("IRWD") and Orange County Water District ("OCWD") are performing groundwater mediation within MCAS El Toro as part of the Irvine Desalter Project ("IDP"); and

WHEREAS, Section III, Paragraph G of said quitclaim deed "Covenant for Access and Sampling Rights Related to Groundwater Remediation," allows OCWD and IRWD the right to enter the property to take soil samples with the purpose of confirming that none of the current operations of the property owner resulted the release of hazardous substances that could impact the treatment system associated with the IDP; and

WHEREAS, FivePoint Communities is developing the first phase of residential development in the area known as District 8 and has requested OCWD and IRWD release this area from said covenant per Section III, Paragraph 8; and

WHEREAS, staff has reviewed their request and determined that the current operations on the area known as District 8 can be released; and

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

NOW, THEREFORE, BE IT RESOLVED, the Notice of Release attached hereto as Exhibit "B", herein described and hereby is approved and execution by the District's officers is authorized.

ADOPTED, SIGNED and APPROVED this 25th day of March 2013.

_____

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

_____

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

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

By _____

EXHIBIT "B"

RECORDED AT THE REQUEST OF,
AND WHEN RECORDED MAIL TO:

Heritage Fields El Toro, LLC
c/o Fivepoint Communities Management, Inc.
25 Enterprise
Aliso Viejo, CA 92656-2708

WITH CONFORMED COPIES TO:

Janice Durant, District Secretary
Orange County Water District
18700 Ward Street
P.O. Box 8300
Fountain Valley, CA 92728-8300

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

ASSESSOR'S PARCEL NO.:

580-083-03, 04

(Space Above This Line For Recorder's Use)

Documentary Transfer Tax: $0 No Consideration
[Exempt from Documentary Transfer Tax per
Rev. &Taxation Code Sec. 11911(a)]

_____
Signature of Declarant or Agent determining tax

NOTICE OF RELEASE

ORANGE COUNTY WATER DISTRICT, a district created by special act of the California Legislature (Ch. 924, Stats 1933), and IRVINE RANCH WATER DISTRICT, a California Water District organized under and existing pursuant to Section 34000 et seq. of the California Water Code, DO HEREBY RELEASE the rights acquired by them pursuant to Section III, Paragraph G, entitled "Covenant for Access and Sampling Rights Related to Groundwater Remediation," of that certain QUITCLAIM DEED AND ENVIRONMENTAL RESTRICTION PURSUANT TO CIVIL CODE SECTION 1471, recorded in the Official Records of Orange County on July 12, 2005, as Instrument No. 2005000536288 (the "Quitclaim Deed"), with respect to that certain real property, located in the County of Orange, State of California, described in Exhibit "A" and depicted on Exhibit "B," attached hereto and incorporated herein by this reference (the "Released Area"), constituting a portion of the real property described in the Quitclaim Deed.

EXCEPTING THEREFROM, the rights so acquired by them over those portions of the Released Area described as follows: No exceptions.

DATED: _____

ORANGE COUNTY WATER DISTRICT,
a district created by special act of the
California Legislature (Ch. 924, Stats 1933)

By: _____
_____
_____

By: _____
_____
_____

DATED: _____

IRVINE RANCH WATER DISTRICT,
a California Water District

By: _____
Douglas J. Reinhart
President

By: _____
Leslie Bonkowski
District Secretary

STATE OF CALIFORNIA)
) ss.
COUNTY OF ORANGE)

On _____, 2013, before me, _____, a Notary Public in and for said State, personally appeared _____ and _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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

WITNESS my hand and official seal.

_____
Notary Public in and for said State

(SEAL)

STATE OF CALIFORNIA)
) ss.
COUNTY OF ORANGE)

On _____, 2013, before me, _____, a Notary Public in and for said State, personally appeared Douglas J. Reinhart and Leslie Bonkowski, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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

WITNESS my hand and official seal.

_____
Notary Public in and for said State

(SEAL)

EXHIBIT "A"

HERITAGE FIELDS DISTRICT 8
RELEASED AREA

LEGAL DESCRIPTION

That certain parcel of land situated in the City of Irvine, County of Orange, State of California being that portion of Parcel 1 as described in that certain QUITCLAIM DEED AND ENVIRONMENTAL RESTRICTION PURSUANT TO CIVIL CODE SECTION 1471, recorded July 12, 2005, as Instrument No. 2005000536288 of Official Records lying within the boundary of Tract No. 17466 as shown on the map thereof filed in Book 912, Pages 1 through 8 of Miscellaneous Maps, both in the Office of the County Recorder of Said County.

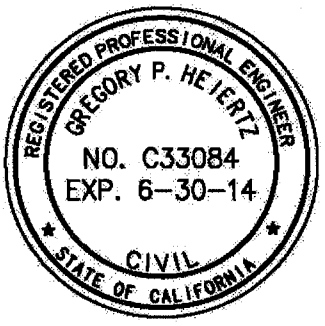
CONTAINING: 172.244 acres, more or less.

SUBECT TO: Covenants, conditions, reservations, restrictions, rights-of-way, and easements of record, if any.

EXHIBIT "B" attached hereto and by this reference made a part hereof.

Prepared by me or under my direction:

Dated: March 5, 2013



Gregory P. Heiertz, R.C.E. 33084
License expires June 30, 2014

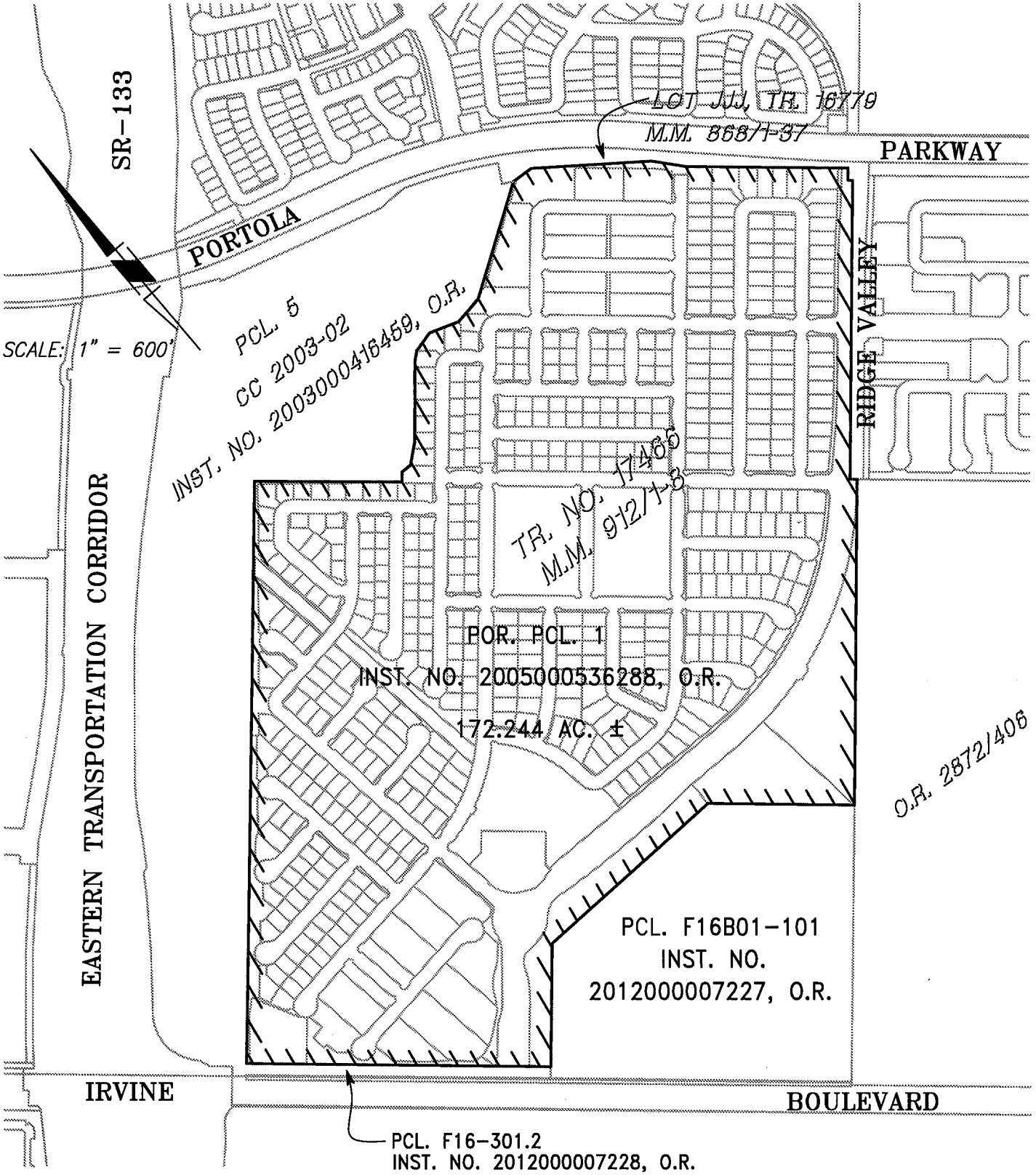


EXHIBIT "B"

SKETCH TO ACCOMPANY A
LEGAL DESCRIPTION FOR

HERITAGE FIELDS DISTRICT 8
RELEASED AREA

(HERITAGE FIELDS EL TORO, LLC)

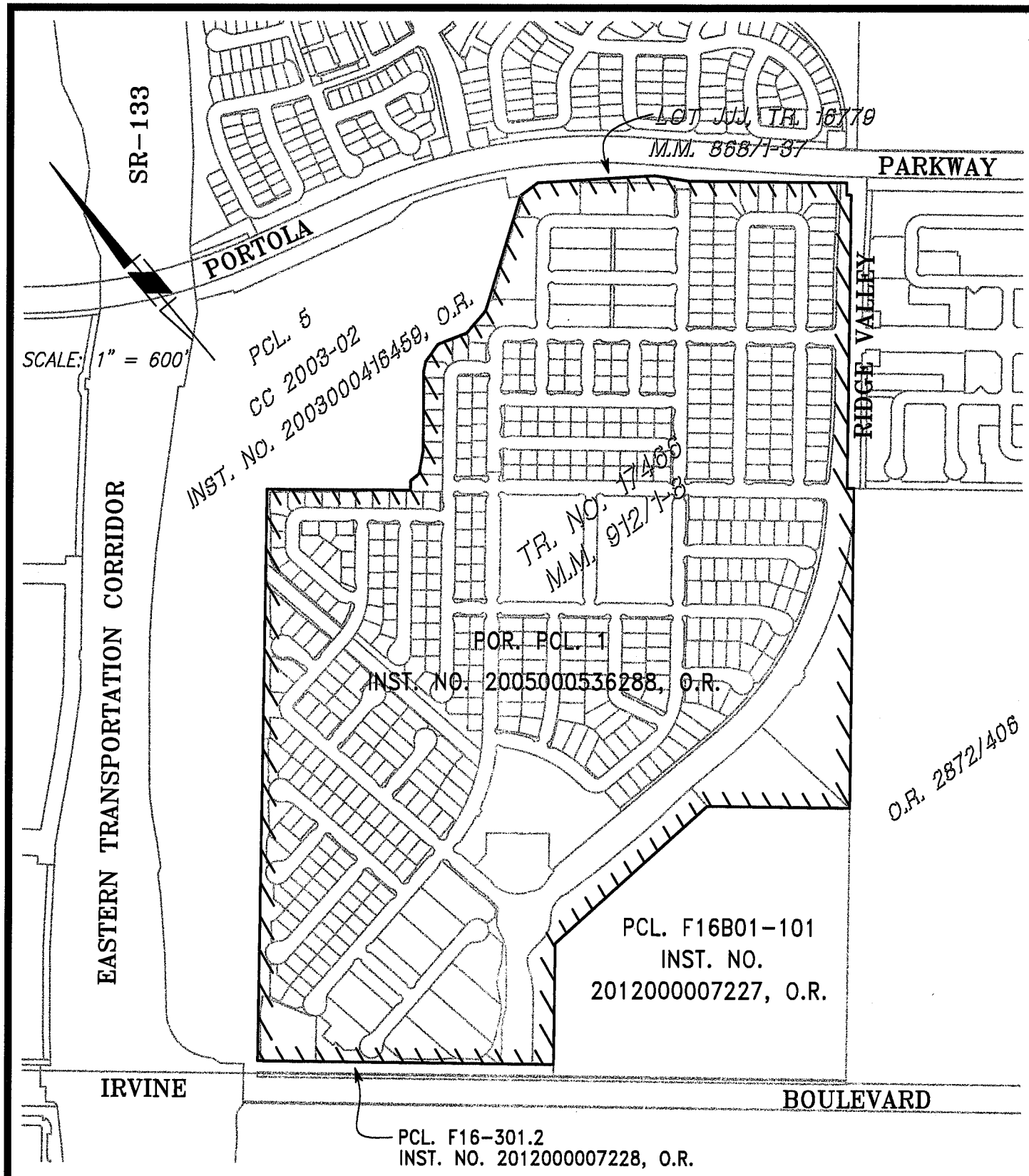
SHEET 1 OF 1 SHEET

IRVINE RANCH WATER DISTRICT
15600 SAND CANYON AVENUE, IRVINE, CA 92619

MARCH 5, 2013

EXBPLAT-HF NOR.DWG

EXHIBIT "C"



SHEET 1 OF 1 SHEET

NOTICE OF RELEASE AREA

(HERITAGE FIELDS EL TORO, LLC)

IRVINE RANCH WATER DISTRICT
15600 SAND CANYON AVENUE, IRVINE, CA 92619

MARCH 25, 2013

AGEND03-25-2013-EXC.DWG

March 25, 2013
Prepared by: T. Bonkowski/M. Cortez
Submitted by: K. Burton
Approved by: Paul Cook

CONSENT CALENDAR

ORANGE PARK ACRES DOMESTIC WATER PRESSURE REGULATING STATIONS AND FIRE FLOW IMPROVEMENTS FINAL ACCEPTANCE

SUMMARY:

Construction of the Orange Park Acres (OPA) Domestic Water Pressure Regulating Stations and Fire Flow Improvements Project is complete. The contractor, Paulus Engineering, Inc., has completed the required work and all punch list items. The project has received final inspection and acceptance of construction is recommended.

BACKGROUND:

Paulus Engineering, Inc. was awarded the construction contract for the OPA Domestic Water Pressure Regulating Stations and Fire Flow Improvements Project. The Master Plan improvements for the OPA water system included the installation of pressure regulating stations and fire flow improvements within the OPA service area. The work involved the construction of three pressure reducing stations including vaults, valves, piping, telemetry, and landscaping. Additionally, 3,460 feet of 8-inch pipeline, 25 feet of 6-inch pipeline and 121 feet of 4-inch pipeline and all ancillary work, e.g. pavement removal and replacement, pipeline appurtenances, electrical, traffic control, and site grading and improvements, were constructed. Construction is complete and the project is ready for final acceptance by the Board.

Project Title:	OPA Domestic Water Pressure Regulating Stations and Fire Flow Improvements
Project Nos.:	11409 (1287), 11410 (1297)
Design Engineer:	Stantec Consulting, Inc.
Contractor:	Paulus Engineering, Inc.
Original Contract Cost:	$1,143,821
Final Contract Cost:	$1,212,709.08
Original Contract Days:	150
Final Contract Days:	455
Total Budget:	$2,331,200
Total Project Cost (Est.):	$1,579,679.19

FISCAL IMPACTS:

Projects 11409 (1287) and 11410 (1297) are included in the FY 2012-13 Capital Budget. The existing budgets and Expenditure Authorizations are sufficient to complete the project.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA) and in conformance with Title 14, Chapter 3, Section 15004, a Mitigated Negative Declaration was adopted on August 9, 2010.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE ORANGE PARK ACRES DOMESTIC WATER PRESSURE REGULATING STATIONS AND FIRE FLOW IMPROVEMENTS, PROJECTS 11409 (1287) AND 11410 (1297); AUTHORIZE THE FILING OF A NOTICE OF COMPLETION; AND AUTHORIZE THE RELEASE OF RETENTION 35 DAYS AFTER FILING OF THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

None.

March 25, 2013
Prepared by: K. Lew/M. Cortez
Submitted by: K. Burton
Approved by: Paul Cook

CONSENT CALENDAR

PLANNING AREA 40 CYPRESS VILLAGE
PHASE 3B BUDGET AND EXPENDITURE AUTHORIZATION

SUMMARY:

Irvine Community Development Company (ICDC) is currently developing Planning Area 40 Cypress Village (PA 40) which includes the construction of streets, storm drains, domestic water, sewer, and recycled water improvements. As part of the project, ICDC will construct the IRWD capital facilities under a Supplemental Reimbursement Agreement. The Phase 3B IRWD capital facilities include approximately 2,900 lineal feet of 6-inch diameter recycled water pipeline. Staff recommends that the Board:

- Authorize the addition of Project 30416 in the amount of $165,000 to the FY 2012-13 Capital Budget; and
- Approve an Expenditure Authorization for Project 30416 in the amount of $165,000.

BACKGROUND:

IRWD and ICDC have had a Reimbursement Agreement (RA) for construction of IRWD capital facilities in place since May 1997. Under this RA, a Supplemental Reimbursement Agreement serves to define the improvements to be designed and constructed within a specific Planning Area as well as the estimated reimbursable costs.

PA 40 is bounded by Trabuco Road to the north, the Great Park to the east, the I-5 to the south, and Jeffrey Road to the west. The PA 40 Site Map is provided as Exhibit "A". ICDC is nearing completion of IRWD Capital Facilities construction for PA 40 Phase 2. ICDC is now moving forward with Phase 3B construction of the PA 40 development which includes the backbone facilities within the streets of Tulip and Nightmist. The required IRWD domestic water, sewer, and recycled water capital facilities are documented in PA 40 Sub-Area Master Plan, as prepared by Stantec in January 2011 and shown in the capital system maps, which are provided as Exhibit "B".

The Phase 3B capital facilities will consist of approximately 2,900 lineal feet of 6-inch diameter recycled water pipeline. The design and construction of the IRWD facilities will be performed under an ICDC contract through the terms of an existing Supplemental Reimbursement Agreement between IRWD and ICDC dated January 25, 2012.

ICDC retained Wilson Mikami to prepare the PA 40 Phase 3B improvement plans. ICDC received bids from six contractors on October 30, 2012 for the PA 40 Phase 3B Improvements. Boudreau was the lowest bidder for the IRWD facilities with a bid amount of $97,358 as shown in Exhibit "C". In addition, ICDC has received consultant proposals for engineering services during construction, geotechnical soils testing, and surveying. Staff has reviewed the consultant

proposals and the construction bids and found the amounts to be acceptable. A summary of the Phase 3B costs is shown below.

Construction (Clearwater)	$ 97,358.00
Engineering (Wilson Mikami)	$ 3,570.00
Geotechnical Services (Kling)	$ 1,076.00
Surveying (Adams Streeter)	$ 1,340.00
ICDC Administration Fee (1%)	$ 973.58
	$ 104,317.58

FISCAL IMPACTS:

Funding for IRWD's capital facilities will require the addition of Project 30416 (4318) to the FY 2012-13 Capital Budget and approval of an Expenditure Authorization in the amount 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
30416 (4318)	$-0-	$165,000	$165,000	$-0-	$165,000	$165,000

The above funding provides for the reimbursement costs to ICDC for the design and construction of IRWD capital facilities, staff time, and consultant support during construction.

ENVIRONMENTAL COMPLIANCE:

The construction of the capital facilities for Planning Area 40 is subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, Environmental Impact Report SCH #2000071014 was certified by the City of Irvine, the lead agency for this project, on February 29, 2008.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 19, 2013.

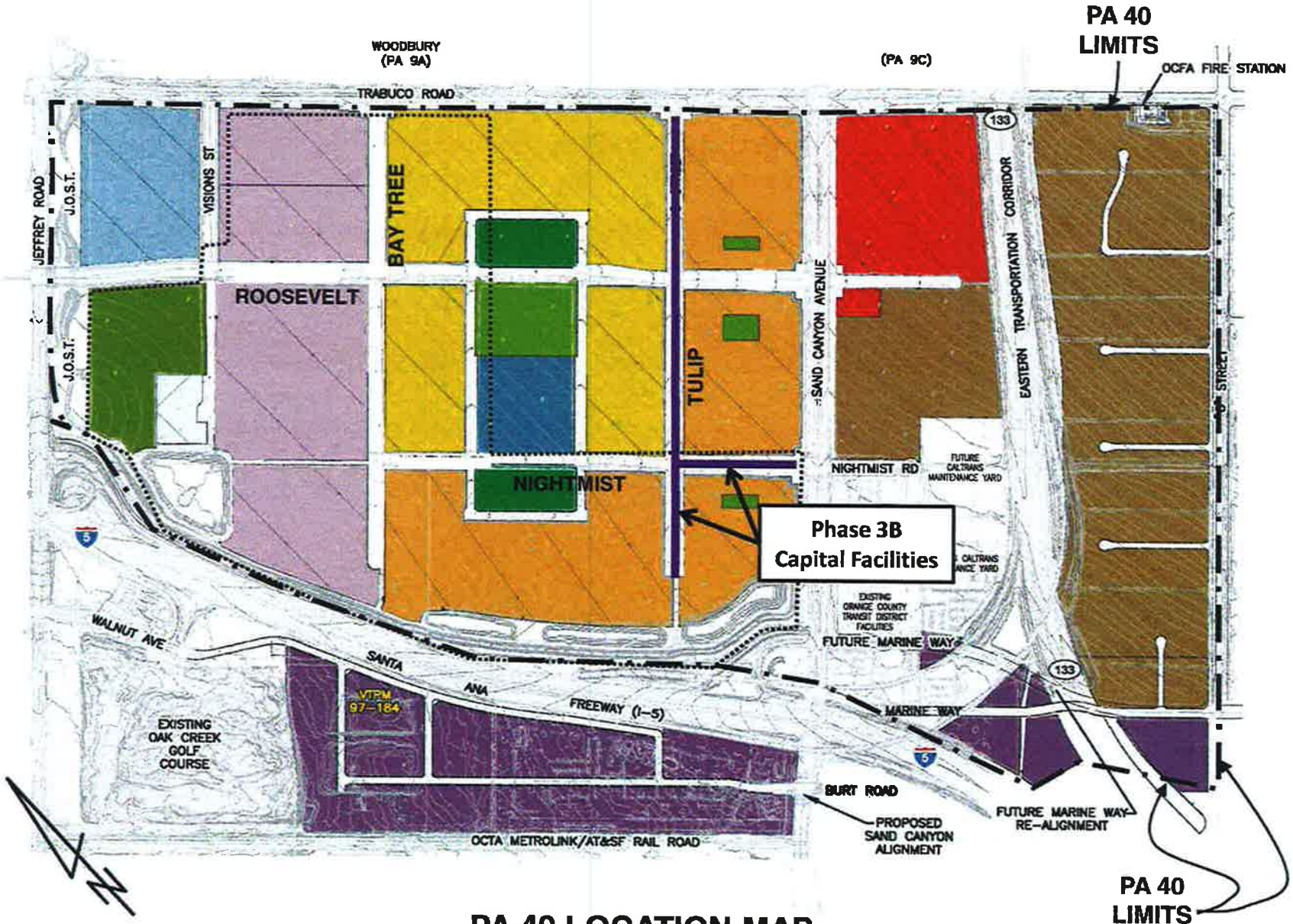
RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION OF PROJECT 30416 (4318) IN THE AMOUNT OF $165,000 TO THE FY 2012-13 CAPITAL BUDGET AND APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF $165,000 FOR PLANNING AREA 40 PHASE 3B IRWD CAPITAL FACILITIES, PROJECT 30416 (4318).

LIST OF EXHIBITS:

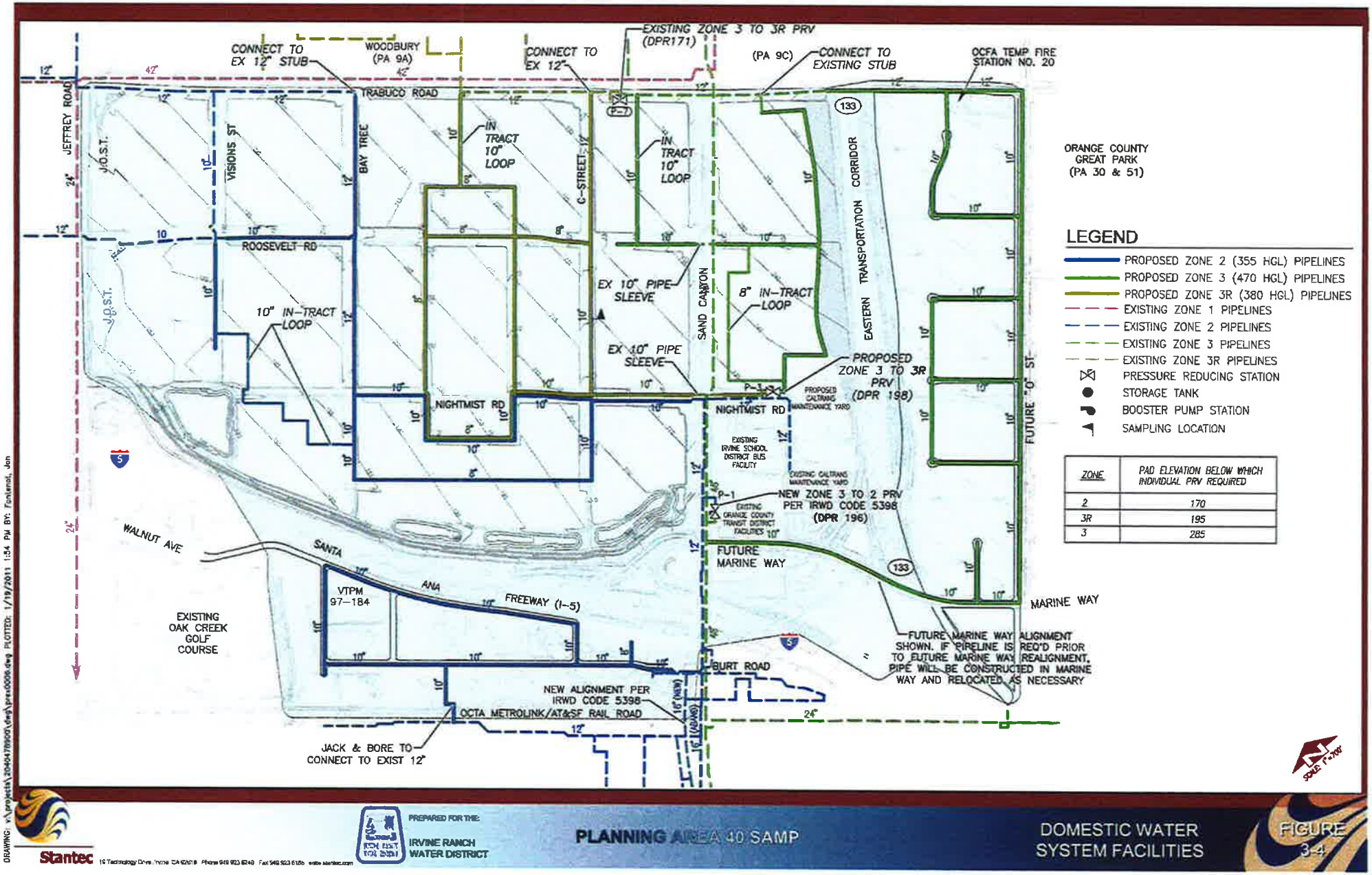
Exhibit "A" – Planning Area 40 Location Map
Exhibit "B" – Capital System Maps
Exhibit "C" – Bid Summary for Construction of IRWD Capital Facilities
Exhibit "D" – Expenditure Authorization

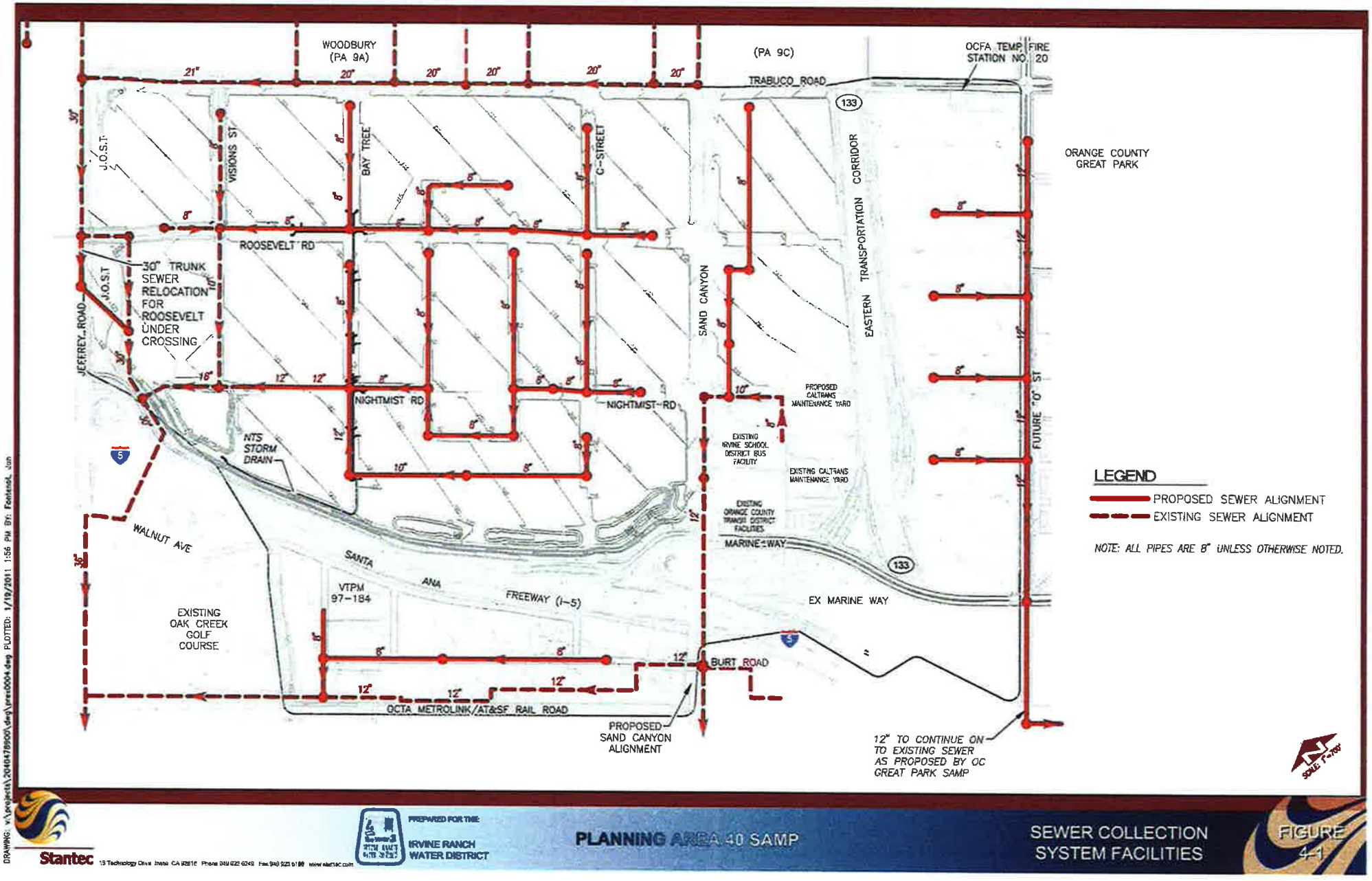
EXHIBIT "A"



PA 40 LOCATION MAP

EXHIBIT "B"


CONNECT TO EX 12" STUB
WOODBURY (PA 9A)
CONNECT TO EX 12"
EXISTING ZONE 3 TO 3R PRV (DPR171)
(PA 9C)
CONNECT TO EXISTING STUB
OCFA TEMP FIRE STATION NO. 20
TRABUCO ROAD
JEFFREY ROAD
V.O.S.T.
VISIONS ST
BAY TREE
IN TRACT 10" LOOP
C-STREET
ROOSEVELT RD
10" IN-TRACT LOOP
EX 10" PIPE SLEEVE
SAND CANYON
8" IN-TRACT LOOP
EASTERN TRANSPORTATION CORRIDOR
ORANGE COUNTY GREAT PARK (PA 30 & 51)
PROPOSED ZONE 3 TO 3R PRV (DPR 198)
PROPOSED CALTRANS MAINTENANCE YARD
NIGHTMIST RD
FUTURE "O" ST.
EXISTING IRVINE SCHOOL DISTRICT BUS FACILITY
EXISTING CALTRANS MAINTENANCE YARD
NEW ZONE 3 TO 2 PRV PER IRWD CODE 5398 (DPR 196)
EXISTING ORANGE COUNTY TRANSIT DISTRICT FACILITIES
FUTURE MARINE WAY
MARINE WAY
WALNUT AVE
SANTA ANA FREEWAY (I-5)
VTPM 97-184
EXISTING OAK CREEK GOLF COURSE
BURT ROAD
FUTURE MARINE WAY ALIGNMENT SHOWN. IF PIPELINE IS REQ'D PRIOR TO FUTURE MARINE WAY REALIGNMENT, PIPE WILL BE CONSTRUCTED IN MARINE WAY AND RELOCATED AS NECESSARY
NEW ALIGNMENT PER IRWD CODE 5398
OCTA METROLINK/AT&SF RAIL ROAD
JACK & BORE TO CONNECT TO EXIST 12"
LEGEND
PROPOSED ZONE 2 (355 HGL) PIPELINES
PROPOSED ZONE 3 (470 HGL) PIPELINES
PROPOSED ZONE 3R (380 HGL) PIPELINES
EXISTING ZONE 1 PIPELINES
EXISTING ZONE 2 PIPELINES
EXISTING ZONE 3 PIPELINES
EXISTING ZONE 3R PIPELINES
PRESSURE REDUCING STATION
STORAGE TANK
BOOSTER PUMP STATION
SAMPLING LOCATION
ZONE | PAD ELEVATION BELOW WHICH INDIVIDUAL PRV REQUIRED
2 | 170
3R | 195
3 | 285
PREPARED FOR THE:
IRVINE RANCH WATER DISTRICT
PLANNING AREA 40 SAMP
DOMESTIC WATER SYSTEM FACILITIES
FIGURE 3-4
Stantec



DRAWING: x:\projects\20404789001\dwg\pre-0004.dwg PLOTTED: 1/19/2011 1:56 PM By: Fentress, Jon

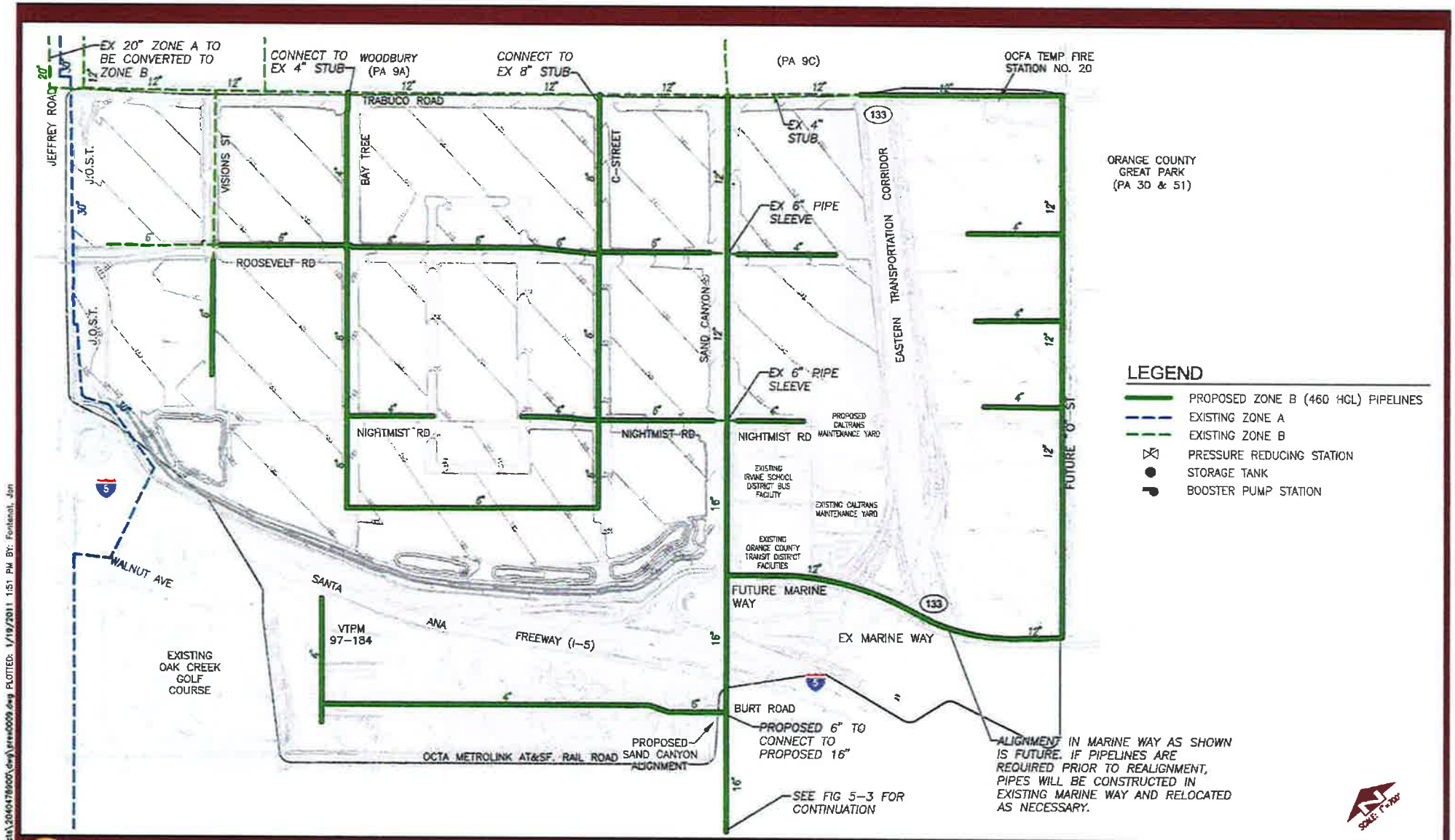
Stantec 19 Technology Drive Irvine CA 92618 Phone 949 923 6249 Fax 949 923 6199 www.stantec.com

PREPARED FOR THE IRVINE RANCH WATER DISTRICT

PLANNING AREA 40 SAMP

SEWER COLLECTION SYSTEM FACILITIES

FIGURE 4-1



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Stantec

PREPARED FOR THE IRVINE RANCH WATER DISTRICT

PLANNING AREA 40 SAMP

NON-POTABLE WATER SYSTEM FACILITIES

FIGURE 5-4

Exhibit "C"

PRE-BID MEETING DATE: September 25, 2012
BID OPENING DATE: October 30, 2012
WITNESSED BY: ATTENDEES

BID SUMMARY
CYPRESS VILLAGE (PA-40)
PHASE 3B BACKBONE STREET IMPROVEMENTS
ASSESSMENT DISTRICT 11-24, NON-ASSESSMENT DISTRICT
AND IRWD CAPITAL FACILITIES - WET UTILITIES CONTRACT "B8"
TRACT NO. 17420
LINEAR FEET: 4,600
TASK PC ID: LD-0040.ST.31.cn01
BID PACKAGE NO: B00080

CODING	ITEM	DESCRIPTION	QTY	UNIT	ENGINEER'S ESTIMATE WILSON MIKAMI		IRWD 2ND LOW BIDDER LOW BIDDER KANA		IRWD 5TH LOW BIDDER 2ND BIDDER FYDAQ		IRWD 3RD LOW BIDDER 3RD BIDDER IRVINE PIPELINE		IRWD LOW BIDDER 4TH BIDDER BOUDREAU		IRWD 4TH LOW BIDDER 5TH BIDDER L & S CONSTRUCTION		IRWD 6TH LOW BIDDER 6TH BIDDER CLEARWATER	
					UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
	IV.	**DELETABLE ITEMS** The following items may or may not be part of the Contract:																
	N.	**GENERAL - IRWD CAPITAL FACILITIES - TRACT 17420**																
	160.	MOBILIZATION (NOT TO EXCEED 2% OF CONTRACT PRICE SECTIONS N-O)	1	LS	$1,200.00	$1,200.00	$2,500.00	$2,500.00	$500.00	$500.00	$2,000.00	$2,000.00	$3,700.00	$3,700.00	$2,100.00	$2,100.00	$15,000.00	$15,000.00
	161.	PAYMENT AND PERFORMANCE BONDS (SECTIONS N-O)	1	LS	$1,000.00	$1,000.00	$10,934.00	$10,934.00	$1,773.65	$1,773.65	$2,000.00	$2,000.00	$1,850.00	$1,850.00		$0.00	$35,000.00	$35,000.00
	162.	DEVELOP CONSTRUCTION WATER (SECTIONS N-O)	1	LS	$1,000.00	$1,000.00	$3,000.00	$3,000.00	$1,000.00	$1,000.00	$2,000.00	$2,000.00	$930.00	$930.00	$800.00	$800.00	$15,000.00	$15,000.00
	163.	TRAFFIC CONTROL (SECTIONS N-O)	1	LS	$2,000.00	$2,000.00	$2,500.00	$2,500.00	$0.00	$0.00	$1,000.00	$1,000.00	$0.00	$0.00	$3,500.00	$3,500.00	$5,000.00	$5,000.00
	O.	**IRWD RECLAIMED WATER CAPITAL FACILITIES**																
	164.	INSTALL 8" AWWA PURPLE PVC C-900, PRESSURE CLASS 200 PER IRWD STD. NO. W-17	2,862	LF	$17.00	$48,994.00	$26.00	$74,932.00	$35.00	$100,870.00	$30.00	$86,460.00	$24.00	$69,188.00	$30.00	$86,460.00	$50.00	$144,100.00
	165.	INSTALL 8" D.I. CROSS (FE x FE x FE x FE) & THRUST BLOCK PER IRWD STD. NO. W-18	1	EA	$350.00	$350.00	$850.00	$850.00	$300.00	$300.00	$800.00	$800.00	$2,500.00	$2,500.00	$500.00	$500.00	$1,500.00	$1,500.00
	166.	INSTALL 8" D.I. 45° BEND (FE X FE) & THRUST BLOCK PER IRWD STD. NO. W-18	1	EA	$225.00	$225.00	$225.00	$225.00	$300.00	$300.00	$250.00	$250.00	$220.00	$220.00	$350.00	$350.00	$1,500.00	$1,500.00
	167.	INSTALL 6" D.I. 90° BEND (FO X FO) & THRUST BLOCK PER IRWD STD. NO. W-18	1	EA	$225.00	$225.00	$225.00	$225.00	$300.00	$300.00	$260.00	$260.00	$220.00	$220.00	$350.00	$350.00	$1,500.00	$1,500.00
	168.	INSTALL 6" S.F.V. (FE X FE) PER IRWD STD. NO. W-22	4	EA	$900.00	$3,600.00	$1,750.00	$7,000.00	$2,800.00	$11,200.00	$2,100.00	$8,400.00	$2,250.00	$9,000.00	$2,150.00	$8,600.00	$2,500.00	$10,000.00
	169.	INSTALL 6" D.I. (FE x FO) ADAPTER	7	EA	$105.00	$735.00	$200.00	$1,400.00	$300.00	$2,100.00	$150.00	$1,050.00	$170.00	$1,190.00	$250.00	$1,750.00	$1,500.00	$10,500.00
	170.	REMOVE & DISPOSE OF EXISTING FLUSH-OUT ASSEMBLY & JOIN EXISTING RECYCLED WATER MAIN	1	EA	$2,770.00	$2,770.00	$1,800.00	$1,800.00	$1,500.00	$1,500.00	$2,200.00	$2,200.00	$2,000.00	$2,000.00	$2,500.00	$2,500.00	$15,000.00	$15,000.00
	171.	REMOVE & DISPOSE OF EXISTING FLUSH-OUT ASSEMBLY, 45° BEND, & PORTION OF EXISTING 6" LINE & JOIN EXISTING.	1	LS	$3,000.00	$3,000.00	$1,800.00	$1,800.00	$2,500.00	$2,500.00	$3,200.00	$3,200.00	$3,600.00	$3,600.00	$4,250.00	$4,250.00	$15,000.00	$15,000.00
	172.	ADJUST VALVE CAP TO BASE PAVE GRADE	4	EA	$350.00	$1,400.00	$425.00	$1,700.00	$325.00	$1,300.00	$250.00	$1,000.00	$360.00	$1,440.00	$400.00	$1,600.00	$250.00	$1,000.00
	173.	ADJUST VALVE CAP TO FINAL GRADE	4	EA	$300.00	$1,200.00	$425.00	$1,700.00	$325.00	$1,300.00	$200.00	$800.00	$360.00	$1,440.00	$350.00	$1,400.00	$250.00	$1,000.00
		TOTAL IRWD CAPITAL IMPROVEMENTS (SECTIONS N-O)				**$97,699.00**		**$110,166.00**		**$124,943.65**		**$111,420.00**		**$97,268.00**		**$114,160.00**		**$271,100.00**

EXHIBIT "D"

IRVINE RANCH WATER DISTI

Expenditure Authorization

Project Name: PA 40 PHASE 3B RW CAPITAL FACILITIES
EPMS Project No: 30416 **EA No:** 1
Oracle Project No: 4318
Project Manager: CORTEZ, MALCOLM
Project Engineer: LEW, KELLY
Request Date: March 7, 2013

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
250	100.0	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	$0
This Request:	$165,000
Total EA Requests:	$165,000
Previously Approved Budget:	$0
Budget Adjustment Requested this EA:	$165,000
Updated Budget:	$165,000
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	5,000	0	5,000	5,000	0	5,000	1/13	4/13
ENGINEERING DESIGN - OUTSIDE	10,000	0	10,000	10,000	0	10,000	1/13	4/13
DESIGN STAFF FIELD SUPPORT	2,000	0	2,000	2,000	0	2,000	1/13	4/13
ENGINEERING - CA&I IRWD	10,000	0	10,000	10,000	0	10,000	5/13	6/14
ENGINEERING - CA&I OUTSIDE	10,000	0	10,000	10,000	0	10,000	5/13	6/14
CONSTRUCTION FIELD SUPPORT	2,000	0	2,000	2,000	0	2,000	5/13	6/14
CONSTRUCTION	110,000	0	110,000	110,000	0	110,000	5/13	6/14
LEGAL	1,000	0	1,000	1,000	0	1,000	1/13	6/14
Contingency - 10.00% Subtotal	$15,000	$0	$15,000	$15,000	$0	$15,000		
Subtotal (Direct Costs)	$165,000	$0	$165,000	$165,000	$0	$165,000		
Estimated G/A - 180.00% of direct labor*	$34,200	$0	$34,200	$34,200	$0	$34,200		
Total	$199,200	$0	$199,200	$199,200	$0	$199,200		
Direct Labor	$19,000	$0	$19,000	$19,000	$0	$19,000		

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

EA Originator: Kelly Lew 3/7/13

Department Director: Kevin L. Burton 3/9/13

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 $204,000. 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.**

March 25, 2013
Prepared By: K. Welch
Submitted By: P. Weghorst/G. Heiertz
Approved By: Paul Cook

CONSENT CALENDAR

STOCKDALE INTEGRATED BANKING PROJECT
ENVIRONMENTAL COMPLIANCE VARIANCE

SUMMARY:

In March 2012, the Board approved terms for a Water Banking and Exchange Project (Joint Banking Project) with Rosedale-Rio Bravo Water Storage District (Rosedale) that would utilize IRWD's Stockdale West Ranch and the property east of the Strand Ranch owned by Rosedale. These terms call for IRWD and Rosedale to share in the cost of the development of an Environmental Impact Report (EIR) for the Joint Banking Project. As part of the preparation of the EIR, staff has requested environmental consultants at ESA to modify their scope of work to include a programmatic evaluation of additional unspecified properties that may be purchased for water banking purposes by either IRWD or Rosedale in the future. Staff recommends that the Board:

- Approve an increase to the FY 2012-13 Capital Budget in the amount of $55,000 for Project 11645 (3766) for additional environmental compliance work; and
- Approve an Expenditure Authorization for Project 11645 (3766) in the amount of $55,000 for the additional environmental compliance work including staff and legal time.

BACKGROUND:

Staff has been working with Rosedale in initiating a Joint Banking Project that would utilize IRWD's Stockdale West Ranch and Rosedale's Stockdale East property located directly east of the Strand Ranch. A location map of these properties is provided as Exhibit "A". On March 26, 2012, the Board authorized a Professional Services Agreement in the amount of $135,675 with ESA to prepare an EIR for the Stockdale Integrated Banking Project. During the preparation of the EIR, it has been determined that IRWD and Rosedale may acquire additional lands within the area of the project and that it would be beneficial to review such additional lands, as new water banking components, at a programmatic level in the EIR.

At the request of staff, ESA has prepared a scope of work, budget and schedule to incorporate programmatic evaluations of new water banking lands into the Stockdale Integrated Banking Project EIR document. The estimated cost of this work by ESA is $29,174, which is within the General Manager's authority to approve. ESA's scope of work, budget and schedule for Variance No. 1 work is provided as Exhibit "B". The EIR is expected to be finalized towards the end of September 2013 per ESA's revised schedule.

Cost Sharing:

The agreement between Rosedale and IRWD, calls for IRWD and Rosedale to share equally the cost of preparation of the EIR and related technical studies including hydrogeologic evaluations.

IRWD will fund the cost of the EIR and Rosedale will fund the cost of the hydrogeologic evaluations. The overall costs will be reconciled and shared after all work has been completed. Rosedale agrees with the programmatic approach to incorporate any new potential properties into the EIR.

FISCAL IMPACTS:

IRWD and Rosedale will equally share in the costs associated with the preparation of an EIR including the programmatic approach for incorporating new water banking properties into the project. Project 11645 (3766), Stockdale West Joint Banking Project, is included in the FY 2012-13 Capital Budget. The cost for ESA to perform this additional work under Variance No. 1 is $29,174, which is within the General Manager's authority to approve. Additional staff time and legal assistance in the amounts of $15,000 and $5,000 respectively are also required. Staff requests a budget increase to Project 11645 (3766) in the amount of $55,000 for this additional environmental compliance work including staff and legal time. Staff also requests an Expenditure Authorization in the amount of $55,000 as shown below and in Exhibit "C".

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
11645 (3766)	$246,400	$55,000	$301,400	$246,400	$55,000	$301,400

ENVIRONMENTAL COMPLIANCE:

The preparation of an EIR will be necessary for the implementation of the proposed Stockdale Integrated Banking Project in compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended), codified at California Public Resources Code Sections 21000 et. seq., and the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3.

COMMITTEE STATUS:

This item was reviewed at the Water Banking Committee on March 13, 2013.

RECOMMENDATION:

THAT THE COMMITTEE RECOMMEND THE BOARD APPROVE AN INCREASE TO THE FY 2012-13 CAPITAL BUDGET IN THE AMOUNT OF $55,000 FOR PROJECT 11645 (3766) FOR ADDITIONAL ENVIRONMENTAL COMPLIANCE WORK; AND APPROVE AN EXPENDITURE AUTHORIZATION FOR PROJECT 11645 (3766) IN THE AMOUNT OF $55,000 FOR THE ADDITIONAL ENVIRONMENTAL COMPLIANCE WORK, STAFF AND LEGAL TIME.

EXHIBITS:

Exhibit "A" – Location Map: IRWD and Rosedale Water Banking Properties
Exhibit "B" – ESA Scope of Work, Budget, and Schedule for Variance No. 1
Exhibit "C" – Expenditure Authorization for Project 11645 (3766)

Exhibit "A"

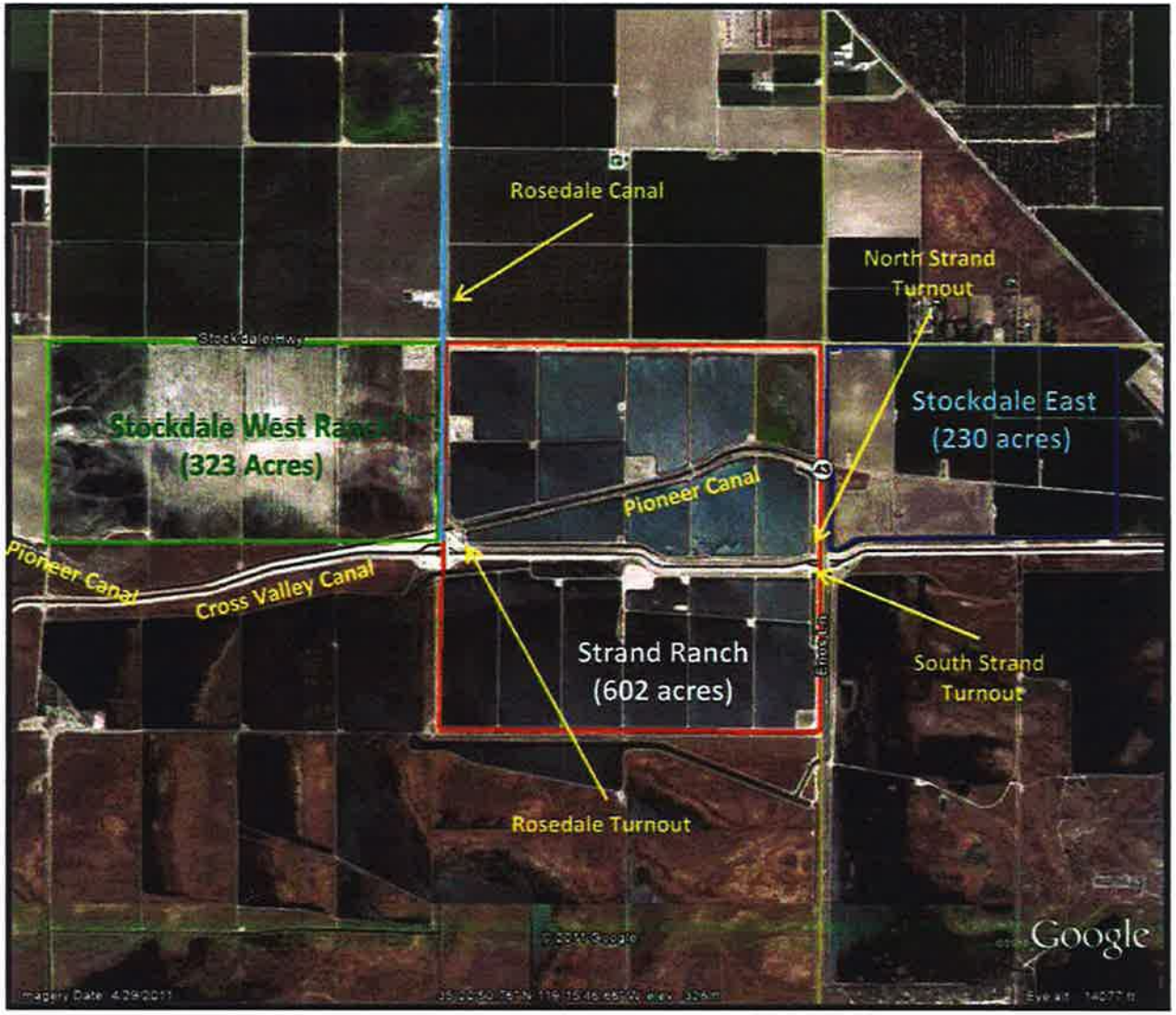

Rosedale Canal
North Strand Turnout
Stockdale West Ranch
(323 Acres)
Stockdale East
(230 acres)
Pioneer Canal
Pioneer Canal
Cross Valley Canal
Strand Ranch
(602 acres)
South Strand Turnout
Rosedale Turnout
Google

EXHIBIT "B"

ESA Water

626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300 phone
213.599.4301 fax

www.esassoc.com

March 4, 2013

Paul Weghorst
Irvine Ranch Water District
15600 Sand Canyon Ave
Irvine, CA 92618-3102

Subject: Request for Variance No. 1 to the Scope of Work for the Stockdale Integrated Banking Project

Dear Paul:

ESA is currently preparing the environmental documentation for the Stockdale Integrated Banking Project for Rosedale-Rio Bravo Water Storage District (Rosedale) and Irvine Ranch Water District (IRWD). The Project includes development of two properties – known as Stockdale East and Stockdale West – with groundwater banking facilities for integration into Rosedale's Conjunctive Use Program in Kern County. The previous scope of work covered preparation of a project-level environmental impact report (EIR) to achieve compliance with the California Environmental Quality Act (CEQA). It is our understanding that Rosedale and IRWD are proposing to modify the Project to include the potential for additional lands to be purchased and developed with groundwater banking facilities, similar to those at Stockdale East and Stockdale West. The exact location of this new project component has yet to be determined but would be located within a radius around the existing Project sites, approximately one mile north and two to four miles east and west.

As requested by Rosedale and IRWD, ESA has prepared the following scope of work that outlines the tasks required to include the proposed modification in the environmental documentation for the Project. As discussed, the additional Project component will be evaluated at a programmatic level in accordance with CEQA. ESA is requesting approval of the proposed scope of work and associated cost estimate, attached as **Table 1**.

Additional Scope of Work

Task 1. Project Management

The proposed modification to the Project has resulted in an extension of the original schedule and has required additional correspondence and teleconferences regarding the new component. As such, project management costs will also increase proportionately.

Task 2. Project Description

ESA will work with Rosedale and IRWD to revise the description of the Project to include the new component. The project description will include an exhibit that identifies the location of the proposed additional site within a radius around Stockdale East and Stockdale West; a general description of the expected or desired capacities for recharge, recovery, and storage; and expected facilities to be developed.

Task 3. Notice of Preparation (NOP)

ESA will include the new component in the NOP, including an exhibit that identifies the location of the proposed additional site; a general description of the expected or desired capacities for recharge, recovery, and storage; and expected facilities to be developed.

Task 5A. Technical Studies

Per the existing scope of work, ESA already has conducted site visits to survey Stockdale East and Stockdale West for biological and cultural resources and drafted technical studies. ESA will revise the technical studies to include the new component as described below. This additional scope of work assumes no additional site visits are necessary.

Biological Resources Technical Report

ESA will update the Biological Resources Technical Report (BRTR) to include the new component. If necessary, an additional CNDDB database search will be conducted to identify species with the potential to be affected within the site radius. The revised BRTR will identify biological resources, such as special-status species, habitats, or communities that could potentially be affected by the new component and will develop a suite of programmatic mitigation measures to be implemented once the additional site is selected to avoid or substantially lessen effects. This scope work assumes no additional field work will be required to update the BRTR. The revised BRTR will be appended to the EIR, as previously assumed.

Cultural Resources Technical Report

ESA will update the Cultural Resources Assessment to include the new component. A records search for existing cultural resources has already been conducted within a one-mile radius of the Stockdale sites. This scope of work assumes that no additional records searches will be conducted for the new component and no additional field work will be required to update the Assessment. A general description of the cultural resources in the vicinity of the site radius will be included, and a suite of mitigation measures will be developed for implementation once the additional site is selected. The mitigation measures may be variable based on the location of the future site either within or outside of the one-mile records search radius.

Task 5B. Administrative Draft EIR

ESA has begun the impact analyses for the Administrative Draft EIR. In response to the proposed modification to the Project, ESA will add a continuous thread of programmatic analyses throughout the Draft EIR that describes potential impacts associated with the new component. The Introduction Chapter will include an explanation of project-level versus program-level analyses and the requirements of CEQA. Environmental settings for each environmental resource will not only include site-specific descriptions but also general descriptions of resources located within the proposed site radius for the new component. Impact analyses and applicable mitigation measures for each resource area will be broken down into site-specific project level impacts and programmatic impacts. The following resource areas would require additional notable tasks in order to complete the programmatic analyses.

Agriculture and Forestry

The Draft EIR will identify designated important farmland and lands under Williamson Act contract in the Project area. Additional level of effort will be required to expand the geographic extent of the analysis to include parcels within the site radius. The Draft EIR will describe potential programmatic impacts to such lands within the site radius and include a suite of mitigation measures that would apply to the new component once the specific site is selected.

Air Quality

The Draft EIR will summarize existing air quality in the Project area and will identify current attainment plans for criteria pollutants. Additional level of effort will be required to evaluate short-term construction-related air quality impacts and long-term operational impacts at a project-level and program-level. Utilizing the CalEEMod emissions model, ESA will estimate emissions of criteria pollutants resulting from the construction methods to be used for facilities evaluated at the project level and program level. Additional effort will be required to integrate the project-level and program-level CalEEMod model results into the Draft EIR chapter.

Biological Resources

The Draft EIR will incorporate information from the BRTR into the description of the biological setting and impact analysis. Additional level of effort will be required to integrate the potential project-level and program-level impacts and mitigation recommendations into the Draft EIR chapter. Potential programmatic impacts to special-status species, habitats, and communities will be included for the new project component and a suite of mitigation strategies will be identified that would minimize impacts once the specific site is selected.

Cultural Resources

The Draft EIR will incorporate information from the Cultural Assessment Report into the description of the cultural setting and impact analysis. The Draft EIR will provide analyses of project-level and program-level impacts for the project components. Similar to biological resources, the Draft EIR will identify potential programmatic impacts to cultural resources due to the new component and provide a suite of potential mitigation measures to minimize impacts once the specific site is selected.

Hazardous Materials

The Draft EIR will summarize known contamination sites in the Project area. Additional effort will be required to disclose the results of database searches for known hazardous materials releases and hazardous waste sites in the Project area, including the site radius for the new component. The geographic range to be evaluated by searching the Cortese List and EnviroStor databases will be expanded to include the site radius. A discussion and evaluation of potential project-level and program-level impacts will be provided and mitigation measures proposed, if necessary for potentially significant impacts.

Alternatives

The Draft EIR will evaluate alternatives to the Project including the No Project Alternative. The EIR will compare the alternatives to determine if any would meet the project objectives and substantially reduce significant impacts associated with the Project. The analysis of alternatives also will include potential alternative sites considered by Rosedale and IRWD for the new component.

Task 9. Final EIR and Responses to Comments

Modifying the Project such that the footprint of potential facilities is expanded and the geographic extent of groundwater impacts also is expanded could lead to additional comments during the Draft EIR public review period. Additional effort is assumed to be necessary to respond to such comments during preparation of the Final EIR.

Cost Estimate and Schedule

Attached as **Table 1** is a detailed cost estimate showing an assumed level of effort corresponding to the additional scope of work described above. ESA is requesting approval for an increase in the Project budget by **$29,174** in accordance with the level of effort required to incorporate the new Project component.

Please take a look at our level of effort and scope assumptions, which we are happy to discuss any time.

Sincerely,

Tom Barnes
Director, ESA Southern California Water Practice

Jennifer Jacobus
Senior Managing Associate, Southern California Water Practice

Table 1. COST PROPOSAL
ESA Labor Detail and Expense Summary
Stockdale Integrated Banking Project - Variance No. 1

	Task Number / Description	T. Barnes G. Ainsworth	M. Strauss	J. Jacobus	E. Schniewind	T. Wong M. South	M. Bray A. Dong	S. Spano	Subtotal	MDG/GJX	JLN	SDG	Subtotal	Total	Total
		Dir II	Dir I	Sr MA/TA II	TA II	SrAssoc1	Assoc3	Assoc2		Sr Adm/ GrphArt	Adm/ GrphArt	Clerical		Hours	Labor Price
Hourly Billing Rate		$200	$185	$175	$160	$125	$110	$100		$ 105	$85	$70			
Task 1	**Project Management**	2		12					$ 2,500				$ -	14	$ 2,500
Task 2	**Project Description**			12			4		$ 2,540	4	4		$ 760	24	$ 3,300
Task 3	**Notice of Preparation (NOP)**			2			4		$ 790	2	1		$ 295	9	$ 1,085
Task 5A	**Technical Studies**								$ -				$ -	-	$ -
	Biological and Cultural Resources Technical Studies	2	2	2		16	16		$ 4,880	4	4		$ 760	46	$ 5,640
Task 5B	**Additional Scope for Administrative Draft EIR**														
	Introduction			2			4		$ 790				$ -	6	$ 790
	Aesthetics							4	$ 400				$ -	4	$ 400
	Agriculture and Forestry							4	$ 400		1		$ 85	5	$ 485
	Air Quality					8			$ 1,000				$ -	8	$ 1,000
	Biological Resources	2				8			$ 1,400				$ -	10	$ 1,400
	Cultural Resoures		2				6		$ 1,030				$ -	8	$ 1,030
	Geology, Soils and Mineral Resources						4		$ 440		1		$ 85	5	$ 525
	GHG and Energy Efficiency					4			$ 500				$ -	4	$ 500
	Hazards and Hazardous Materials				2		8		$ 1,200				$ -	10	$ 1,200
	Hydrology and Water Quality	2			8				$ 1,680		1		$ 85	11	$ 1,765
	Land Use and Planning							4	$ 400		1		$ 85	5	$ 485
	Mineral Resources						2		$ 220				$ -	2	$ 220
	Noise						2		$ 220				$ -	2	$ 220
	Transporataion and Traffic						2		$ 220		1		$ 85	3	$ 305
	Utilities, Service Systems and Energy							4	$ 400				$ -	4	$ 400
	Alternatives			4					$ 700				$ -	4	$ 700
	QA/QC			16					$ 2,800				$ -	16	$ 2,800
Task 9	**Final EIR and Response To Comments**	4		4					$ 1,500				$ -	8	$ 1,500
Total Hours		12	4	54	10	36	52	16		10	14	-		208	
Subtotals - Labor Hours		$ 2,400	$ 740	$ 9,450	$ 1,600	$ 4,500	$ 5,720	$ 1,600	$ 26,010	$ 1,050	$ 1,190	$ -	$ 2,240		$ 28,250
Percent of Effort - Labor Hours Only		5.8%	1.9%	26.0%	4.8%	17.3%	25.0%	7.7%		4.8%	6.7%	0.0%		100.0%	
Percent of Effort - Total Project Cost		8.2%	2.5%	32.4%	5.5%	15.4%	19.6%	5.5%		3.6%	4.1%	0.0%			96.8%

ESA Labor Costs	**$ 28,250**
3% Communication Fee on Labor Cost	**$ 848**

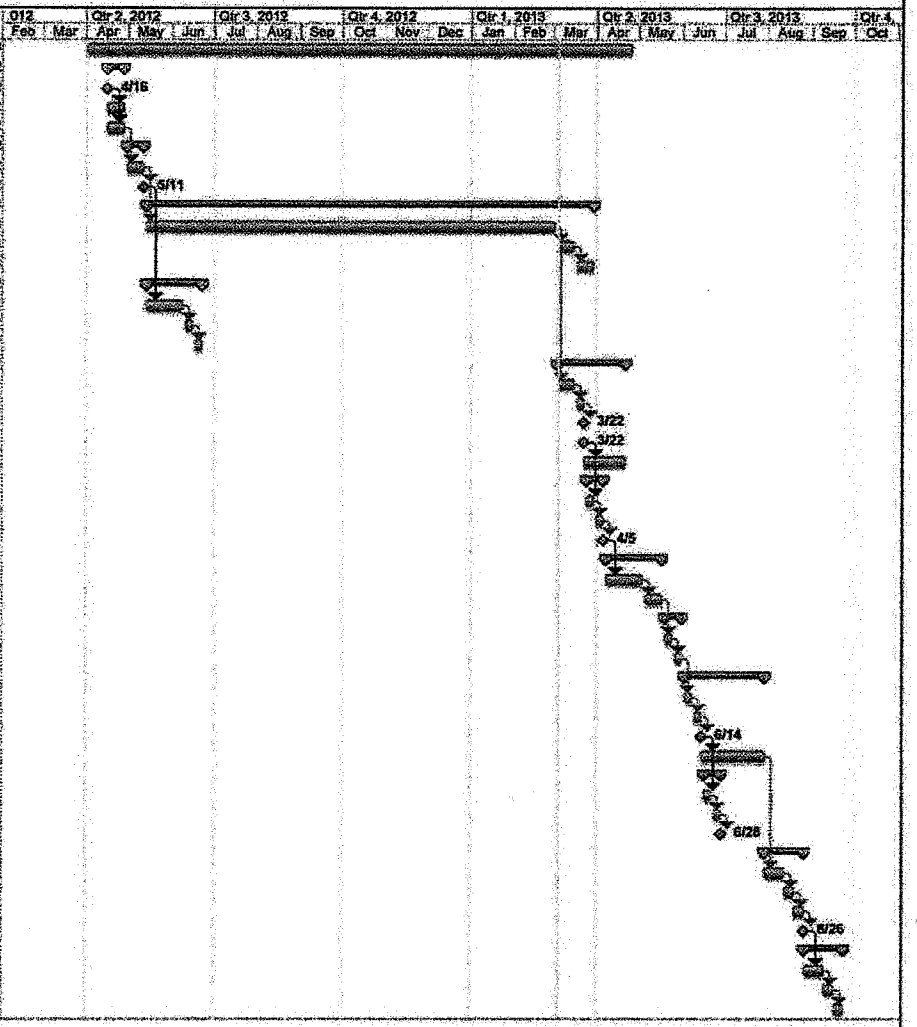
ESA Non-Labor Expenses	
Increase in CDFG CEQA Filing Fees for 2013	$ 76
Reimbursable Expenses (see Attachment A for detail)	$ -
ESA Equipment usage (see Attachment A for detail)	$ -
Subtotal ESA Non-Labor Expenses	**$ 76**

TOTAL PROJECT PRICE	**$ 29,174**

H:\G\211xxx\D211181.00 - IRWD Stockdale West Joint Banking\01 Project Management\5 Variance No 1 Request\IRWD Stockdale Addtl SOW Cost Estimate-ESA Labor & Expense

Irvine Ranch Water District - Stockdale Integrated Banking Project EIR
CEQA Documentation Schedule

ID	Task Name	Duration	Start	Finish
1	**CEQA Environmental Review Process**	**279 days**	**Mon 4/2/12**	**Thu 4/25/13**
2	**Project Initiation, Management and Initial Study**	**10 days**	**Mon 4/16/12**	**Fri 4/27/12**
3	Kick-off Meeting	0 days	Mon 4/16/12	Mon 4/16/12
4	Notice to Proceed-Preparation of Initial Study	2 wks	Mon 4/16/12	Fri 4/27/12
5	Prepare Draft EIR Outline	2 wks	Mon 4/16/12	Fri 4/27/12
6	**ESA Submits Data Request**	**10 days**	**Mon 4/30/12**	**Fri 5/11/12**
7	Review Existing Data	2 wks	Mon 4/30/12	Fri 5/11/12
8	Submit Request for Information	0 days	Fri 5/11/12	Fri 5/11/12
9	**ESA Develops the Project Description**	**230 days**	**Mon 5/14/12**	**Fri 3/29/13**
10	Preparation of the Project Description (Pending Hydro Modeling/analysis)	42 wks	Mon 5/14/12	Fri 3/1/13
11	Team Review of the Project Description	2 wks	Mon 3/4/13	Fri 3/15/13
12	ESA Finalizes the Project Description	2 wks	Mon 3/18/13	Fri 3/29/13
13	**Conduct Technical Studies**	**30 days**	**Mon 5/14/12**	**Fri 6/22/12**
14	ESA Prepares Technical Studies	4 wks	Mon 5/14/12	Fri 6/8/12
15	IRWD/Rosedale Review Technical Studies	1 wk	Mon 6/11/12	Fri 6/15/12
16	ESA Finalizes Technical Studies	1 wk	Mon 6/18/12	Fri 6/22/12
17	**ESA Prepares a Notice of Preparation and Notice of Completion**	**35 days**	**Mon 3/4/13**	**Sun 4/21/13**
18	ESA Prepares Draft NOP and Distribution List	2 wks	Mon 3/4/13	Fri 3/15/13
19	IRWD/Rosedale Reviews Draft NOP and Distribution List	1 wk	Mon 3/18/13	Fri 3/22/13
20	**ESA Revises NOP**	**0 days**	**Fri 3/22/13**	**Fri 3/22/13**
21	NOP Publication	0 days	Fri 3/22/13	Fri 3/22/13
22	Circulation of NOP for 30 days	30 edays	Fri 3/22/13	Sun 4/21/13
23	**Conduct Public Scoping Meeting**	**10 days**	**Mon 3/25/13**	**Fri 4/5/13**
24	ESA Prepares Meeting Presentation/Materials	1 wk	Mon 3/25/13	Fri 3/29/13
25	IRWD/Rosedale Reviews Meeting Presentation/Materials	1 wk	Mon 4/1/13	Fri 4/5/13
26	Scoping Meeting	0 days	Fri 4/5/13	Fri 4/5/13
27	**ESA Prepares Administrative Draft EIR**	**30 days**	**Mon 4/8/13**	**Fri 5/17/13**
28	ESA Prepares Administrative Draft EIR	4 wks	Mon 4/8/13	Fri 5/3/13
29	IRWD/Rosedale provides comments on Administrative Draft EIR	2 wks	Mon 5/6/13	Fri 5/17/13
30	**ESA Prepares Screencheck Draft EIR**	**10 days**	**Mon 5/20/13**	**Fri 5/31/13**
31	ESA Prepares Screencheck Draft EIR	1 wk	Mon 5/20/13	Fri 5/24/13
32	IRWD/Rosedale provides final comments on Screencheck Draft EIR	1 wk	Mon 5/27/13	Fri 5/31/13
33	**ESA Prepares Public Draft EIR, Notice of Availability, Notice of Completion**	**41 days**	**Mon 6/3/13**	**Mon 7/29/13**
34	ESA Finalizes Public Draft EIR	1 wk	Mon 6/3/13	Fri 6/7/13
35	Notice, Printing, Mailing	1 wk	Mon 6/10/13	Fri 6/14/13
36	Public Draft EIR Publication	0 days	Fri 6/14/13	Fri 6/14/13
37	45-Day Comment Period	45 edays	Fri 6/14/13	Mon 7/29/13
38	**Conduct Public Meeting for Draft EIR**	**10 days**	**Mon 6/17/13**	**Fri 6/28/13**
39	ESA Prepares Meeting Presentation/Materials	1 wk	Mon 6/17/13	Fri 6/21/13
40	IRWD/Rosedale Reviews Meeting Presentation/Materials	1 wk	Mon 6/24/13	Fri 6/28/13
41	Public Meeting	0 days	Fri 6/28/13	Fri 6/28/13
42	**ESA Prepares Final EIR and Response to Comments**	**20 days**	**Tue 7/30/13**	**Mon 8/26/13**
43	ESA Prepares Final EIR and Response to Comments	2 wks	Tue 7/30/13	Mon 8/12/13
44	IRWD/Rosedale Reviews Final EIR and Response to Comments	1 wk	Tue 8/13/13	Mon 8/19/13
45	ESA Finalizes Final EIR and Response to Comments	1 wk	Tue 8/20/13	Mon 8/26/13
46	Mailout Final EIR	0 days	Mon 8/26/13	Mon 8/26/13
47	**ESA Prepares MMCRP, Findings, SOC, and NOD**	**20 days**	**Tue 8/27/13**	**Mon 9/23/13**
48	ESA Prepares MMCRP, Findings, SOC, and NOD	2 wks	Tue 8/27/13	Mon 9/9/13
49	IRWD/Rosedale Review MMCRP, Findings, SOC, and NOD	1 wk	Tue 9/10/13	Mon 9/16/13
50	ESA Finalizes MMCRP, Findings, SOC, and NOD	1 wk	Tue 9/17/13	Mon 9/23/13



Date: Mon 3/4/13

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

IRVINE RANCH WATER DIST EXHIBIT "C"

Expenditure Authorization

Project Name: STOCKDALE WEST RANCH JOINT BANKING PROJECT
EPMS Project No: 11645 **EA No:** 2
Oracle Project No: 3766
Project Manager: WEGHORST, PAUL
Project Engineer: WELCH, KELLY
Request Date: March 5, 2013

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

Improvement District (ID) Allocations

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

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	$246,400
This Request:	$55,000
Total EA Requests:	$301,400
Previously Approved Budget:	$246,400
Budget Adjustment Requested this EA:	$55,000
Updated Budget:	$301,400
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	15,000	40,000	55,000	15,000	40,000	55,000	3/12	6/13
ENGINEERING - PLANNING OUTSIDE	0	33,000	33,000	0	33,000	33,000	3/12	6/13
ENGINEERING DESIGN - IRWD	0	0	0	0	0	0	7/13	8/14
ENGINEERING DESIGN - OUTSIDE	0	0	0	0	0	0	7/13	8/14
ENGINEERING - CA&I IRWD	0	0	0	0	0	0	3/14	6/16
ENGINEERING - CA&I OUTSIDE	0	0	0	0	0	0	3/14	6/16
CONSTRUCTION	0	0	0	0	0	0	3/14	6/16
LEGAL	5,000	15,000	20,000	5,000	15,000	20,000	3/12	6/13
ENGINEERING ENVIRONMENTAL-OUTS	30,000	136,000	166,000	30,000	136,000	166,000	3/12	6/13
Contingency - 10.00% Subtotal	$5,000	$22,400	$27,400	$5,000	$22,400	$27,400		
Subtotal (Direct Costs)	**$55,000**	**$246,400**	**$301,400**	**$55,000**	**$246,400**	**$301,400**		
Estimated G/A - 180.00% of direct labor*	$27,000	$72,000	$99,000	$27,000	$72,000	$99,000		
Total	$82,000	$318,400	$400,400	$82,000	$318,400	$400,400		
Direct Labor	$15,000	$40,000	$55,000	$15,000	$40,000	$55,000		

***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: Kelli Welch 3-5-13

Department Director: [signature] 3/7/13

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 $409,000. 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.**

March 25, 2013
Prepared by: S. Malloy
Submitted by: K. Burton KLB
Approved by: Paul Cook

ACTION CALENDAR

MICHELSON WATER RECYCLING PLANT
PHASE 2 EXPANSION AND FLOOD PROTECTION IMPROVEMENTS
BUDGET AND EXPENDITURE AUTHORIZATION INCREASES
AND CONTRACT CHANGE ORDER

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 Contract Change Order No. 90 with Filanc in the amount of $410,000 for extended overhead costs for the MWRP Phase 2 Expansion and Flood Protection Improvements;
- Authorize a budget increase to the MWRP Phase 2 Expansion Project 20214 in the amount of $2,365,300, from $66,615,300 to $68,980,600;
- Authorize a budget increase to the MWRP Phase 2 Expansion Project 30214 in the amount of $1,488,500, from $44,164,200 to $45,652,700;
- Authorize a budget increase to the MWRP Flood Protection Improvements Project 20542 in the amount of $185,700, from $5,215,500 to $5,401,200;
- Authorize a budget increase to the MWRP Flood Protection Improvements Project 30542 in the amount of $208,400, from $3,304,500 to $3,512,900; and
- Approve Expenditure Authorizations in the amount of $2,365,300 for Project 20214, $1,488,500 for Project 30214, $404,500 for Project 20542, and $404,100 for Project 30542.

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 Sand Diego Creek. A Project Overview Diagram of the MWRP Phase 2 Expansion is attached as Exhibit "A".

As of March 1, 2013, there have been a total of 89 approved Contract Change Orders (CCO), totaling $3,604,070. The amount of change orders is 4.1% of the original contract amount. Project-related change orders account for 1.2% of the original contract amount while non-project-related change orders, such as the biosolids piping and ductbanks (CCO No. 43), account for 2.9%.

The original construction completion date was August 1, 2012. Through CCO No. 89, the completion date was extended to January 15, 2013. CCO No. 43 accounted for 120 calendar days of the time extension while CCO No. 75 (MPS-1 Building Demolition and Electrical Switchgear Relocation) account for 47 calendar days.

The work related to CCO No. 43 in the amount of $1,132,284 was complicated, requiring the installation of several pipelines, valves, and electrical conduits within the MWRP Phase 2 Expansion construction area. CCO No. 43 included approximately 7,425 feet of 8-inch to 14-inch pipeline and 5-inch conduits. A detailed description of CCO No. 43 is attached as Exhibit "B". The pipelines and conduits required two separate, circuitous paths within MWRP which required greater coordination than anticipated between the original contract work and the scope of CCO No. 43 for the project management teams of both IRWD and Filanc.

Contract Change Order No. 90:

Extensive negotiations between Filanc and IRWD were held in recent months during which several items were discussed. These discussion items included the cumulative effect of the 89 approved change orders to the project schedule and contractor costs, concurrent delays, and IRWD costs due to the time extension. Filanc and IRWD discussed the components that contributed to additional costs to Filanc due to the time extension. Initially, Filanc submitted a calculation of approximately $1.3 million of extended field office overhead costs to IRWD.

Filanc incurred extended overhead costs due to the time extension associated with the approved change orders. These extended overhead costs include labor costs for Filanc's field engineers, general superintendent, and superintendents of major disciplines, as well as non-labor office overhead costs, such as project insurance and benefits for field engineers. These costs were not accounted for in previous change orders that extended the overall project completion date, particularly CCO No. 43.

CCO No. 90 in the amount of $410,000 is attached as Exhibit "C" and includes:

- Extension of the project completion date to July 31, 2013;
- All extended overhead costs that were incurred from all previously approved change orders (CCO No. 1 through CCO No. 89) and through the new completion date;
- Requirement of Filanc to vacate the areas designated for the MWRP Biosolids and Energy Recovery Facilities construction in a timely manner;
- Indemnification by Filanc to any delay and related costs from the contractor of MWRP Biosolids and Energy Recovery Facilities should Filanc fail to vacate the designated areas in a timely manner; and
- Any future change orders shall be inclusive of project schedule impacts and any overhead charges, if applicable.

Budget and Expenditure Authorization Increases:

An increase to the FY 2012-13 Capital Budget and Expenditure Authorizations is required to fund Contract Change Order No. 90 and anticipated change orders through the completion of construction, as well as providing funding for engineering consultants and staff, required Department of Public Health testing of the ultraviolet system, and a landscaping contract for MWRP. Staff has also identified smaller project-related work items to be performed by other contractors. This work is being done by other contractors so that Filanc can concentrate on their remaining work to complete the project.

FISCAL IMPACTS:

Projects 20214 (1599), 30214 (1706), 20542 (1150) and 30542 (1118) are included in the FY 2012-13 Capital Budget. Budget increases and Expenditure Authorizations are requested as shown in the table below and in Exhibit "D" to fund the remaining work as listed above.

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
20214 (1599)	$ 66,615,300	$2,365,300	$ 68,980,600	$ 66,615,300	$2,365,300	$ 68,980,600
30214 (1706)	$ 44,164,200	$1,488,500	$ 45,652,700	$ 44,164,200	$1,488,500	$ 45,652,700
20542 (1150)	$ 5,215,500	$ 185,700	$ 5,401,200	$ 4,996,700	$ 404,500	$ 5,401,200
30542 (1118)	$ 3,304,500	$ 208,400	$ 3,512,900	$ 3,108,800	$ 404,100	$ 3,512,900
Totals	$119,299,500	$4,247,900	$123,547,400	$118,885,000	$4,662,400	$123,547,400

ENVIRONMENTAL COMPLIANCE:

The Michelson Water Recycling Plant Phase 2 Expansion and Flood Protection Improvements, Projects 20214, 30214, 20542, and 30542 are subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, an Environmental Impact Report, SCH #2005051174, was certified by the lead agency on February 27, 2006.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 19, 2013.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE TO THE MWRP PHASE 2 EXPANSION PROJECT 20214 (1599) IN THE AMOUNT OF $2,365,300, FROM $66,615,300 TO $68,980,600; AUTHORIZE A BUDGET INCREASE TO THE MWRP PHASE 2 EXPANSION PROJECT 30214 (1706) IN THE AMOUNT OF $1,488,500, FROM $44,164,200 TO $45,652,700; AUTHORIZE A BUDGET INCREASE TO THE MWRP FLOOD PROTECTION IMPROVEMENTS PROJECT 20542 (1150) IN THE AMOUNT OF $185,700, FROM $5,215,500 TO $5,401,200; AUTHORIZE A BUDGET INCREASE TO THE MWRP FLOOD PROTECTION IMPROVEMENTS PROJECT 30542 (1118) IN THE AMOUNT OF $208,400, FROM $3,304,500 TO $3,512,900; APPROVE EXPENDITURE AUTHORIZATIONS IN THE AMOUNT OF $2,365,300 FOR PROJECT 20214 (1599), $1,488,500 FOR PROJECT 30214 (1706), $404,500 FOR PROJECT 20542 (1150), AND $404,100 FOR PROJECT 30542 (1118); AND APPROVE CONTRACT CHANGE ORDER NO. 90 WITH FILANC IN THE AMOUNT OF $410,000 FOR EXTENDED OVERHEAD COSTS FOR THE MWRP PHASE 2 EXPANSION AND FLOOD PROTECTION IMPROVEMENTS, PROJECTS 20214 (1599), 30214 (1706), 20542 (1150) AND 30542 (1118).

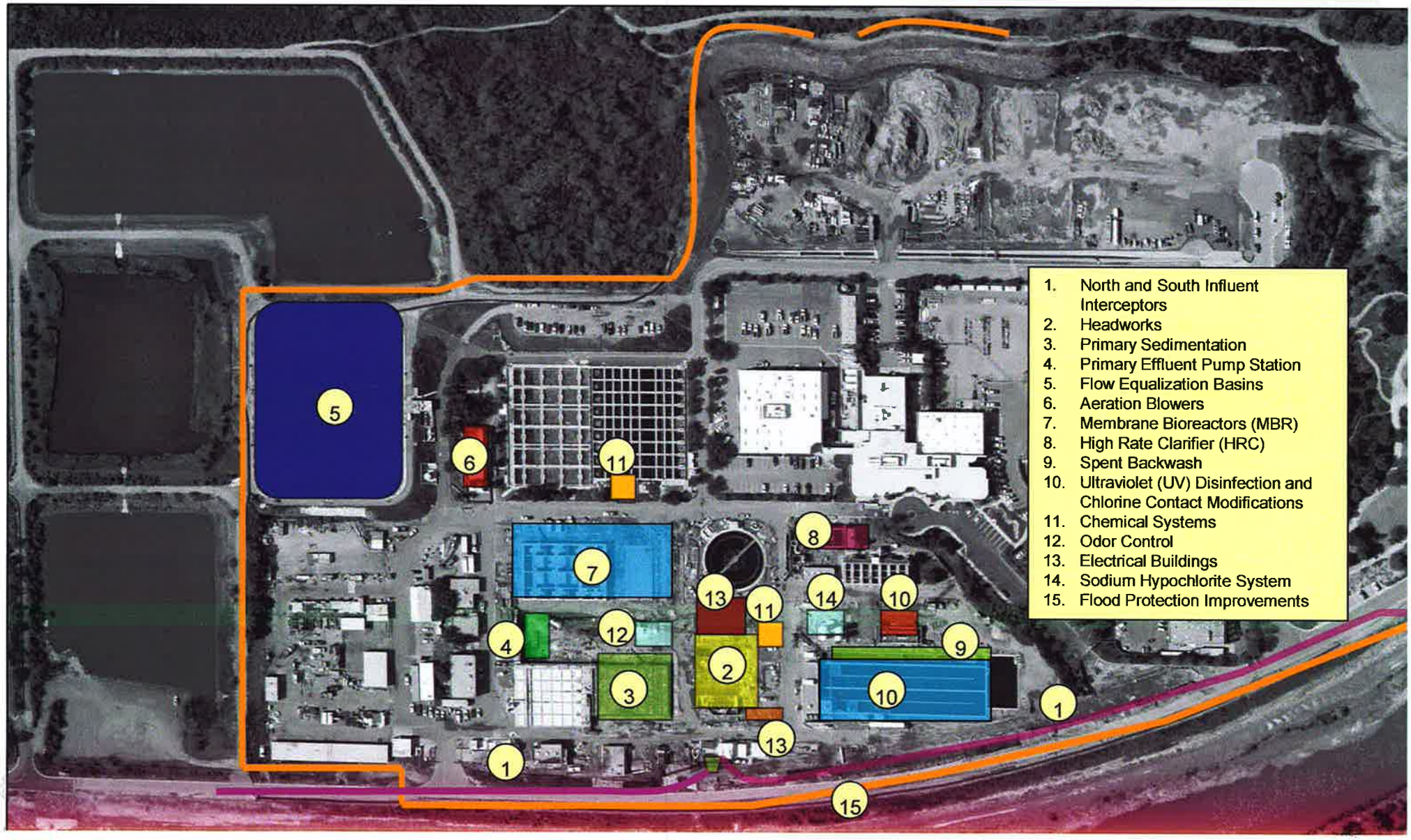
LIST OF EXHIBITS:

Exhibit "A" – Project Overview
Exhibit "B" – Staff Report – CCO No. 43
Exhibit "C" – Change Order No. 90
Exhibit "D" – Expenditure Authorizations

EXHIBIT "A"

Irvine Ranch Water District

Overview of MWRP Phase 2 Expansion



Staff Report
for
Michelson Water Recycling Plant Phase 2 Expansion and
Flood Protection Improvements
July 25, 2011

The Michelson Water Recycling Plant Phase 2 Expansion and Flood Protection Improvements is currently being constructed by J. R. Filanc Construction Co. The purpose of this staff report is to summarize Change Order 43.

With CCO No. 43, several pipelines, valves, and conduits for the MWRP Biosolids and Energy Recovery Facilities were installed within the MWRP Phase 2 Expansion construction area. CCO No. 43 included approximately 7,425 feet of 8-inch to 14-inch pipeline and 5-inch conduits.

CCO No. 43, in the amount of $1,132,283.71, included Change Request No. 17, No. 45, and No. 137. The locations of the pipelines and conduits that were included in Change Request No. 17 and No. 45 are shown on page 3 of this staff report.

There are several reasons why it was advantageous to have Filanc install these pipelines and conduits:

- Filanc was constructing MWRP Phase 2 Expansion items within the area that the pipelines and conduits associated with the biosolids project were installed. The area was excavated and backfilled only once, instead of twice;
- Several existing pipelines and ductbanks were located within this tight area. Filanc made adjustments to the locations of the pipelines and ductbanks when there were conflicts with either or both of the existing pipelines or the pipelines associated with the Phase 2 Expansion;
- New paving of the area, which is in Filanc's construction contract, would not be affected; and
- Disturbance to MWRP plant operations would be minimized.

Change Request No. 17, in the amount of $503,272.17, included the following:

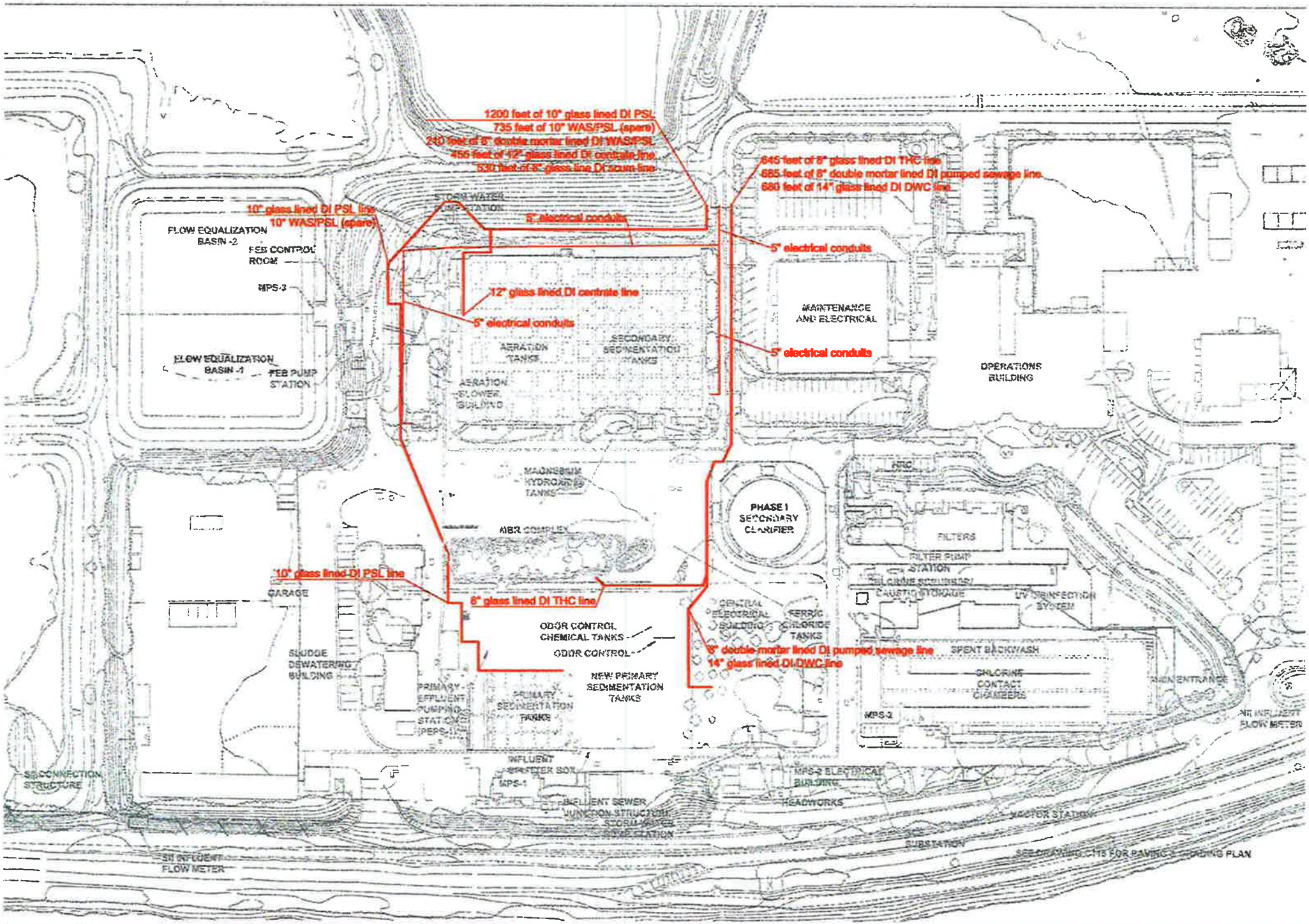
- 1,200 feet of 10" glass lined ductile iron primary sludge (PSL) line
- 735 feet of 10" waste activated sludge (WAS)/PSL (spare)
- 210 feet of 8" double mortar lined ductile iron waste activated sludge (spare) WAS/PSL line
- 510 feet of 8" double mortar lined ductile iron WAS line
- 530 feet of 8" glass lined ductile iron scum line
- 455 feet of 12" glass lined ductile iron centrate line
- 8 gate valves of various sizes, from 4-inch through 10-inch in diameter
- Cathodic protection for the ductile iron pipes
- One 10" magnetic meter
- Electrical Conduit and wiring for magnetic meter.

Change Request No. 45, in the amount of $626,976.14, included the following:

- 645 feet of 8" glass lined ductile iron thickened centrate (THC) line
- 685 feet of 8" double mortar lined ductile iron pumped sewage line
- 680 feet of 14" glass lined ductile iron dewatered centrate (DWC) line
- One 8" gate valve
- One 8" plug valve
- One 14" gate valve
- Cathodic protection for the ductile iron pipes
- 820 feet of two sets of 5-inch electrical conduits
- 55 feet of three sets of 5-inch electrical conduits
- Transformer concrete pad modifications.

Change Request No. 137, in the amount of $2,035.40, included the following:

- Filanc provided labor and equipment to aid in the geotechnical investigation of the future biosolids site.



REASONS | APP'D

DESIGNED: E. SOTELO
DRAWN: M. MOON

HDR

TETRA TECH INC

BRUCE R. WILEY

IRVINE RANCH WATER DISTRICT
MWRP PHASE 2 EXPANSION

VERIFY SCALE

KEY PLAN

Exhibit "C"

CONTRACT CHANGE ORDER

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

C.O. No. 90
☐ Final

Project No. 20214, 30214, 20542, 30542 (1599,1706,1150,1118)

MWRP Phase 2 Expansion and Flood Protection Improvements
Project Title

Date: March 12, 2013

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	$ ADDITIONS	$ DELETIONS	DAYS ±
Project Related Extended Overhead (PR 20214 (1599), 30214 (1706), 20542 (1150), 30542 (1118) – This change order includes: 1. Extension of the Project Completion Date to July 31, 2013; 2. All project extended overhead costs incurred from all previously approved change orders (CCO No. 1 to CCO No. 89) and through the new project completion date; 3. Requirement of Filanc to vacate the areas designated for the MWRP Biosolids and Energy Recovery Facilities construction in a timely manner; and 4. Filanc to indemnify IRWD for any delay and related costs from the contractor of MWRP Biosolids and Energy Recovery Facilities should Filanc fail to vacate the designated areas in a timely manner.	$410,000.00	$0.00	197
TOTAL	$410,000.00	$0.00	197

DAYS ±

1. NET AMOUNT THIS CHANGE ORDER	=	$410,000.00	197
2. ORIGINAL CONTRACT AMOUNT	=	$87,479,450.00	1,094
3. TOTAL PREVIOUS CHANGE ORDER(S)	=	$3,604,070.89	167
4. TOTAL BEFORE THIS CHANGE ORDER (2+ 3)	=	$91,083,520.89	1,261
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4)	=	$91,493,520.89	1,458

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

----------Four Hundred Ten Thousand and 00/100----------Dollars

3/15/2013 — Date
J R Filanc Construction Co. — Contractor
By: Harry Cosmos, President

SIGNATURE	DATE	APPROVAL LEVEL REQUIRED	
	3/18/13	Department Director Approval Required	
IRWD Engineer or Consulting Engineer	Date	General Manager Approval Required	
	3-18-13	Committee Approval Required	
Principal Engineer – MWRP Construction	Date	Board Approval Required	X
	3-18-13		
Executive Director of Engineering and Planning	Date	By	Date
General Manager	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.

Rev. 8/2006

EXHIBIT "D"

IRVINE RANCH WATER DISTF

Expenditure Authorization

Project Name: MWRP EXPANSION PHASE II
EPMS Project No: 20214 **EA No:** 7
Oracle Project No: 1599
Project Manager: MALLOY, STEVEN
Project Engineer: STEWART, WILLIAM
Request Date: March 13, 2013

ID Split: Sewer Tributary to MWRP (11/08)

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
211	10.8	CAPITAL FUND
212	4.6	BONDS YET TO BE SOLD**
213	.3	BONDS YET TO BE SOLD**
221	21.6	BONDS YET TO BE SOLD**
230	14.2	BONDS YET TO BE SOLD**
250	33.5	BONDS YET TO BE SOLD**
253	1.2	BONDS YET TO BE SOLD**
261	8.8	BONDS YET TO BE SOLD**
282	2.4	BONDS YET TO BE SOLD**
284	2.6	BONDS YET TO BE SOLD**
Total	**100.0%**	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	$66,615,300
This Request:	$2,365,300
Total EA Requests:	$68,980,600
Previously Approved Budget:	$66,615,300
Budget Adjustment Requested this EA:	$2,365,300
Updated Budget:	$68,980,600
Budget Remaining After This EA	$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING OUTSIDE	94,900	0	94,900	94,900	0	94,900	*9/06*	*6/10*
ENGINEERING DESIGN - IRWD	331,400	204,000	535,400	331,400	204,000	535,400	*6/06*	*11/08*
ENGINEERING DESIGN - OUTSIDE	292,000	5,600,000	5,892,000	292,000	5,600,000	5,892,000	*9/06*	*11/08*
DESIGN STAFF FIELD SUPPORT	3,300	10,000	13,300	3,300	10,000	13,300	*9/06*	*11/08*
ENGINEERING - CA&I IRWD	(1,020,000)	1,700,000	680,000	(1,020,000)	1,700,000	680,000	*9/06*	*7/13*
ENGINEERING - CA&I OUTSIDE	1,249,000	5,574,000	6,823,000	1,249,000	5,574,000	6,823,000	*2/09*	*7/13*
CONSTRUCTION FIELD SUPPORT	0	285,000	285,000	0	285,000	285,000	*2/09*	*6/13*
CONSTRUCTION	4,587,000	50,000,000	54,587,000	4,587,000	50,000,000	54,587,000	*2/09*	*6/13*
LEGAL	0	35,000	35,000	0	35,000	35,000	*9/06*	*6/13*
WATER QUALITY	0	10,000	10,000	0	10,000	10,000	*9/06*	*12/11*
ENGINEERING ENVIRONMENTAL-OUTS	0	25,000	25,000	0	25,000	25,000	*6/06*	*1/12*
CAPITAL PROJECTS REIMBURSEMENT	0	0	0	0	0	0	*6/06*	*1/12*
Contingency - % Subtotal	($3,172,300)	$3,172,300	$0	($3,172,300)	$3,172,300	$0		
Subtotal (Direct Costs)	$2,365,300	$66,615,300	$68,980,600	$2,365,300	$66,615,300	$68,980,600		
Estimated G/A - 180.00% of direct labor*	($1,344,100)	$4,086,700	$2,742,600	($1,233,600)	$3,976,200	$2,742,600		
Total	$1,021,200	$70,702,000	$71,723,200	$1,131,700	$70,591,500	$71,723,200		
Direct Labor	($685,300)	$2,209,000	$1,523,700	($685,300)	$2,209,000	$1,523,700		

***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 3-13-13

Department Director: Kevin L Burton 3-13-13

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 project is further described in the attached staff report and additional documents, if any, which are hereby incorpo 1 of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.1**

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: MWRP EXPANSION PHASE II
EPMS Project No: 30214 **EA No:** 7
Oracle Project No: 1706
Project Manager: MALLOY, STEVEN
Project Engineer: STEWART, WILLIAM
Request Date: March 13, 2013

ID Split: Regional Reclaimed Water Splits (11/08)

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
211	2.3	CAPITAL FUND
212	14.3	BONDS YET TO BE SOLD**
213	5.2	BONDS YET TO BE SOLD**
215	.8	CAPITAL FUND
221	14.3	BONDS YET TO BE SOLD**
230	10.4	BONDS YET TO BE SOLD**
240	8.4	BONDS YET TO BE SOLD**
250	34.4	BONDS YET TO BE SOLD**
261	9.9	BONDS YET TO BE SOLD**
Total	**100.0%**	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	$44,164,200
This Request:	$1,488,500
Total EA Requests:	$45,652,700
Previously Approved Budget:	$44,164,200
Budget Adjustment Requested this EA:	$1,488,500
Updated Budget:	$45,652,700
Budget Remaining After This EA	$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING OUTSIDE	23,100	0	23,100	23,100	0	23,100	*9/06*	*6/10*
ENGINEERING DESIGN - IRWD	40,600	102,000	142,600	40,600	102,000	142,600	*9/06*	*11/08*
ENGINEERING DESIGN - OUTSIDE	(25,500)	3,266,000	3,240,500	(25,500)	3,266,000	3,240,500	*9/06*	*11/08*
DESIGN STAFF FIELD SUPPORT	0	10,000	10,000	0	10,000	10,000	*9/06*	*11/08*
ENGINEERING - CA&I IRWD	(668,700)	1,150,000	481,300	(668,700)	1,150,000	481,300	*11/08*	*7/13*
ENGINEERING - CA&I OUTSIDE	1,530,200	3,713,000	5,243,200	1,530,200	3,713,000	5,243,200	*11/08*	*7/13*
CONSTRUCTION FIELD SUPPORT	(134,200)	190,000	55,800	(134,200)	190,000	55,800	*11/08*	*6/13*
CONSTRUCTION	2,826,200	33,600,000	36,426,200	2,826,200	33,600,000	36,426,200	*11/08*	*6/13*
LEGAL	0	10,000	10,000	0	10,000	10,000	*9/06*	*6/13*
WATER QUALITY	0	5,000	5,000	0	5,000	5,000	*9/06*	*12/11*
ENGINEERING ENVIRONMENTAL-OUTS	0	15,000	15,000	0	15,000	15,000	*11/08*	*12/11*
Contingency - % Subtotal	($2,103,200)	$2,103,200	$0	($2,103,200)	$2,103,200	$0		
Subtotal (Direct Costs)	$1,488,500	$44,164,200	$45,652,700	$1,488,500	$44,164,200	$45,652,700		
Estimated G/A - 180.00% of direct labor*	($1,445,100)	$2,695,500	$1,250,400	($1,372,200)	$2,622,600	$1,250,400		
Total	$43,400	$46,859,700	$46,903,100	$116,300	$46,786,800	$46,903,100		
Direct Labor	($762,300)	$1,457,000	$694,700	($762,300)	$1,457,000	$694,700		

***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 J. Malloy 3-13-13

Department Director: Kevin L Burton 3-13-13

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 amoun ned project is further described in the attached staff report and additional documents, if any, which are hereby inc ation of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section**

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: MWRP FLOOD PROTECTION
EPMS Project No: 20542 **EA No:** 6
Oracle Project No: 1150
Project Manager: MALLOY, STEVEN
Project Engineer: STEWART, WILLIAM
Request Date: March 13, 2013

ID Split: Regional Sewer Splits w/ Enhance (11/08)

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
211	2.5	CAPITAL FUND
212	1.1	BONDS YET TO BE SOLD**
213	1.4	BONDS YET TO BE SOLD**
215	2.4	CAPITAL FUND
221	5.1	BONDS YET TO BE SOLD**
230	3.3	BONDS YET TO BE SOLD**
240	.9	BONDS YET TO BE SOLD**
250	7.9	BONDS YET TO BE SOLD**
253	.3	BONDS YET TO BE SOLD**
261	2.1	BONDS YET TO BE SOLD**
282	.6	BONDS YET TO BE SOLD**
284	.6	BONDS YET TO BE SOLD**
286	.2	BONDS YET TO BE SOLD**
288	.2	BONDS YET TO BE SOLD**
299	71.4	CAPITAL FUND ENHANCEMENT**
Total	**100.0%**	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	$4,996,700
This Request:	$404,500
Total EA Requests:	$5,401,200
Previously Approved Budget:	$5,215,500
Budget Adjustment Requested this EA:	$185,700
Updated Budget:	$5,401,200
Budget Remaining After This EA	$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING OUTSIDE	0	62,000	62,000	0	62,000	62,000	3/07	7/09
ENGINEERING DESIGN - IRWD	(98,900)	170,000	71,100	(98,900)	170,000	71,100	3/07	7/10
ENGINEERING DESIGN - OUTSIDE	191,300	646,600	837,900	87,900	750,000	837,900	3/07	7/10
DESIGN STAFF FIELD SUPPORT	(32,800)	35,000	2,200	(32,800)	35,000	2,200	3/07	7/09
ENGINEERING - CA&I IRWD	10,000	75,000	85,000	(65,000)	150,000	85,000	4/10	6/13
ENGINEERING - CA&I OUTSIDE	(146,000)	480,000	334,000	(146,000)	480,000	334,000	4/10	6/13
CONSTRUCTION FIELD SUPPORT	0	15,000	15,000	(10,000)	25,000	15,000	4/10	6/13
CONSTRUCTION	719,000	3,255,000	3,974,000	719,000	3,255,000	3,974,000	4/10	6/13
LEGAL	0	10,000	10,000	0	10,000	10,000	4/10	6/13
ENGINEERING ENVIRONMENTAL-OUTS	0	10,000	10,000	(20,000)	30,000	10,000	4/10	9/11
Contingency - % Subtotal	($238,100)	$238,100	$0	($248,500)	$248,500	$0		
Subtotal (Direct Costs)	$404,500	$4,996,700	$5,401,200	$185,700	$5,215,500	$5,401,200		
Estimated G/A - 180.00% of direct labor*	($233,900)	$545,900	$312,000	($372,000)	$684,000	$312,000		
Total	$170,600	$5,542,600	$5,713,200	($186,300)	$5,899,500	$5,713,200		
Direct Labor	($121,700)	$295,000	$173,300	($206,700)	$380,000	$173,300		

***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 3-13-13

Department Director: Kris L Burton 3-13-13

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 $5,8 :t is further described in the attached staff report and additional documents, if any, which are hereby incorporate 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: MWRP FLOOD PROTECTION
EPMS Project No: 30542 **EA No:** 6
Oracle Project No: 1118
Project Manager: MALLOY, STEVEN
Project Engineer: STEWART, WILLIAM
Request Date: March 13, 2013

ID Split: Regional RW Split w/ Enhance (11/08)

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
211	.7	CAPITAL FUND
212	4.7	BONDS YET TO BE SOLD**
213	1.7	BONDS YET TO BE SOLD**
215	.3	CAPITAL FUND
221	4.7	BONDS YET TO BE SOLD**
230	3.4	BONDS YET TO BE SOLD**
240	2.7	BONDS YET TO BE SOLD**
250	11.2	BONDS YET TO BE SOLD**
261	3.2	BONDS YET TO BE SOLD**
299	67.4	CAPITAL FUND ENHANCEMENT**
Total	**100.0%**	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	$3,108,800
This Request:	$404,100
Total EA Requests:	$3,512,900
Previously Approved Budget:	$3,304,500
Budget Adjustment Requested this EA:	$208,400
Updated Budget:	$3,512,900
Budget Remaining After This EA	$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING OUTSIDE	0	32,000	32,000	0	32,000	32,000	3/07	7/09
ENGINEERING DESIGN - IRWD	(30,300)	85,000	54,700	(30,300)	85,000	54,700	3/07	7/10
ENGINEERING DESIGN - OUTSIDE	99,500	338,600	438,100	(11,900)	450,000	438,100	3/07	7/10
DESIGN STAFF FIELD SUPPORT	(17,900)	20,000	2,100	(17,900)	20,000	2,100	3/07	7/09
ENGINEERING - CA&I IRWD	25,000	45,000	70,000	(30,000)	100,000	70,000	4/10	6/13
ENGINEERING - CA&I OUTSIDE	(100,000)	330,000	230,000	(100,000)	330,000	230,000	4/10	6/13
CONSTRUCTION FIELD SUPPORT	0	10,000	10,000	0	10,000	10,000	4/10	6/13
CONSTRUCTION	573,800	2,090,000	2,663,800	573,800	2,090,000	2,663,800	4/10	6/13
LEGAL	0	5,000	5,000	0	5,000	5,000	4/10	6/13
ENGINEERING ENVIRONMENTAL-OUTS	2,200	5,000	7,200	(17,800)	25,000	7,200	4/10	9/11
Contingency - % Subtotal	($148,200)	$148,200	$0	($157,500)	$157,500	$0		
Subtotal (Direct Costs)	$404,100	$3,108,800	$3,512,900	$208,400	$3,304,500	$3,512,900		
Estimated G/A - 180.00% of direct labor*	($49,800)	$296,100	$246,300	($140,700)	$387,000	$246,300		
Total	$354,300	$3,404,900	$3,759,200	$67,700	$3,691,500	$3,759,200		
Direct Labor	($23,200)	$160,000	$136,800	($78,200)	$215,000	$136,800		

***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 3-13-13

Department Director: Kevin L Burton 3-13-13

Finance: _____ _____

Board/General Manager: _____ _____

**** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of $3 'ect is further described in the attached staff report and additional documents, if any, which are hereby incorpora f official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-**

March 25, 2013
Prepared by: S. Malloy/C. Spangenberg
Submitted by: K. Burton
Approved by: Paul Cook

ACTION CALENDAR

MICHELSON WATER RECYCLING PLANT
BIOSOLIDS AND ENERGY RECOVERY FACILITIES
CONSTRUCTION AWARD AND CONSTRUCTION PHASE AUTHORIZATIONS

SUMMARY:

The Michelson Water Recycling Plant (MWRP) Biosolids and Energy Recovery Facilities construction bids were received on January 31, 2013. Construction phase services will be performed by a team composed of staff and representatives from several engineering consultants. To begin the construction phase activities, staff recommends that the Board:

- Waive bid irregularities and authorize the General Manager to execute a construction contract with Filanc/Balfour Beatty Joint Venture in the amount of $163,465,940;
- Authorize the General Manager to execute a Professional Services Agreement with Black & Veatch (B&V) in the amount of $12,509,031 for construction management and engineering services during construction;
- Authorize the General Manager to execute a Professional Services Agreement with ARCADIS-US in the amount of $2,931,368 for construction management services;
- Authorize the General Manager to execute a Professional Services Agreement with HDR Engineering in the amount of $2,834,476 for construction management services;
- Authorize the General Manager to execute a Professional Services Agreement with NMG Geotechnical in the amount of $588,972 for geotechnical services and pile inspection services;
- Authorize the General Manager to execute a Professional Services Agreement with Borchard Surveying in the amount of $206,680 for surveying services;
- Authorize the General Manager to execute a Professional Services Agreement with DUDEK in the amount of $94,616 for third-party project review services;
- Authorize the General Manager to approve Environ Variance No. 5 for $25,000 for air permitting services;
- Authorize a budget decrease for the MWRP Biosolids and Energy Recovery Facilities Project 20847 in the FY 2012-13 Capital Budget for the design and bidding phase in the amount of $159,119,800, from $174,579,000 to $15,459,200;
- Authorize the addition of the MWRP Biosolids and Energy Recovery Facilities Project 21146 for the construction phase to the FY 2012-13 Capital Budget in the amount of $196,465,500; and
- Approve an Expenditure Authorization in the amount of $196,465,500 for the MWRP Biosolids and Energy Recovery Facilities, Project 21146.

BACKGROUND:

The MWRP Biosolids and Energy Recovery Facilities (Biosolids) will provide biosolids digestion, dewatering, energy production, and on-site sludge drying. The project includes

excavation for subsurface structures; installation of an estimated 3,000 foundation piles; three egg-shaped digesters; a state-of-the-art odor control system; a biogas conditioning system and emergency power generation using micro-turbines; a fats, oil and grease (FOG) receiving station; and new utility services. These facilities will be constructed on the undeveloped land north of IRWD's existing Operations Center, maintenance shops, water quality laboratory, and warehouse.

Construction Award:

B&V's opinion of probable cost was approximately $151,000,000 (with an accuracy of plus or minus 15%) based upon plans and specifications as of June 2012 which was at completion of Design Submittal No. 3 (90% design). Once the design was completed, B&V was required to submit a revised opinion of probable cost based upon the 100% design. B&V's final opinion of probable cost was $162,500,000 (with an accuracy of plus 15% or minus 10%) and included items added through addenda during the bid period. There were 16 major items that caused the cost estimate to increase by $11,500,000. These can be categorized in four major categories:

1. Project clarifications: mitigation and monitoring requirements listed in the SEIR, additional earthwork removals, additional paving, groundwater dewatering, and boilermaker pay increases associated with the egg-digester fabrication.
2. Site constraints: additional construction time allowed due to the limited contractor staging area, and remote staging area at the Michelson development site.
3. Additional site utilities: recycled water, electrical, and gas services.
4. Additional contractor requirements due to Phase 2 Expansion lessons learned: start-up manager, project scheduler, daily street sweeping, and more detailed instrumentation and control start-up and testing requirements.

The bid notice was issued on October 8, 2012 and bids were received on January 31, 2013 from pre-qualified contractors Archer Western Contractors, LLC; Filanc/Balfour Beatty Joint Venture; PCL Construction, Inc.; and J. F. Shea Construction, Inc. A Bid Summary is included as Exhibit "A". W.M. Lyles Co. and McCarthy Building Companies, Inc. declined to submit bids due to their current workload and inability to place their experienced wastewater treatment staff on the project. Staff is recommending award to the apparent low bidder, Filanc/Balfour Beatty JV, for the net construction amount as provided below.

Item	B&V Opinion of Probable Cost	Apparent Low Bid Filanc/Balfour Beatty JV
Total Bid Amount	$165,327,847	$166,513,307
Biogas Treatment & Microturbine Maintenance Agreement	(2,800,000)	(3,047,367)
Net Construction Amount	$162,527,847	$163,465,940

Potential Irregularities in Construction Bid:

Potential irregularities were identified by staff in the bid submitted by Filanc/Balfour Beatty JV. The factual bases for a determination by the Board that the irregularities in the low bid are inconsequential and cannot have affected the bid amount or given the bidder a competitive advantage over the other bidders, are summarized for each of the identified potential irregularities as follows:

(1) The Bid Item 8.3 total price of $3,797,228.00 does not agree with the unit price of $27.50 times the unit quantity of 138,081 for a total of $3,797,227.50. The very minor difference was possibly due to "rounding", but in any event, the total is required to be corrected by the District to reconcile it with the unit price, in accordance with Instructions To Bidders, Paragraph 1.3.1.

(2) In the bid form entitled "Statements by Bidder," the instructions call for the name and location of plant of manufacturer or supplier proposed to be used for various manufactured items. Part A of the Statements calls for lead times. Part B asks for names, with instructions to circle one manufacturer (some of the items list several names pre-entered in the form by the District, and other items list several pre-entered names along with a blank line to be filled in by the bidder with another name). Manufacturers were listed by the low bidder in Part B. The low bid did not list plant locations in either Part A or B. The general instructions found in the Statements By Bidder form specify that the named manufacturers and suppliers are listed for information purposes only and can be substituted with the District's approval without any liability of the District to a listed manufacturers or supplier. Plant locations were for the District's information; omission of plant locations did not afford any competitive advantage.

(3) In the form, "Statements by Bidder," Part B (listing of suppliers/manufacturers), the low bidder did not circle any of the pre-entered names for the item labeled "General Instrumentation and Control Requirements." However, it is concluded that this was not a bid irregularity. Post-opening review shows that all the bidders recognized that this item was inadvertently left in Part B of the District's bid forms, and should have been deleted when "instrumentation and controls" and "system integration," originally included under the same specification, were segregated by addendum during the bidding process into two project specifications addressed separately in the bid forms. The five pre-entered names listed opposite the subject item were not suppliers of "instrumentation and control" equipment but were actually the names of the five approved system integrator subcontractors. A correctly described item calling for bidder's selection of an approved "System Integrator" subcontractor was included in Part D (and was properly completed by the low bidder). No supplier was intended to be called for with respect to "instrumentation and controls." These errata are readily apparent in the item itself: the five approved names on the subject item were not instrumentation and controls suppliers, but were the system integrator firms shown on an approved subcontractor sheet following the Notice Inviting Bids, consistent with the instruction on page 1 of the Notice Inviting Bids requiring the use of a pre-approved system integrator subcontractor. It is apparent that all of the bidders recognized this unintended overlap because all of them either left

the item uncircled in Part B and entered it in Part D, or circled/wrote the same system integrator company name in both places. Further confirmation of the errata is found in multiple places: the system integrator requirements and the requirement to use one of the five approved system integrator companies in Addendum No. 1 and its attachments including a pre-bid meeting and presentation materials; Addendum No. 4 attachments including a mandatory systems integration requirements meeting and presentation materials; Addendum No. 5 modifications to technical specifications Sections 17000, 17300, 17330, 17331, and 17332, and written responses to bidder questions. The separation between "system integrator" and "instrumentation and controls" was made by Addendum No. 5, which separately delineated them under technical specifications Section 17000. Accordingly, the Bid Forms did not intend to call for any listing of a supplier for instrumentation and controls.

(4) Dellovade, the subcontractor listed by the low bidder for the items Cladding and Digester Insulation in "Statements by Bidder," Part D, based on available information at the time of bidding did not have a license to perform Class C-2 work. This was not required by either California law or the bidding documents, and therefore did not make the low bid nonresponsive or result in an irregularity. The listing of a licensed subcontractor is not required by either the Subletting and Subcontracting Fair Practices Act or the Contractors State License Law. (*D.H. Williams Construction, Inc. v. Clovis Unified School District*, 146 CA4 757 (2007).) The District's bidding documents did not require specialty licenses of subcontractors to be current at the time of submission of bids. The bidding documents only required the Contractor's Class A license to be in effect at the time of bid submission (Notice Inviting Bids, page 2; Instructions to Bidders, Paragraph 1.2; Statements By Bidders, Section G(4); Certification of Bidders and Qualifications). Subcontractors' specialty licenses are required to be obtained if necessary for the Work (General Provisions, Paragraph 6.2.2) and copies thereof provided to the District on request (General Provisions, Paragraph 6.2.3). "Statements By Bidder" Part D required only that subcontractors and their locations and portions of the Work in excess of ½ of one percent be listed. The District has available legal remedies if a subcontractor does not have the required license at the time when the subcontract is to be entered into and the specialty work is to be performed.

(5) In the bid form "Certification of Bidders and Qualifications," a single license number was listed. The license number has been confirmed by the District as the license for the joint venture. This was determined to not be an irregularity.

(6) On the Bid Bond, a corporate seal was not affixed. This is not an irregularity, since the low bidder is a joint venture. Omission of the seal does not afford a competitive advantage to the bidder in any event, and can be waived.

(7) For Bid Item 19, "Service Maintenance Agreement," the low bid states a figure of "$3,047,367". The Bid Item explained that the item will be used only for the comparison of bids, and that the agreement itself will not be a part of the awarded contract, but will be executed directly between the District and the supplier. The low bid stated the name of ESC as the Energy System Supplier as called for in Part D of "Statements By Bidder."

As called for in Schedule 01710-S01, General Requirements, Section 1, the ESC contract was submitted in a separate sealed envelope. However, the price shown in the low bidder's submitted contract was "$3,047,267". The bidder's slight overstatement of this amount in Bid Item 19, a difference of $100.00, is considered an immaterial discrepancy. There is no indication that the error permitted a lower bid to be submitted.

None of the above described irregularities (1) entailed a failure to meet the District's specification; (2) permitted a lower bid to be submitted; or (3) impaired the District's ability to compare and rank the bids.

Construction Phase Services:

Organizational Chart. A construction management (CM) team has been assembled comprised of staff and various consultants. The Biosolids CM Team chart is included as Exhibit "B". There are a total of eight full time people, four of which are District staff, as well as many others that will be utilized on the team as needed. The costs for these team members were estimated based on a four year construction period. The CM budget for each estimate includes an annual cost increase of 2.5%. Each proposal is discussed in more detail below.

IRWD Staff. The estimated construction management costs for staff is included as Exhibit "C". Staff will be responsible for overall CM duties such as resolving field issues, negotiating change requests, responding to requests for information (RFI), working with the major vendors such as the dryer manufacturer, overseeing integration of electrical and instrumentation systems, processing monthly progress payments, monitoring project schedule and budget, providing frequent project updates to IRWD management, and performing administration duties. The total estimated staff cost is $2,859,000. Funds in the amount of $47,000 are also allocated for staff to oversee the environmental commitments contained in the Biosolids Supplemental Environmental Impact Report (SEIR).

Black & Veatch. B&V was the design engineer for the Biosolids project. In order to maintain continuity during the construction phase of the Biosolids project, staff recommends that B&V to be part of the CM team. In its proposal, B&V has committed Jon Hay as a full time on-site construction engineer. He will coordinate with the B&V design team members in Irvine, Los Angeles, Phoenix, and Kansas City who are responsible for the various design disciplines to ensure that the project is constructed in accordance with the original design intent. B&V has also committed local staff Chris Kindle and Mark Zamora to perform electrical and instrumentation inspections on an as needed basis. Laura Thomas will work closely with B&V and IRWD to oversee that the instrumentation and control systems are implemented as designed. John Rocca will perform frequent contractor schedule reviews.

The CM team will use B&V's document control system (DCS) which will allow all B&V staff working on the project from remote locations to have easy access to the construction documents and allow for efficient reviews by B&V staff of contractor submittals. Additionally, HDR has partnered with B&V on previous projects and has successfully used the B&V DCS.

B&V's CM proposal in the total amount of $12,509,031 is included as Exhibit "D". This total fee is broken down into two major categories: standard CM services in the amount of $8,458,705 and special services during construction in the amount of $4,050,326. Special services that are non-CM related include such tasks as preparing electronic O&M manuals, preparing energy control procedures, preparing job safety analysis reports, and providing engineering support services for IRWD's Savings by Design applications to Southern California Edison. The B&V CM budget includes employee salary increases in March of each year.

ARCADIS-US. ARCADIS-US was requested to commit to the Biosolids project two of their employees that have worked effectively on the MWRP Phase 2 Expansion project. ARCADIS-US will supply a construction engineer, Ron Esmilla, who will review and negotiate change requests, prepare change orders, ensure that all construction related documents are entered into the DCS, and prepare various project status reports. ARCADIS-US will also supply an experienced construction inspector, Glenn Suchor, who is certified in several types of welding inspections which will be greatly utilized during construction of the egg-shaped digesters. ARCADIS-US's CM proposal in the amount of $2,931,368 is included as Exhibit "E". The ARCADIS-US budget includes employee salary increases in April of each year.

HDR Engineering. HDR was requested to commit to the Biosolids project two of their employees that have worked quite effectively on the MWRP Phase 2 Expansion project. HDR will supply a construction engineer, Gregorio Estrada, who will resolve field issues, respond to contractors RFIs, negotiate change requests, and conduct third party review of complex design and construction issues. He will also coordinate with MWRP Operation and Maintenance staff. HDR will also supply a senior construction inspector, John Walker, who has performed well on many of the complex mechanical systems being constructed for the MWRP Phase 2 Expansion project. HDR's CM proposal in the amount of $2,834,476 is included as Exhibit "F". The HDR budget includes employee salary increases in January of each year.

Geotechnical Services and Pile Inspections. During final design, NMG performed soils analyses, prepared the Geotechnical Baseline Report, performed geotechnical services during the indicator pile test program, and assisted in the pile design for the Biosolids facility. In order to maintain continuity during the Biosolids project, staff negotiated a scope of work for geotechnical services, soils analysis during grading, and pile inspection services with NMG. NMG's Geotechnical Services and Pile Inspections proposal in the amount of $588,972 is included as Exhibit "G."

Surveying. Staff included a detailed scope of work in the request for proposals. Field surveying services were stipulated, while office support was left to the surveyors to estimate. Staff received proposals from Borchard Surveying, Bush & Associates, and Guida Surveying to perform surveying during construction. Proposal costs ranged from $206,680 to $360,000. The difference in costs was mainly due to Borchard being more efficient with their office support staffing and costs. Staff recommends executing a contract for the surveying work with to Borchard Surveying. The consultant evaluation matrix and Borchard Surveying's proposal in the amount of $206,680 are included as Exhibit "H."

Materials Testing. The scope of work will include reviewing supplier submittals and performing materials testing on asphalt and concrete. Staff has included budget in the amount of $380,000 for this task based upon experience for similar work on the MWRP Phase 2 Expansion project. Staff will request proposals from NMG, Ninyo & Moore, and GMU for this work. As this work will be completed in later phases of the project, the request for proposals and a recommendation for award will be processed in summer of 2013.

Protective Coatings Inspection. The scope of work will include reviewing supplier submittals and performing inspections of a variety of protective coatings. Staff has included budget in the amount of $75,000 for this task based upon experience for similar work on the MWRP Phase 2 Expansion project. Staff will request proposals from Harper, HDR/Schiff, KTA Tator, and SG Pinney to perform protective coatings inspection services. As this work will be completed in later phases of the project, the request for proposals and a recommendation for award will be processed in summer of 2013.

Other Services during Construction. Based upon experience for similar work on the MWRP Phase 2 Expansion project, $10,000 has been budgeted to retain SGS to perform inspection services related to the Turblex blowers that will supply air to the centrate treatment system. SGS has local offices where the Turblex blowers are manufactured (Europe) and assembled (Missouri). Also $5,000 has been budgeted for a local company named Element to perform on-site, non-destructive special materials testing to ensure that the correct grade of stainless steel is delivered to the project. These agreements are within the approval authorization of the General Manager.

Benchmarking CM Costs. The actual costs-to-date for CM were compared to the construction cost of the MWRP Phase 2 Expansion to benchmark and evaluate the size and cost of the Biosolids CM team. Exhibit "I" shows that the total CM costs for the MWRP Phase 2 Expansion project are 11.6% of the construction cost. For the Biosolids project, the CM costs are estimated at 10.8% of the construction cost. Note that for both calculations, engineering services during construction that are not specifically CM related were excluded from the above calculations. Examples of non-CM services for the MWRP Phase 2 Expansion include the ultraviolet disinfection testing as required by the California Department of Public Health and preparing an inventory of equipment for IRWD's computerized equipment maintenance scheduling software. For the Biosolids project, B&V's non-CM tasks are listed above.

Third-Party Review. As part of the Biosolids SEIR, IRWD committed to ongoing public outreach with the community on a quarterly basis for the duration of the project construction and though facility start-up. At the community meetings, IRWD will provide updates regarding construction progress, plans for project start-up, overviews of the start-up process, overviews of the Odor Control Maintenance and Monitoring Plan, and plans for long-term operation and maintenance of the facilities. In addition, IRWD will provide periodic, independent, third-party technical reviews during construction and start-up of the project. The results of these third-party reviews will be presented at these community meetings.

Dudek successfully performed the third-party project review of the Biosolids project design during preparation of the SEIR. In order to maintain continuity during the Biosolids project,

staff negotiated a scope of work with Dudek to perform the third-party project reviews as required by the SEIR. Dudek has budgeted time for preparation and attendance at eight bi-annual community meetings rather than each of the quarterly meetings. DUDEK's proposal in the amount of $94,616 is included as Exhibit "J."

Environ Variance No. 5. The South Coast Air Quality Management District (SCAQMD) requested additional information in order to process the eleven Permits to Construct required for the Biosolids project. IRWD's air permitting consultant, Environ, needed additional authorization beyond their currently authorized scope of work to respond to SCAQMD. Environs' Variance No. 5 in the amount of $25,000 is included as Exhibit "K".

Other Construction Phase Costs. Funds have been budgeted for IRWD staff involvement from Water Quality and MWRP Operations during the construction phase. In addition, funds have been budgeted for other environmental related consultants that may need to be hired during the construction phase. Based on experience during MWRP Phase 2 Expansion and commitments made during the SEIR preparation, IRWD may need to hire consultants to monitor noise and/or odors. A biologist will be required to perform surveys during bird nesting season, especially noisy construction activities such as when pile driving is occurring. As there are many deep excavations, an archeologist and paleontologists may need to be retained. IRWD also intends to hire a consultant to prepare the Odor Control Maintenance and Monitoring Plan.

Other future project-related costs. Other activities associated with the Biosolids project that may incur costs include retaining a public outreach facilitator, development of a FOG and food waste program, and development of a pellet marketing program. Costs have not been included in the Biosolids budget for these activities at this time and will be addressed in the future.

FISCAL IMPACTS:

The MWRP Biosolids and Energy Recovery Facilities Project 20847 (1617) is included in the FY 2012-13 Capital Budget and covered all expenses through the design and bidding phase. Staff recommends that Project 20847 (1617) be reduced in the FY 2012-13 Capital Budget in the amount of $159,119,800, from $174,579,000 to $15,459,200; that a new project, MWRP Biosolids and Energy Recovery Facilities, Project 21146 (4286), be added to the FY 2012-13 Capital Budget in the amount of $196,465,500; and an Expenditure Authorization be approved in the amount of $196,465,500 as shown in the table below and in Exhibit "L".

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
20847 (1617)	$174,579,000	<$159,119,800>	$ 15,459,200	$19,392,000	<$ 3,932,800>	$ 15,459,200
21146 (4286)	$0	$196,465,500	$196,465,500	$0	$196,465,500	$196,465,500
Total	$174,579,000	$ 37,345,700	$211,924,700	$19,392,000	$192,532,700	$211,924,700

Cost Allocations:

Cost allocations in the Expenditure Authorization were reviewed by the Finance and Personnel Committee, but have not been finalized by the Committee. Staff will present additional

information in May 2013 as requested by the Committee. The final cost allocations, as recommended by the Committee, will retroactively be applied to the new Expenditure Authorization for Project 21146 (4286), as well as the previous Expenditure Authorizations for Project 20847 (1617).

As requested by the Committee, the following cost allocations have been applied to the project until the final allocations are approved. Since the overall size of the MWRP Biosolids and Energy Recovery Facilities Project is 33 MGD, the allocations are based on 15 MGD or 45.5% of the project being allocated to the replacement improvement district (ID) 210, 3.8 MGD or 11.6% being allocated to the enhancement ID 299, and the 14.2 MGD remainder being allocated to the capital IDs tributary to MWRP.

Updated Project Cost Analysis:

The Board approved proceeding with final design of the Biosolids project based upon payback analyses prepared in 2009 and 2010. These analyses compared the capital and operating costs of the Biosolids project against the cost of continuing to send solids to Orange County Sanitation District (OCSD) for treatment and disposal. The payback analysis was prepared by HDR based on estimates and assumptions that were valid at that time and showed an eight year payback period.

Now that the project has been bid, HDR updated the payback analysis. HDR collected updated information such as the construction bid, current MWRP operations and maintenance costs for chemicals and labor, the biogas and microturbine service agreement as included in the construction bid, and current flow projections. OCSD has lowered their capital budget projections as they no longer are including solids treatment capacity for IRWD's biosolids; therefore, OCSD's previous capital budget projections are still being used in the analysis. Staff presented the updated payback analysis at the February 2013 Engineering and Operations Committee meeting. Using the 2013 information, the payback period is now nine years.

ENVIRONMENTAL COMPLIANCE:

The MWRP Biosolids and Energy Recovery Facilities is subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, a Supplemental Environmental Impact Report (SEIR), SCH # 2011031091, was certified by IRWD at its October 22, 2012 meeting. The City of Irvine Planning Commission approved a conditional use permit for the IRWD Biosolids Project at its December 6, 2012 meeting.

COMMITTEE STATUS:

The construction phase services and the updated project budgets were taken to the Engineering and Operation Committee on February 19, 2013. The proposed project improvement district cost allocations for the project were taken to the Finance and Personnel Committee on February 5 and March 8, 2013. Construction awards are not routinely taken to Committee prior to submittal for Board approval.

RECOMMENDATION:

THAT THE BOARD FIND THAT THE IRREGULARITIES IN THE BID OF FILANC/BALFOUR BEATTY JOINT VENTURE, DID NOT AFFECT THE BID AMOUNT OR GIVE THE BIDDER A COMPETITIVE ADVANTAGE OVER OTHER BIDDERS AND WAIVE THE IRREGULARITIES; AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH FILANC/BALFOUR BEATTY JOINT VENTURE, IN THE AMOUNT OF $163,465,940; AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH BLACK & VEATCH IN THE AMOUNT OF $12,509,031 FOR CONSTRUCTION MANAGEMENT AND ENGINEERING SERVICES DURING CONSTRUCTION; AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH ARCADIS-US IN THE AMOUNT OF $2,931,368 FOR CONSTRUCTION MANAGEMENT SERVICES; AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH HDR ENGINEERING IN THE AMOUNT OF $2,834,476 FOR CONSTRUCTION MANAGEMENT SERVICES; AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH NMG GEOTECHNICAL IN THE AMOUNT OF $588,972 FOR GEOTECHNICAL SERVICES AND PILE INSPECTION SERVICES; AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH BORCHARD SURVEYING IN THE AMOUNT OF $206,680 FOR SURVEYING SERVICES; AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH DUDEK IN THE AMOUNT OF $94,616 FOR THIRD-PARTY PROJECT REVIEW SERVICES; AUTHORIZE THE GENERAL MANAGER TO APPROVE ENVIRON VARIANCE NO. 5 FOR $25,000 FOR AIR PERMITTING SERVICES; AUTHORIZE A BUDGET DECREASE FOR THE MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES PROJECT 20847 (1617) IN THE FY 2012-13 CAPITAL BUDGET FOR THE DESIGN AND BIDDING PHASE IN THE AMOUNT OF $159,119,800, FROM $174,579,000 TO $15,459,200; AUTHORIZE THE ADDITION OF THE MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES PROJECT 21146 (4286) FOR THE CONSTRUCTION PHASE TO THE FY 2012-13 CAPITAL BUDGET IN THE AMOUNT OF $196,465,500; AND APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF $196,465,500 FOR THE MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES, PROJECT 21146 (4286).

LIST OF EXHIBITS:

Exhibit "A" – Bid Summary
Exhibit "B" – Construction Management Team Organizational Chart
Exhibit "C" – Estimated Construction Management Costs for District Staff
Exhibit "D" – B&V Construction Management proposal
Exhibit "E" – ARCADIS-US Construction Management proposal
Exhibit "F" – HDR Construction Management proposal
Exhibit "G" – NMG Geotechnical Services and Pile Inspections proposal
Exhibit "H" – Borchard Surveying proposal
Exhibit "I" – Construction Management Benchmarked Costs
Exhibit "J" – Dudek Third-Party Review proposal
Exhibit "K" – Environ Variance No. 5
Exhibit "L" – Expenditure Authorizations

EXHIBIT "A"

Bid Opening: Thursday, January 31, 3013 at 2:00 P.M.

Irvine Ranch Water District Bid Summary For
Michelson Water Recycling Plant (MWRP) Biosolids and Energy Recovery Facilities
PR 20847 (1617), Code 5553

Entered By: Anita Arant

Base Bid Items No.	Description	Qty	Unit	Engineer's Estimate Black & Veatch Irvine, CA Unit Price	Engineer's Estimate Black & Veatch Irvine, CA Total Amount	1 Filanc-Balfour Beatty JV Escondido, CA Unit Price	1 Filanc-Balfour Beatty JV Escondido, CA Total Amount	2 PCL Construction, Inc. San Marcos, CA Unit Price	2 PCL Construction, Inc. San Marcos, CA Total Amount	3 Archer Western Contractors, LLC San Diego, CA Unit Price	3 Archer Western Contractors, LLC San Diego, CA Total Amount	4 J. F. Shea Construction, Inc. Unit Price	4 J. F. Shea Construction, Inc. Total Amount
1	Mobilization (Maximum allowable LS = $2,000,000.00) - See General Provisions Article 11.1.2 for payment schedule	1	LS	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00
2	Demobilization (Minimum allowable LS = $2,000,000.00) - See General Provisions Article 11.1.2 for payment schedule	1	LS	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00	$2,000,000.00
3	Contractor's Bonds	1	LS	$786,336.00	$786,336.00	$1,500,000.00	$1,500,000.00	$1,500,000.00	$1,500,000.00	$1,148,000.00	$1,148,000.00	$1,100,000.30	$1,100,000.30
4	Contractor's Insurance, excluding Builders All Risk (General Provisions Article 4 and Special Provisions Section 00300)	1	LS	$786,336.00	$786,336.00	$800,000.00	$800,000.00	$1,700,000.00	$1,700,000.00	$1,440,000.00	$1,440,000.00	$1,050,000.00	$1,050,000.00
5	GEOTECHNICAL BID ITEMS												
	5.1 Groundwater Dewatering as specified in Section 01130 and as required to construct all subsurface structures and facilities for the duration of the project. (Technical Specifications Section 01130 and Geotechnical Baseline Report (GBR) Sections 4.1 and 5.2.2)	1	LS	$1,462,763.00	$1,462,763.00	$1,100,000.00	$1,100,000.00	$630,000.00	$630,000.00	$400,000.00	$400,000.00	$992,926.00	$992,926.00
	5.2 Removal and re-compaction of suitable existing undocumented fill for remedial grading to accommodate all structures and facilities in these areas, measured in place. (Section 02200, GBR 5.1.1 and GBR Figure 3	51,700	(cy)	$27.70	$1,432,090.00	$5.00	$258,500.00	$4.50	$232,650.00	$17.00	$878,900.00	$15.00	$775,500.00
	5.3 Removal and export offsite of all unsuitable debris, measured by truck loaded volume. (Section 02200 and GBR 5.1.1)	50	(cy)	$43.60	$2,180.00	$200.00	$10,000.00	$66.00	$3,300.00	$106.00	$5,300.00	$108.00	$5,400.00
	5.4 Removal and export offsite of all existing alluvium soils for remedial grading activities, measured in-place. (Section 02200, GBR 5.1.1 and GBR Figure 3)	1,500	(cy)	$43.60	$65,400.00	$40.00	$60,000.00	$37.00	$55,500.00	$42.00	$63,000.00	$25.00	$37,500.00
	5.5 Removal and export offsite of suitable undocumented fill, for remedial grading requirements, measured in place. (Section 02200, GBR 5.1.1 and GBR Figure 3)	1,800	(cy)	$43.60	$78,480.00	$25.00	$45,000.00	$20.00	$36,000.00	$22.00	$39,600.00	$5.00	$9,000.00

Base Bid Items No.	Description	Qty	Unit	Engineer's Estimate Black & Veatch Irvine, CA Unit Price	Engineer's Estimate Black & Veatch Irvine, CA Total Amount	1 Filanc-Balfour Beatty JV Escondido, CA Unit Price	1 Filanc-Balfour Beatty JV Escondido, CA Total Amount	2 PCL Construction, Inc. San Marcos, CA Unit Price	2 PCL Construction, Inc. San Marcos, CA Total Amount	3 Archer Western Contractors, LLC San Diego, CA Unit Price	3 Archer Western Contractors, LLC San Diego, CA Total Amount	4 J. F. Shea Construction, Inc. Unit Price	4 J. F. Shea Construction, Inc. Total Amount
	5.6 Geotextile fabric stabilization area required for remedial grading activities, excluding deep foundation activities, measured in place. (Section 02200, GBR 5.1.2 and GBR Figure 3)	181,500	(sf)	$0.38	$68,970.00	$0.40	$72,600.00	$0.60	$108,900.00	$1.70	$308,550.00	$0.50	$90,750.00
	5.7 Class 2 aggregate base stabilization volume required for remedial grading activities, excluding deep foundation activities, measured in place. (Section 02200, GBR 5.1.2 and GBR Figure 3)	10,000	(cy)	$63.00	$630,000.00	$30.00	$300,000.00	$29.00	$290,000.00	$45.00	$450,000.00	$55.00	$550,000.00
	5.8 Removal of existing undocumented fill for deep foundation activities, measured in place. (Section 02200, GBR 5.2.5 and GBR Figure 3)	21,650	(cy)	$43.60	$943,940.00	$5.50	$119,075.00	$3.50	$75,775.00	$12.00	$259,800.00	$11.00	$238,150.00
	5.9 Removal and export offsite of all existing alluvium soils for deep foundation activities, measured in place (Section 02200, GBR 5.2.5 and GBR Figure 3)	29,800	(cy)	$43.60	$1,299,280.00	$35.00	$1,043,000.00	$36.00	$1,072,800.00	$40.00	$1,192,000.00	$40.00	$1,192,000.00
	5.10 Re-compaction of stockpiled suitable undocumented fill around deep foundation structures that qualifies as structure backfill measured in place (Section 02200, GBR 5.2.5 and GBR Figure 3)	11,400	(cy)	$33.30	$379,620.00	$15.00	$171,000.00	$12.00	$136,800.00	$15.00	$171,000.00	$50.00	$570,000.00
	5.11 Export offsite of suitable undocumented fill in excess of project deep foundation structure backfill requirements measured in place (Section 02200, GBR 5.2.5 and GBR Figure 3)	10,250	(cy)	$63.00	$645,750.00	$14.00	$143,500.00	$16.00	$164,000.00	$19.00	$194,750.00	$8.00	$82,000.00
	5.12 Geotextile fabric stabilization area required for deep foundation activities, excluding remedial grading activities, measured in place. (Section 02200, GBR 5.2.5 and GBR Figure 3)	51,500	(sf)	$0.38	$19,570.00	$0.60	$30,900.00	$2.00	$103,000.00	$1.00	$51,500.00	$1.50	$77,250.00
	5.13 Class 2 aggregate base stabilization volume required for deep foundation activities, excluding remedial grading activities, measured in place. (Section 02200, GBR 5.2.5 and GBR Figure 3)	2,860	(cy)	$63.00	$180,180.00	$45.00	$128,700.00	$60.00	$171,600.00	$42.00	$120,120.00	$133.00	$380,380.00

Base Bid Items No.	Description	Qty	Unit	Engineer's Estimate Black & Veatch Irvine, CA Unit Price	Engineer's Estimate Black & Veatch Irvine, CA Total Amount	1 Filanc-Balfour Beatty JV Escondido, CA Unit Price	1 Filanc-Balfour Beatty JV Escondido, CA Total Amount	2 PCL Construction, Inc. San Marcos, CA Unit Price	2 PCL Construction, Inc. San Marcos, CA Total Amount	3 Archer Western Contractors, LLC San Diego, CA Unit Price	3 Archer Western Contractors, LLC San Diego, CA Total Amount	4 J. F. Shea Construction, Inc. Unit Price	4 J. F. Shea Construction, Inc. Total Amount
	5.14 Trench excavation, pipe embedment, trench backfill, drainage maintenance, final grading, topsoil placement, disposal of excess excavated materials for trenches, trenching safety measures to perform all subsurface work given existing conditions and design requirements of the GBR, including hazardous gas monitoring, sheeting, shoring, bracing, and all other safety measures required. (Section 02223 and GBR 5.2)	1	LS	$691,115.00	$691,115.00	$1,800,000.00	$1,800,000.00	$1,000,000.00	$1,000,000.00	$960,000.00	$960,000.00	$3,607,000.00	$3,607,000.00
	5.15 Geotextile fabric stabilization area for trench excavation bottoms (Section 02223 and GBR 5.2.4)	1	LS	$21,210.00	$21,210.00	$50,000.00	$50,000.00	$5,000.00	$5,000.00	$17,000.00	$17,000.00	$11,000.00	$11,000.00
	5.16 Class 2 aggregate base volume required for stabilization of all trench excavation bottoms (Section 02223 and GBR 5.2.4)	1	LS	$240,000.00	$240,000.00	$100,000.00	$100,000.00	$50,000.00	$50,000.00	$40,000.00	$40,000.00	$15,000.00	$15,000.00
	5.17 Export of excess materials due to roadway construction, including sub-grade, aggregate base, pavement, and concrete curbs, gutters, and sidewalks (Section 02200 and GBR 5.2)	1	LS	$138,680.00	$138,680.00	$50,000.00	$50,000.00	$20,000.00	$20,000.00	$115,000.00	$115,000.00	$1,523,000.00	$1,523,000.00
	5.18 Export of excess materials due to excavations for miscellaneous facilities not included in other bid items given above	1	LS	$150,000.00	$150,000.00	$25,000.00	$25,000.00	$100,000.00	$100,000.00	$84,000.00	$84,000.00	$178,000.00	$178,000.00
6	HEAT DRYER PROCUREMENT CONTRACT (FROM EXISTING AGREEMENT TO BE ASSIGNED TO CONTRACTOR)												
	6.1 Base Bid [Original Contract Value ($11,865,023.00) less payments to date ($1,229,404.30)].	1	LS	$10,635,618.70	$10,635,618.70	$10,635,618.70	$10,635,618.70	$10,635,618.70	$10,635,618.70	$10,635,618.70	$10,635,618.70	$10,635,618.70	$10,635,618.70
	6.2 Alternative 1: Product storage silo recycle system (Procurement Contract, Section P-11500- Paragraph 2.03.4F)	1	LS	$407,270.00	$407,270.00	$407,270.00	$407,270.00	$407,270.00	$407,270.00	$407,270.00	$407,270.00	$407,270.00	$407,270.00
	6.3 Alternative 2: Additional startup operations services (Procurement Contract, Section P-11500, Paragraph 3.07B	5	Days	$2,880.00	$14,400.00	$2,880.00	$14,400.00	$2,880.00	$14,400.00	$2,880.00	$14,400.00	$2,880.00	$14,400.00

Bid Opening: Thursday, January 31, 3013 at 2:00 P.M.

Irvine Ranch Water District Bid Summary For
Michelson Water Recycling Plant (MWRP) Biosolids and Energy Recovery Facilities
PR 20847 (1617), Code 5553

Entered By: Anita Arant

Base Bid Items No.	Description	Qty	Unit	Engineer's Estimate Black & Veatch Irvine, CA Unit Price	Engineer's Estimate Black & Veatch Irvine, CA Total Amount	1 Filanc-Balfour Beatty JV Escondido, CA Unit Price	1 Filanc-Balfour Beatty JV Escondido, CA Total Amount	2 PCL Construction, Inc. San Marcos, CA Unit Price	2 PCL Construction, Inc. San Marcos, CA Total Amount	3 Archer Western Contractors, LLC San Diego, CA Unit Price	3 Archer Western Contractors, LLC San Diego, CA Total Amount	4 J. F. Shea Construction, Inc. Unit Price	4 J. F. Shea Construction, Inc. Total Amount
	6.4 Alternative 3: Additional operator training time (Procurement Contract, Section P-11500, Paragraph 3.07D) – 1 man	5	Days	$1,470.00	$7,350.00	$1,470.00	$7,350.00	$1,470.00	$7,350.00	$1,470.00	$7,350.00	$1,470.00	$7,350.00
7	Contractor fee for accepting assignment of Heat Dryer Procurement Contract from District, processing shop drawings, storage of equipment, installation of equipment, startup support, sales tax cost to account for difference in the sales tax rate at the time of Bid compared with sales tax rate at the time of heat dryer procurement, and all other work associated with the heat dryer not included in the procurement contract as work by heat dryer system supplier.	1	LS	$3,319,391.00	$3,319,391.00	$650,000.00	$650,000.00	$800,000.00	$800,000.00	$3,456,000.00	$3,456,000.00	$1,055,780.00	$1,055,780.00
8	PRECAST PRESTRESSED CONCRETE PILES												
	8.1 Pile Work Mobilization (Maximum Allowable LS = $400,000.00)	1	LS	$400,000.00	$400,000.00	$400,000.00	$400,000.00	$400,000.00	$400,000.00	$400,000.00	$400,000.00	$400,000.00	$400,000.00
	8.2 Pile Work Demobilization Minimum Allowable LS - $100,000.00	1	LS	$100,000.00	$100,000.00	$300,000.00	$300,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00
	8.3 Furnish Prestressed Production Piles	138,081	LF	$48.80	$6,738,352.80	$27.50	$3,797,227.50	$25.00	$3,452,025.00	$21.00	$2,899,701.00	$27.00	$3,728,187.00
	8.4 Cost to Drive Piles	3,028	Piles	$366.00	$1,108,248.00	$1,870.00	$5,662,360.00	$1,800.00	$5,450,400.00	$1,850.00	$5,601,800.00	$1,350.00	$4,087,800.00
	8.5 Pile Cut-off and Disposal	302	ea.	$366.00	$110,532.00	$275.00	$83,050.00	$275.00	$83,050.00	$400.00	$120,800.00	$428.00	$129,256.00
	8.6 Pre Drill (only when Required by Geotechnical Engineer)	10,000	LF	$48.80	$488,000.00	$8.25	$82,500.00	$8.00	$80,000.00	$13.00	$130,000.00	$12.00	$120,000.00
	8.7 Furnish Prestressed Spare Piles	1	LS	$40,000.00	$40,000.00	$3,000.00	$3,000.00	$15,000.00	$15,000.00	$16,000.00	$16,000.00	$86,000.00	$86,000.00
9	SOLE SOURCE EQUIPMENT QUOTATION ITEMS (see sole source equipment quotations in volume 5)												
	9.1A Grinders– Section 11318– JWC Environmental	1	LS	$506,041.00	$506,041.00	$506,041.00	$506,041.00	$506,041.00	$506,041.00	$506,041.00	$506,041.00	$506,041.00	$506,041.00
	9.1B Grinders – all other work required by Contractor	1	LS	$396,752.00	$396,752.00	$70,000.00	$70,000.00	$120,000.00	$120,000.00	$67,000.00	$67,000.00	$1,455,800.00	$1,455,800.00

Bid Opening: Thursday, January 31, 3013 at 2:00 P.M.

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Entered By: Anita Arant

Base Bid Items No.	Description	Qty	Unit	Engineer's Estimate Black & Veatch Irvine, CA Unit Price	Engineer's Estimate Black & Veatch Irvine, CA Total Amount	1 Filanc-Balfour Beatty JV Escondido, CA Unit Price	1 Filanc-Balfour Beatty JV Escondido, CA Total Amount	2 PCL Construction, Inc. San Marcos, CA Unit Price	2 PCL Construction, Inc. San Marcos, CA Total Amount	3 Archer Western Contractors, LLC San Diego, CA Unit Price	3 Archer Western Contractors, LLC San Diego, CA Total Amount	4 J. F. Shea Construction, Inc. Unit Price	4 J. F. Shea Construction, Inc. Total Amount
9.2A	Sludge Screens– Section 11330– Huber	1	LS	$598,827.00	$598,827.00	$598,827.00	$598,827.00	$598,827.00	$598,827.00	$598,827.00	$598,827.00	$598,827.00	$598,827.00
9.2B	Sludge Screens – all other required work by Cont	1	LS	$465,957.00	$465,957.00	$80,000.00	$80,000.00	$100,000.00	$100,000.00	$76,000.00	$76,000.00	$157,920.00	$157,920.00
9.3A	Waste Gas Burner– Section 11337– Bekaert	1	LS	$769,470.00	$769,470.00	$769,470.00	$769,470.00	$769,470.00	$769,470.00	$769,470.00	$769,470.00	$769,470.00	$769,470.00
9.3B	Waste Gas Burner– all other work required by Contractor.	1	LS	$603,264.00	$603,264.00	$80,000.00	$80,000.00	$84,000.00	$84,000.00	$85,000.00	$85,000.00	$20,730.00	$20,730.00
9.4A	Egg-Shaped Digester Mixers – Section 11511– SIHI Pumps, Inc.	1	LS	$1,337,693.00	$1,337,693.00	$1,337,693.00	$1,337,693.00	$1,337,693.00	$1,337,693.00	$1,337,693.00	$1,337,693.00	$1,337,693.00	$1,337,693.00
9.4B	Egg-Shaped Digester Mixers– all other work required by Contractor.	1	LS	$1,048,751.00	$1,048,751.00	$140,000.00	$140,000.00	$190,000.00	$190,000.00	$115,000.00	$115,000.00	$302,290.00	$302,290.00
9.5A	Digester Propeller Mixers– Section 11515– Philadelphia Mixers	1	LS	$1,727,183.00	$1,727,183.00	$1,727,183.00	$1,727,183.00	$1,727,183.00	$1,727,183.00	$1,727,183.00	$1,727,183.00	$1,727,183.00	$1,727,183.00
9.5B	Digester Propeller Mixers– all other work required by Contractor	1	LS	$1,354,112.00	$1,354,112.00	$170,000.00	$170,000.00	$280,000.00	$280,000.00	$192,000.00	$192,000.00	$268,470.00	$268,470.00
9.6A	Single Stage Centrifugal Blowers– Section 11613 – Siemens Turblex	1	LS	$1,013,592.00	$1,013,592.00	$1,013,592.00	$1,013,592.00	$1,013,592.00	$1,013,592.00	$1,013,592.00	$1,013,592.00	$1,013,592.00	$1,013,592.00
9.6B	Single Stage Centrifugal Blowers– all other work required by Contractor	1	LS	$794,656.00	$794,656.00	$120,000.00	$120,000.00	$144,000.00	$144,000.00	$122,000.00	$122,000.00	$666,457.00	$666,457.00
9.7A	Decanter– Section 11804– ITT/Sanitaire	1	LS	$126,400.00	$126,400.00	$126,400.00	$126,400.00	$126,400.00	$126,400.00	$126,400.00	$126,400.00	$126,400.00	$126,400.00
9.7B	Decanter– all other work required by Contractor	1	LS	$99,098.00	$99,098.00	$40,000.00	$40,000.00	$82,000.00	$82,000.00	$33,000.00	$33,000.00	$1,275,220.00	$1,275,220.00
9.8A	Sliding Frame Sludge Cake Bin– Section 13204 – Schwing Bioset, Inc.	1	LS	$1,719,400.00	$1,719,400.00	$1,719,400.00	$1,719,400.00	$1,719,400.00	$1,719,400.00	$1,719,400.00	$1,719,400.00	$1,719,400.00	$1,719,400.00
9.8B	Sliding Frame Sludge Cake Bin– all other work required by Contractor	1	LS	$1,348,010.00	$1,348,010.00	$190,000.00	$190,000.00	$270,000.00	$270,000.00	$333,000.00	$333,000.00	$249,835.00	$249,835.00
9.9A	Egg-Shaped Digesters – Steel – Section 13232 – Chicago Bridge and Iron	1	LS	$13,600,560.00	$13,600,560.00	$13,600,560.00	$13,600,560.00	$13,600,560.00	$13,600,560.00	$13,600,560.00	$13,600,560.00	$13,600,560.00	$13,600,560.00
9.9B	Egg-Shaped Digesters– Steel – all other work required by Contractor	1	LS	$1,539,626.00	$1,539,626.00	$2,000,000.00	$2,000,000.00	$1,200,000.00	$1,200,000.00	$4,149,000.00	$4,149,000.00	$1,632,137.00	$1,632,137.00
9.10A	Digester Gas Holder– Section 13251– Chicago Bridge and Iron	1	LS	$ Incl in item 9.9A		$ Incl in item 9.9A		$ Incl in item 9.9A		$ Incl in item 9.9A		$ Incl in item 9.9A	

Bid Opening: Thursday, January 31, 3013 at 2:00 P.M.

Irvine Ranch Water District Bid Summary For
Michelson Water Recycling Plant (MWRP) Biosolids and Energy Recovery Facilities
PR 20847 (1617), Code 5553

Entered By: Anita Arant

Base Bid Items No.	Description	Qty	Unit	Engineer's Estimate Black & Veatch Irvine, CA Unit Price	Engineer's Estimate Black & Veatch Irvine, CA Total Amount	1 Filanc-Balfour Beatty JV Escondido, CA Unit Price	1 Filanc-Balfour Beatty JV Escondido, CA Total Amount	2 PCL Construction, Inc. San Marcos, CA Unit Price	2 PCL Construction, Inc. San Marcos, CA Total Amount	3 Archer Western Contractors, LLC San Diego, CA Unit Price	3 Archer Western Contractors, LLC San Diego, CA Total Amount	4 J. F. Shea Construction, Inc. Unit Price	4 J. F. Shea Construction, Inc. Total Amount
	9.10B Digester Gas Holder– all other work required by Contractor	1	LS	$553,040.00	$553,040.00	$100,000.00	$100,000.00	$55,000.00	$55,000.00	$47,000.00	$47,000.00	$352,579.00	$352,579.00
	9.11A Low Voltage Motor Control– Section 16155– One Source	1	LS	$732,290.00	$732,290.00	$732,290.00	$732,290.00	$732,290.00	$732,290.00	$732,290.00	$732,290.00	$732,290.00	$732,290.00
	9.11B Low Voltage Motor Control– all other work required by Contractor	1	LS	$329,530.00	$329,530.00	$75,000.00	$75,000.00	$59,000.00	$59,000.00	$85,000.00	$85,000.00	$5,406.00	$5,406.00
10	Bid Allowance for Furnishings (Technical Specification Section 01835)	1	LS	$44,000.00	$44,000.00	$44,000.00	$44,000.00	$44,000.00	$44,000.00	$44,000.00	$44,000.00	$44,000.00	$44,000.00
11	Bid Allowance for Special Signage (Technical Specification Section 01830)	1	LS	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00
12	Testing, Training, Manuals and Facility Startup by Contractor (Technical Specification Section 01510)	1	LS	$4,500,000.00	$4,500,000.00	$4,500,000.00	$4,500,000.00	$4,500,000.00	$4,500,000.00	$4,500,000.00	$4,500,000.00	$4,500,000.00	$4,500,000.00
13	Contractor Delivery of Draft and Final Operation & Maintenance Manuals (see Technical Specification Section 01330)	1	LS	$120,000.00	$120,000.00	$120,000.00	$120,000.00	$120,000.00	$120,000.00	$120,000.00	$120,000.00	$120,000.00	$120,000.00
14	Contractor Delivery of Final Record Drawings	1	LS	$225,000.00	$225,000.00	$225,000.00	$225,000.00	$225,000.00	$225,000.00	$225,000.00	$225,000.00	$225,000.00	$225,000.00
15	Monthly Construction Schedules & Reports (Technical Specification Section 01050)	42	Months	$11,670.00	$490,140.00	$7,500.00	$315,000.00	$5,000.00	$210,000.00	$1,000.00	$42,000.00	$2,500.00	$105,000.00
16	Street Sweeping (Section 01560)	1	LS	$310,000.00	$310,000.00	$250,000.00	$250,000.00	$100,000.00	$100,000.00	$40,000.00	$40,000.00	$376,900.00	$376,900.00
17	Storm Water Pollution Prevention (Technical Specification Section 01120)	1	LS	$100,000.00	$100,000.00	$200,000.00	$200,000.00	$250,000.00	$250,000.00	$40,000.00	$40,000.00	$485,600.00	$485,600.00
18	CONTROL SYSTEM CONFIGURATION AND PROGRAMMING BID ITEMS												
	18.1 System Integrator (SI) work for control system software configuration and programming (Sections 17330), and control system HMI hardware and software (Section 17331), excluding allowances for Items 18.3 and 18.4 in the Bid Proposal Form	1	LS	$2,904,831.00	$2,904,831.00	$1,200,000.00	$1,200,000.00	$1,250,000.00	$1,250,000.00	$1,367,000.00	$1,367,000.00	$3,030,360.00	$3,030,360.00
	18.2 SI work for instrumentation and control system testing and training (Section 17332 and 17333). Minimum allowable lump sum amount = 15% of Bid Item 18.1.	1	LS	$300,000.00	$300,000.00	$185,000.00	$185,000.00	$187,500.00	$187,500.00	$205,000.00	$205,000.00	$454,553.00	$454,553.00

Bid Opening: Thursday, January 31, 3013 at 2:00 P.M.

Irvine Ranch Water District Bid Summary For
Michelson Water Recycling Plant (MWRP) Biosolids and Energy Recovery Facilities
PR 20847 (1617), Code 5553

Entered By: Anita Arant

Base Bid Items No.	Description	Qty	Unit	Engineer's Estimate Black & Veatch Irvine, CA Unit Price	Engineer's Estimate Black & Veatch Irvine, CA Total Amount	1 Filanc-Balfour Beatty JV Escondido, CA Unit Price	1 Filanc-Balfour Beatty JV Escondido, CA Total Amount	2 PCL Construction, Inc. San Marcos, CA Unit Price	2 PCL Construction, Inc. San Marcos, CA Total Amount	3 Archer Western Contractors, LLC San Diego, CA Unit Price	3 Archer Western Contractors, LLC San Diego, CA Total Amount	4 J. F. Shea Construction, Inc. Unit Price	4 J. F. Shea Construction, Inc. Total Amount
	18.3 Bid Allowance for SI work for detailed reporting requirements for control system software configuration and programming (Section 17330)	1	LS	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00
	18.4 Bid Allowance for computer and networking hardware for control system (Section 17331)	1	LS	$200,000.00	$200,000.00	$200,000.00	$200,000.00	$200,000.00	$200,000.00	$200,000.00	$200,000.00	$200,000.00	$200,000.00
	18.5 All Contractor work, not performed by the SI, including coordination and scheduling of SI work associated with control system software configuration and programming, control system HMI hardware and software, instrumentation and control system testing, and instrumentation and control system training (Sections 17330, 17331, 17332, and 17333)	1	LS	$120,000.00	$120,000.00	$200,000.00	$200,000.00	$5,000.00	$5,000.00	$10,000.00	$10,000.00	$920,017.00	$920,017.00
19	Service Maintenance Agreement (NOTE: The Service Maintenance Agreement will be included in the Base Bid Price and used in the evaluation of Bids. However, the agreement will be executed between the Energy System Supplier and the District. Therefore, the bid price for the Service Maintenance Agreement will be excluded from the contract between the Contractor and the District.) - (Technical Specification Section 01710)	1	LS	$2,800,000.00	$2,800,000.00	$3,047,367.00	$3,047,367.00	$3,047,267.00	$3,047,267.00	$3,047,367.00	$3,047,367.00	$3,047,367.00	$3,047,367.00
20	All other work– furnish all labor, materials, equipment, facilities, and services to complete all other work associated with the project through final completion that is not listed in Items 1 through Item 19 and sub-items above.	1	LS	$82,243,556.50	$82,243,556.50	$95,682,433.00	$95,682,433.00	$105,929,606.55	$105,929,606.55	$102,153,000.00	$102,153,000.00	$111,080,903.00	$111,080,903.00
21	Bid Allowance for differing physical conditions (General Provisions Article 8.8)	1	LS	$300,000.00	$300,000.00	$300,000.00	$300,000.00	$300,000.00	$300,000.00	$300,000.00	$300,000.00	$300,000.00	$300,000.00
	SUBTOTAL, Base Bid Items				$162,827,842.00		$165,630,307.20		$174,099,268.25		$175,571,282.70		$190,779,518.00
Alternative Bid Items													
A-1	Builder's Risk Insurance	1	LS		$2,500,000.00		$883,000.00		$750,000.00		$1,224,000.00		$938,500.00
	SUBTOTAL, Alternative Bid Items				$2,500,000.00		$883,000.00		$750,000.00		$1,224,000.00		$938,500.00
	SUBTOTAL, Base Bid and Alternative Bid Items				$165,327,842.00		$166,513,307.20		$174,849,268.25		$176,795,282.70		$191,718,018.00
	ADDITION (+) OR DEDUCTION (-)				$0.00		$0.00		$0.00		$0.00		$0.00
	TOTAL AMOUNT OF BID				**$165,327,842.00**		**$166,513,307.20**		**$174,849,268.25**		**$176,795,282.70**		**$191,718,018.00**

F:\ARANT\EXCEL\1617-Bid Summary-Biosolids.xlsx

Bid Opening: Thursday, January 31, 3013 at 2:00 P.M.

Irvine Ranch Water District Bid Summary For
Michelson Water Recycling Plant (MWRP) Biosolids and Energy Recovery Facilities
PR 20847 (1617), Code 5553

Entered By: Anita Arant

Base Bid Items No.	Description	Qty	Unit	Engineer's Estimate Black & Veatch Irvine, CA Unit Price	Engineer's Estimate Black & Veatch Irvine, CA Total Amount	1 Filanc-Balfour Beatty JV Escondido, CA Unit Price	1 Filanc-Balfour Beatty JV Escondido, CA Total Amount	2 PCL Construction, Inc. San Marcos, CA Unit Price	2 PCL Construction, Inc. San Marcos, CA Total Amount	3 Archer Western Contractors, LLC San Diego, CA Unit Price	3 Archer Western Contractors, LLC San Diego, CA Total Amount	4 J. F. Shea Construction, Inc. Unit Price	4 J. F. Shea Construction, Inc. Total Amount
	Filanc-Balfour Batty JV												
	Bid Item 8.3 was rounded up to $3,797,228.00; the total is $3,797,227.50 (unit price x quantity)												
	Page 11 of 20 Lead Time ; Manufacturers were not listed; they are listed on pages 12 through 14.												
	Certification of Bidders & Qualifications (Page 18 of 20) - One license number is listed; confirmed that it is for the Joint Venture.												
	Page 13 of 20 - 11700 Manufacturer is not listed, but is listed on page 14 of 20 as DELTA Systems												
	Bid Bond page 2 of 3 - corporate seal not affixed. Filanc-Balfour Beatty is a Joint Venture												
	Archer Western Contractors LLC												
	Page 9 of 20 Subtotal Base Bid Items - Addition error; bid total is incorrect, entered $174,404,883												
	J. F. Shea Construction, Inc.												
	Page 9 of 20 - Subtotal Base Bid Items - Addition error, bid total is incorrect, entered $190,702,118												
	Page 13 of 20 Bid Proposal - Listed "Unknown" for Screw Conveyors and Portable Hoisting Equipment												

Lead Time For Delivery Item	Filanc-Balfour Beatty JV Delivery Days	PCL Construction, Inc. Delivery Days	Archer Western Contractors LLC Delivery Days	J. F. Shea Construction, Inc. Delivery Days
Thickening Centrifuge (11344)	130 CD	364	10-12 mos.	120
Dewatering Centrifuge (11345)	130 CD	364	10-12 mos. or 24-28 wks	120
Odor Control System (11351)	70 CD	154	265 days	96
Engine Generator (11910)	120 CD	210	24 weeks	140
Waste Gas Burner (11337)	130 CD	266	24-26 weeks	84
Egg-Shaped Digester Mixers (11511)	160 CD	224	32 weeks	140
Digester Propeller Mixers (11515)	160 CD	224	28-32 weeks	140
Single State Centrifugal Blowers (11613)	240 CD	336	46-48 weeks	154
Microturbines (11920)	130 CD	196	24-28 weeks	133
Digester Gas Treatment Sys. (11962)	130 CD	196	24-28 weeks	133
Sliding Frame Sludge Cake Bin (13204)	120 CD	168	18-24 weeks	112
Egg-Shaped Digesters - Steel (13232)	90 CD	266	266 days	210
Digester Gas Holder (13251)	80 CD	273	273 days	210

Item	Manufacturer	Manufacturer	Manufacturer	Manufacturer
11122 Recessed Impeller Centrifugal Pumps	Hayward Gordon	Hayward Gordon	Hayward Gordon	Hayward Gordon
11150 Submersible Pump	Flygt	Flygt	Flygt	Flygt
11154 Horizontal Centrifugal Chopper Pumps	Vaughn	Vaughn	Vaughn	Vaughn
11160 Progressive Cavity Pumps	Moyno	Seepex	Seepex	Moyno
11161 Progressing Cavity Cake Pumps	Moyno	Seepex	Seepex	Seepex
11334 Sludge Heat Exchangers - Tube-in-Tube	Walker	Walker	Walker	Walker
11335 Sludge Heat Exchangers - Spiral	Gooch	Gooch	Gooch	Alfa Laval
11336 Gas Control and Safety Equipment	Varec	Varec	Varec	Varec
11344 Thickening Centrifuge Equipment	Westfalia	Westfalia	Westfalia	Westfalia
11345 Dewatering Centrifuge Equipment	Westfalia	Westfalia	Westfalia	Westfalia
11351 Odor Control Systems	Daniel Mechanical	Daniel Mechanical	Daniel Mechanical	Daniel Mechanical
11356 Odor Control Fans	Hartzell	Hartzell	Hartzell	Hartzell
11357 Odor Control Dampers	Daniel Mechanical	Daniel Mechanical	Daniel Mechanical	Daniel Mechanical
11520 Vertical Mixers	Chemineer	Chemineer	Chemineer	Chemineer
11570 Fine Pore Diffused Aeration Equipment	Sanitaire	Sanitaire	Sanitaire	EDI
11614 Digester Gas Boosters - Acid Phase	Nash	Nash	Nash	SIHI
11640 Central Vacuum Cleaning System	Spencer	American Vacuum	Spencer	Spencer
11910 Engine-Generator	Caterpillar	Caterpillar	Caterpillar	Caterpillar
11920 Microturbines	Capstone	Capstone	Capstone	Capstone
11962 Digester Gas Treatment System	ESC	ESC	ESC	ESC
11700 General Instrumentation and Control Requirements		Delta Systems Eng.	Delta Systems Eng.	
Division 13 - Special Construction				
13206 Digester Appurtenances	Varec	Varec	Shand & Jurs	Varec
Division 14 - Conveying Systems				
14241 Electric Traction Elevator	Otis	Kone	Otis	Kone
14552 Screw Conveyors	Spirac	Spirac	Spirac	Unknown
14621 Monorail Chain Hoists	Konecranes	R&M	ACCO	Yale
14622 Monorail Electric Wire Rope Hoists	Konecranes	R&M	ACCO	Konecranes
14630 Bridge Cranes	Konecranes	R&M	R&M	Konecranes
14650 Jib Cranes	Konecranes	R&M	Gorbel	Lift-Tech
14651 Portable Hoisting Equipment	Smart Rig	Them	Smart Rig/DBI SALA	Unknown

EXHIBIT "B"

Biosolids Construction Management Team

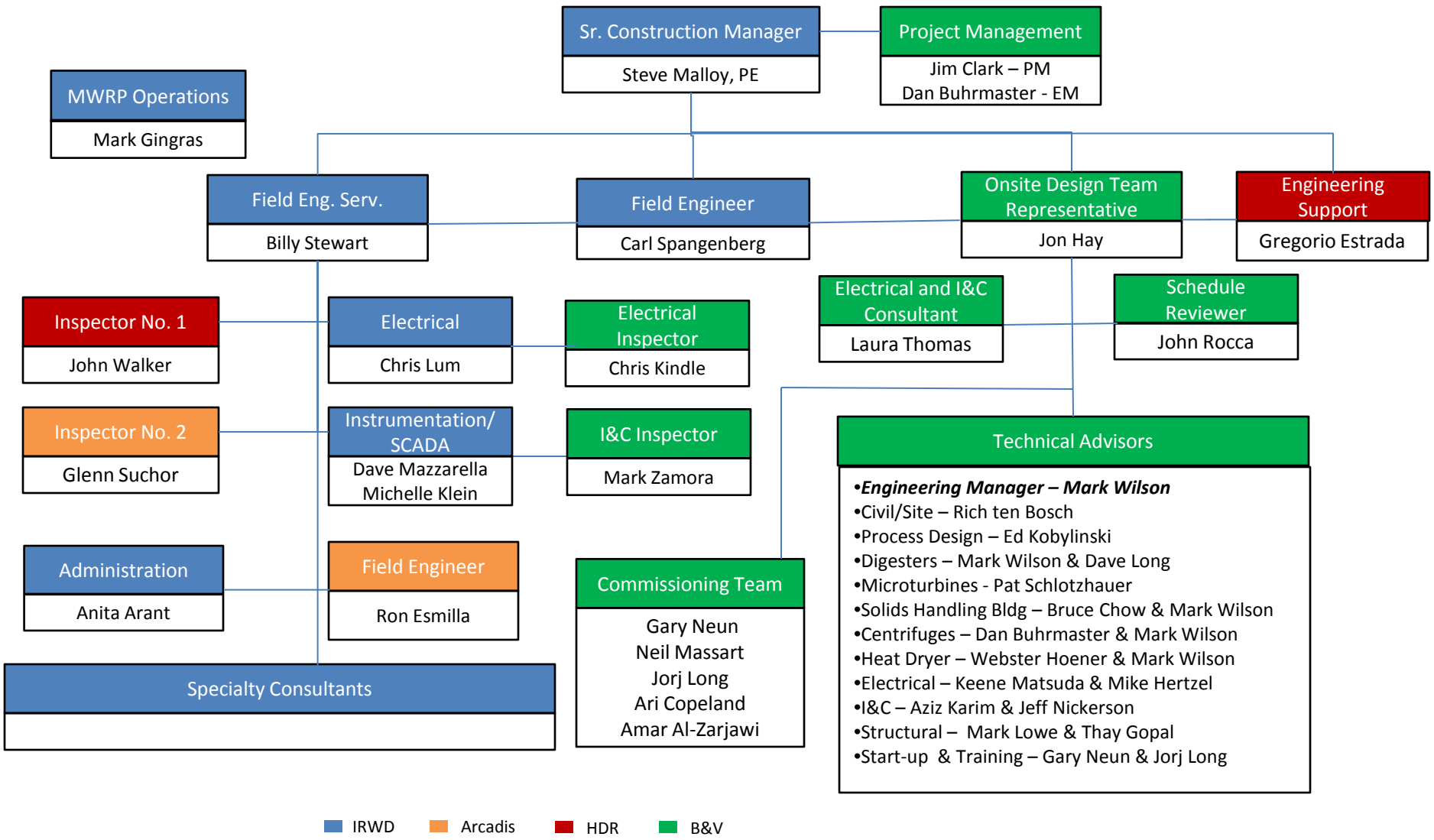


EXHIBIT "C"

Estimated IRWD Staff MWRP Biosolids Construction Management Costs							
Engineering CA&I - IRWD		2.5%	2013	2014	2015	2016	Total
Malloy, CM (23E)	100%		$151,356	$155,140	$159,018	$162,994	$641,121
Stewart , CM (20E)	100%		$135,912	$139,310	$142,793	$146,362	$575,703
Spangenberg, CM (20E)	100%		$135,912	$139,310	$142,793	$146,362	$575,703
Arant, Admin (29N)	100%		$88,932	$91,155	$93,434	$95,770	$376,703
Mazzarella, SCADA (20E)	35%		$47,569	$48,758	$49,977	$51,227	$208,858
Reyes, SCADA (32N)	20%		$19,423	$19,909	$20,406	$20,917	$88,748
Bruce, SCADA (32N)	20%		$19,423	$19,909	$20,406	$20,917	$88,748
Klein, SCADA (13E)	20%		$21,002	$21,527	$22,066	$22,617	$95,964
Lum, Electrical/SCADA/CM (34N)	40%		$41,083	$42,110	$43,163	$44,242	$179,158
Interns	25%		$6,240	$6,396	$6,556	$6,720	$27,992
Subtotal			$666,853	$ 683,525	$ 700,613	$ 718,128	$ 2,858,696
Environmental - IRWD		2.5%	2013	2014	2015	2016	Total
Corey, CEQA (10E)	10%		$9,413	$9,648	$9,889	$10,137	$46,931
Subtotal			$9,413	$9,648	$9,889	$10,137	$46,931
Total IRWD Labor Costs			$676,266	$693,173	$710,502	$728,265	$2,905,627

Lowest Bid	$ 163,500,000
% of IRWD Staff to Project Construction Cost	**1.78%**

BLACK & VEATCH
Building a world of difference.

February 12, 2013

Mr. Steve Malloy, Principal Engineer
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

Re: Construction Phase Services – Proposed Scope of Work and Engineering Fee
MWRP Biosolids and Energy Recovery Facilities - Project 20847 (1617)

Dear Mr. Malloy:

The purpose of this letter is to propose our final scope of services and engineering fee (Proposal) associated with the construction phase services for the ***MWRP Biosolids and Energy Recovery Facilities*** project (Biosolids Project). Our original Proposal included a total engineering fee of $12,592,229 (see attached cover letter dated November 13, 2013). Since our original Proposal to IRWD, we have made the following changes to our scope and fee for construction phase services:

- Revised Asset Management Task – This task was revised to reflect a reduced scope of work and level of effort for Black & Veatch, with additional effort provided by IRWD staff to gather asset management data for the biosolids facilities. This change reduced our proposed engineering fee by $528,198.
- Revised Air Quality Permit Support Task – At the request of IRWD, Black & Veatch has added support services to assist IRWD in preparing all documentation required by South Coast Air Quality Management District (SCAQMD) for obtaining a Permit-to-Operate upon completion of the biosolids and energy recovery facilities. This change increased our proposed engineering fee by $25,000.
- New Edison "Savings by Design" Grant Application Support Task – As requested by IRWD, Black & Veatch has added a new task to assist the District in preparing grant applications to Southern California Edison (SCE) for their "Savings by Design" grant program. This change increased our proposed engineering fee by $40,000.
- New Control System Software Configuration and Programming Services – IRWD requested that Black & Veatch include a sub-consultant contract with EI&C Engineering, Inc. for these services. This new sub-consultant agreement increased our proposed engineering fee by $380,000.

The overall change in our proposed engineering fee due to the revisions noted above is a fee reduction of $83,198, and our revised total proposed fee for this project is ***$12,509,031***. The new proposed scope of services is attached for your review and comments. Our revised scope of services includes a more detailed breakdown of our engineering fee by task on Page 40.

Thank you for considering our revised Proposal. Please let us know if you have any questions or need additional information.

Very truly yours,

BLACK & VEATCH

James H. Clark, P.E.
Senior Vice President/Project Manager

BLACK & VEATCH
Building a world of difference.

Dan Buhrmaster
Engineering Manager
15615 ALTON PARKWAY
SUITE 300
IRVINE, CA 92618
949-788-4215
BuhrmasterDF@bv.com

13 November 2012

Mr. Steve Malloy, Principal Engineer
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

Re: Construction Phase Services – Proposed Scope of Work and Engineering Fee
MWRP Biosolids and Energy Recovery Facilities - Project 20847 (1617)

Dear Mr. Malloy:
The purpose of this letter is to propose a revised scope of services and a revised level of effort and engineering fee (Proposal) associated with the construction phase services for the ***MWRP Biosolids and Energy Recovery Facilities*** project (Biosolids Project). The original scope of services for construction phase of this project is attached and is an excerpt from Attachment A of our current contract. The new proposed scope of services is attached as Revised Attachment A for your review and comments.

The original budget for this project is given in attached Exhibit B, including design, bidding, and construction phase services. The tasks associated with construction phase services are given below along with the engineering fee for each task and the overall construction phase fee:

Task	Engineering Fee
Task 8 – Construction Phase Project Management	$ 364,760
Task 9 - Construction Administration Services	$ 2,487,859
Task 10 – Construction Field Services	$ 1,740,980
Task 11 – Electronic O&M Manual	$ 375,593
Task 12 – Training, Commissioning, & Start-Up	$ 293,018
Task 13 – Post Construction Services	$ 268,106
Total Original Engineering Fee =	$ 5,530,316

Variance #1 and Variance #2 added additional engineering fee to the construction phase services due to the addition of egg-shaped digesters, a larger heat dryer, and cake receiving facilities. The construction phase fee associated with these variances and the revised sub-total fee is given as follows:

Variance #1 and #2 CPS Engineering Fee =	$ 325,000
Revised Total Engineering Fee =	$ 5,855,316

The Notice of Award for the construction contract has been delayed from January 23, 2012 in the original contract, to January 28, 2013 in the revised project schedule (12 months). The impact of this change in the start date for construction is given below, assuming an escalation rate of 2.5% for labor rates.

Escalation Due to Start Date Delay (12 months) =	$ 163,436
Revised Total Engineering Fee =	$ 6,018,752

The duration of the construction contract was then extended by 12 months (from 30 months to 42 months). The impact of this change in construction contract duration is given below, assuming additional time for project management staff, on-site design team representative, and administration staff using billing rates escalated at 2.5% per year to the mid-point of this 12 month period.

Additional 12 Months of Construction Duration =	$ 959,088
Revised Total Engineering Fee =	$ 6,977,840

In addition, several scope enhancements have been added to the proposed scope of work, including (1) increasing the number of submittals for review, (2) increasing the number of RFIs for review and response, (3) increasing the number of change orders to process and respond to, (4) air emissions testing support, (5) factory witness testing, and (6) commissioning services. The impact of these scope enhancements is as follows:

Scope Enhancements =	$ 2,656,497
Revised Total Engineering Fee =	$ 9,634,337

We are also proposing staff enhancements for this project for (1) electrical inspections, (2) I&C inspections, and (3) mechanical engineering inspections. To establish a level of effort for these services we have assumed full-time services over 24 months for both the electrical inspector and the I&C inspector. For mechanical engineering inspection support, we are assuming four site visits at 3 days on site each. The impact to the proposed engineering fee for these additional services is:

Staff Enhancements =	$ 1,691,680
Revised Total Engineering Fee =	$11,326,017

IRWD has also identified the need for Black & Veatch to prepare the following new O&M documents: (1) Energy Control Procedures (ECPs) and (2) Job Safety Analysis documents (JSAs). We are projecting a total of 504 ECPs and we are preparing a complete list of these ECPs for review by IRWD. The original scope of work included review of ECPs developed by IRWD; therefore, we have included a credit for the original level of effort in our projected fee calculations. There will be approximately 180 JSAs based on our initial assessment, and we are preparing a complete list of the JSAs for IRWD review. The overall impact to prepare these documents is:

Prepare ECPS and JSAs =	$ 624,013
Revised total Engineering Fee =	$11,950,030

There is a need for IRWD to capture equipment, valve, and instrument data for the Biosolids Project such that the relevant data can be transferred to the existing IRWD "Tabware" maintenance management system. There are challenges with estimating the level of effort for this work. Based on the current schedules for equipment (400 assets), valves (800 assets), and instruments (2,400 assets), there may be up to 3,600 assets for these facilities. In addition, there are about 2,000 total assets in the heat dryer equipment package, but not all these are appropriate for entering into the Tabware data base. For the purpose of preparing an initial estimate, we are currently projecting a total of 4,800

assets to capture data for on the Biosolids Project. The level of effort required for each asset is difficult to determine up front, and we are proposing to establish an allowance for this work item assuming 1 hour per asset to capture the required data and enter it into the IRWD template spreadsheet.

Capture Maintenance Management Data =	$ 642,198
Revised Total Engineering Fee =	$12,592,229

We have attached a summary table that shows the detailed hours, expenses, and fee associated with each of these scope of work additions, as well as more detailed labor hour breakdowns for your review and comments. Please review each of these attachments and the contents of this letter and provide your comments and edits to our attention. We can then revise and resubmit this Proposal for construction phase services for final review by the IRWD Engineering and Operations Committee and ultimately the Board of Directors.

Thank you in advance for your comments and your input. Please let us know of any questions that you may have regarding this Proposal.

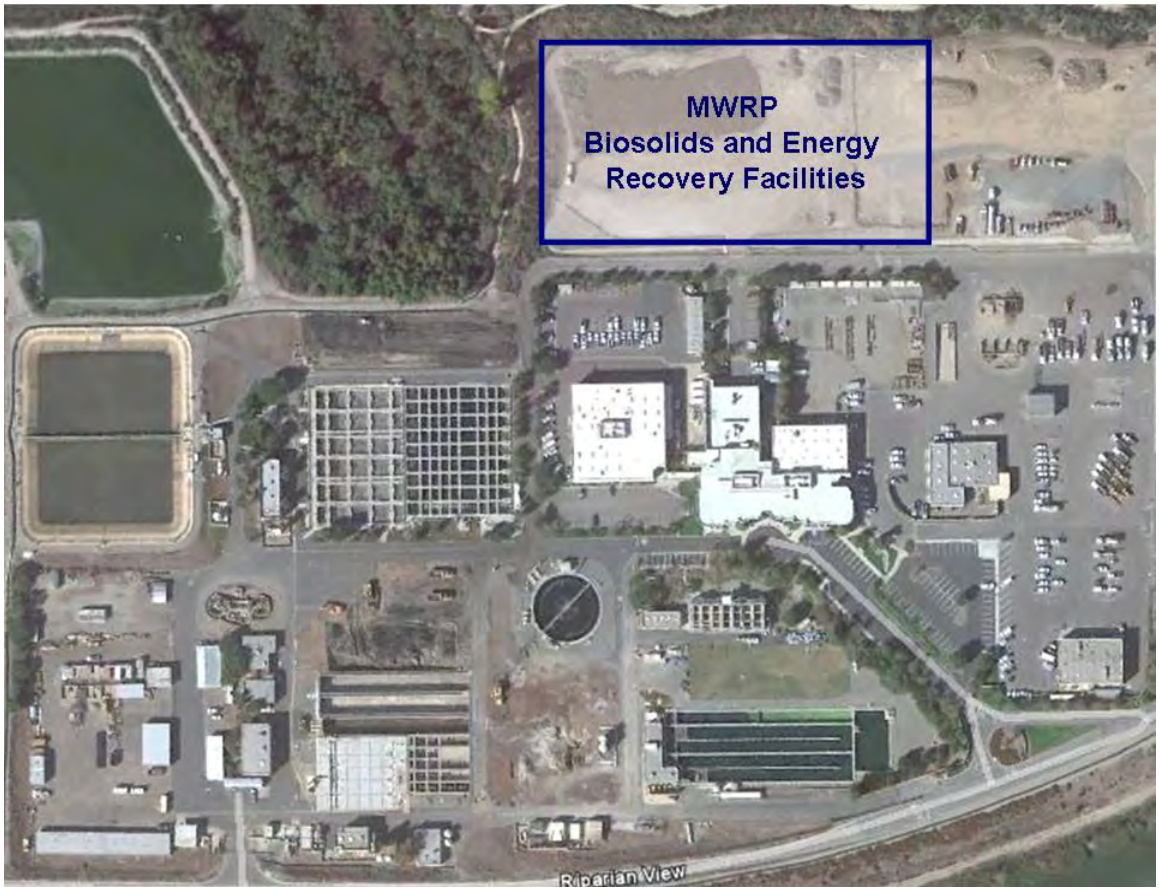
Very truly yours,

BLACK & VEATCH

Dan Buhrmaster
Engineering Manager

IRWD Project No. 20847

Irvine Ranch Water District
MWRP Biosolids and Energy Recovery Facilities
Construction Phase Services Proposal



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Building a world of difference

February 12, 2013

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Proposed Scope of Work

I. PROJECT DESCRIPTION AND BACKGROUND INFORMATION

IRWD's mission is to "provide reliable, high quality water and sewer service in an efficient, cost effective manner and environmentally sensitive way that provides a high level of customer satisfaction." Consistent with this mission, IRWD is expanding the MWRP to a nominal capacity of 28 mgd, and ultimately, may expand the plant's capacity to 33 mgd.

Since 1988, all residuals from the MWRP have been conveyed to the Orange County Sanitation District (OCSD) for processing, reuse, and disposal. During 2009, IRWD evaluated alternative solids handling strategies. The resulting System-Wide Biosolids Management Alternatives Report (HDR 2009) concluded that it would be cost effective for IRWD to implement solids handling at the MWRP rather than continuing to transfer sludge to OCSD.

On November 2, 2009, IRWD's Board of Directors decided to implement solids handling facilities at MWRP. This decision was made in consideration of economic factors as well as non-economic factors including long-term viability, technology, environmental stewardship, community impacts, implementability, and IRWD autonomy. The biosolids management program approved by the Board consists of thickening, anaerobic digestion (acid phase followed by methane phase), dewatering, drying/pelletizing, energy generation using microturbines, and use of pellets as a fertilizer or e-fuel. Based on this decision, IRWD notified OCSD that it will cease conveying MWRP residuals to the OCSD system by 2016.

On July 27, 2010, IRWD entered into an agreement with Black & Veatch Corporation to perform the detailed design of the new biosolids and energy recovery facilities. This project is designated as the MWRP Biosoldis & Energy Recovery Facilities project (Project). These detailed design services are now complete by Black & Veatch and the project is in the bidding phase. Bids were submitted on January 31, 2013 by pre-qualified contractors. Award of the construction contract with the General Contractor is currently anticipated in March or April 2013. Bidding phase services will be complete at that time and the purpose of this scope of work is to delineate the scope of work required for the construction phase of the project. Following is a summary list of the bidding documents prepared by Black & Veatch for this project.

- Volume 1 – Bidding Requirements and Construction Documents
- Volume 2 – Technical Specifications
    - Volume 2A: Division 1 through Division 10
    - Volume 2B: Division 11 through Division 12
    - Volume 2C: Division 13 through Division 15
    - Volume 2D: Division 16 through Division 17
    - Volume 2E: Division 17 - Section 17335 Appendix
- Volume 3 – Construction Plans
    - Volume 3A: General, Civil, Architectural, and Structural Drawings
    - Volume 3B: Mechanical Process, HVAC, and Plumbing Drawings
    - Volume 3C: Electrical Drawings
    - Volume 3D: Electrical Drawings

    - Volume 3E: Instrumentation Drawings
- Volume 4 – Sole Source Equipment Quotation Packages
- Volume 5 – Heat Dryer Procurement Contract
    - Volume 5A: Heat Dryer Procurement Documents
    - Volume 5B: Heat Dryer Shop Drawings (Documents)
    - Volume 5C: Heat Dryer Shop Drawings (Drawings)
- Volume 6 – Geotechnical Baseline Report (GBR) & Other Geotechnical Reports

There is an ongoing project at the MWRP to expand the plant capacity to 28 mgd, designated as the MWRP Phase 2 Expansion. Final completion for this project by J.R. Filanc Construction Company, Inc. is currently anticipated in April 2013.

A. Description of MWRP Biosolids & Energy Recovery Facilities Project Elements

Major components of the MWRP Biosolids & Energy Recovery Facilities project are listed below and are fully covered in the bidding documents referenced above. The project generally consists of the following:

1. **Trenching Safety Measures, Sheeting, Shoring and Bracing.** Work includes all planning and design to construct and place into operation all temporary sheeting and shoring, and removal and disposal of sheeting and shoring as required under the provisions of any permits, and in accordance with the requirements of OSHA and the Construction Safety Orders of the State of California, pursuant to the provisions of Section 6707 of the California Labor Code.

2. **Mobilization.** Work includes construction of office trailers, temporary sheds, temporary utilities, temporary facilities and all preparatory work necessary to the commencement of productive work at the site required under this contract.

3. **Demobilization.** Work includes decommissioning of office trailers, temporary sheds, temporary utilities, and all other temporary facilities required under this contract.

4. **Preliminary Grading and Remedial Soil Work for Piles.** Work includes preliminary grading, excavation, and remedial soil work on the site so that pile driving activities can take place.

5. **Pile Driving Activities.** Work includes production and installation of piles as established in the drawings and specifications.

6. **Pavement, Grading and Access Roads.** Work includes final site paving and grading as shown on the Drawings. The work under this item shall be inclusive of hauling, placement and compaction of aggregate base and AC associated with the roadway improvements. It also includes a temporary access road to the north side of the existing Operations Building for the laboratory.

7. **Primary Sludge, and Waste Activated Sludge (WAS) and Spare Sludge Pipelines.** Extend the primary sludge, WAS, and spare sludge pipelines from the southwest corner of the MWRP Biosolids and Energy Recovery Facilities site to the feed wetwells for the thickening centrifuges.

8. **Primary Scum Pipeline.** Extend the primary scum line from the southwest corner of the Biosolids Complex to the Acid Digesters.

9. **Centrate Pipelines.** Collect return flows from the thickening process, the dryer, and the dewatering centrate treatment facilities. Route these flows to a connection with the previously installed centrate return pipeline at the southwest corner of the Biosolids Complex site.

10. **Area 20 – Solids Handling Building.** Work in this area includes all structural, architectural, mechanical piping and equipment, protective coatings, plumbing, HVAC, and electrical and instrumentation to construct and place into operation the Solids Handling building as shown in the Drawings. The work in this area also includes assigned procurement contract for the sludge drying equipment. Facilities in this area include but are not limited to the following:

    a. **Sludge Pumping, Storage, and Screening** work includes pumping of primary sludge, scum and WAS; storing and mixing of these sludges and scums and screening of these sludges and scum through strain press equipment.

    b. **Thickening Facilities** consisting of multiple wetwells, grinders, thickening centrifuge feed pumps, centrifuges, thickened sludge hoppers, digester feed pumps and associated equipment, piping, meters, and controls.

    c. **Dewatering Facilities** consisting of grinders, dewatering centrifuge feed pumps, centrifuges, classifying and collection conveyors, multiple cake bins with live bottoms, dewatered sludge cake pumps and associated equipment, piping, meters, and controls.

    d. **Polymer Transfer, Blending, Aging, and Feed Systems** consisting of two separate polymer systems for the thickening and dewatering processes. Each system includes neat polymer storage and transfer facilities, blending equipment, mixing and aging facilities, and feed pumps.

    e. **Dryer Facilities** consisting of direct-heat, triple-pass, rotary drum dryer system including all ancillary facilities and air scrubbing systems. The equipment associated with this area is part of an assigned heat dryer procurement contract.

    f. **Recycle Treatment Equipment** consisting of a sequencing batch reactor based (SBR) centrate treatment system including blowers, pumps, and control systems for the two SBR based treatment/equalization tanks.

g. **Truck Loading Bays** consisting of two indoor truck loading bays that include 1a) a dewatered sludge cake storage silo and load-out equipment; 1b) two pelletized dried sludge silos (part of heat dryer procurement package) and load-out equipment; 2) a dewatered sludge cake receiving area with below-grade storage bins and dewatered sludge cake pumps.

h. **Electrical Room** consisting of an Electrical Room to house switchgear, motor control centers (MCCs), variable frequency devices (VFDs), programmable logic controllers, and other electrical equipment.

i. **Control Room** to house SCADA and control equipment. This room will be Americans with Disabilities Act (ADA) compliant.

j. **Server Room,** a separate room to house servers.

k. **Process Analysis Room** to allow process testing for the solids handling processes. The room will be ADA compliant.

l. **Break Room** the break room will be ADA compliant and will include furnishings.

m. **Restrooms** consisting of men's and women's restrooms, including shower stalls. The restrooms will be ADA compliant.

n. **Storage Rooms** two separate storage rooms for the storage of spare parts, tools and other equipment.

o. **Cargo Elevator** and associated elevator mechanical room.

p. **Stairs and Entryway** the entry way and lobby will be ADA compliant.

q. **Hoisting Facilities** consisting of bridge cranes over the centrifuge and dryer equipment.

r. **Digested Sludge Screening consisting of a** digested sludge "strainpress" to screen digested sludge upstream of the dewatering centrifuges.

11. **Area 80 – FOG Receiving Station.** Work in this area includes all structural, mechanical piping and equipment, protective coatings, plumbing, and electrical and instrumentation to construct and place into operation the FOG Receiving Station as shown in the Drawings. The facility includes the receiving station and transfer pumps.

12. **Area 31 – Acid Digesters.** Work in this area includes all structural, mechanical piping and equipment, protective coatings, plumbing, and electrical and instrumentation to construct and place into operation the Acid Digesters as shown in the Drawings. The facility includes three acid digesters equipped with vertical mixers, acid sludge transfer

pumps, recirculation pumps and heat exchangers, sludge piping systems, gas piping systems, safety equipment, access stairs, and platforms.

13. **Area 32 – Methane Digesters.** Work in this area includes all structural, architectural, mechanical piping and equipment, protective coatings, plumbing, and electrical and instrumentation to construct and place into operation the Methane Digesters as shown in the Drawings. The three egg shaped methane digesters each include draft tube type mixers, digested sludge transfer pumps, recirculation pumps and heat exchangers, sludge piping systems, gas piping systems, and related gas safety equipment.

14. **Area 33 – Digested Sludge Holding Tanks.** Work in this area includes all structural, architectural, mechanical piping and equipment, protective coatings, plumbing, and electrical and instrumentation to construct and place into operation the Digested Sludge Holding Tanks as shown in the Drawings. The two digested sludge holding tanks each include propeller-type vertical mixers, sludge piping systems, gas piping systems, safety equipment, access stairs, and platforms.

15. **Area 71 – Liquid Chemical Storage and Feed.** Work in this area includes all structural, architectural, mechanical piping and equipment, protective coatings, plumbing, and electrical and instrumentation to construct and place into operation the Liquid Chemical Storage and Feed facility as shown in the Drawings. Chemical storage, feed and containment facilities are for the chemicals listed below.

    a. Ferric Chloride

    b. Sodium Hypochlorite

    c. Sulfuric Acid

    d. Sodium Hydroxide

    e. Struvite scale inhibition chemical

    f. Liquid Nitrogen

16. **Area 70 – Polymer Storage and Feed.** Work in this area includes all structural, architectural, mechanical piping and equipment, protective coatings, plumbing, HVAC, and electrical and instrumentation to construct and place into operation the Polymer Storage and Feed facility as shown in the Drawings.

17. **Area 44 – Gas Handling, Storage, and Treatment.** Work in this area includes all structural, mechanical piping and equipment, protective coatings, plumbing, and electrical and instrumentation to construct and place into operation the Gas Handling, Storage, and Treatment facility as shown in the Drawings. The facility includes a gas flare, a low-pressure gas holder, and a digester gas conditioning system. These

facilities will be furnished as part of a combined Area 43 and 44 System by an Energy System Supplier (ESS).

18. **Area 43 – Microturbine.** Work in this area includes all structural, mechanical piping and equipment, protective coatings, plumbing, and electrical and instrumentation to construct and place into operation the Microturbine as shown in the Drawings. These facilities will be furnished as part of a combined Area 43 and 44 System by an Energy System Supplier (ESS).

19. **Area 34 – Digester Control Building and Heating System.** Work in this area includes all structural, architectural, mechanical piping and equipment, protective coatings, plumbing, HVAC, and electrical and instrumentation to construct and place into operation the Digester Control Building and Heating System as shown in the Drawings. The building consists of multiple rooms, including but not limited to a boiler room, electrical room, gas room, and an elevator. The heating system consists of dual-fuel boilers, pumps, pipes, controls, and water treatment facilities.

20. **Area 60 – Odor Control.** Work in this area includes all structural, mechanical piping and equipment, protective coatings, plumbing, and electrical and instrumentation to construct and place into operation the Odor Control facility as shown in the Drawings. The facility consists of a three-stage wet scrubber system.

21. **General/Civil/Landscaping/Stormwater Control.** This Work includes all below/above-grade piping and utilities, excavation and construction of all process piping, chemical, and utility yard piping; grading; paving; landscaping; roadways, walkways; other miscellaneous site features or structures; and site maintenance. The Work also includes structural, mechanical piping and equipment, protective coatings, electrical and instrumentation to construct and place into a stormwater collection and pumping facility.

22. **Electrical.** The Work includes power supply, lighting, and electrical facilities.

23. **Instrumentation and Control.** The work includes instrumentation and control, including hardware, software, fiber optic cabling, and related facilities.

B. Early Occupancy Milestone Dates

The Contractor's work will be completed in a series of early occupancy milestones as noted below:

1. **Early Occupancy Milestone 1**: WAS and Primary Sludge Processing Facilities. Complete all facilities necessary to process waste activated sludge (WAS) and primary sludge from the existing liquid treatment facilities at the Michelson Water Recycling Plant (MWRP) through the new biosolids processing facilities through the thickening centrifuge feed pumps and grinders (but not the thickening centrifuges), including, but not limited to the following:

a. WAS and primary sludge pumping facilities

b. Sludge screening equipment

c. Sludge wetwells and mixers

d. Thickening centrifuge feed pumps and grinders

e. Odor control system

f. Liquid chemical storage and feed facilities

g. All electrical, instrumentation, controls, plumbing, building systems, and other facilities necessary to operate the WAS and Primary Sludge Processing Facilities.

h. During this early occupancy period, WAS and primary sludge will be pumped through the thickened sludge pumps to OCSD force main for disposal.

2. **Early Occupancy Milestone 2**: Sludge Thickening Facilities. While continuing to operate facilities associated with Early Occupancy Milestone 1, begin operation of the facilities necessary to thicken both WAS and primary sludge, including, but not limited to:

   a. Thickening centrifuges.

   b. Thickening polymer storage and feed system.

   c. Thickened sludge wetwells and mixers.

   d. Digester feed pumps.

   e. All electrical, instrumentation, controls, plumbing, building systems, and other facilities necessary to operate the Sludge Thickening Facilities.

   f. During this early occupancy period, thickened WAS and primary sludge will be pumped through the digester feed pumps to OCSD force main for disposal.

3. **Early Occupancy Milestone 3**: FOG Receiving Station: While continuing to operate facilities associated with Early Occupancy Milestones 1 and 2, begin the operation of facilities necessary to receive FOG and inject it into the anaerobic digesters, including, but not limited to:

   a. FOG receiving station.

   b. Digested sludge recirculation pumps operating on water.

c. All electrical, instrumentation, controls, and plumbing systems, and other facilities necessary to operate the FOG Receiving Station.

d. FOG and/or liquid food waste will not be fed to the digesters at this time. However, these facilities will allow seeding of the digesters during the start-up of Early Occupancy Milestone 4 facilities.

4. **Early Occupancy Milestone 4**: Anaerobic Digestion Facilities: While continuing to operate facilities associated with Early Occupancy Milestones 1, 2, and 3, begin operating the anaerobic digester facilities, including, but not limited to:

   a. Acid phase anaerobic digesters and mixers.

   b. Acid phase digester gas boosters.

   c. Methane phase anaerobic digesters and mixers.

   d. Digester gas holder, H2S removal system, gas boosters, and flare (flare digester gas for this duration).

   e. Sludge heating facilities (boilers, pumps, and heat exchangers).

   f. Hot water recirculation pumping.

   g. Digested sludge holding tanks.

   h. Dewatering centrifuge feed pumps and grinders.

   i. All electrical, instrumentation, controls, plumbing, and building systems, and other facilities necessary to operate the Anaerobic Digestion Facilities.

   j. During this early occupancy period, digested sludge will be pumped through the dewatering feed pumps to OCSD force main for disposal.

5. **Early Occupancy Milestone 5**: All Class B Biosolids Facilities: While continuing to operate facilities associated with Early Occupancy Milestones 1, 2, 3, and 4, begin operating the Class B Biosoldis Facilities, including, but not limited to:

   a. Dewatering centrifuges.

   b. Dewatering polymer storage and feed system.

   c. Partial cake handling system.

   d. Cake load-out silo.

e. Cake load-out station.

f. Centrate treatment facilities.

g. All electrical, instrumentation, controls, plumbing, and building systems, and other facilities necessary to operate the Class B Biosolids Facilities.

h. During this early occupancy period, sludge will no longer be discharged to the OCSD force main for disposal and dewatered cake will be hauled to a landfill or land application.

6. **Early Occupancy Milestone 6**: Microturbine Power Generation: While continuing to operate facilities associated with Early Occupancy Milestones 1 through 5, begin operating the Microturbine Power Generation facilities, including, but not limited to:

   a. Microturbine gas treatment facilities and compressors.

   b. Digester gas & natural gas blending station.

   c. Microturbines.

   d. Microturbine waste heat recovery facilities.

   e. All electrical, instrumentation, controls, and plumbing systems, and other facilities necessary to operate the Microturbine Power Generation facilities.

   f. During this early occupancy period, sludge cake will continue to be hauled to a landfill or land application and digester gas will be utilized by microturbines for power generation.

7. **Early Occupancy Milestone 7**: Class A Biosolids Facilities and All Other Work: While continuing to operate facilities associated with Early Occupancy Milestones 1 through 6, begin operating the Class A Biosolids Facilities and All Other Work, including, but not limited to:

   a. Remaining cake handling facilities.

   b. All Andritz heat dryer facilities.

   c. Pellet loading station.

   d. Truck scale.

   e. Cake receiving facilities.

f. All electrical, instrumentation, controls, plumbing, and building systems, and other facilities necessary to operate the Class A Biosolids Facilities and All Other Work.

g. During this early occupancy period, sludge cake will no longer be hauled to a landfill or land application, digester gas will be utilized by microturbines for power generation, and pellets will be hauled to a designated site.

C. Construction Contract Time Requirements

Early occupancy for portions of the Work shall be completed by the Contractor in accordance with the Contract Time requirements in Article 2.2 of the Agreement, as set forth below:

Early Occupancy Milestones	Substantial Completion
Milestone 1: WAS and Primary Sludge Processing Facilities	798 calendar days
Milestone 2: Sludge Thickening Facilities	843 calendar days
Milestone 3: FOG Receiving Station	873 calendar days
Milestone 4: Anaerobic Digestion Facilities	993 calendar days
Milestone 5: All Class B Biosolids Facilities	1,038 calendar days
Milestone 6: Microturbine Power Generation	1,158 calendar days
Milestone 7: Class A Biosolids Facilities and all other work	1,218 calendar days

All construction Work for this project shall be finally complete by the Contractor within 1,278 calendar days (42 months) from the date of the Notice of Award by IRWD.

There is one pre-purchased equipment package for this project: the Heat Dryer System, IRWD Project 20847, IRWD Code 5553, dated August 2011. This contract will be assigned to the General Contractor once the construction contract is awarded.

There will be a separate contract for the landscaping and irrigation facilities and this work will be completed after completion of the Biosolids & Energy Recovery Facilities project by a separate Contractor.

D. Existing Sub-Surface Conditions

The existing subsurface conditions at the MWRP site are challenging and are documented in Volume 6 of the bidding documents.

E. IRWD Design and Construction Requirements

IRWD has developed guidelines and standards for many of the design and construction process. All work performed on this project must conform to these requirements, where applicable:

- IRWD Design Process Manual

- IRWD Project Manual
- IRWD Construction Manual
- IRWD Drafting Standards
- IRWD Electrical and Instrumentation and Control (I&C) Design Standards

F. Environmental Impact Report

A Supplemental Environmental Impact Report (EIR) was prepared by IRWD using an independent consultant (ESA) and has been published in October 2012. IRWD has obtained CEQA clearance for the MWRP Biosoldis & Energy Recovery Facilities project to begin the construction phase.

G. City of Irvine Conditional Use Permit

IRWD has obtained a Conditional Use Permit (CUP) from the City for Irvine for this project.

H. Air Quality Permit

IRWD has prepared and submitted an application for a Permit-to-Construct with the South Coast Air Quality Management District (SCAQMD) using the services of Environ as an independent consultant. IRWD anticipates approval by February 2012. IRWD and Environ are responsible for the SCAQMD Permit to Operate for this project. The Engineer will provide support to IRWD and Environ as noted under Task 5 – Training, Commissioning, and Start-Up Services.

I. Other Permits

The following additional permits are the responsibility of IRWD:

a. Revised California Regional Water Quality Control Board (CRWQCB) NPDES permit.

b. California Regional Water Quality Control Board SWPPP update.

c. California Department of Public Health Title 22 Engineering Report Update.

d. Orange County Fire Authority (fire master plan and chemical classification updates).

The Contractor is responsible for all Construction permits noted in the Bidding Documents. The Engineer is not responsible for obtaining any permits.

II. SCOPE OF WORK

A. Task 1 – Construction Phase Project Management

The Engineer shall conduct project management activities to ensure adherence to Engineer's schedule and budget; to promote efficient communication between the Engineer, IRWD, and

others as required; and to implement an effective quality assurance/quality control (QA/QC) program.

1. Project Guide.

   Develop internal project management document (Project Guide) for construction phase services to establish and document key project information including:

   - Organization chart for key personnel involved in project execution
   - Current contact information for all team members (including IRWD and consultant team staff) and relevant agencies
   - Scope of services provided by consultant
   - Project schedule
   - Detailed staff work plan and budget
   - List of deliverables
   - Project communication protocol
   - Documentation management system
   - QA/QC Plan
   - Project administration requirements
   - Health and safety procedures/guidance for consultant personnel

   Maintain internal Project Guide, distribute and update to project team as activities dictate.

2. Team Management and Project Control.

   - Organize, administer and supervise the work of consultant team members.
   - Prepare and maintain work plan and schedule for Engineer's services.
   - Monitor scope and budget on a weekly basis and review with key team members as necessary.
   - Hold internal team meetings to discuss progress and performance, and other project needs.
   - Hold conference calls with IRWD staff as necessary to address and resolve project issues.

3. Progress Reports and Invoices. Prepare weekly and monthly status reports. Each weekly status report should consist of a brief (one or two paragraphs) e-mail notice. The monthly status reports should provide more detail, summarizing the work completed and reviewing work status relative to budget and schedule. Update the project schedule on a monthly basis for inclusion in the status report.

   Submit one monthly progress payment request for all work accomplished during the previous month in a format acceptable to IRWD's Project Manager. Include supporting documents (e.g., sub-consultant invoices) with each payment request.

4. Meetings and Workshops. Meeting requirements for the Construction Phase are outlined in Tasks 2 through 6. Budget for these meetings should be included in the Engineer's proposed fee for Tasks 3 through 6.

5. Quality Assurance/Quality Control. Implement proven QA/QC measures throughout the project. Describe the QA/QC plan in the Project Guide, including a comprehensive QA/QC schedule. Conduct internal audits of the project to confirm compliance with scope and the QA/QC plan.

B. Task 2 – Construction Administration Support Services

IRWD will act as the overall Construction Manager (CM) for this project and will be the point of contact with the Contractor. The construction support team will be a mixture of IRWD and Engineer staff. IRWD will provide on-site field engineers, inspectors and an on-site administrative assistant. The Engineer will provide additional office and field personnel to supplement IRWD staff, as described in Tasks 2 through 6.

1. Submittal Reviews.
   - Prepare a list of submittals required by the contract.
   - Review and comment on contractor's submittals, including vendor tests, certifications, samples and reports. Provide review comments in a timely manner, including expedited reviews for time sensitive submittals. Reviews shall be performed and signed by the Engineer that designed the project or acceptable substitute, as defined in IRWD's Design Guidelines. Task includes effort for re-submittals.
   - The estimated level of effort and fee is based on 1,000 submittals and 200 re-submittals. The complexity of submittals will range from simple to complex.

2. Requests for Information (RFIs).
   - Review requests for information (RFIs) and provide response options and recommendations in a timely manner, including expedited reviews for time sensitive RFIs. Prepare design clarifications such as drawings, specifications and memos as required to clarify design intent.
   - The estimated level of effort and fee is based on 1,200 RFIs.

3. Meetings / Technical Site Visits.

   The Engineer's Onsite Design Team Representative will prepare for and attend the following meetings:
   - Kick-off and Partnering Meetings: One kick-off construction meeting and two partnering meetings.
   - Weekly Construction Meetings: IRWD will provide meeting minutes.
   - Internal/External Engineer/IRWD Team Meetings: The Engineer's project manager will conduct 42 monthly team meetings with the construction support services team and

IRWD staff to facilitate current and anticipated workloads, schedule upcoming resources, and discuss and resolve project concerns. IRWD will provide meeting minutes.

- Technical/Special Meetings: At the request of IRWD to provide an engineering evaluation of the work in progress and advise IRWD of any appropriate comments and/or concerns. IRWD will provide meeting minutes.
- Technical Site Visits: Prepare for, attend, and document site visits at the request of IRWD to review/address field issues. The task assumes that the senior engineer responsible for the specific design element will also attend the site visit, where appropriate, evaluate the issues and advise IRWD of appropriate actions. Engineer will provide meeting minutes.

4. Schedule Review.

   - Review and provide comments on the construction schedules for the construction contract.
   - Assist in monitoring the contractors' actual progress relative to their planned construction schedules through monthly updates of the CPM schedules provided by the contractors. The Engineer shall use Primavera software to review the contractor's schedules.
   - Identify and summarize schedule impacts associated with claims or changes in the work.
   - Prepare a monthly schedule analysis report to provide a comparison of scheduled versus actual construction activities, a description of schedule changes since the previous report, new or continuing dependencies, and corrective action undertaken by the contractors.

5. Structural Observations.

   Provide structural observations of essential facilities as required by the 2007 California Building Code (CBC), Section 1709 for Category IV structures. The scope includes a site visit and written report for the following structural observations:

   - Acid Digesters: Foundation, wall, column, and elevated slab reinforcing (Total of 6 site visits)
   - Methane Digesters and Digested Sludge Holding Tank: Foundation, wall, column, and elevated slab reinforcing (Total of 8 site visits)
   - Solids Handling Building: Foundation, wall, column, and elevated slab reinforcing (Total of 8 site visits)
   - Solids Handling Building: Steel framing (Total of 6 visits)
   - Digester Control Building: Foundation, wall, column, and elevated slab reinforcing (Total of 5 site visits)
   - Centrate Equalization and Treatment Tanks: Foundation, wall, and elevated slab reinforcing (Total of 6 site visits)

- Chemical Storage Foundation/Containment Area: Foundation and wall reinforcing (Total of 4 site visits)
- Odor Control Foundation/Containment Area: Foundation and wall (Total of 2 site visits)
- Biogas Treatment and Fuel Cell Foundations and Slabs: Foundation and wall reinforcing (Total of 2 site visits)

6. Proposed Contractor Change Orders.
   - Prepare or respond to change requests (CR) and proposed change orders (PCO) for design changes, including design calculations, drawings, justification, and cost opinion. Assist IRWD in reviewing proposed change orders for conformance with design intent and verification of proposed cost.
   - The estimated level of effort and fee is based on 100 PCOs and supporting documentation.

7. Claims Avoidance and Dispute Resolution Assistance.
   - Assist IRWD in claims avoidance and dispute resolution. Provide minutes and recommendations.
   - The estimated level of effort and fee is based on a labor allocation of 100 PM/Senior Engineering hours, 120 engineering support hours, and 40 administration hours.

8. Final Walk-Through.
   - Participate in scheduled final walkthroughs of the project with representatives of IRWD and the contractor to identify items for incorporation into the final punch list. All process areas will require one walkthrough at an intermediate completion milestone, and one at the final completion milestone. The estimated level of effort and fee is based on a labor allocation of 16 hours for each walkthrough.

C. Task 3 – Construction Field Support Services

As described previously, IRWD anticipates that the construction support team will be a mixture of IRWD and Engineer staff. This task identifies requirements field support services.

1. Project Set-Up and Document Control.
   - Assist IRWD with setting up the required project administrative, accounting and management systems for the field office.
   - Provide and maintain the document control system used on the construction projects. The Engineer will provide Primavera "Construction Manager" software for this purpose.
   - The Engineer's Onsite Design Team Representative and IRWD's administrative staff will jointly maintain control of all documents, such as shop drawing submittals, RFIs, change requests, change orders, schedules, contract documents, meeting minutes and agenda, correspondence, daily construction reports, monthly reports, and other construction related materials.

2. On-Site Design Team Representative.

   - Provide the services of an Onsite Design Team Representative to be the single point of contact in the field for daily project correspondence, RFIs, and submittal processing. This individual will monitor daily project issues as transmitted from IRWD, attend weekly construction meetings, receive project correspondence and distribute to the design team as necessary, and review correspondence being sent back to IRWD. The level of effort is based on 40 hours per week for the entire duration of the construction work (Contractors Final Completion).

3. Field Support Meetings.

   The Engineer's Onsite Design Team Representative will prepare for and attend the following meetings:

   - Weekly Construction Meetings: Establish internal notes from the weekly construction meetings. Attendance by other design team members is covered under Task 2.
   - Internal IRWD/Engineer Meetings: Internal coordination meetings requested by IRWD to discuss project related issues in preparation for meetings with the Contractor. Attendance by other design team members is covered under Task 2.
   - Technical Meetings: Document technical related meetings and/or regulatory agency meetings during the construction phase services as established by IRWD. Attendance by other design team members is covered under Task 2.
   - Process Control System Meetings: Document PCS meetings established by IRWD, Contractor, and System Integrator. Attendance by other design team members is covered elsewhere under Task 2.

4. Field Level Coordination with the Contractor.

   - The Engineer's On-Site Design Team Representative will provide direct communication between the design team and contractor to efficiently resolve field related issues in a timely fashion in an effort to avoid construction schedule impacts.

5. Field Level Coordination with IRWD.

   - The Engineer's On-Site Design Team Representative will provide daily communications between the design team and the District, to coordinate field issues and daily construction activities.

6. Field Coordination with the Design Team.

   - The Engineer's On-Site Design Team Representative will establish and relay field questions/issues to the design team. Includes miscellaneous conference calls with various engineering disciplines to efficiently address questions raised in the field related to the bid documents.
   - The Engineer's On-Site Design Team Representative will evaluate the issues and resolution with the respective engineering disciplines and verbally relay the proposed solutions to IRWD.

7. RFI Logging.

   - The Engineer's On-Site Design Team Representative will receive all incoming RFIs, log and distribute to the appropriate reviewers.
   - The Engineer's On-Site Design Team Representative will collect responses to RFI, log responses and forward to the document control staff.

8. Submittal Logging.

   - The Engineer's On-Site Design Team Representative will receive each incoming submittal, log and distribute to the appropriate reviewers.
   - The Engineer's On-Site Design Team Representative will track status and coordinate and log the submittal responses and forward to the document control staff.

9. Electrical Inspections.

   The Engineer will provide an Electrical Inspector to supplement IRWD staff for all electrical equipment installation. Duties will also include witnessing of any on site testing of electrical equipment and systems, oversight of the setting of major equipment distribution equipment, participation in the startup of major process and electrical equipment and onsite response to Contractor questions. These services include witnessing/oversight of the following:

   a. Cable testing
   b. Conduit arrangement within duct banks prior to concrete pour
   c. Long underground cable pulls
   d. Setting of medium-voltage and low-voltage switchgear
   e. Startup of major process equipment, such as the centrifuges and the Andritz dryer system
   f. Startup of AFD driven process equipment
   g. Startup of the microturbines and generators
   h. Startup of medium-voltage and low-voltage switchgear
   i. Connection of microturbine power to Transformer T4 (aeration blowers)
   j. Coordination of work with Southern California Edison (SCE) representatives.

   The level of effort is based on a full-time field inspector (40 hours per week) and a total duration of 24 months for electrical equipment installation work for these project components. Should the construction schedule be extended, or require overtime (over 40 hours per week), a contract amendment will be implemented to extend the electrical inspection services.

10. Instrumentation and Control Inspection Services.

The Engineer will provide an Instrumentation and Control (I&C) Inspector to observe and coordinate the Contractor's work related to I&C and SCADA System installation as described below.

- The I&C Inspector will conduct I&C weekly coordination meetings with Contractor, electrical subcontractor, system integrator, and IRWD Construction Manager (CM) to discuss project progress and issues relative to coordination of I&C activities and issues. The coordination meetings will be the forum to discuss schedule, technical issues, configuration schedule, restrictions and limitations on equipment outages, and shop drawings and submittals relative to the project. Submittal review work is already covered under Task 2. The I&C Inspector will preside at the meeting and distribute meeting minutes.
- The I&C Inspector will witness field acceptance test for (1) control loop checks, (2) instrument calibrations, (3) instrument startup, and (4) control system/SCADA testing by the Contractor. The I&C Inspector will verify checkout, calibration and testing activities that are documented in writing by the Contractor, as required in the Contract Documents. The I&C Inspector will assist the system integrator (SCADA system programmer) with startup of SCADA system equipment by providing coordination between the Contractor and IRWD.
- The I&C Inspector will perform site inspections once the Contractor has begun installation of the major I&C facilities. The purpose of the site inspections will be to verify with the Contractor that equipment installation and manufacturer startup services have been provided prior to testing and startup from the PLC and SCADA systems. The Contractor is responsible for written documentation of all installation, testing and startup activities as required in the Contract Documents.
- The I&C Inspector will provide on-site assistance to the City to witness field demonstration testing and to visit the site during the operation portion of site acceptance tests. During the site acceptance tests, the Contractor will demonstrate the functionality of the PLC and SCADA systems as required in the Contract Documents. If the Contractor has significant deficiencies, the I&C Inspector will attend additional testing assistance as a supplemental service.
- The I&C Inspector will witness the I&C factory tests listed below.
    a. Microturbines
    b. Standby Generator
    c. Single Stage Blowers
    d. Thickening Centrifuges
    e. Dewatering Centrifuges
    f. Plant Control System
    g. Digester Gas Boosters
    h. Waste Gas Burners

- The I&C Inspector will provide ongoing support to the commissioning team to perform final inspections, coordinate any programming changes required for individual treatment systems, and provide troubleshooting assistance to IRWD. The commissioning effort is led by the Engineer and IRWD staff with support from the Contractor.

After the Contractor has completed fiber optic, device network and control system communication testing, the I&C Inspector will verify that the control system equipment installation is consistent with the construction documents. Networking and communications status will be observed from the Plant Control System graphic screens. The I&C Inspector will prepare a statement of deficiency for the Contractor for any control system installation problems or communication errors. If the Contractor's work has significant deficiencies, the I&C Inspector can provide services to re-verify control system installation as a supplemental service.

After the Contractor has completed loop checks and verified that all equipment operates in the local manual mode, the Contractor will install the PLC programming and debug the PLC program. PLC programming will be tested in manual and auto mode by the Contractor and observed by the I&C Inspector. Contractor will demonstrate the functionality of the PLC and SCADA systems as required in the Contract Documents. If signals from field equipment or other PLCs are not available, the signals will be simulated by the Contractor as required to verify proper operation of the PLC algorithm.

The I&C Inspector will assist the City in monitoring the Contractor's progress of the work as well as any impacts to the Contractor programming and startup up activities. The I&C Inspector will notify the City of any issues that are identified that may have an impact on the Contractor's programming and startup costs resulting from activities beyond the Contractor's control.

The budget for the I&C Inspector is based one full time staff person at 40 hours per week for a 24-month construction period. Should the construction schedule be extended, or require overtime (over 40 hours per week), a contract amendment will be implemented to extend I&C inspection services.

11. Control System Software Configuration and Programming Services.

Engineer shall provide Process Control System support services in accordance with the scope of services given in Appendix C – EI&C Engineering, Inc. Proposal. Services include technical oversight and coordination of the Contractor, System Integrator, and equipment vendors relative to their responsibilities given in Section 17330 of the technical specifications.

12. Southern California Edison "Savings by Design" Grant Application Support.

Engineer shall support the District in preparing grant applications to Southern California Edison (SCE) for their Savings by Design grant program. IRWD has already filed a letter of interest with SCE, indicating the District's interest to participate in the program and that IRWD will file four (4) separate applications for rebates based on project elements that

promote energy efficiency as designed in the Biosolids and Energy Recovery Facilities Project.

B&V will participate in the following two meetings to review and select the recommended energy efficiency enhancements to include in the applications for the Savings by Design program.

a. Review preliminary energy efficient enhancements to include in the applications and to discuss the requirements and approach for complying with the Savings by Design Program.

b. Review and finalize the analysis the economic analysis to be included in the application for each energy efficiency element

B&V will provide the economic analysis for each element in each Savings by Design application. The analysis will include calculations or comparisons showing energy savings or energy efficiency. Calculations of the energy savings rebates will be calculated by B&V and will include backup information on energy reductions and savings. All supporting documentation for the analysis will be provided to IRWD.

Analysis will be provided for the four grant applications. The preliminary potential energy savings elements for each application are given below:

Application No. 1
Building Feature: Solids Handling Building High Output light fixtures
Large Energy Savings Item: Thickening Centrifuges and use of VFDs

Application No. 2
Building Feature: Solids Handling Building Lighting Control with Occupancy Sensors
Large Energy Savings Item: Dewatering Centrifuges and use of VFDs

Application No. 3
Building Feature: Solids Handling Building Elevators
Large Energy Savings Item: Centrate aeration blowers

Application No. 4
Building Feature: Solids Handling Building Roof Insulation
Large Energy Savings Item: Egg Shaped Digesters

13. Heat Dryer, Centrifuge, and Truck Loading Facilities Mechanical Engineering Services.

The Engineer will provide a Field Engineer to assist inspection of mechanical equipment installation, piping, valves, and mechanical support systems associated with the (1) heat dryer, (2) centrifuges, and (3) truck loading and receiving facilities at the Solids Handling Building of the Biosolids Project. The level of effort is based on four site visits of 3 man-days of onsite assistance by a Senior Mechanical Engineer that was involved in the design of the project. Should the District request additional mechanical engineering support services, a contract amendment will be implemented to extend these services.

D. Task 4 – Electronic O&M Manual

The Engineer will prepare an Electronic O&M Manual for the project. The Electronic O&M Manual will include only processes and equipment installed under this project.

1. Electronic O&M Manual Web Site Map Development.
    - Prepare a web site map to illustrate the Electronic O&M Manual for the equipment provided under the project. The web site map will:
        - Illustrate the Electronic O&M Manual structure and organization.
        - Show the level of detail for each unit process.
        - Explain how navigation (hyperlinks) between each section will be implemented.
        - Provide a guide to what additional reference information will be included in the Electronic O&M Manual including hyperlinks to equipment O&M manuals provided by equipment suppliers.
    - Develop the web site map in coordination with IRWD staff and specifically tailor it to meet requirements and needs of the facility staff.
    - Hold one 4 hour workshop with IRWD to define the content format and level of detail within each unit process.

2. Electronic O&M Manual Content Preparation, Installation and Training.
    - Prepare the Electronic O&M Manual content as defined by the web site map and integrate the content into the Electronic O&M Manual.
    - Develop the Electronic O&M Manual as a web application that will function on IRWD's Windows based server. The Electronic O&M Manual will be internally accessible via Internet Explorer and will not be accessible by the general public. Embed an online HTML text editor in the Electronic O&M Manual web pages to enable easy text editing without having to know HTML.
    - Specify hardware requirements to be provided by IRWD.
    - Prepare the O&M manual content in the format as described below for each unit process shown in the web site map:
        - Overview. A short, concise description of each unit process identifying the purpose of the equipment within each system. Photographs of major equipment embedded in text.
        - Theory. A short, concise description of the theory behind each unit process illustrating the design intent.
        - Process Flow Schematics. A copy of the HMI graphic screen, provided by IRWD, illustrating the process with hyperlinks to equipment components.
        - Figures. Simplified figures from the contract drawings or BIM model converted to PDF file format.

- Design Criteria. Tabular listing of unit process sizes, loadings, and other design criteria.
- Equipment Manuals. Hyperlinks to equipment manuals provided by equipment vendors in PDF file format.
- Controls. Functional descriptions prepared by PLC/SCADA programmer.
- System Procedures. A list of duties to be performed by operators when making daily process checks.
- Troubleshooting. A list of process alarms showing possible causes and suggested responses.
- Safety. Hyperlinks to IRWD's Safety Policy and Energy Control Procedures on IRWD's server for the new equipment.
- Photos. Inclusion of up to 500 photographs.

- Develop 2D and 3D figures, suitable for an O&M manual, from the conformed contract drawings and the project BIM model. The figures will be simplified from the contract drawings to illustrate information pertinent to the operator.
- Provide IRWD access to the draft Electronic O&M Manual for review approximately 30 days prior to startup of the affected portion of the plant.
- Make draft Electronic O&M manual accessible to IRWD staff as portions of the plant are started up.
- Deliver final Electronic O&M manual approximately 30 days following receipt of all as-built drawings and equipment O&M manuals in Adobe PDF format.
- Schedule a meeting with the plant staff and facilitate two one-hour training sessions for the plant staff on how to use and maintain the Electronic O&M Manual.

3. Energy Control Procedures (ECPs).

- Prepare Energy Control Procedures (ECPs) for the new equipment installed as part of the MWRP Biosolids and Energy Recovery Facilities Project (Biosolids Project). The ECP establishes the minimum requirements for control of hazardous energy when maintenance or repair is performed on equipment. The ECP is followed by plant O&M staff to ensure that equipment is stopped and isolated from all potential hazardous energy sources.
- IRWD's safety officers will review all ECPs before these documents are finalized.
- IRWD has provided sample ECPs from the MWRP Phase 2 Expansion that will be used as a template for the biosolids project and these are included in Appendix A at the end of this document. Also, IRWD has provided a list of ECPs developed for the MWRP Phase 2 Expansion that is to be used as a guide for a list on the Biosolids Project, also in Appendix A.
- An initial meeting will be held between IRWD and the engineer to verify the format and procedures for preparing ECPs. As groups of ECPs are prepared, individual review

meetings will be held to review that group. A total of four (4) individual review meetings was assumed to establish a level of effort for this task.

- The level of effort is based on the sample ESPs provided and the list of ECPs developed for this project that is included in Appendix A.

4. Job Safety Analysis (JSA) Documents.

- Prepare Job Safety Analysis (JSA) documents for the new equipment installed as part of the MWRP Biosolids and Energy Recovery Facilities project. The JSA documents will be prepared on software titled Workplace Hazard Manager – Job Safety Management Tool by www.whamnet.com, or other software approved by IRWD.
- IRWD's safety officers will review all JSAs before these documents are finalized.
- The Engineer will prepare a JSA for each major equipment item for the Biosolids Project, completing the required personal protective equipment, general notes, and job safety analysis section. IRWD will then extend the JSA to any other item that is the same equipment, but a different equipment number. For example, if there are three centrifuge feed pumps in a pumping station, the Engineer will prepare one JSA for all three pumps and IRWD will customize the JSA for each individual pump. IRWD will complete the authorized employee information section of each JSA.
- IRWD has provided a sample JSA from the MWRP Phase 2 Expansion that will be used as a template for the biosolids project and these are included in Appendix B at the end of this document.
- An initial meeting will be held between IRWD and the engineer to verify the format and procedures for preparing JSAs. As groups of JSAs are prepared, individual review meetings will be held to review that group. A total of four (4) individual review meetings was assumed to establish a level of effort for this task.
- The level of effort is based on the sample JSA provided and the example list of JSAs from the current Phase 2 Expansion Project that is included in Appendix B.

5. Asset Management Data Collection.

- The Engineer shall prepare a summary spreadsheet for IRWD so that the District can capture maintenance management data for equipment provided under the Biosoldis Project for use by IRWD in their existing Tabware system. The assets to be captured in the summary spreadsheet are (1) all motorized equipment, (2) all valves equal to or greater than 4-inch diameter, and (3) all instruments. The Engineer will prepare the spreadsheet, list equipment by area, provide equipment names, and compile equipment tag numbers. IRWD will populate all other information in the spreadsheet.
- IRWD will determine parent-child hierarchy, provide written procedures and guidelines, identify information to be gathered, and review and approve the equipment data spreadsheet template prior to IRWD performing the detailed data collection activities.
- IRWD will review shop drawings, project drawings, and equipment lists to inventory new equipment data for the summary spreadsheet.

- A review meeting(s) will be held between IRWD and the Engineer's Onsite Design Team Representative to discuss ongoing work by IRWD.
- The level of effort is based on an allowance of 920 hours. If additional support services are requested by IRWD, a contract variance will be implemented.

E. Task 5 – Training, Commissioning and Start-Up Services

Engineer shall provide training to IRWD personnel and coordinate start-up and testing activities between the contractor, design team and IRWD plant staff.

1. Contractor/Vendor Training & Commissioning Meetings.

   Attend five Training and Commissioning Team meetings. Review contractor's testing procedures and start up plan and provide a summary of review comments.

2. Pre-startup Process Overview Training.

   The purpose of this effort will be to communicate to the plant O&M staff the following:

   - Knowledge of how the equipment and process fits into the overall plant treatment goals and objectives.
   - An understanding of the design intent for each unit process.
   - An appreciation for the design constraints within which the equipment must function.
   - The ability to operate the equipment in each unit process.
   - An understanding of both the field and SCADA equipment controls and the ability to operate both.

   Classroom Training Approach

   - Present process overview training in a classroom setting using a lecture format supplemented with figures and graphics delivered using Microsoft Power Point.
   - Research and provide a written response to questions encountered in the training that require further clarification by the design team.
   - The training material for each training session will consist of Power Point handouts.
   - Present the overview training prior to specific equipment training provided by equipment suppliers to set the foundation for an understanding of the process.
     - The overview training is not intended to provide the same level of detail that the equipment suppliers will provide for specific equipment under the construction contract.
     - The process overview training is intended to provide an explanation of how the various pieces of equipment are integrated together and function as a system to meet the process requirements.

Maintenance Training

- Maintenance Training shall be conducted by the manufacturer's training representative for the hardware supplied on the project as a Contractor obligation.
    - The Engineer's Onsite Design Team Representative shall prepare class evaluations forms for each class.
    - The Engineer's Onsite Design Team Representative shall attend contractor training classes.

Pre-startup Process Overview Training Modules

Engineer shall present the process overview training in the following five modules:

- Anaerobic Digestion
    - FOG and Food Waste Receiving Stations
    - Acid Digesters
    - Methane Digesters
    - Digested Sludge Holding Tank
- Biogas Management and Fuel Cell
    - Acid Gas Flare
    - Methane Gas Flare
    - Digester Gas Holding Tank
    - Digester Gas Treatment
    - Fuel Cell system
    - Biosolids Complex electrical system
- Thickening and Dewatering
    - Primary Sludge Thickening
    - WAS and Centrate Treatment Sludge Thickening
    - Co-Thickening
    - Thickening Centrate
    - Dewatering
    - Cake Bins
    - Cake Transfer Pumps
    - Polymer bulk storage and transfer
    - Thickening polymer system
    - Dewatering polymer system

- Dryer and Truck Load-out
  - Dryer system
  - Exhaust system
  - Cake Load-out
  - Pellet Load-out
- Centrate Treatment, Chemicals and Odor Control
  - Centrate equalization
  - Centrate treatment
  - Methanol storage and feed
  - Magnesium Hydroxide storage and feed
  - Ferric Chloride storage and feed
  - Struvite inhibitor storage and feed
  - Odor control scrubbers
  - Odor control chemicals

Schedule

- Engineer shall present each of the training modules approximately two weeks prior to actual startup of the equipment. Present each training module on the following days and at the following times:
  - Wednesday morning session: 8 a.m. – 11 a.m.
  - Wednesday afternoon session: 1 p.m. – 4 p.m.
- Conduct two training sessions for each module, for a total of 10 sessions
- Provide fifteen copies of the training materials for each of the 10 training sessions.
- Provide written response to questions requiring further clarification by the design team.

Coordination with PLC/SCADA Programmer

- Engineer shall coordinate scheduling of the System Integrator to provide the training in conjunction with the overview training provided by Engineer.
- The portion of each module pertaining to PLC/SCADA controls will be presented by the System Integrator for that system. Work by the System Integrator will be covered in a contract with the Contractor.

3. <u>Startup Testing Coordination.</u>

General

Engineer shall provide coordination between the contractor and the plant staff during startup of the new equipment. The Contractor's Start-Up Manager shall ensure that the startup of

new equipment occurs, if and only if, the equipment and ancillary subsystems are ready to be placed into service. The Contractor's responsibilities are given in Section 01510 – Testing, Training, Manuals, and System Startup. The sequence of the start-up effort is given in Section 01700 – Early Occupancy of Portions of the Work. These specification sections are attached in Appendix D. The Contractor's work includes preparation of complete start-up plans for all equipment and systems. The secondary purpose of this task is to provide informal training to the plant operators during the actual unit process startup.

Startup Testing and Equipment Functional Testing

Startup testing and equipment functional testing shall be performed by the Contractor and shall occur prior to system operational testing and system reliability testing and will use non-potable water to demonstrate the functionality of new equipment and controls. Engineer's Onsite Design Team Representative shall provide coordination for the following components and unit processes:

- FOG Receiving Station
- Acid Digesters
- Methane Digesters
- Digested Sludge Holding Tank
- Thickening Feed and Thickening Centrate Wetwells
- Thickening Feed Pumps and Centrifuges
- Thickened Sludge Hoppers and Digester Feed Pumps
- Dewatering Feed Pumps and Centrifuges
- Polymer tanks, transfer pumps and feed pumps
- Cake Bins and Cake Transfer Pumps
- Dewatering Centrate Equalization and Treatment
- Chemical Storage Tanks and Transfer Pumps

System Operational Testing and System Reliability Testing

System operational testing and system reliability testing activities are the responsibility of the Contractor. These activities by the Contractor result in placing the equipment into operation for its intended purpose and using the intended process material, i.e., primary sludge, primary scum, WAS, neat liquid polymer, polymer solution, ferric chloride, sodium hydroxide, etc.

- Engineer shall provide coordination for the components and unit processes listed in the previous subsection. Provide the following activities and sub-tasks:
    - Review the Contractor's Start-Up Plan that lists specific responsibilities for the contractor, construction management staff, System Integrator, and plant staff.
        - Contractor shall provide the written startup plan to the District, Engineer, the construction management staff, System Integrator, and the plant staff approximately two months before startup.

- Engineer shall schedule and conduct a startup plan review meeting between the Contractor, District, Engineer, the construction management staff, System Integrator, and the plant staff approximately one month before startup.
- Contractor shall revise the startup plan and schedule as needed based on the review meeting and reissue.

- Contractor shall verify the equipment is ready for the system operational testing and reliability testing. Engineer shall gather appropriate documentation from the Contractor verifying the test results, including:
  - The manufacturer field service forms have been completed for each piece of equipment.
  - All pipe pressure test and concrete water tightness tests have been conducted.
  - All rotating equipment has been bumped to check for proper rotation.
  - All instruments are installed, calibrated, and the calibration documentation has been received.

- Engineer shall schedule and conduct a startup go/no go decision meeting between the contractor, the construction management staff, the System Integrator and the plant staff at the conclusion of the system operational testing and reliability testing.
- Contractor, System Integrator, and Engineer shall perform the following activities during system operational and reliability testing:
  - Verify and document that the equipment is performing within its design parameters.
  - Coordinate with the Contractor, the construction management staff, the System Integrator and the plant staff to ensure that process material is introduced to the process in such a way as to not adversely impact the rest of the plant.
  - Verify and document that the controls and alarms are working in conformance with the control loop descriptions.
  - Verify and document the results of any testing which was deferred from the clean water test.
  - Identify and document any equipment or control deficiencies for resolution by construction management staff and the System Integrator.
- Engineer shall conduct operator training during start-up activities on an informal basis in the field. The purpose of this training is to provide an opportunity to answer operator questions, to demonstrate (when requested) the transition from manual control to automatic control, and to demonstrate alternate modes of operation (when requested).

4. Factory Witness Testing.

The Engineer will travel to the factory to witness the following mechanical factory tests:

- Microturbines
- Digester gas treatment system (DGTS)
- Single stage blowers
- Thickening and dewatering centrifuges
- Odor control fans
- Methane phase (egg shaped) digester mixers
- Acid phase digester propeller mixers
- Digester gas boosters (acid phase digester gas)
- Waste gas burner
- Heating water boilers
- Back-up mixing pump (120 hp)

5. Commissioning Services.

General

The Contractor responsibilities for testing, training, and equipment/system start-up are included in Technical Specification Section 01510 – Testing, Training, Manuals, and System Start-Up. The Contractor will complete the Work in accordance with the early occupancy milestone dates given in the agreement for Milestone #1 through Milestone #7. A description of the facilities associated with each early occupancy milestone is given in Technical Specification Section 01700 – Early Occupancy of Portions of Work. A copy of these documents is included in Appendix D.

Once the Contractor achieves Substantial Completion of the facilities for each early occupancy milestone date, the facilities will be ready for commissioning and this will be a joint effort between IRWD and the Engineer, as outlined below. The Contractor will provide ongoing warranty services during the commissioning phase and will provide an electrical sub-contractor startup staff person and a system integrator staff person for the first 28 days of commissioning for 8 hours per day, 5 days per week, during normal IRWD operating hours. The Contractor will also provide ongoing support from his Start-Up Manager.

The general responsibilities of the Engineer during commissioning are as follows:

- Support IRWD operations staff in operation of the equipment or systems for each of the early occupancy milestone facilities. IRWD will operate the facilities with input and operational support from the Engineer.
- IRWD operating hours will be 24 hours per day, seven days per week; however, the Engineer will be on site for 8 hours per day, five days per week during the commissioning period. The commissioning period varies with each early occupancy milestone and is defined below.
- The Engineer will work with IRWD operations staff to demonstrate proper manual operation of the facilities, as appropriate, during the initial phase of commissioning.
- The Engineer will work with IRWD operations staff to verify proper automatic operation of facilities over a range of conditions so that IRWD operations staff can

implement the lessons learned from manufacturer training and B&V process training and become comfortable with operating the new facilities.

- The Engineer will note any improvements/modifications to the O&M equipment procedures provided by the manufacturer (manufacturer O&M) and the system/process procedures provided by Engineer (electronic O&M).
- The Engineer will promptly notify the Contractor of any warranty items that need to be addressed by the Contractor and follow up until the issue is resolved.
- The total commissioning level of effort for each of the early occupancy milestone facilities is based on the information listed below.

Milestone #1 Commissioning – WAS and Primary Sludge Facilities

- One mid-level commissioning specialist
- 40 hours of office preparation time
- Two calendar weeks of commissioning on site
- Eight hours per day, five days per week during normal IRWD operating hours

Milestone #2 Commissioning – Sludge Thickening Facilities

- One mid-level commissioning specialist
- 40 hours of office preparation time
- Two calendar weeks of commissioning on site
- Eight hours per day, five days per week during normal IRWD operating hours

Milestone #3 Commissioning – FOG Receiving Station

- One mid-level commissioning specialist
- 24 hours of office preparation time
- One calendar week of commissioning on site
- Eight hours per day, five days per week during normal IRWD operating hours

Milestone #4 Commissioning – Anaerobic Digestion

- One mid-level commissioning specialist
- 80 hours of office preparation time
- Six calendar weeks of commissioning on site
- Eight hours per day, five days per week during normal IRWD operating hours

Milestone #5 Commissioning – Class B Facilities (Dewatering, Cake, and Centrate)

- One mid-level commissioning specialist
- 80 hours of office preparation time
- Two calendar weeks of commissioning on site
- Eight hours per day, five days per week during normal IRQWD operating hours

Milestone #6 Commissioning – Microturbine Power and Gas Cleaning Facilities

- One mid-level commissioning specialist
- 80 hours of office preparation time
- Four calendar weeks of commissioning on site
- Eight hours per day, five days per week during normal IRWD operating hours

Milestone #7 Commissioning – Class A Facilities (Cake Conveyance, Heat Dryer, Truck Loading, and Cake Receiving)

- Two mid-level commissioning specialists and one senior commissioning specialist
- 80 hours of office preparation time
- Four calendar weeks of commissioning on site
- Hours per day and days per week determined by available cake solids and scheduling by IRWD operations staff. Level of effort assumes 40 hours per week for each commissioning specialist.

6. Process Optimization Services.

General

Upon completion of the commissioning services for each early occupancy facilities milestone, the engineer will provide additional process optimization support as noted below.

Sludge Thickening Centrifuges

- One senior level commissioning specialist
- Two calendar weeks of process optimization on site
- Assist IRWD operations staff in operation of the variable pond control device over a range of conditions (solids concentration variations, combined WAS/PS thickening, and separate WAS and PS thickening) to optimize centrifuge performance
- Assist IRWD operations staff in operation of the polymer conditioning system over a range of conditions (solids concentration variations, combined WAS/PS thickening, and separate WAS and PS thickening) to optimize centrifuge performance and develop a series of operating curves that allow process decision making by IRWD staff

Anaerobic Digestion Optimization

- One senior level commissioning specialist
- Six calendar weeks of process optimization consultation from the B&V office to review operating data and provide telephone process consultation reviewing the facilities below
- Assist IRWD operations staff in operation of the acid phase digesters to optimize SRT and process control to achieve and maintain stable operating conditions

- Assist IRWD operations staff in operation of the methane phase digesters to optimize SRT and process control to achieve and maintain stable operating conditions
- Assist IRWD operations staff in FOG addition to the digesters to increase digester gas production while maintaining stable operations

Sludge Dewatering Centrifuges

- One senior level commissioning specialist
- Two calendar weeks of process optimization on site
- Assist IRWD operations staff in operation of the polymer conditioning system over a range of conditions to optimize centrifuge performance (cake solids, capture, and centrate quality) and develop a series of operating curves that allow process decision making by IRWD staff

Microturbines and Gas Cleaning Systems

- One senior level commissioning specialist
- Four calendar weeks of process optimization on site
- Assist IRWD operations staff in operation of the digester gas cleaning systems to achieve acceptable and stable gas quality conditions upstream of the microturbines
- Assist IRWD operations staff in operation of the natural gas/digester gas fuel blending system to achieve stable gas feed Btu conditions upstream of the microturbines
- Assist IRWD operations staff in monitoring and control of the entire digester gas system, including the waste gas flare.
- Assist IRWD operations staff in operation of the microturbines to optimize power production, operational efficiency, effective heat recovery, and reliable monitoring and control

Heat Dryer System

- One senior level commissioning specialist
- Eight calendar weeks of process optimization on site
- Assist IRWD operations staff in operation of the heat dryer system to establish optimal operations in terms of consistent, high quality pellet product and minimal energy usage
- Assist IRWD operations in troubleshooting the heat dryer operation as issues arise
- Assist IRWD operations staff in monitoring and control of the entire system for producing and loading pellets

- Assist IRWD operations staff in identifying operational procedure changes and document these for inclusion into the manufacturers O&M Manual and the electronic O&M Manual

7. Air Quality Permit Support.

The District, along with their sub-consultant Environ, is responsible for obtaining the Permit-to-Construct from SCAQMD. Engineer shall provide support to the District in the preparation of all follow-up documentation associated with the Southern California Air Quality Management District (SCAQMD) Permit-to-Operate for air emissions during the construction phase of the project. This will include one meeting with SCAQMD, if necessary, for the District to conclude the Permit-to-Construct.

The Engineer will assist IRWD with coordinating between the dryer vendor, emissions testing company and the SCAQMD so that the dryer emissions compliance tests are conducted in a timely manner and the required compliance notifications and reports are submitted in a timely fashion. Specific tasks include:

- Review the Permit to Construct and prepare an emissions performance test specification document for the stack testing vendor.
- Provide a recommendation on stack testing vendors or work with a vendor of Client's choice. It is assumed that the client will independently contract with the stack testing company. The specification document will also verify all the operating parameters required to be concurrently monitored are going to be monitored. Conduct a facility walk-through to verify that the dryer facility is built in accordance with the Permit to Construct. This also includes compliance with balance of plant processes included biosolids conveying, transport and storage equipment.
- Establish a schedule based on the testing and reporting deadlines listed the permit to construct.
- Review stack testing vendor's testing protocol and provide comments.
- Work with stack testing vendor to finalize the performance testing protocol and prepare a draft Site Specific Performance Test Plan for IRWD review.
- After incorporating IRWD's comments, prepare a final Site Specific Performance Test Plan for submittal to AQMD. After receiving AQMD concurrence, establish a mutually agreed upon emissions compliance test date and send a notification to AQMD.
- Be present onsite for the performance test. One B&V engineer is assumed to be onsite for a period of 3 days.
- Review draft emissions test report and provide comments to the stack testing vendor. Work with vendor to finalize stack testing report prior to submittal to the AQMD.

F. Task 6 – Post Construction Services

1. Post Start-Up Services.

   - Conduct a meeting with plant staff approximately one month after startup of each component or system listed below. Engineer's budget shall be based on conducting 12 two-hour on-site meetings with plant staff even though process areas can likely be combined to make the training more efficient.
     - FOG and Food Waste Receiving Stations
     - Acid Digesters
     - Methane Digesters
     - Digested Sludge Holding Tank
     - Thickening Feed and Thickening Centrate Wetwells
     - Thickening Feed Pumps and Centrifuges
     - Thickened Sludge Hoppers and Digester Feed Pumps
     - Dewatering Feed Pumps and Centrifuges
     - Polymer tanks, transfer pumps and feed pumps
     - Cake Bins and Cake Transfer Pumps
     - Dewatering Centrate Equalization and Treatment
     - Chemical Storage Tanks and Transfer Pumps
   - Document opportunities for improvements in equipment and controls or in operating procedures that are identified during and after startup. The outcome of the meeting will be a memorandum that clearly identifies any problems, provides alternative solutions for each problem and recommends solutions for implementation. Prepare 12 post-startup technical memoranda with recommendations.

2. Update Electronic O&M Manual.

   Revise the Electronic O&M Manual to reflect the as-built condition of the project after solutions to startup problems are implemented.

3. Record Drawings & Atlas Update.

   Record Drawings

   - Provide CAD generated record drawings from the contractor's and construction inspectors' "red-line" drawings. Scope assumes that:
     - Contractor and construction inspectors fulfill responsibilities associated with red-lining drawings throughout construction.
     - Contractor and construction inspectors' red-lines will be contained in a single set of mark-ups to be provided to Engineer.

- Review the Contractor's red-lines on a regular basis to ensure all contract changes are being incorporated into the Red-Line Drawings.
- Provide one full-size hard copy and one electronic copy of record drawings.

Utility Atlas

Extend the MWRP liquid treatment process utility atlas as needed to cover the Biosolids treatment area. Provide final updates to the IRWD MWRP Utility Atlas based on as-built conditions at the end of the project. Updates will be based on the content in the final Record Drawings.

4. Project Closeout.
   - At the end of the construction support services, conduct a project closeout to assemble all pertinent documents into the record files. The project closeout will include the following activities.
     - A final audit of files, calculations, and modifications to the construction documents to confirm that submittal reviews, RFIs and other pertinent information have been adequately addressed by all parties
     - Obtain pertinent files from sub-consultants and incorporate them into the master project file for archiving.
     - Print out final summary reports associated with the construction phase activities and incorporate into the master project files.
   - Backup all electronic data for archiving.

III. SCHEDULE

Following are the anticipated major milestone dates for the construction phase services:

• Bid Opening	January 31, 2013
• Notice of Award	April 22, 2013
• Substantial Completion – Milestone 1	May 29, 2015
• Substantial Completion – Milestone 2	July 13, 2015
• Substantial Completion – Milestone 3	August 12, 2015
• Substantial Completion – Milestone 4	December 10, 2015
• Substantial Completion – Milestone 5	December 24, 2015
• Substantial Completion – Milestone 6	May 23, 2016
• Substantial Completion – Milestone 7	July 22, 2016
• Final Completion – Entire Project	September 20, 2016
• Complete Post Construction Services	January 20, 2017

IV. SERVICES OR ITEMS TO BE PROVIDED BY IRWD

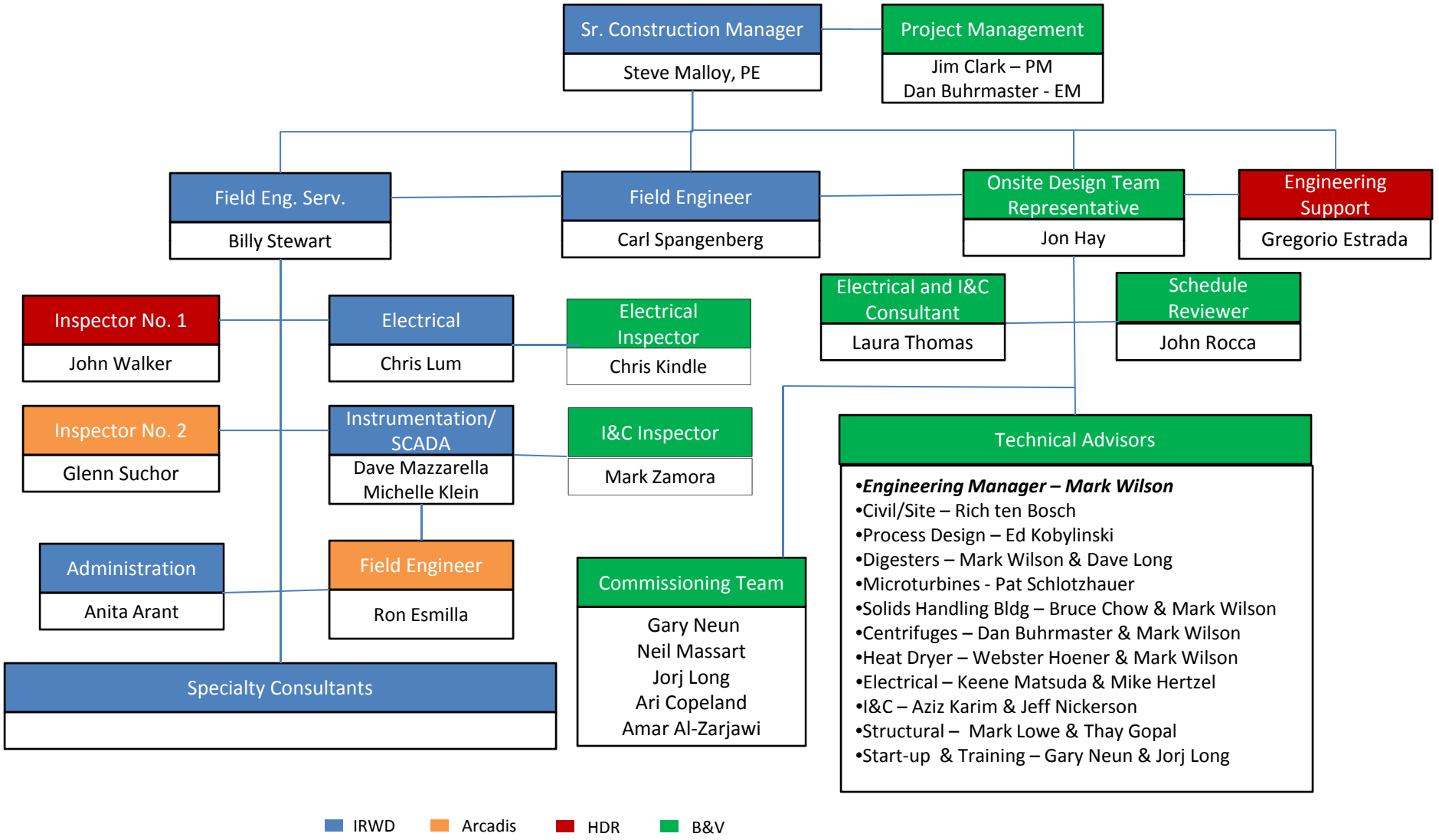
IRWD will provide the following services, drawings, and data:

1. IRWD staff will be available to answer Engineer's questions during all phases of the project and will facilitate coordination between Engineer's staff and IRWD's operations staff.
2. IRWD will make all IRWD record drawings, reports, and related materials available to the Engineer.
3. IRWD will provide the most current IRWD guidelines and standards for design and construction.
4. IRWD will make all templates of the Project Manual available to the Engineer in MS Word format.
5. IRWD will reproduce all documents for the bid set, conformed set, ongoing updates, correspondence, change orders, administration, and record documents.
6. IRWD will act as the Construction Manager and provide onsite field engineers and onsite inspectors.
7. IRWD will be responsible for all ongoing permitting activities unless noted specifically herein. The Engineer will provide drawings and data to support these IRWD activities.
8. IRWD will be responsible for all environmental filing documentation.
9. IRWD will be responsible for all public affairs and relations effort.

V. ORGANIZATION CHART

The following organization chart shows the Construction Management structure for the core team members, excluding specialty sub-consultants.

Biosolids Construction Management Team



VI. MEETINGS

A summary table of meetings and attendance of Engineer's staff is given below.

	ENGINEER ATTENDEES							
Major Meetings	**Project Manager**	**Engineering Manager**	**Onsite Design Team Representative**	**Senior Design Engineer**	**Schedule Reviewer**	**I&C Inspector**	**Electrical Inspector**	**Training and/or Commissioning Specialist**
Weekly Construction Progress with Contractor and IRWD		Varies	X					
Monthly Project Management with IRWD	X	X	X		X			
Technical Meetings with IRWD (30)		Varies	X	Remotely				
Technical Site Visits with IRWD (20)		X	X	X				
Weekly I&C and System Integrator Meetings with Contractor and IRWD (during I&C Inspection period)		Varies	X	Remotely		X	X	Remotely
Training & Commissioning with Contractor and IRWD (5)		Varies	X	Remotely		X	X	X

VII. SUMMARY OF DELIVERABLES

A summary of the major project deliverables is given below.

1. Weekly Progress Reports
2. Monthly Status Reports
3. Monthly Progress Payment Requests
4. Project Guide
5. Submittal Review Documents
6. Responses to RFIs
7. Technical Site Visit Meeting Minutes
8. Schedule Review Documents
9. Structural Observation Reports
10. Responses to CRs and PCOs
11. Claims Avoidance and Dispute Resolution Meeting Minutes
12. Weekly I&C Meeting Minutes (during I&C Inspection Period)
13. Electrical Inspection Reports (during electrical inspection period)
14. I&C Witness Testing Reports
15. Mechanical Inspection Reports
16. Electronic O&M Manual – Initial
17. Energy Control Procedures (ECPs)
18. Job Safety Analysis (JSA) Documents
19. Spreadsheet Setup for Asset Management Data Collection
20. Engineer Training Materials
21. Post Startup Reports
22. Electronic O&M Manual – Update
23. Record Drawings
24. Utility Atlas Update
25. Project Closeout Files

Irvine Ranch Water District
MWRP Biosolids & Energy Recovery Facilities
Construction Phase Services

VIII. FEE SUMMARY

12-Feb-13
By: DFB

BLACK & VEATCH LEVEL OF EFFORT SUMMARY

	Task/Sub-Task	Project Director	Project Manger	Onsite Design Team Representative	Engineering Manager	Project Controls & Administration	Engineer & Architect	Electrical and I&C Inspector	O&M Specialist	Construction Manager	Engineering Technician	Total Hours
A.	Task 1 - Construction Phase Project Management											
1	Project Guide				32	8	40					80
2	Team Management and Project Control	504	336			672						1,512
3	Progress Reports and Invoices		336			672	336					1,344
4	Meetings and Workshops											0
5	Quality Assurance/Quality Control						320					320
B.	Task 2 - Construction Administration Support Services											
1	Submittal Reviews		120		240	1008	13398		320		240	15,326
2	Requests for Information (RFIs)		120		276	240	5775				690	7,101
3	Meetings/Technical Site Visits		832		784		1856		148			3,620
4	Schedule review									1008		1,008
5	Structural Observations						2016					2,016
6	Proposed Contractor Change Orders		80		240		1962				155	2,437
7	Claims Avoidance and Dispute Resolution Assistance		40		80	20	120					260
8	Final Walk-Through		224		224							448
C.	Task 3 - Construction Field Support Services											
1-8	On-Site Design Team Representative & Document Control			7220		516						7,736
9	Electrical Inspections							4160				4,160
10	Instrumentation and Control Inspections							4160				4,160
11	Edison Savings by "Design Grant" Application Support		32		88		75					195
12	Control System Configuration & Programming Services											0
13	Mechanical Inspections						160					160
D.	Task 4 - Electronic O&M Manual											
1-2	Electronic O&M Manual Develop., Install., and Training		4		24		24		536		2262	2,850
3	Energy Control Procedures (ECPs)				24		939				120	1,083
4	Job Safety Analysis (JSA) Documents				24		516		1850			2,390
5	Asset Mangement Data Collection				40		880					920
E.	Task 5 - Training, Commissioning and Start-Up Services											
1	Contractor/Vendor Training & Commissioning Meetings		40		40		16		288			384
2	Pre-Startup Process Overview Training		80			40	240		973			1,333
3	Start-Up Testing Coordination		8		26		96		780			910
4	Factory Witness Testing		32	60	96		264					452
5-6	Commissioning & Process Optimization Services		128		128				3196			3,452
7	Air Quality Permit Support		24		24	24	178					250
F.	Task 6 - Post Construction Services											
1	Post Start-Up Services		24		24	24			128			200
2	Update Electronic O&M Manual				16		24		100			140
3	Record Drawings & Atlas Update				48		668				648	1,364
4	Project Closeout			80	80	24	80					264
	TOTALS =	504	2,460	7,360	2,558	3,248	29,983	8,320	8,319	1,008	4,115	67,875

VIII. FEE SUMMARY (CONTINUED)

Irvine Ranch Water District
MWRP Biosolids & Energy Recovery Facilities
Construction Phase Services

12-Feb-13
By: DFB

BLACK & VEATCH ENGINEERING FEE SUMMARY

Task/Sub-Task		*Total Hours*	*Labor Cost*	*Expenses*	*Sub-Consultant*	*Total Cost*
A. Task 1 - Construction Phase Project Management						
1	Project Guide	80	$15,200	$1,000	$0	$16,200
2	Team Management and Project Control	1,512	$362,880	$8,000	$0	$370,880
3	Progress Reports and Invoices	1,344	$201,600	$6,000	$0	$207,600
4	Meetings and Workshops	0	$0	$0	$0	$0
5	Quality Assurance/Quality Control	320	$67,520	$3,000	$0	$70,520
B. Task 2 - Construction Administration Support Services						
1	Submittal Reviews	15,326	$2,339,486	$18,462	$0	$2,357,948
2	Requests for Information (RFIs)	7,101	$921,157	$0	$0	$921,157
3	Meetings/Technical Site Visits	3,620	$796,400	$112,000	$0	$908,400
4	Schedule review	1,008	$201,600	$12,000	$0	$213,600
5	Structural Observations	2,016	$231,173	$0	$0	$231,173
6	Proposed Contractor Change Orders	2,437	$461,310	$12,000	$0	$473,310
7	Claims Avoidance and Dispute Resolution Assistance	260	$46,220	$4,000	$0	$50,220
8	Final Walk-Through	448	$98,560	$14,000	$0	$112,560
C. Task 3 - Construction Field Support Services						
1-8	On-Site Design Team Representative & Document Control	7,736	$1,617,582	$8,000	$0	$1,625,582
9	Electrical Inspections	4,160	$786,240	$1,000	$0	$787,240
10	Instrumentation and Control Inspections	4,160	$865,200	$1,000	$0	$866,200
11	Edison Savings by "Design Grant" Application Support	195	$39,000	$1,000	$0	$40,000
12	Control System Configuration & Programming Services	0	$0	$0	$380,000	$380,000
13	Mechanical Inspections	160	$28,160	$10,000	$0	$38,160
D. Task 4 - Electronic O&M Manual						
1-2	Electronic O&M Manual Develop., Install., and Training	2,850	$370,593	$5,000	$0	$375,593
3	Energy Control Procedures (ECPs)	1,083	$201,145	$2,011	$0	$203,156
4	Job Safety Analysis (JSA) Documents	2,390	$416,690	$4,167	$0	$420,857
5	Asset Mangement Data Collection	920	$112,000	$2,000	$0	$114,000
E. Task 5 - Training, Commissioning and Start-Up Services						
1	Contractor/Vendor Training & Commissioning Meetings	384	$76,454	$5,000	$0	$81,454
2	Pre-Startup Process Overview Training	1,333	$200,108	$10,000	$0	$210,108
3	Start-Up Testing Coordination	910	$170,086	$6,000	$0	$176,086
4	Factory Witness Testing	452	$115,504	$9,000	$0	$124,504
5-6	Commissioning & Process Optimization Services	3,452	$713,696	$75,200	$0	$788,896
7	Air Quality Permit Support	250	$49,223	$3,500	$0	$52,723
F. Task 6 - Post Construction Services						
1	Post Start-Up Services	200	$36,100	$18,000	$0	$54,100
2	Update Electronic O&M Manual	140	$20,300	$2,000	$0	$22,300
3	Record Drawings & Atlas Update	1,364	$170,792	$0	$0	$170,792
4	Project Closeout	264	$41,712	$2,000	$0	$43,712
	TOTALS =	***67,875***	***11,773,691***	***355,340***	***380,000***	***12,509,031***

IX. SCHEDULE OF HOURLY RATES

The following billing rates will apply to this project.

Black & Veatch Corporation
Schedule of Hourly Rates by Category

Personnel Classifications	2013 Hourly Billing Rate
Project Director/Vice President	$260 - $310
Project Manager 3	$220 - $260
Project Manager 2	$210 - $255
Project Manager 1	$185 - $200
Engineer 7	$200 - $240
Engineer 6	$185 - $210
Engineer 5	$160 - $195
Engineer 4	$140 - $170
Engineer 3	$125 - $140
Engineer 2	$115 - $125
Engineer 1	$105 - $115
O&M Specialist 8	$190 - $210
O&M Specialist 7	$170 - $190
O&M Specialist 6	$150 - $170
O&M Specialist 5	$130 - $150
O&M Specialist 4	$110 - $130
O&M Specialist 3	$90 - $110
Construction Manager 7	$200 - $220
Construction Manager 6	$180 - $200
Construction Manager 5	$160 - $180
Construction Manager 4	$140 - $160
Engineering Technician 2	$95
Engineering Technician 3	$100
Engineering Technician 4	$105
Engineering Technician 5	$110
Engineering Technician 6	$135
Engineering Technician 7	$145
Engineering Technician 8	$160
Word Processing Specialist	$115
Clerical	$100
Finance	$95
Project Support Assistant	$90

Notes:

(1) Sub consultants will be billed at cost.
(2) Billing rates are adjusted on an annual basis to reflect salary increases.
(3) A charge of $8.75 per billable hour is applied for basic computer charges, minor reproduction costs, long distance telephone charges, postal charges, local parking, local highway tolls, and local car mileage.

(4) Other Direct Charges will be billed at cost. Allowable Other Direct Charges include the following:

- Travel (transportation fares/tickets, vehicle rental & fuel, lodging, parking, and meals for out of town professionals).
- Express delivery charges (courier, FEDEX/UPS/Express mail)
- Major reproduction (photocopy, printing) of project deliverables
- Field equipment and miscellaneous supplies
- Temporary labor

Billing rates for key Engineer staff for 2013 are given below:

Black & Veatch Staff Name	**IRWD Project Classification**	**Proposed 2013 Billing Rate**
Jim Clark	Project Director/VP	$310
Dan Buhrmaster	Project Manager 3	$245
Mark Wilson	Engineer 7	$210
Jon Hay	Engineer 7	$195
Bruce Chow	Engineer 7	$225
Rich ten Bosch	Engineer 7	$220
Aziz Karim	Engineer 7	$240
Keene Matsuda	Engineer 7	$240
Dave Long	Engineer 7	$205
Ed Kobylinski	Engineer 7	$240
Mark Lowe	Engineer 6	$210
Thay Gopal	Engineer 6	$190
Webster Hoener	Engineer 6	$205
Jeff Nickerson	Engineer 5	$160
Mike Hetzel	Engineer 4	$140
Chris Kindle	Engineer 4	$170
Pat Schlotzhauer	Engineer 4	$140
Marc Zamora	Engineer 4	$170
John Rocca	Construction Manager 6	$180
Eric Sturtz	Construction Manager 4	$140
Gary Neun	O&M Specialist 8	$210
Jorj Long	O&M Specialist 7	$190
Neil Massart	O&M Specialist 6	$170
Ari Copeland	O&M Specialist 4	$125
Amar Al-Zarjawi	O&M Specialist 3	$90

MALCOLM PIRNIE | ARCADIS

The Water Division of ARCADIS

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

Mr. Steve Malloy
Principal Engineer
Irvine Ranch Water District
3512 Michelson Drive
Irvine, CA 92612

WATER SERVICES

Subject:
Proposal – Construction Management and Inspection Services for MWRP Biosolids and Energy Recovery Facilities PR 20847 (1617)

Date:
November 27, 2012

Dear Mr. Malloy:

Contact:
David May

Phone:
949.450.4006

Email:
david.may@arcadis-us.com

It is my pleasure to submit this letter proposal to provide construction management and inspection services for the MWRP Biosolids and Energy Recovery Facilities PR 20847 (1617). We propose Glenn Suchor, Sr. Construction Inspector, to perform the inspection services and Ron Esmilla, Sr. Resident Engineer, to perform the construction management services. Glenn and Ron have been providing these services for the MWRP Phase 2 Expansion and Flood Protection Improvements project (PR 20214, 20542, 30214, and 30542) since 2009.

The inspection services will include:

1. Provide daily construction observation and inspection services to determine if the work performed is in substantial conformance with the Construction Contract Documents;
2. Record and report any deviations from the Construction Contract Documents;
3. Prepare observer's daily reports and submit them on a regular, timely basis;
4. Coordinate construction activities with the Irvine Ranch Water District staff, contractor, public agencies, and other pertinent parties;
5. Assist in the review of construction progress payments;
6. Take construction photos; and
7. Attend construction meetings.

The construction management services will include:

1. Establish and maintain the document control system;
2. Review change orders;
3. Negotiate change orders with the Contractor;
4. Prepare change requests and change orders for approval;
5. Review project financials;

6. Prepare internal and external communications;
7. Prepare the biweekly, monthly, and quarterly reports;
8. Coordinate work between the MWRP construction management team, IRWD staff, contractors, outside consultants, and agencies; and
9. Perform other assigned tasks, such as maintaining the project's correction (punch) list and spare parts list.

We propose to use the hourly rates and budget amount of $2,931,368 as shown in the attached Fee Table. The budget covers 48 months of services and assumes a 2.5% labor escalation rate/year.

Should you have any questions, please do not hesitate in contacting me at (949) 450-4006.

Sincerely,

ARCADIS U.S., Inc.

Dave May, P.E.
Principal-In-Charge

jm

Attachment

FEE TABLE

IRWD: Planning Level MWRP Construction Management (ARCADIS)			2012												2013											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MWRP Biosolids - Final Design and CM	**2.5%**																									
Staff Engr/CM Support- Esmilla	$ 175	$ -																								
Staff Engr/CM Support- Esmilla	$ 179	$ 344,113															0.4	0.4	0.5	0.6	1.0	1.0	1.0	1.0	1.0	1.0
Staff Engr/CM Support- Esmilla	$ 184	$ 388,311																								
Staff Engr/CM Support- Esmilla	$ 190	$ 401,902																								
Staff Engr/CM Support- Esmilla	$ 195	$ 425,681																								
Inspector #1 - Suchor	$ 142	$ -																								
Inspector #1 - Suchor - Overtime (10%)	$ 212	$ -																								
Inspector #1 - Suchor	$ 145	$ 127,741																							1.0	1.0
Inspector #1 - Suchor - Overtime (10%)	$ 218	$ 19,161																							0.1	0.1
Inspector #1 - Suchor	$ 149	$ 314,243																								
Inspector #1 - Suchor - Overtime (15%)	$ 223	$ 58,921																								
Inspector #1 - Suchor	$ 153	$ 322,100																								
Inspector #1 - Suchor - Overtime (15%)	$ 229	$ 60,394																								
Inspector #1 - Suchor	$ 156	$ 281,837																								
Inspector #1 - Suchor - Overtime (10%)	$ 234	$ 37,142																								
Subtotal		**$ 2,781,546**																								
Document Control System Set-up	$ 175	**$ 14,000**													80											
ODCs	3%	**$ 135,822**																								
Total		**$ 2,931,368**																								

IRWD: Planning Level MWRP Construction Management (ARCADIS)			2014												2015											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MWRP Biosolids - Final Design and CM	**2.5%**																									
Staff Engr/CM Support- Esmilla	$ 175	$ -																								
Staff Engr/CM Support- Esmilla	$ 179	$ 344,113	1.0	1.0	1.0																					
Staff Engr/CM Support- Esmilla	$ 184	$ 388,311				1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0									
Staff Engr/CM Support- Esmilla	$ 190	$ 401,902																1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Staff Engr/CM Support- Esmilla	$ 195	$ 425,681																								
Inspector #1 - Suchor	$ 142	$ -																								
Inspector #1 - Suchor - Overtime (10%)	$ 212	$ -																								
Inspector #1 - Suchor	$ 145	$ 127,741	1.0	1.0	1.0																					
Inspector #1 - Suchor - Overtime (10%)	$ 218	$ 19,161	0.1	0.1	0.1																					
Inspector #1 - Suchor	$ 149	$ 314,243				1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0									
Inspector #1 - Suchor - Overtime (15%)	$ 223	$ 58,921				0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2									
Inspector #1 - Suchor	$ 153	$ 322,100																1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Inspector #1 - Suchor - Overtime (15%)	$ 229	$ 60,394																0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Inspector #1 - Suchor	$ 156	$ 281,837																								
Inspector #1 - Suchor - Overtime (10%)	$ 234	$ 37,142																								
Subtotal		**$ 2,781,546**																								
Document Control System Set-up	$ 175	**$ 14,000**																								
ODCs	3%	**$ 135,822**																								
Total		**$ 2,931,368**																								

IRWD: Planning Level MWRP Construction Management (ARCADIS)			2016												2017											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MWRP Biosolids - Final Design and CM	**2.5%**																									
Staff Engr/CM Support- Esmilla	$ 175	$ -																								
Staff Engr/CM Support- Esmilla	$ 179	$ 344,113																								
Staff Engr/CM Support- Esmilla	$ 184	$ 388,311																								
Staff Engr/CM Support- Esmilla	$ 190	$ 401,902	1.0	1.0	1.0																					
Staff Engr/CM Support- Esmilla	$ 195	$ 425,681				1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.8	0.6								
Inspector #1 - Suchor	$ 142	$ -																								
Inspector #1 - Suchor - Overtime (10%)	$ 212	$ -																								
Inspector #1 - Suchor	$ 145	$ 127,741																								
Inspector #1 - Suchor - Overtime (10%)	$ 218	$ 19,161																								
Inspector #1 - Suchor	$ 149	$ 314,243																								
Inspector #1 - Suchor - Overtime (15%)	$ 223	$ 58,921																								
Inspector #1 - Suchor	$ 153	$ 322,100	1.0	1.0	1.0																					
Inspector #1 - Suchor - Overtime (15%)	$ 229	$ 60,394	0.1	0.1	0.1																					
Inspector #1 - Suchor	$ 156	$ 281,837				1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5										
Inspector #1 - Suchor - Overtime (10%)	$ 234	$ 37,142				0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1										
Subtotal		**$ 2,781,546**																								
Document Control System Set-up	$ 175	**$ 14,000**																								
ODCs	3%	**$ 135,822**																								
Total		**$ 2,931,368**																								

HDR ONE COMPANY | *Many Solutions*

November 27, 2012

Mr. Steve Malloy
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

Subject: MWRP Biosolids – Construction Management Support
Revised Scope & Budget

Dear Mr. Malloy,

HDR Engineering, Inc. (HDR) is pleased to provide an estimated cost proposal to provide the services of Mr. John Walker as a Senior Construction Inspector and Mr. Gregorio Estrada as a Resident Engineer for the MWRP Biosolids Construction Project. The attached proposal supersedes our initial proposal dated October 24, 2012, in order to address IRWD comments.

Per your request, the attached proposed fee is based on an assumed project duration of 48 months. The anticipated start date is April 2013, with an assumed project completion in March 2017. The proposed billing rates are based on HDR field rates previously established for the MWRP Phase 2 construction, with cost of living and merit salary adjustment at 2.5% per year to 2017. The billing rates shall be held constant throughout each year, and updated annually for cost of living and merit salary adjustments as depicted in the attached spreadsheet. The following paragraphs provide a general understanding of the scope of services for these two individuals.

Resident Engineer / CM Support: Mr. Estrada possesses over 11 years of professional expertise in water and wastewater planning, design and construction support services. Gregorio's background includes in-depth knowledge of engineering principles and methods, with focus on wastewater treatment processes, chemical system design, hydraulics and pump station design. Over the past 3 years, Gregorio has provided on-site engineering services during construction for the MWRP Phase 2 Expansion, and has also assisted IRWD with constructability reviews of the Biosolids construction documents. In his CM support role, Gregorio will provide engineering insight on various field requests, assist with RFI responses, develop and negotiate change order requests, review contractor pay requests, and take a proactive approach to mitigating potential contractor claims. Gregorio's longevity working on the MWRP Phase 2 Expansion (through design and construction) will prove to be invaluable to IRWD. During this extended tenure, Gregorio has developed excellent working relationships with Operations staff and can

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tactfully manage their needs and requests, while weighing the value against IRWD's budgetary and schedule limitations for construction. Gregorio will also provide the District with an impartial "third party" view of complex issues and Contractor disputes, providing a level of objectiveness in evaluating the Engineer's opinions, the Contractor's position/claim, and the District's expectations.

HDR and Black & Veatch share positive working relationships based on prior teaming commitments including West Basin Phase 5 and OCSD's P1-101 design. B&V was a primary subconsultant to HDR for the P1-101 expansion which occurred simultaneous to HDR's design of the MWRP Ph2 Expansion. Although Gregorio was not part of the detailed P1-101 design team due to his commitment to MWRP Ph2, he was asked to participate in technical review tasks, and thus had an opportunity to work with B&V in the past. Furthermore, B&V and HDR both standardize on the Bentley ProjectWise document filing system. Gregorio's knowledge of ProjectWise and prior working relationships with B&V and other stakeholders should prove beneficial and provide a seamless transition as the team embarks on the extensive Biosolids CM commitment.

Senior Construction Inspector: Mr. Walker is an experienced construction inspector with over 32 years of experience. During his 27-year tenure with Irvine Ranch Water District, Mr. Walker worked on numerous projects involving reservoirs, pump stations, pipelines, and most recently the MWRP Ph 2 Expansion. Mr. Walker will be responsible for providing construction inspection related to civil, structural, process/mechanical piping, coating systems and equipment installation. Similar to Gregorio's experience, John has also developed good relationships with Operations staff, contractors and subcontractors. He strives to be fair in his assessments of the contract documents, while also being diligent in holding the contractor to the requirements of the contract. Mr. Walker's hourly rate (straight time) is established in the attached spreadsheet. Since he will be an hourly employee subject to California overtime rates, the spreadsheet also accounts for a percentage of overtime (at 1-1/2 times his rate) and double time (at 2 times his rate). As indicated in the spreadsheet, the billing rate will be adjusted on an annual basis to capture cost of living and merit salary adjustments. To be consistent with the previous Phase 2 Expansion negotiations, we have assumed a 10% overtime contingency throughout the construction duration, with an assumed 20% overtime contingency during the last 3 months of construction (which is typically when the contractor increases labor hours in order to complete the project).

In addition to the two primary field support individuals, HDR has allotted minimal home office hours for project setup, monthly invoicing, and project oversight/quality assurance. We have assumed an average of 8 hours per month for a project coordinator/accountant to setup internal project files, prepare and maintain contract documentation, and prepare the monthly invoices. We have also assumed up to 36 hours per year for Jim Morris

(HDR Sr. Construction Manager) to periodically review the HDR team's performance in addressing IRWD needs, as well as be available to discuss and recommend approaches to any escalated contractor claims or issues. We have limited Mr. Morris' involvement on the project based on the understanding that Steve Malloy and Billy Stewart possess the experience to handle most of the sensitive issues and Contractor claims that may arise, however recommend this minimal effort be maintained in the event that a few difficult issues escalate during construction. Mr. Morris has extensive experience in CM practices and will be able to offer approaches to diffuse claims prior to reaching potential legal actions.

Scope and Budget Format: Please refer to the attached Table A (MWRP Biosolids – Construction Management Support) for a detailed breakdown of the anticipated services. The spreadsheet assumes fulltime commitment for Mr. Estrada and Mr. Walker throughout the 48 month construction duration. Note that the spreadsheet takes into account holidays and personal vacation by discounting the typical 2080 hours per year, (i.e., 2080 – 160 hours of vacation/holiday = 1920 hours/year). HDR's overhead accounts for paid vacation and holidays, which is reflected in the associated billing rate. HDR has provided our field rates for both of these individuals since they will be located in IRWD's construction field trailer for the duration of the project.

Other Direct Costs (ODCs): The spreadsheet establishes a column for ODCs. Typically for design projects, ODCs historically fall between 7.5% and 10% of labor to account for home office expenses associated with printing, tech charges (i.e. computer leases), reproduction, travel expenses, cell phones usage, and miscellaneous equipment usage. Specific to the CM scope of services, we have reduced the estimated percentage to 5.2%, which covers the direct expenses associated with the project including cell phone and tech charges, home office reproduction, miscellaneous equipment specific to the project, and direct expenses for the inspector's company truck.

We appreciate the opportunity to continue supporting IRWD in their engineering and construction management needs. Please do not hesitate to contact me if you wish to discuss the proposed scope of services further.

Sincerely,

HDR ENGINEERING, INC.

Scott Toland, P.E.
Project Manager

Sam Abi-Samra, P.E.
Vice President

043 07012 100808

HDR Engineering, Inc.

TABLE A

IRVINE RANCH WATER DISTRICT
MWRP BIOSOLIDS - CONSTRUCTION MANAGEMENT SUPPORT
Estimated Level of Effort and Fee

TASK NO.	DESCRIPTION	LEVEL OF EFFORT, HOURS													FEE, DOLLARS		
		2013 SR. INSP	2014 SR. INSP	2015 SR. INSP	2016 SR. INSP	2017 SR. INSP	2013 RES ENGR	2014 RES ENGR	2015 RES ENGR	2016 RES ENGR	2017 RES ENGR	PIC	ACCNT	TOTAL LABOR	LABOR	ODC	TOTAL
	Billing Rates	$133	$137	$140	$143	$147	$175	$179	$184	$189	$193	$295	$140	$161			
1	**Project Management**																
1.1	Project Setup and Invoicing (est. 8hr/mo)												384	384	53,568		56,596
1.2	Principal in charge: QA/QC, Team oversight. Provide insight on elevated claims (Assumes 36 hrs/yr)											144		144	42,480		44,287
	Subtotal 1	0	0	0	0	0	0	0	0	0	0	144	384	528	96,048	4,835	100,883
2	**CM Inspection and Engineering Support - 2013**																
2.1	Inspection & Engineering Support (Assumes an April 2013 start)	1,440					1,440							2,880	443,837		457,808
2.2	Contingency for Overtime/Doubletime Inspection Needs	144												144	19,174		20,282
	Subtotal 2	1,584	0	0	0	0	1,440	0	0	0	0	0	0	3,024	463,010	25,079	488,090
3	**CM Inspection and Engineering Support - 2014**																
3.1	Inspection & Engineering Support		1,920					1,920						3,840	607,584		640,020
3.2	Contingency for Overtime/Doubletime Inspection Needs		192											192	26,304		27,804
	Subtotal 3	0	2,112	0	0	0	0	1,920	0	0	0	0	0	4,032	633,888	33,935	667,823
4	**CM Inspection and Engineering Support - 2015**																
4.1	Inspection & Engineering Support			1,920					1,920					3,840	622,080		654,950
4.2	Contingency for Overtime/Doubletime Inspection Needs			192										192	26,880		28,397
	Subtotal 4	0	0	2,112	0	0	0	0	1,920	0	0	0	0	4,032	648,960	34,387	683,347
5	**CM Inspection and Engineering Support - 2016**																
5.1	Inspection & Engineering Support				1,920					1,920				3,840	636,189		671,542
5.2	Contingency for Overtime/Doubletime Inspection Needs				192									192	27,531		29,067
	Subtotal 5	0	0	0	2,112	0	0	0	0	1,920	0	0	0	4,032	665,720	34,890	700,610
6	**CM Inspection and Engineering Support - 2017**																
6.1	Inspection & Engineering Support (Assumes an end date of March 31, 2017)					498					498			996	169,445		178,213
6.2	Contingency for Overtime/Doubletime Inspection Needs					100								100	14,700		15,511
	Subtotal 6	0	0	0	0	598	0	0	0	0	498	0	0	1,096	184,145	9,580	193,724
	TOTAL, hours	1,584	2,112	2,112	2,112	598	1,440	1,920	1,920	1,920	498	144	384	16,744			
	TOTAL, dollars														2,691,771	142,706	2,834,476

Escalation @ 2.5% per year.

C:\Documents and Settings\stoland\My Documents\IRWD ESDC\Variance\Biosolids Proposal\Rev2\121127Budget _IRWD Bio CM_rev2.xls

EXHIBIT "G"

NMG
Geotechnical, Inc.

February 4, 2013

Project No's. 10199-03
10199-07

To: Irvine Ranch Water District
3512 Michelson Drive
Irvine, California 92612

Attention: Mr. Billy Stewart

Subject: Proposal for Geotechnical Services and Inspections during Production Pile Driving, Grading and Construction of Michelson Water Recycling Plant Biosolids and Energy Recovery Facilities Project, 3512 Michelson Drive, City of Irvine, California

INTRODUCTION

In accordance with your request, NMG Geotechnical, Inc. (NMG) is pleased to present this proposal for geotechnical services and inspections associated with the planned pile foundations and observation and testing during grading and construction of the subject project.

For ease of reference, this proposal and the attached cost breakdown are separated into four parts:

- Part 1- Services and inspections during pile driving
- Part 2 - Observation and testing during remedial grading
- Part 3 - Observation and testing of structural excavations and underground work
- Part 4 - Special Services

PART 1 – PILE DRIVING

Our proposal is based on the following:

- Our familiarity with the site conditions and pile foundations from the recently completed design and indicator pile programs.
- The pile driving specifications prepared by Black and Veatch (BV).
- The structure pile foundation table prepared by BV.
- Experience on Phase 2 construction earthwork and IRWD inspectors' procedures.
- Discussions with you.

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ASSUMPTIONS

The following assumptions were made for this proposal:

- 12 plant inspections during pile casting (plant located in Fontana).
- 3 concrete cylinders per day of plant inspection (36 total) for compression testing.
- 3 indicator piles with dynamic pile analysis (PDA) and report provided by the pile contractor's engineer.
- One day for indicator pile program.
- 3,025 production piles (precast, prestressed, 14"x14" concrete).
- 13 month pile driving duration (if only one pile driving rig).
- Average of 10 production piles driven per rig per day (300 days for one rig).
- One NMG pile inspector per pile driving rig.

SCOPE OF SERVICES

Our services for construction of pile foundations will include the following:

Preconstruction Services:

1. Review of approved pile construction drawings and specifications.
2. Review of production pile shop drawings, coordinating comments with IRWD and BV.
3. Plant inspections by an ICC certified special inspector to verify forming, pile reinforcements, concrete placement, and pile tensioning.
4. Forming of three concrete cylinders per day of plant inspection for transport to NMG's laboratory for curing and compression testing per the project specifications.
5. Attendance at pre-construction meeting and safety trainings.

Construction Services:

1. Visual inspection of piles delivered to the site and verification of casting information.
2. Observation of three indicator piles recording blows per foot, penetrations, and re-strikes (if needed).
3. Engineering review of indicator pile report by PDA engineer to determine production capacities based on blow counts (acceptance criteria).
4. Observation of driving of production piles, recording locations, observing cushions, blows per foot, penetrations, and re-strikes (if needed).
5. Monthly report of pile driving (in MS Excel format) with location of completed piles, anomalies, location and depth of pre-drilled piles, etc.
6. Final report of pile driving with compiled field logs.
7. Engineering support and project management.

Please note plant inspections will be conducted at the discretion and direction of IRWD. While the number of days driving piles would be less with multiple rigs, the inspection man-hours will not change significantly since each rig will still require one inspector. The use of

multiple rigs would reduce project duration, thereby reducing the task estimate on a weekly basis, such as weekly reports and engineering support.

PART 2 – OBSERVATION AND TESTING DURING REMEDIAL GRADING

Our proposal is based on the following:

- Our familiarity with the geotechnical site conditions.
- The earthwork specifications prepared by BV.
- The remedial earthwork quantities prepared by NMG and BV.
- Discussions with you.

ASSUMPTIONS

The following assumptions were made for this proposal:

- Remedial grading duration will be a total of 6 weeks.
- Full-time observation and testing will be required.
- Part-time supervision, quality assurance/quality control.
- Contractor or IRWD will provide survey control to document removal bottoms.
- Estimated remedial grading quantities documented during grading will be calculated.
- Prevailing wage applies to field technician staff.

SCOPE OF SERVICES

Our services during remedial grading will include the following:

Preconstruction Services:

1. Review of schedule and grading logistics provided by the contractor.
2. Attendance at pre-construction meeting and safety trainings.
3. Analysis of remedial grading and soft ground stabilization alternatives.

Grading Services:

4. Full-time observation and testing during 6 weeks of remedial grading.
5. Supervision and QA/QC by field supervisor, geologist or engineer to support the field technician staff.
6. Documentation of remedial removal bottoms.
7. Evaluation and re-calculation of remedial grading quantities.
8. Laboratory testing to determine soil engineering properties with respect to grading.
9. Preparation of a final report of observation and testing of remedial earthwork.

10. Preparation of a memorandum summarizing the remedial quantity calculations, along with a map exhibit showing removal limits.
11. Engineering support and project management.

PART 3 – OBSERVATION AND TESTING DURING EXCAVATIONS AND BACKFILLING

Our proposal is based on the following:

- Our familiarity with the geotechnical site conditions.
- The earthwork specifications prepared by BV.
- NMG's experience on MWRP Phase 2 expansion and other similar projects.
- Discussions with you.

ASSUMPTIONS

The following assumptions were made for this proposal:

- Total project duration of 4 years.
- Part-time, on-call observation and testing (average 10 hours per week).
- Part-time supervision, quality assurance/quality control.
- Prevailing wage applies to field technician staff.

SCOPE OF SERVICES

Our services related to construction of structures and infrastructure will include the following:

1. Observation of excavations for structures, utilities, etc., and soft ground stabilization operations.
2. Observation and testing of backfills for structures, utility, trenches, etc.
3. Supervision and QA/QC by field supervisor, geologist or engineer to support the field technician staff.
4. Laboratory testing to determine soil engineering properties with respect to ground stabilization materials and backfill (primarily maximum density and optimum moisture content, and sand equivalent).
5. Preparation of a final report of observation and testing.
6. Engineering support and project management.

PART 4 – SPECIALSERVICES

The scope of these services includes engineering and/or field services related to changed geotechnical conditions or project designs, laboratory testing, and/or supplemental project areas not included in the original construction plans.

COST ESTIMATE

The services described in this proposal will be billed on a time-and-materials basis in accordance with the attached 2012 Professional Fee Schedule. Due to the extended duration of the project, NMG may request yearly or bi-yearly fee schedule adjustments. The detailed cost estimate is included in the attached Table 1, Cost Breakdown, and is summarized as follows:

Part 1 – Pile Driving	$ 336,706
Part 2 – Observation and Testing During Remedial Grading	$ 55,896
Part 3 – Observation and Testing of Structure Excavations/Backfill	$ 191,370
Part 4 – Special Services	$ 5,000
Total Cost Estimate:	**$ 588,972**

If you have any questions regarding this proposal, please contact our office. We appreciate this opportunity to offer our services.

Respectfully submitted,

NMG GEOTECHNICAL, INC.

Reza Saberi, RCE 74678
Project Engineer

Lynne Yost, CEG 2317
Associate Geologist

Ted Miyake, RCE 44864
Principal Engineer

LY/TM/RS/grd

Attachments: Table 1 – Cost Breakdown
2012 Professional Fee Schedule

Distribution: (1) Addressee, via electronic mail

TABLE 1 - COST BREAKDOWN				
PART 1 - IRWD Biosolids and Energy Recovery Facility PILE DRIVING SERVICES				
Service Category	**Staff Level**	**Hours/Qty**	**Unit Rate**	**Cost**
1. Preconstruction Services				
Review of Approved Pile Construction Plans	Project Engineer	4	$116	$464
	Pile Inspector	4	$98	$392
Review of Pile Shop Drawings	Project Engineer	24	$116	$2,784
Pile Fabrication Plant Inspections	Special Inspector	120	$98	$11,760
Attendance at Preconstruction Meeting and Safety Training	Project Engineer	3	$116	$348
	Pile Inspector	3	$98	$294
	Principal/Associate	6	$140	$840
			Subtotal:	$16,882
2. Services During Construction				
Indicator Pile Inspection	Pile Inspector	8	$98	$784
	Project Engineer	2	$116	$232
Review of Indicator Pile Report	Project Engineer	3	$116	$348
	Principal/Associate	1	$140	$140
Production Pile Inspections	Pile Inspector	2724	$98	$266,952
	Project Engineer	104	$116	$12,064
Monthly Summary Reports	Project Engineer	80	$116	$9,280
Final Report of Pile Driving and Materials Testing				$2,500
			Subtotal:	$292,300
3. Laboratory Testing				
Concrete Compression Tests		36	$25	$900
			Subtotal:	$900
4. Engineering Support and Project Management				
13 Month Duration (ave. 2 hours/week)	Project Engineer	104	$116	$12,064
(average 8 hrs/mo.)	Principal/Associate	104	$140	$14,560
			Subtotal:	$26,624
	PART 1 - SUBTOTAL PILE DRIVING:			**$336,706**

TABLE 1 - COST BREAKDOWN				
PART 2 - IRWD Biosolids and Energy Recovery Facility REMEDIAL GRADING SERVICES				
Service Category	**Staff Level**	**Hours/Qty**	**Unit Rate**	**Cost**
1. Preconstruction Services				
Review of Schedule and Grading Logistics	Principal/Associate	5	$140	$700
Attendance at Preconstruction Meeting and Safety Training	Supervisory Technician	3	$98	$294
	Field Soil Technician	3	$98	$294
	Principal/Associate	3	$140	$420
Review and Analysis of Alternative Means and Methods	Principal/Associate	14	$140	$1,960
	Project Engineer	16	$116	$1,856
			Subtotal:	$5,524
2. Observation and Testing during Remedial Grading				
Six Weeks of Remedial Earthwork	Field Soil Technician	270	$98	$26,460
	Supervisory Technician	30	$98	$2,940
	Principal/Associate	40	$140	$5,600
Review of Remedial Grading Quantities	Principal/Associate	25	$140	$3,500
Summary Memorandum of Remedial Quantities				$1,800
Final Report of Remedial Grading				$4,000
			Subtotal:	$44,300
3. Laboratory Testing				
Soil Testing	Maximum Dry Density	3	$200	$600
Aggregate Testing	Maximum Dry Density	3	$200	$600
	Sieve Analysis	3	$88	$264
			Subtotal:	$1,464
4. Engineering Support and Project Management				
6 Week Duration (ave. 3 hours/week)	Project Engineer	18	$116	$2,088
	Principal/Associate	18	$140	$2,520
			Subtotal:	$4,608
			PART 2 - SUBTOTAL REMEDIAL GRADING:	**$55,896**

TABLE 1 - COST BREAKDOWN				
PART 3 - IRWD Biosolids and Energy Recovery Facility EXCAVATION AND BACKFILL SERVICES				
Service Category	**Staff Level**	**Hours/Qty**	**Unit Rate**	**Cost**
1. Observation and Testing During Construction				
Four Years less initial remedial grading (194 weeks)	Field Soil Technician	1552	$98	$152,096
	Supervisory Technician	97	$98	$9,506
	Principal/Associate	60	$140	$8,400
Final Report of Backfill Observation and Testing				$4,000
			Subtotal:	$174,002
3. Laboratory Testing				
Soil Testing	Maximum Dry Density	6	$200	$1,200
Aggregate Testing	Maximum Dry Density	12	$200	$2,400
	Sieve Analysis	6	$88	$528
			Subtotal:	$4,128
4. Engineering Support and Project Management				
4 Year Duration (ave. 0.5 hours/week)	Project Engineer	90	$116	$10,440
	Principal/Associate	20	$140	$2,800
			Subtotal:	$13,240
			PART 3 - SUBTOTAL STRUCTURE EXCAVATION/BACKFILL:	**$191,370**
			PART 4 - SPECIAL SERVICES:	**$5,000**
			TOTAL COST ESTIMATE:	**$588,972**

NMG
Geotechnical, Inc.

2012 PROFESSIONAL FEE SCHEDULE

HOURLY RATES BY STAFF CATEGORY

Principal and Associate Engineer/Geologist	$140
Project Engineer/Geologist	$116
Senior Staff Engineer/Geologist	$ 98
Supervisory Technician	$ 98
Staff Engineer/Geologist	$ 89
Senior Project Technician	$ 89
Project Technician	$ 82
Staff Technician	$ 73
CAD Drafter/Technical Illustrator	$ 73
Word Processor	$ 65
Technical Assistant	$ 53

LABORATORY TESTING

Moisture Content	$ 15
Moisture Content & Density	$ 25
Atterberg Limits	$140
Particle-Size Sieve Analysis	$ 88
Finer than No. 200 Sieve	$ 58
Hydrometer Analysis	$ 93
Maximum Dry Density	$200
Maximum Dry Density with Oversize Particle	$235
Caltrans 216 Maximum Density	$185
Sand Equivalent	$ 78
Soluble Sulfate Content	$ 58
Expansion Index	$150
Concrete, Mortar or Grout Compression (per cylinder/cube/prism)	$ 25
CMU Grouted Prisms	
- Compression Test ≤8" x 8" x 16"	$ 180
- Compression Test >8" x 8" x 16"	$ 250

Consolidation	$190
- For time-rate, add $35/increment	
- For remolded, add $50/specimen	
- For reload, add $100/cycle	
Hydroconsolidation/Collapse	$120
Undisturbed Direct Shear	$180
Undisturbed Direct Shear – Slow	$275
Remolded Direct Shear	$225
Remolded Direct Shear – Slow	$350
Residual Direct Shear	$550
R-Value	$230
Asphalt Maximum Density	$230
Gunite/Shotcrete Panel Coring & Testing	$100

NOTES

1. *Prevailing Wage is invoiced at Supervisory Technician rate.*
2. *No additional charges for field vehicle usage, nuclear gauge, or overtime work (except for prevailing wage).*
3. *Heavy equipment (i.e. drill rig, backhoe, CPT) charges will be invoiced at cost.*
4. *Delivery and outside reproduction charges will be invoiced at cost.*
5. *Outside laboratory test charges will be invoiced at cost.*

17991 Fitch • Irvine, California 92614 • PHONE (949) 442-2442 • FAX (949) 476-8322 • www.nmggeotechnical.com

EXHIBIT "H"

Construction Surveying Evaluation
for

Michelson Water Recycling Plant
Biosolids and Energy Recovery Facilities
Project 20847 (1617)

	Weights	Bush & Associates	Guida	Borchard
PROPOSAL CONTENT				
*Project Understanding	60%	3	2	1
*Proposal Content	40%	2	3	1
Weighted Score (Total Points)	**100%**	**2.60**	**2.40**	**1.00**
Proposed Project Scope				
Settlement Monitoring				
Establish control and set temporary monuments		2 days @ 8 hrs	2 days @ 16 hrs	5 days @ 8 hrs
Work days at ___ hours per day		$2,912	$5,200	$8,600
Settlement Monitoring		72 days @ 8 hrs	72 days @ 8 hrs	72 days @ 4 hrs
72 work days at ___hours per day		$104,832	$148,320	$61,920
*Office Support (this task not included in RFP)		$0	$0	$8,720
Subtotal		**$107,744**	**$153,520**	**$79,240**
As Needed Surveying Services				
Field Crew:				
84 work days at 4 hours per day		$61,152	$80,640	$72,240
Surveyor:		84 days @ 2 hrs	84 days @ 1 hrs	- 0 -
__work days at __hours per day		$20,160	$11,760	- 0 -
Subtotal		**$81,312**	**$92,400**	**$72,240**
Topographic Surveys				
Field Crew:				
20 work days at 4 hours per day		$14,560	$19,200	$17,200
Surveyor:		20 days @ 4 hrs	20 days @ __ hrs	20 days @1.5 hrs
20 work days at __hours per day		$9,600	$16,800	$3,300
Subtotal		**$24,160**	**$36,000**	**$20,500**
Review Contractor's Survey Data				
Surveyor:				
40 Work days at 4 hours per day		$19,200	$22,400	$17,600
Subtotal		**$19,200**	**$22,400**	**$17,600**
Office Support/Administration				
Meetings 30 @ 3 hours		$10,800	$17,100	$9,900
Technical Support - Coordination		$78,245	$12,480	$3,600
Administration		$38,539	$11,700	$3,600
Subtotal		**$127,584**	**$41,280**	**$17,100**
Total Proposed Fee		**$ 360,000.00**	**$ 345,600.00**	**$ 206,680.00**
RANKINGS:		3	2	1
1 - Best				
2 -				
3 - Lowest				

BORCHARD SURVEYING & MAPPING

November 12, 2012

Mr. Billy Stewart
Irvine Ranch Water District
15600 Sand Canyon Ave.
Irvine, Ca. 92614

Subject: **MICHELSON WATER RECLAMATION PLANT BIO-SOLIDS AND ENERGY RECOVERY FACILITIES PROJECT NO. 20847**

Mr. Stewart,
Thank you for considering my firm for Professional Land Surveying Services for the above referenced project.

Please do not hesitate to contact me with any questions you may have on this or any other project.

Sincerely,
Greg Borchard, P.L.S.
President

815 Calle Puente | San Clemente, CA 92672 | 949.439.4682 | gborchard@borchardsurveying.com

EXHIBIT "A"
WORK DELINEATION AND FEE PROPOSAL FOR
MICHELSON WATER RECLAMATION PLANT BIO-SOLIDS AND ENERGY RECOVERY FACILITIES
PROJECT NO. 20847

SUBMITTED BY: BORCHARD SURVEYING & MAPPING, INC.
GREGORY S. BORCHARD P.L.S., PRESIDENT

Greg Borchard 11/15/12

1. SETTLEMENT MONITORING

A. Establish control and set temporary monuments 5 work days at 8 hours/day.....$8,600.00

B. Settlement monitoring 72 work days at 4 hours/day $61,920.00

C. office analysis, settlement reports & calculations $8,720.00

2. AS NEEDED SURVEY SERVICES

A. **Field Crew** – 84 work days at 4 hours/day.....$72,240.00

3. TOPOGRAPHIC SURVEYS

A. **Field Crew** – 20 working days at 4 hours/day.....$17,200.00
B. **Surveyor** - 20 working days at 1.5 hours/day.....$3,300.00

4. REVIEW CONTRACTOR'S SURVEY DATA

A. **Surveyor** – 40 work days at 4 hours/day.....$17,600.00

5. OFFICE SUPPORT/ADMINISTRATION

A. **(Meetings)**30 Meetings at 3 hours each.....$9,900.00
B. **Technical support**.....$3,600.00
C. **Administration**.....$3,600.00

TOTAL FEE.....$206,680.00

Please read assumptions & exclusions

Fees will be based on hours spent at the following rates:
Office Time: $ 110.00 per hour
2 person survey crew: $215.00 per hour

815 Calle Puente | San Clemente, CA 92672 | 949.439.4682 | gborchard@borchardsurveying.com

BORCHARD SURVEYING & MAPPING

EXHIBIT "B"
ASSUMPTIONS AND EXCLUSIONS
MICHELSON WATER RECLAMATION PLANT BIO-SOLIDS AND ENERGY RECOVERY FACILITIES
PROJECT NO. 20847

In order that the tasks involved are understood, I have listed the following assumptions and exclusions made in preparing the Scope and costs for this project:

1. Surveyor is not obligated to show the location of recorded easements and/or visible easements or encroachments that may appear within the project except as specifically indicated herein.

2. Land Surveying is investigative in nature. Surveyor has no control over the difficulty of locating records, conditions of the terrain, density of the vegetation, severity of the weather, and availability of original monuments. Therefore, any estimates of the project cost provided to the client are made on the basis of experience and similar services provided in the past. Surveyor cannot and does not guarantee that the actual costs will not vary from estimates previously named provided, however, that Surveyor will notify Client as soon as Surveyor is aware the fee to be charged will exceed the estimated cost.

3. Extra Work, meetings, court appearances, etc., required or incurred by others (such as Client, Owner, Builder, Contractor, Architect, Engineer, City, County, etc.) shall be provided by Surveyor on an hourly basis at our standard rates.

4. Client acknowledges and agrees that if Consultant provides Surveying Services, which services require filing of a Record of Survey in accordance with Business and Professions Code Section 8762, or a Corner Record in accordance with Business and Professions Code Section 8773, that all costs of field work, preparation, examination and filing for the Record of Survey or Corner Record shall be paid by the Client as extra work in accordance with the Consultants standard hourly rates.

5. An accurate survey control network is essential for facilitating the construction of the proposed pipelines, appurtenances and well facilities. This proposal assumes that aerial control, AutoCad design files and topographic maps used by Black & Veatch in the design phase of this project will be provided to our firm to be used for the basis of our field construction control & construction calculations. It is also assumed that said aerial control meets accuracy standards which allow it to be used for project construction control. Standard hourly rates will apply to establish construction control if aerial control is not provided, or if new construction control needs to be established.

6. Engineering is not included herein.

7. Re-staking will be billed at standard hourly rates.

8. There is a 4-hour minimum for Extra Field Work, 48-hour notice for staking requests.

9. Blueprints, deliveries, express mail, etc., are reimbursable and shall be billed at cost plus 15%.

EXHIBIT "I"

MWRP Phase 2 Expansion
Construction Management

Construction Cost	$91,000,000	(thru CCO #89)		
	$910,000	Future CCOs	1.00%	
	$91,910,000	Total estimated construction cost		

Company	Task	Total Fee	% of Construction	CM only	
HDR	CM	$5,954,698		6.5%	76%
	ESDC	$1,880,431	2.0%		24%
		$7,835,129	8.5%		
M-P	CM	$2,539,980		2.8%	
N&M	Piles	$451,239		0.5%	
NMG	Geotech	$379,530		0.4%	
Borchard	Survey	$234,103		0.3%	
Harper	Coatings	$94,170		0.1%	
SGS	Blowers	$16,225		0.0%	
Element	SS	$5,000		0.0%	
Sub-total consultants		$11,555,376		10.5%	
IRWD CA&I		$931,742	actual $; months 9/09 to 1/13:		41
		$81,811	est. $; mon. 2/13 to 7/13 @ 60%:		6
		$1,013,553		1.1%	
Total		$12,568,929		11.6%	

MWRP Biosolids & Energy Recovery Facilities
Construction Management

Construction Cost	$163,500,000	(Bid w/o Microturbines service agreement)	
	$6,540,000	Future CCOs	4%
	$170,040,000	Total estimated construction cost	

Company	Task	Total Fee	% of Construction	CM only	
B&V	CM	$8,458,705		5.0%	68%
	ESDC	$4,050,326	2.4%		32%
		$12,509,031	7.4%		
ARCADIS	CM	$2,931,368		1.7%	
HDR	CM	$2,834,476		1.7%	
NMG	Geotech&Piles	$588,972		0.3%	
	Mat'ls (conc)	$380,000		0.2%	
Borchard	Survey	$206,680		0.1%	
	Coatings	$75,000		0.0%	
SGS	Blowers	$10,000		0.0%	
Element	SS	$5,000		0.0%	
Sub-total consultants		$19,540,527		9.1%	
IRWD CA&I		$2,859,000		1.68%	
Total		$22,399,527		10.8%	

DUDEK

31878 CAMINO CAPISTRANO, SUITE 200
SAN JUAN CAPISTRANO, CALIFORNIA 92675
T 949.450.2525 F 949.450.2626

February 1, 2013

Irvine Ranch Water District
Attn: Steve Malloy
15600 Sand Canyon Ave
Irvine, CA 92618

Subject: Proposal to Provide Third Party Review and Support During Construction of the Michelson Biosolids Odor Control Facility Improvements

Dear Mr. Malloy:

We are pleased to provide this scope and budget proposal to provide support for the District's bi-annual, Community Meetings over a 4 year construction period, providing third party review and observation of the construction of the biosolids odor control facility.

UNDERSTANDING AND SCOPE OF SERVICES

We understand that the District's approach is to install very reliable odor control systems with necessary support systems, such as chemical addition, instrumentation, and stand-by power, so that the odor control systems will result in no odor impacts to District employees or to their neighbors. Based on our previously conducted peer review and discussions with the District, we propose the following scope of services:

1. Project Initiation and Kickoff
    a. Meet with District Staff to develop format of Community Meeting presentation.
2. Preparation/Attendance of Initial Pre-construction Community Meeting
    a. Prepare exhibits and/or Powerpoint for meeting.
    b. Meet with District Staff prior to Community Meeting to review, finalize presentation
    c. Attend Initial Pre-construction Community Meetings to review biosolids odor control project construction
3. Preparation/Attendance of each of eight (8) bi-annual Community status meetings over 4 year construction period:
    a. Review construction progress documented reporting
    b. Site visit - meet with District staff and/or contractor at site to review construction project, discuss status.
    c. Prepare Memorandum summarizing observations and any comments noted in observation of construction.

d. Prepare exhibits and/or Powerpoint for meeting.
e. Meet with District Staff prior to Community Meeting to review, finalize presentation.
f. Attend bi-annual Community Meetings to review status of biosolids odor control project construction

4. Preparation/Attendance of the final post-construction Community status meeting upon completion of construction
    a. Site visit - meet with District staff and/or contractor at site to review/walk-thru constructed project.
    b. Prepare final Memorandum summarizing final, constructed project.
    c. Prepare exhibits and/or Powerpoint for meeting.
    d. Meet with District Staff prior to Community Meeting to review, finalize presentation
    e. Attend Community Meetings to review constructed biosolids odor control project.
    f. It is anticipated that the initial and final meetings will required additional effort than the on-going status meetings.
5. Read, Review and Comment on Odor Control and Maintenance Monitoring Plan
    a. We will read, review, comment and provide feedback and suggestions for the Odor Control and Maintenance Monitoring Plan

FEE ESTIMATE AND CLOSING

We look forward to providing these services described herein to IRWD and propose a fee of $94,616 per the attached spreadsheet. If you have any questions or concerns regarding this proposal, please do not hesitate to contact me at (949) 632-1767.

Respectfully Submitted,
DUDEK

Bob Ohlund, P.E.
Vice President

Attachment: Fee Estimate

IRVINE RANCH WATER DISTICT

THIRD PARTY REVIEW AND SUPPORT DURING CONSTRUCTION OF THE MICHELSON BIOSOLIDS ODOR CONTROL FACILITY IMPROVEMENTS

DUDEK FEE ESTIMATE

1/31/2013

		Labor Hours and Rates						
	Project Team Role: / *Team Member:*	PIC/QC Ohlund	Project Manager Harper	Senior Technical Engineer Yu/Troxel	Presentation Coordinator Knox	TOTAL HOURS	OTHER DIRECT COSTS	TOTAL FEE
1	Project Initiation and Kick-Off	3	3			6	$ 25	$ 1,264
2	Prepare/Attend Initial Pre-Construction Community Status Meeting	12	10	8	4	34	$ 75	$ 6,695
3	Prepare/Attend (8) Bi-Annual Community Status Meetings	112	128	96	32	368	$ 600	$ 72,424
4	Prepare/Attend Final Post-Construction Community Status Meeting	16	18	12	4	50	$ 75	$ 9,879
5	Review of Odor Control and Maintenance Monitoring Plan	2	8	12		22		$ 4,354
	Total Hours and Fee	145	167	128	40	480	$ 775	$ 94,616

IRVINE EXHIBIT "K" DISTRICT
PROFESSIONAL SERVICES VARIANCE

Project Title: MWRP Biosolids Handling & Energy Recovery Facility
File No.:
Date: January 24, 2013
Variance No.: #5
Project No.: 20759/20847
Project No. 20759/20847
Purchase Order No.: 124442

Originator: [ ] IRWD [X] ENGINEER/CONSULTANT [ ] Other (Explain)

Description of Variance (*attach any back-up material*):
See attached scope of work

Engineering & Management Cost Impact:

Classification	Manhours	Billing Rate	Labor $	Direct Costs	Subcon. $	Total $
Principal	17	$250	$4,250	$250		$4,500
Manager 9	44	$195	$8,580	$500		$9,080
Senior Associate 6B	70	$145	$10,150	$600		$10,750
Support	10	$60	$600	$70		$670
					Total $ =	$25,000

Schedule Impact:

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
1	Emission Calculations	March 2011	January, 2012	No change requested in this Variance
2	Preparation of Permit Applications	March 2011	January, 2012	
3	Communication with SCAQMD	April 2011	As needed	
4	Conference calls/meetings	As needed	As needed	
5	CEQA air quality assistance	As needed	As needed	
6	Facility PTE	---	January, 2012	

Required Approval Determination:

Total Original Contract	$19,000	[ ] General Manager: Single Variance less than or equal to $30,000.
Previous Variances	$ 96,600	
This Variance	$25,000	[ ] Committee: Single Variance greater than $30,000, and less than or equal to $60,000.
Total Sum of Variances	$121,600	
New Contract Amount	$140,600	[ ] Board: Single Variance greater than $60,000.
Percentage of Total Variances to Original Contract	740 %	[X] Board: Cumulative total of Variances greater than $60,000, or 30% of the original contract, whichever is higher.

ENGINEER/CONSULTANT: ENVIRON International Corporation
Company Name

IRVINE RANCH WATER DISTRICT

Project Engineer/Manager	Date	Department Director	Date 3/19/13
Engineer's/Consultant's Management	Date 01/24/2013	General Manager/Comm./Board	Date

IRVINE RANCH WATER DISTRICT

PROFESSIONAL SERVICES VARIANCE REGISTER

Project Title: MWRP Biosolids Handling & Energy Recovery Facility

Project No.: 20759 Project Manager: _____

Variance No.	Description	Dates		Variance Amount
		Initiated	Approved	
1	Revision/addition of tasks related to project changes	10/29/10	11/10/10	$26,500
2	Revision/addition of tasks related to project changes	10/11/11	10/21/11	$16,100
3	Revision/addition of tasks related to project changes	12/23/11	1/24/12	$30,000
4	Revision/addition of tasks related to project changes	08/14/2012	8/28/12	$24,000
5	Assessment of Peak Day emissions for CEQA	01/24/2013		$25,000

ENVIRON

January 24, 2013

Via Electronic Mail

Steve Malloy
Principal Engineer – Capital Projects
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92618

Re: Additional Scope of Work and Cost Estimate (Variance #5) for Irvine Ranch Water District (IRWD) MWRP Biosolids Project Air Permitting – CEQA Support

Dear Mr. Malloy:

ENVIRON International Corporation (ENVIRON) has prepared this authorization request for additional work not anticipated in the original February 19, 2010 scope of work and the subsequent Variances #1, #2, #3, and #4, approved November 4, 2010, October 14, 2011, January 24, 2012, and August 28, 2012, respectively.

Revised Scope of Work

This section presents the revised scope of work, including the original February 19, 2010 scope (authorized by the April 29, 2010 Notice to Proceed PR 20759), Variance #1 authorized on November 4, 2010, Variance #2 authorized on October 14, 2011, Variance #3 authorized on January 24, 2012, and Variance #4 authorized on August 28, 2012. In addition, this scope of work includes additional air quality assistance tasks needed to finalize the SCAQMD permit as well as additional assist with CEQA air emission calculations for the project requested by IRWD which was not included in the previous scope of work and variances.

Task 1: Emission Calculations

The original scope and Variances #1 - 4 included the following tasks:

- Refine the emission calculations prepared based on the HDR design.
- Provide additional updates to the emission calculations based on minor changes to the proposed process.
- Perform a health risk assessment of the toxic air contaminants that may include air dispersion modeling dispersion using SCREEN3 for equipment included in original project description.
- Conduct specific calculations to confirm regulatory compliance for all applicable regulations.
- Reassess and calculate emissions based on the B&V design.
- Updated emission calculations and application to reflect changes in operating scenarios.
- Conducted additional SCREEN3 modeling.

No changes in Task 1 are being requested under Variance #5.

Task 2: Preparation of the Permit Application

Under the original February 2010 scope of work, ENVIRON included the following:

> "The permit application includes preparation of a process description including a description of each emission point and the history of the current operations at the facility. The write-up will also include a summary of ENVIRON's regulatory review of local, state, and federal regulations as they apply to the proposed project. In addition ENVIRON will prepare a description of how the emissions were calculated, complete the applicable SCAQMD forms and calculate the application fees. The application will be prepared according to the requirements for Certified Permitting Professionals (CPP) which should help to expedite the SCAQMD's review of the permit application."

Due to changes in the operating scenarios and the equipment list provided in the original application, the previous variances included additional time for revising the draft application to incorporate the proposed changes. In addition, Variance #4 included effort to assess whether the change in the emergency generator rating will affect the conclusions made in the final application. In addition, ENVIRON provided updated forms and details for the SCAQMD for the change in the generator rating. No changes in Task 2 are being requested under Variance #5.

Task 3: Communication with SCAQMD

Under the original February 2010 scope of work, ENVIRON included the following:

> "After the permit application is submitted to the SCAQMD, ENVIRON will assist the SCAQMD permit engineer regarding any follow-up questions that may arise. This will help to expedite the permit application and help IRWD obtain appropriate permit conditions."

With Variance #1, an increase in scope was included to cover one in-person meeting at the SCAQMD (an application submittal meeting). Variances #2-4 were approved to incorporate additional SCAQMD meeting preparation work and conference calls with SCAQMD after the application is submitted to address comments or questions.

The SCAQMD has begun its review of the applications and has submitted additional data requests to IRWD. IRWD has requested ENVIRON's assistance in gathering data requested from the design team, Black & Veatch, and preparing the response to SCAQMD's comments in coordination. In addition, ENVIRON has included additional budget in this scope of work to assist with potential additional comments or questions from the SCAQMD during the permit application review process. ENVIRON also proposes to review the draft permit and provide comments on issues or suggested edits to IRWD for submittal to the SCAQMD to finalize the permits.

Task 4: Conference Calls, Project Management, and Miscellaneous Tasks

Under the original February 2010 scope of work, ENVIRON included the following:

> "This task will cover the costs of conference calls and meetings that ENVIRON may have with HDR and IRWD regarding the permit application. In addition, the task will cover general project management costs and minor miscellaneous tasks that may arise outside of the scope of tasks 1 through 3."

In order to accommodate the new project design and requested assistance, ENVIRON included in Variance #1 additional budget for the August 4, 2010 kick-off meeting with B&V and three additional conference calls to discuss the B&V design and related air emissions. Variance #2 included four

additional 1-hour conference calls to finalize the application and address post-submittal comments and questions from the SCAQMD. For purposes of addressing peak day emission calculations requested under Task 5, additional conference calls were required. For this purpose, Variance #5 includes additional hours and budget to account for this request as well as additional general project management costs and minor miscellaneous tasks that may arise outside of the scope of other tasks in this scope of work.

Task 5: California Environmental Quality Act (CEQA) Air Quality Assistance

At the request of IRWD, ENVIRON will also coordinate with IRWD's subcontractor tasked with preparing the CEQA analysis document in order to provide assistance with the required air quality analysis. Work under this task will be conducted with prior approval of IRWD on an as-needed basis. Costing includes 4 conference calls and a review and general comment of the draft air quality impact section of the draft EIR. Since approval of the original scope and Variances #1-4, ENVIRON was also requested to provide peak day emission calculations for inclusion in the CEQA analysis. In addition, additional emission reduction or offset options were explored for purposes of reducing the significance impact of the project under CEQA. Work under this task was conducted based on prior approval by IRWD and was completed on October 11, 2012. Costs include about $6,800 for work required to assist in completing air quality related analysis as part of the CEQA process. Variance #5 includes additional budget to account for the peak day emission calculations and offset research.

Task 6: Existing Facility Potential to Emit

At the request of IRWD, Variance #2 included calculation of the existing facility's potential to emit (PTE) for purposes of assessing the facility's Title V major source status with operation of the proposed biosolids project. This task assumed that IRWD will provide details on the existing equipment and previous emission factors and/or methodologies used for estimating emissions for the facility. Additional time was need to track down additional emission factors not provided by IRWD as assumed under Variance #2, as well as to verify/correct information used in previous Annual Emission Reports or applications for purposes of calculating the facility-wide PTE. In addition, ENVIRON updated the PTE calculations based on revised information gathered by IRWD. Under Variance #3, ENVIRON requested additional budget to encompass this expanded scope to finalize the existing facility-wide PTE. No further change in Task 6 is requested under this revised scope of work.

Schedule

The final permit application was submitted in May, 2012. Tasks under this revised scope of work will be conducted on an as-needed basis.

Cost Estimate

The estimated total cost for the additional scope of task items under Variance #5 is $13,000, for a total budget of $128,600. The cost estimate does not include the SCAQMD permitting fees. Costs are based on a time-and-materials basis using our current rates and the terms and conditions approved under the April Notice to Proceed PR 20759. The costs are split out by task in the table below for informational purposes only.

Original Task Number/Description	Original Scope/Variances #1 & #2 Cost	Additional Scope Cost	Total Cost
Task 1 Emission Calculations	$28,700	--	$28,700
Task 2. Preparation of the Permit Application	$29,800	--	$29,800

Original Task Number/Description	Original Scope/Variances #1 & #2 Cost	Additional Scope Cost	Total Cost
Task 3. Communication with SCAQMD	$23,500	$14,800	$38,300
Task 4. Conference Calls, Project Management, and Miscellaneous Tasks	$15,900	$3,400	$19,300
Task 5. CEQA Air Quality Assistance	$8,000	$6,800	$14,800
Task 6. Facility-wide PTE Calculations	$9,700	--	$9,700
Total	**$91,600**	**$25,000**	**$140,600**

Category (Proposed Variance #5)	Hours	Cost
Principal	17	$4,500
Manager 8, 9 & 10	44	$9,080
Associate 4, 5, 6, 6B, 7	70	$10,750
Support and Miscellaneous	10	$670
Total:	**150**	**$25,000**

Please feel free to call Julia Lester at (213) 943-6329 or Rachel Velthuisen at (213) 943-6349 if you have any comments or questions about this proposal.

Sincerely,

Rachel Velthuisen, PhD
Senior Manager

Julia C. Lester, PhD
Principal

RV:nv
P:\I\Irvine Ranch Water District\0524406A MWRP Biosolids Permit Assist\Admin\IRWD updated scope Variance #5 012413.docx

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: MWRP BIOSOLIDS & ENERGY RECOVERY FACILITY
EPMS Project No: 20847 **EA No:** 7
Oracle Project No: 1617
Project Manager: MALLOY, STEVEN
Project Engineer: SPANGENBERG, CARL
Request Date: March 19, 2013

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
211	5.4	CAPITAL FUND
212	2.3	BONDS YET TO BE SOLD**
213	.2	BONDS YET TO BE SOLD**
221	10.8	BONDS YET TO BE SOLD**
230	7.1	BONDS YET TO BE SOLD**
250	16.8	BONDS YET TO BE SOLD**
253	.5	BONDS YET TO BE SOLD**
261	4.4	BONDS YET TO BE SOLD**
282	1.2	BONDS YET TO BE SOLD**
284	1.3	BONDS YET TO BE SOLD**
299	50.0	CAPITAL FUND ENHANCEMENT**
Total	**100.0%**	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	$19,392,000
This Request:	($3,932,800)
Total EA Requests:	$15,459,200
Previously Approved Budget:	$174,579,000
Budget Adjustment Requested this EA:	($159,119,800)
Updated Budget:	$15,459,200
Budget Remaining After This EA	$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING IRWD	1,000	0	1,000	1,000	0	1,000	11/10	6/13
ENGINEERING - PLANNING OUTSIDE	50,000	0	50,000	50,000	0	50,000	11/10	6/13
ENGINEERING DESIGN - IRWD	300,000	600,000	900,000	300,000	600,000	900,000	7/10	6/12
ENGINEERING DESIGN - OUTSIDE	680,000	8,420,000	9,100,000	680,000	8,420,000	9,100,000	7/10	6/12
DESIGN STAFF FIELD SUPPORT	(72,000)	87,000	15,000	(72,000)	87,000	15,000	7/10	6/12
ENGINEERING - CA&I IRWD	(53,400)	68,400	15,000	(2,985,000)	3,000,000	15,000	5/13	6/13
ENGINEERING - CA&I OUTSIDE	(5,755,000)	5,955,000	200,000	(6,430,000)	6,630,000	200,000	6/13	6/13
CONSTRUCTION FIELD SUPPORT	(5,000)	10,000	5,000	(93,700)	98,700	5,000	6/13	6/13
CONSTRUCTION	1,517,000	2,983,000	4,500,000	(142,500,000)	147,000,000	4,500,000	6/13	6/13
LEGAL	45,000	15,000	60,000	(40,000)	100,000	60,000	7/10	6/13
WATER QUALITY	0	30,000	30,000	0	30,000	30,000	7/10	12/15
ENGINEERING ENVIRONMENTAL-OUTS	130,000	300,000	430,000	130,000	300,000	430,000	7/10	9/11
Contingency - 1.00% Subtotal	($770,400)	$923,600	$153,200	($8,160,100)	$8,313,300	$153,200		
Subtotal (Direct Costs)	($3,932,800)	$19,392,000	$15,459,200	($159,119,800)	$174,579,000	$15,459,200		
Estimated G/A - 180.00% of direct labor*	$307,100	$1,431,700	$1,738,800	($5,129,500)	$6,868,300	$1,738,800		
Total	($3,625,700)	$20,823,700	$17,198,000	($164,249,300)	$181,447,300	$17,198,000		
Direct Labor	$170,600	$795,400	$966,000	($2,849,700)	$3,815,700	$966,000		

***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: Steve Malloy 3-19-13

Department Director: Kevin L Burton 3/19/13

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 $17,542,000. 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: MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES
EPMS Project No: 21146 **EA No:** 1
Oracle Project No: 4286
Project Manager: MALLOY, STEVEN
Project Engineer: SPANGENBERG, CARL
Request Date: March 18, 2013

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
210	45.5	REPLACEMENT FUND**
211	4.6	CAPITAL FUND
212	2.0	BONDS YET TO BE SOLD**
213	.1	BONDS YET TO BE SOLD**
221	9.2	BONDS YET TO BE SOLD**
230	6.0	BONDS YET TO BE SOLD**
235	.4	CAPITAL FUND
250	14.3	BONDS YET TO BE SOLD**
253	.5	BONDS YET TO BE SOLD**
261	3.7	BONDS YET TO BE SOLD**
282	1.0	BONDS YET TO BE SOLD**
284	1.1	BONDS YET TO BE SOLD**
299	11.6	CAPITAL FUND ENHANCEMENT**
Total	**100.0%**	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	$0
This Request:	$196,465,500
Total EA Requests:	$196,465,500
Previously Approved Budget:	$0
Budget Adjustment Requested this EA:	$196,465,500
Updated Budget:	$196,465,500
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 - CA&I IRWD	2,950,000	0	2,950,000	2,950,000	0	2,950,000	4/13	12/16
ENGINEERING - CA&I OUTSIDE	19,600,000	0	19,600,000	19,600,000	0	19,600,000	4/13	12/16
CONSTRUCTION FIELD SUPPORT	100,000	0	100,000	100,000	0	100,000	4/13	12/16
CONSTRUCTION	164,000,000	0	164,000,000	164,000,000	0	164,000,000	10/13	6/17
LEGAL	10,000	0	10,000	10,000	0	10,000	4/13	12/13
WATER QUALITY	50,000	0	50,000	50,000	0	50,000	4/13	12/16
ENGINEERING ENVIRONMENTAL-OUTS	400,000	0	400,000	400,000	0	400,000	4/13	12/16
Contingency - 5.00% Subtotal	$9,355,500	$0	$9,355,500	$9,355,500	$0	$9,355,500		
Subtotal (Direct Costs)	$196,465,500	$0	$196,465,500	$196,465,500	$0	$196,465,500		
Estimated G/A - 180.00% of direct labor*	$5,580,000	$0	$5,580,000	$5,580,000	$0	$5,580,000		
Total	$202,045,500	$0	$202,045,500	$202,045,500	$0	$202,045,500		
Direct Labor	$3,100,000	$0	$3,100,000	$3,100,000	$0	$3,100,000		

*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: Steve Malloy 3/18/13

Department Director: Kevin L Burton 3/19/13

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 $206,087,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated [illegible] icial intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

08

March 25, 2013
Prepared by: J. McGehee/R. Mori
Submitted by: K. Burton KB
Approved by: Paul Cook

ACTION CALENDAR

PLANNING AREA 18 ZONE 3-4 AND ZONE B-C BOOSTER PUMP STATIONS
CONSULTANT SELECTION

SUMMARY:

Three booster pump stations are proposed to serve Planning Area 18 (PA 18) South: domestic water, emergency domestic water, and recycled water. The domestic water and emergency domestic water booster pump stations will deliver water from Zone 3 to Zone 4 while the recycled water booster pump station will deliver water from Zone B to Zone C. Staff recommends that the Board:

- Approve Expenditure Authorizations in the amounts of $210,000 and $105,000 for Projects 10446 and 30446, respectively; and
- Authorize the General Manager to execute a Professional Services Agreement with Lee & Ro, Inc. in the amount of $499,648 for engineering design, bidding support, and construction support services for the Planning Area 18 Zone 3-4 and the Zone B-C Booster Pump Stations, Projects 10446 and 30446.

BACKGROUND:

In early 2007, a Request for Proposals (RFP) for Professional Engineering Services for Capital Improvement Plans for PA 18 was issued. The Board approved a Professional Services Agreement with R.W. Beck, Inc. for engineering services to complete preliminary and final design of the domestic and recycled water pump stations. After completion of the Preliminary Design Report (PDR) in early 2010, Irvine Community Development Company (ICDC) halted progress on the PA 18 South development and final design was placed on hold.

ICDC restarted work on the development in September 2011. At that time, the PA 18 Sub-Area Master Plan (SAMP) was updated to reflect revised land uses and to assess the impacts on the proposed domestic water, recycled water, and collections facilities serving the area. In January 2012, the Board approved a Professional Services Agreement with SAIC Energy (SAIC), Environmental & Infrastructures, LLC (formerly R.W. Beck, Inc.) to revise and update the PDR based on the new demands identified in the updated SAMP.

After the completion of the updated SAMP and PDR, ICDC sold the PA 18 South development to the Toll Bros. development group. Once the revised tentative tract map is approved, Toll Bros. will begin an aggressive design and construction schedule with the goal of completing model homes in summer of 2014.

Since 2007, ICDC has started and stopped work on the PA 18 South development multiple times. The current planned development differs substantially from that which was originally

contemplated in 2007. As a result, the size, configuration, and location of the pump stations has also changed. The proposed domestic water system also now includes provisions for an emergency domestic water pump station, which was not originally planned. Due to these changes with both the development and the proposed pump station facilities, staff issued a Request for Proposals for final design engineering services associated with the final, proposed pump station facilities.

Consultant Selection:

Staff received proposals for engineering design, bidding support, and construction support services for the Planning Area 18 Zone 3-4 and the Zone B-C Booster Pump Stations from four firms: Brown & Caldwell, Dudek, Lee & Ro, and SAIC. The RFP was also sent to DR Consultants, but they declined to submit. Lee & Ro's proposal demonstrated significant experience with multiple pump station projects, a staff capable of meeting the demanding design schedule, and a project manager with a successful history managing previous IRWD projects. Lee & Ro is the only firm that proposed to complete the work using internal staff for all primary disciplines. Staff believes this approach will expedite completion of the project in accordance with the aggressive design schedule. The consultant selection matrix is presented as Exhibit "A". Lee & Ro has successfully completed projects for IRWD in the past, including the Foothill Zone 6A Booster Pump Station Improvements Project, the San Joaquin Reservoir Flow Control Facility Project, and the Turtle Rock Zone B+ BPS Project. Lee & Ro's scope of work and fee proposal are attached as Exhibit "B". Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement with Lee & Ro since their design approach and project experience are consistent with the project goals.

Design Schedule:

To meet the Toll Bros. expedited development schedule, staff has outlined the following schedule for completion of the domestic water and recycled water booster pump stations:

Kick-Off Meeting	April 3, 2013
Draft PDR Validation Memo	May 15, 2013
Final PDR Validation Memo & 60% Design Submittal	June 26, 2013
90% Design Submittal	August 26, 2013
100% Design Submittal	September 25, 2013
Plans Approved	October 9, 2013
Bid Opening	November 12, 2013
Notice of Award (Construction)	November 26, 2013
Notice of Completion (Construction)	December 31, 2014

FISCAL IMPACTS:

Projects 10446 (1648) and 30446 (1063) are included in the FY 2012-13 Capital Budget. Expenditure Authorizations are requested as shown in the table below and in Exhibit "C".

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
10446 (1648)	$2,679,700	$0	$2,679,700	$ 290,900	$ 210,000	$ 500,900
30446 (1063)	$1,813,500	$0	$1,813,500	$ 290,900	$ 105,000	$ 395,900
Total	$4,493,200	$0	$4,493,200	$ 581,800	$ 315,000	$ 896,800

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA). In conformance with the California Code of Regulations Title 14, Chapter 3, Section 15004, as the lead agency, the City of Irvine certified an Environmental Impact Report (SCH #2005051099) on June 15, 2006.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 19, 2013.

RECOMMENDATION:

THAT THE BOARD APPROVE EXPENDITURE AUTHORIZATIONS IN THE AMOUNTS OF $210,000 AND $105,000 FOR PROJECTS 10446 (1648) AND 30446 (1063), RESPECTIVELY, AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH LEE & RO, INC. IN THE AMOUNT OF $499,648 FOR ENGINEERING DESIGN, BIDDING SUPPORT, AND CONSTRUCTION SUPPORT SERVICES FOR THE PLANNING AREA 18 ZONE 3-4 AND THE ZONE B-C BOOSTER PUMP STATIONS, PROJECTS 10446 (1648) AND 30446 (1063).

LIST OF EXHIBITS:

Exhibit "A" – Consultant Selection Matrix
Exhibit "B" – Lee & Ro, Inc. Proposed Scope of Work and Fee Proposal
Exhibit "C" – Expenditure Authorizations

EXHIBIT "A"

CONSULTANT SELECTION MATRIX

Planning Area 18 RW and DW Primary and Emergency Booster Pump Stations

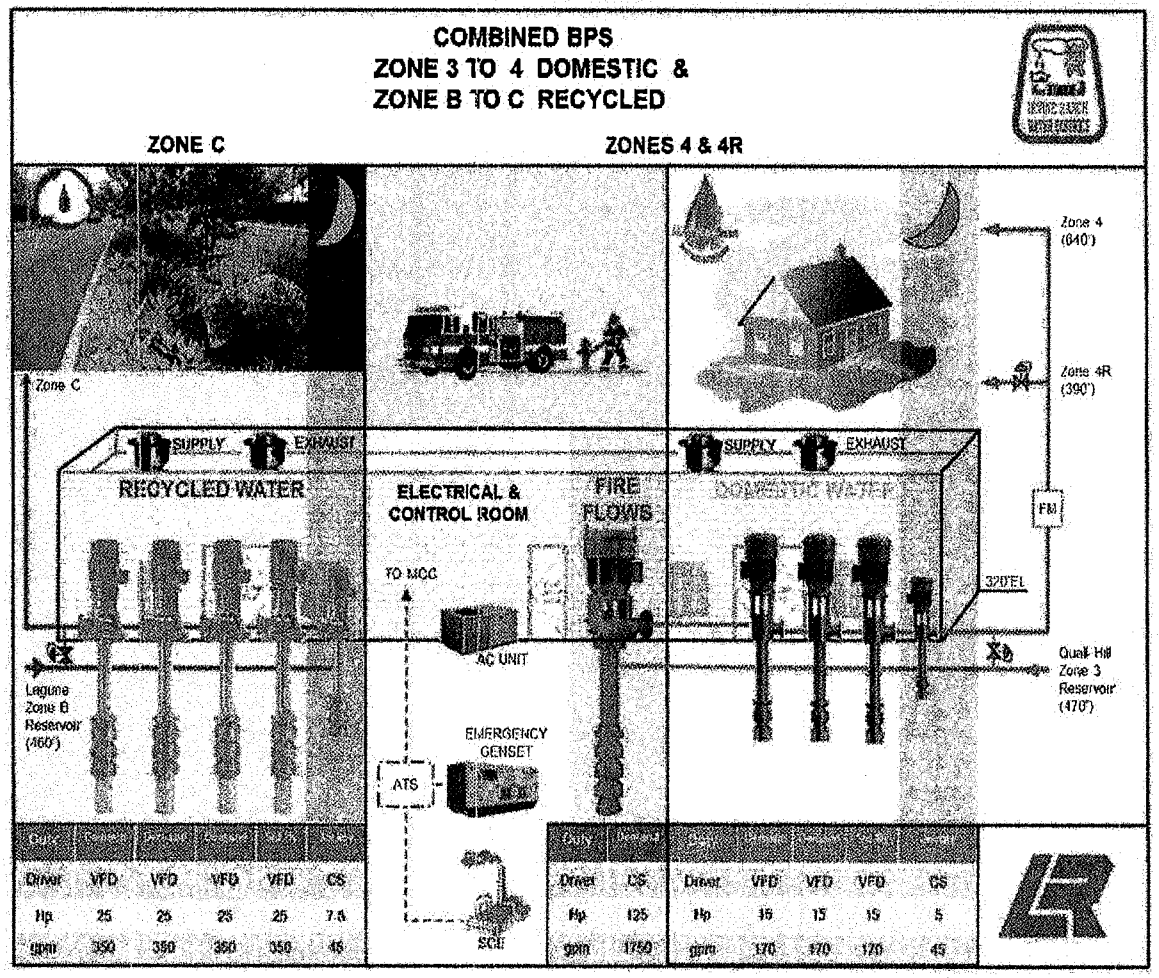
Item	Description		Weights	Lee & Ro		Brown & Caldwell		SAIC		Dudek	
A	TECHNICAL APPROACH		**40%**								
1	Overall Project Understanding / Approach		40%	3		4		2		1	
2	Scope of Proposal		60%	1		4		2		3	
	Weighted Score (Technical Approach)			1.8		4.0		2.0		2.2	
B	QUALIFICATION AND EXPERIENCE		**60%**								
1	Relevant Experience of Project Team		30%	1		2		4		3	
2	Project Manager		30%	1 Eric Lovering, 15 yrs		4 Mark Briggs, 31 yrs		3 Stephen Dopudja, 20 yrs		2 Bob Ohlund, 30 yrs	
3	Project Engineer - Mechanical/Pumps		20%	1 Sal Calderon, 30 yrs		2 Carson Struthers, 33 yrs		4 Kristen Whatley, 11 yrs		3 Neil Harper, 14 yrs	
4	Project Engineer - Electrical		20%	2 Jon Thomsic, 30 yrs		3 Bryan Zinn, 17 yrs		1 Marek Pryzwara, 30 yrs		4 Joe Moraes, 20 yrs	
	Weighted Score (Experience)			1.2		2.8		3.1		2.9	
	COMBINED WEIGHTED SCORE			1.4		3.3		2.7		2.6	
	Ranking of Consultants			**1-First**		**4-Fourth**		**3-Third**		**2-Second**	
C	SCOPE OF WORK										
TASK				Task Hours	Fee	Task Hours	Fee	Task Hours	Fee	Task Hours	Fee
1	Project Management			278	$44,764	391	$82,416	302	$49,610	188	$36,954
2	PDR Validation Memorandum			108	$13,684	308	$52,992	40	$6,707	208	$35,314
3	Final Design Tasks (A. - I.)			2,243	$300,074	2,308	$464,887	1,630	$310,928	1,641	$242,396
	Optional Tasks (J. - M.)			-	$45,000	-	$45,000	-	$45,000	-	$45,000
4	Bid Phase Services			52	$7,520	46	$8,452	74	$12,852	55	$9,181
	SUBTOTAL - DESIGN AND BIDDING SERVICES				**$411,042**		**$653,749**		**$425,097**		**$368,845**
5	Construction Phase Services			630	$88,606	830	$130,880	580	$103,281	461	$71,067
	TOTAL ENGINEERING SERVICES FEE			3,311	**$499,648**	3,883	**$784,629**	2,626	**$528,378**	2,553	**$439,912**
D	OTHER										
	Number of Drawings			100		91		65		63	
	Engineering Services Fee per Drawings			$3,585		$6,597		$5,650		$4,995	
	Joint Venture			None		None		None		None	
	Sub Consultants	Elec		In-house		In-house		In-house		Morgan Pham & Association	
		Struct		In-house		Simon Wong Engineering		Cho Design & Associates		RRM Design group	
		Mechanical		In-house		In-house		In-house		In-house	
		Architect		In-house		Platt Whitelaw Architects		Cho Design & Associates		RRM Design group	
		Civil		In-house		In-house		In-house		In-house	
		Survey		Advanced Survey Concepts		KDM Meridian		Hunsaker & Associates		Guida Surveying	
		Geotech		-		Kleinfelder		NMG Geotechnical		NMG Geotechnical	
		Surge		-		Northwest Hydraulic		Northwest Hydraulic		Northwest Hydraulic	
		Acoustics		VBA & Associates		VBA & Associates		-		-	
		Landscape		Nuvis Landscape Architecture		-		-		-	
	Exceptions taken to IRWD Std. Contract			None		Yes, Section X.		None		None	
	Insurance (Professional & General Liability)			Yes		Yes		Yes		Yes	

Section 1: Approach & Scope of Work

PROJECT UNDERSTANDING

The project consists of developing two separate sites to support the domestic and recycled water needs for the Planning Area 18 (PA18) development that are summarized below.

- **Combined BPS Zone 3 to 4 Domestic & Zone B to C Recycled:** This site requires the development of a combined Booster Pump Stations (BPS).
  - Fire Flows — Zone 4 & 4R — 1,750 gpm required
  - Domestic Water — Zone 4 & 4R — 385 gpm peak one hour demand
  - Recycled Water — Zone C — 891 gpm peak one hour demand
- **Backup Emergency BPS Zone 3 to 4 Domestic:** The second BPS site will serve as an emergency backup in case of a failure of the BPS at the other site.
  - Fire Flows: Emergency Backup to Zone 4 and 4R – 1,750 gpm required



The project scope of work follows along with a discussion of our project design and management approach that will be utilized to address key project issues and implement methods and procedures to keep the project on schedule and within budget.

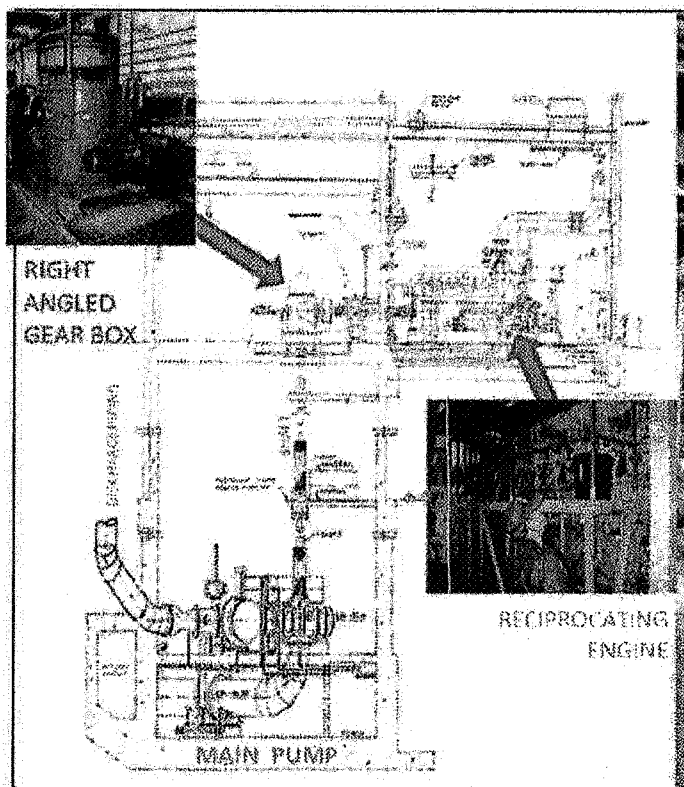
DESIGN APPROACH & SCOPE OF WORK

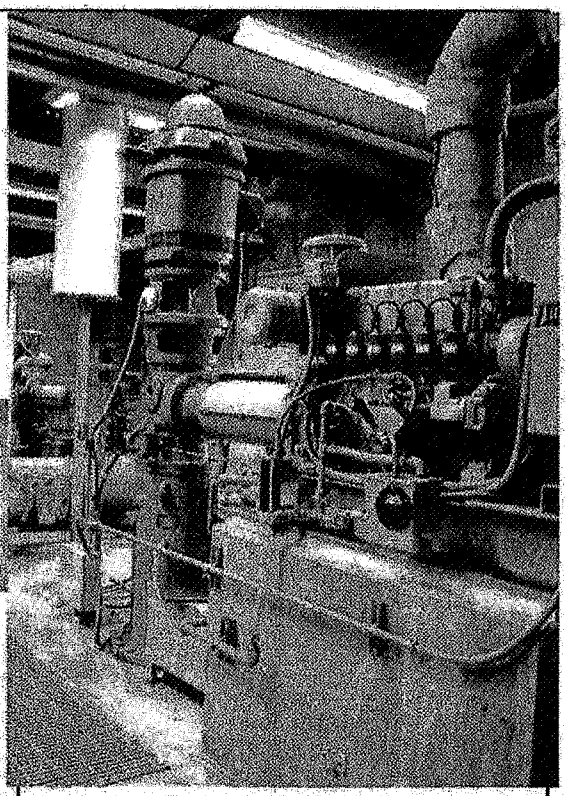
1.1 PDR VALIDATION:

LEE & RO will review in detail and validate the existing PDR in its entirety. We will also confirm with Irvine Ranch Water District (District) staff and make final recommendations for the different alternatives and options presented in the PDR. We will advance the PDR to support and validate the design. Our initial evaluation of the PDR indicates the following suggestions warrant merit for further consideration.

The PDR presents two options, Options A & B for the Emergency BPS. Option A is for a generator set and Option B is for a direct drive engine pump. A variant option, Option C warrants consideration. This Option C includes a pump with a split-gear box in which both an engine and electric motor are mechanically attached to the pump. This arrangement provides greater redundancy for the District operations staff. LEE & RO has worked on several pump station projects that utilize all of the options discussed. Refer to our ***Pump Station Matrix in Section 3***, highlighting our extensive experience in pump station design.

Example of Relevant Engine-Driven Pumps
LEE & RO Representative Projects





Similar to IRWD PDR Option B	**Similar to LEE & RO "Option C"**
(Direct-Engine Drive) City of San Diego, PS-2 Power Reliability and Surge Protection Project	(Combination Engine and Electric Motor) City of Huntington Beach, Edward Hills BPS Project

1.2 CIVIL:

Toll Brothers has set aside two sites for development, each of which will be presented as rough graded to the District. Additionally, the BPS suction and distribution pipelines to each site will be constructed in a separate project.

The PDR presents draft layout arrangements. We will advance the detailed design while considering site access for operations and maintenance personal support equipment such as a boom truck. Pipeline connections will be coordinated near the property lines. Connections to the storm drain will be made for nuisance water at the domestic water BPS, while sumps will be provided for nuisance water at the recycled water BPS's.

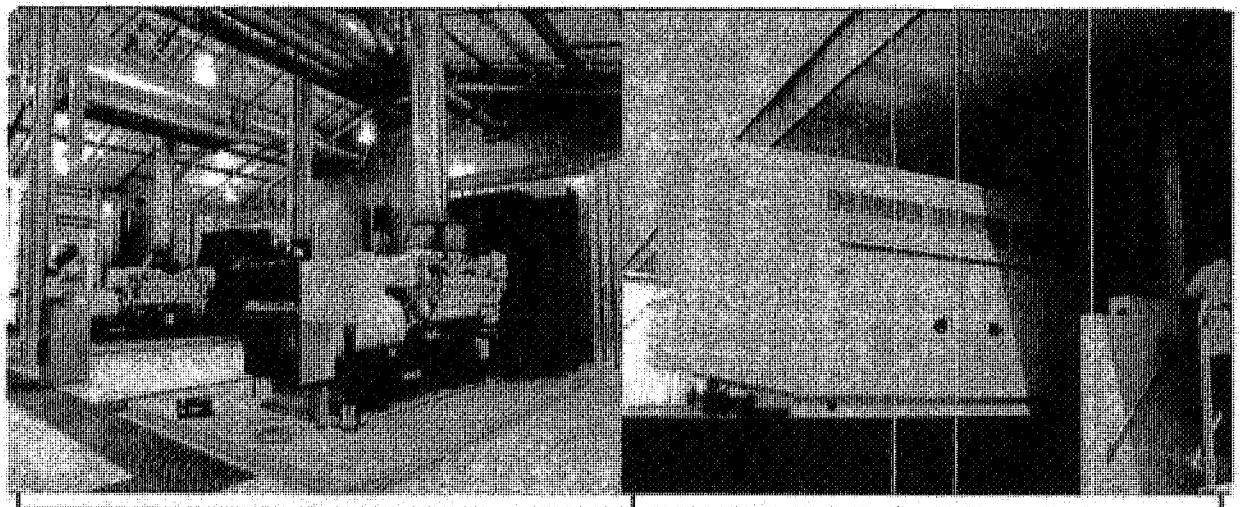
Work includes utility research and surveying. We will utilize an established and experienced subconsultant to perform required survey work.

1.3 ELECTRICAL:

LEE & RO works with Southern California Edison (SCE) on a regular basis to support our client's needs. This project will require advanced coordination with SCE to insure a successful project.

This project will require an outdoor 150kW emergency generator for the Combined BPS and if Option A is chosen, and will require an additional indoor 150kW generator set at the Emergency BPS site. LEE & RO brings significant experience on engine generator projects; please refer to our ***Generator Matrix in Section 3***, highlighting our generator power design track record of projects.

Example of Generators
LEE & RO Representative Projects



Similar to Indoor Genset for IRWD Emergency BPS	**Similar to Outdoor Genset for IRWD Combined BPS**
MWD, Weymouth Water Treatment Plant Emergency Generators	City of Rosemead, Emergency Generator for City Hall

Our internal electrical design and QA/QC procedures are well established, extensive, and include the following:

STATE AND FEDERAL REQUIREMENTS: All LEE & RO designs comply with the following:

- 2010 California Electrical Code – Title 24 Part 3 (Based on NFPA Article 70, NEC 2007)
- 2010 California Fire Code --Title 24 Part 9 (Based on 2008 IFC)
- 2010 California Energy Code, Title 24 Part 6
- California OSHA Electrical Safety
- NFPA Article 820, Standard for Fire Protection in Waste Water Treatment and Collection Facilities

CALCULATIONS: LEE & RO's main software for electrical calculations is ETAP. The following are routine electrical calculations performed by LEE & RO Licensed Staff:

- NEC Calculations
- Load Analysis
- Breaker Trip Settings
- Trip Coordination
- Arc Flash
- Short-Circuit
- Lighting Luminosity
- Title 24 Calculations
- Cable Ampacity
- Equipment Ground
- Cable Pulling
- Electrical Heat

DRAWING SHEETS: Every year LEE & RO's Electrical and I&C Department produces thousands of drawings encompassing many different types of electrical and I&C work. A Preliminary Project Drawing list is included in ***Section 1.8***. Listed below are types of drawings LEE & RO routinely produces depending on the size and scope of the project.

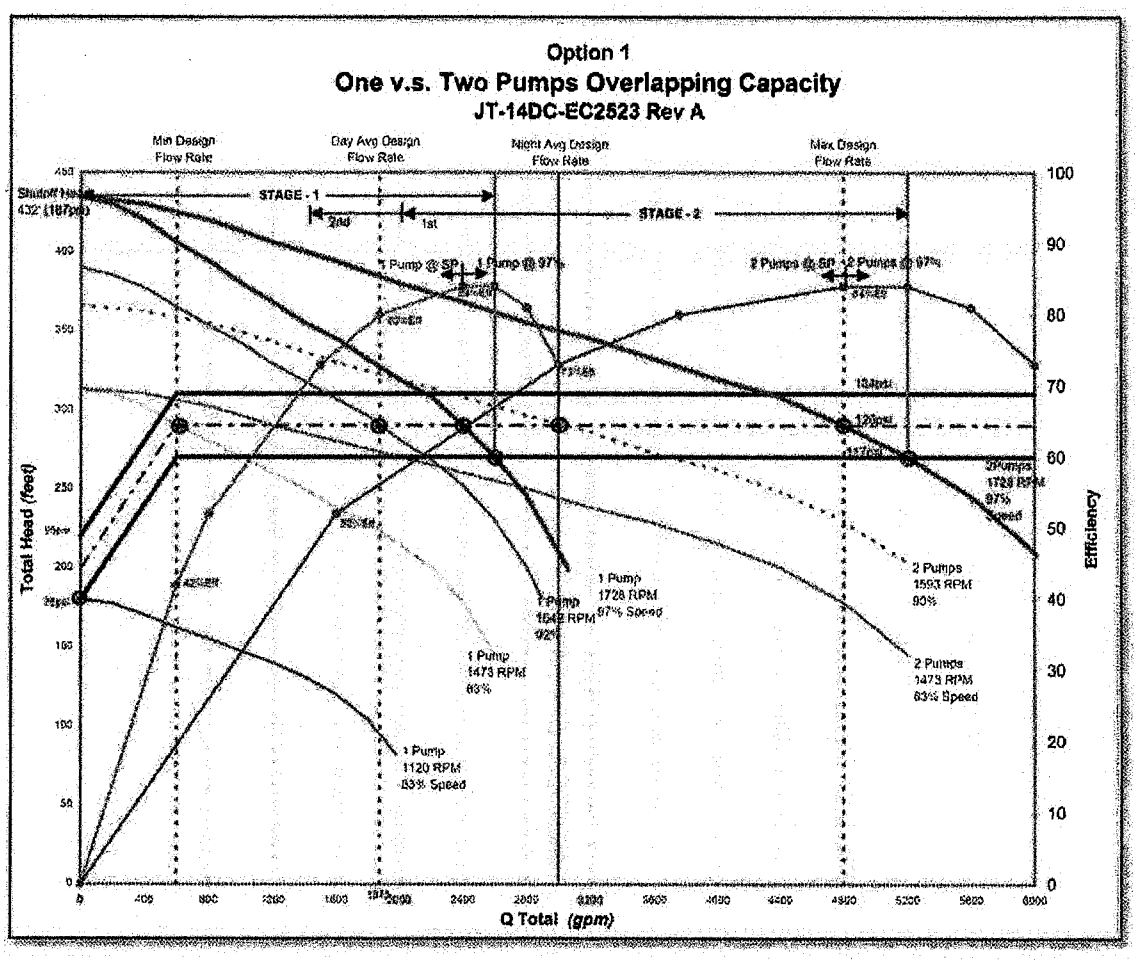
- P&IDs
- Control Schematics
- Point-to-Point
- Loop Diagrams
- Lighting Schedules
- Title 24 Electrical
- Power Panels
- NFPA 820 Area Plans
- Single-Line Diagrams
- Power & Control Plans
- Cable and Conduit Schedules
- MCC & Switchgear Elevations

DOCUMENTATION: Typical project technical documentation includes specification writing, development of control strategies, input/output PLC or Remote I/O lists, instrumentation set points and requirements, and HMI documentation. Our staff is familiar with relevant industry standards for electrical design including IEC, IEEE, NEMA, and ANSI.

1.4 INSTRUMENTATION AND CONTROL:

LEE & RO utilizes in-house staff for instrumentation and control design. Our previous work with the District includes developing specifications for closed loop distribution systems, as is required for this project. Our controls engineers work closely with the mechanical engineers from the very beginning of a project to develop closed loop systems that complement system demand, pump curves, and rate of change responsiveness to non-steady state flow conditions. We recently completed a representative closed loop system for the City of Riverside Recycled Water Pump Station project. During the Riverside PDR we developed numerous graphs, such as the sample shown below, to guarantee we can meet the closed loop system demands.

LEE & RO
Representative Example of Closed Loop Pumping Requirments



LEE & RO has reviewed the single-line electrical drawings and P&IDs included in the PDR. In our review, we noticed that the PDR included Time-Of-Use (TOU) control and power for surge tanks. Based on our understanding, TOU will not be required for such a closed loop control system. Also, in accordance with the PDR's surge analysis results, the two pump station sites will not require surge tanks.

The pump stations will require telemetry via a leased telephone line. LEE & RO will coordinate and make provisions for such a system.

1.5 MECHANICAL:

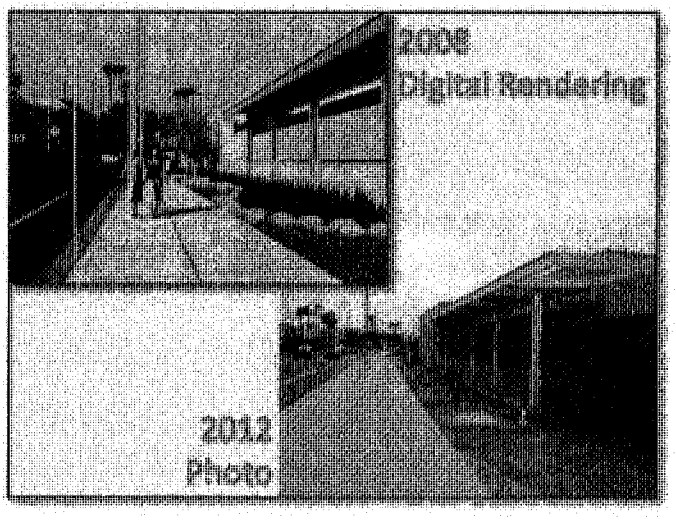
The pump stations will utilize Vertical Turbine Pumps (VTPs) to meet District customer demands. LEE & RO routinely designs several pump station projects every year. Refer to our ***Pump Station Matrix in Section 3*** showing selected pump station design record. LEE & RO has successfully completed previous booster pump station projects for the District, such as the ***Expansion of the Foothill Ranch Zone 6A Booster Pump Station*** and the ***Turtle Rock Zone B+ Booster Pump Station Modifications***.

1.6 HVAC:

The pump stations will require an air conditioner for the electrical and controls room. For the combined pump station, the recycled water and domestic water pump stations are separated by the electrical room, so they'll each require their own supply and exhaust fans to condition the space. All HVAC openings to the buildings will have wire mesh to mitigate floating embers from entering the building during an external fire and the pump stations will also be equipped with fire dampers to seal off the building from outside fire threats.

1.7 ARCHITECTURAL & STRUCTURAL:

The two pump station sites will be nestled in a residential neighborhood and sensible consideration should be incorporated into the design so as not to be a nuisance to the surrounding neighbors. Our experienced in-house team of Structural Engineers and Architects routinely design CMU structures for our clients. A representative CMU pump station project located in Newport Beach, CA, shown below and completed in 2012, won an award for Best California Civil Works/Infrastructure Project from the Engineering News-Record.



Engineering News-Record (ENR) ***Best California Civil Works/Infrastructure Project Award of Merit for 2012:*** OCSD, Bitter Point Pumping Station

The District's project sites will require landscaping and sound mitigation. These design services will be provided by subconsultants, both of whom LEE & RO has worked with on previous projects. Our typical noise mitigation measures include acoustical doors, louvers, and special specifications for air conditioning equipment and the ventilation fans. The facilities' CMU construction and CMU fence line will contribute significantly towards noise mitigation. The outdoor genset enclosure will meet hospital grade noise requirements while the indoor genset will include super critical silencers and the cooling air will utilize duct silencers.

The buildings will be constructed to meet the Fire Protection Recommendations for New Construction, Alternative 1 (Masonry Buildings) per the IRWD Facility Fire Protection Improvements Report, October 2008.

1.8 Drawing Lists:

LEE & RO has developed a preliminary list of drawings as indicated below in **Exhibit 1-1**. We estimate a total of approximately 100 drawings for the project. We have included a matrix as **Exhibit 1-2** that identifies our proposed level of effort for the project tasks and subtasks necessary to produce the completed contract documents.

Exhibit 1-1: Preliminary Drawing List

GENERAL SHEETS (COMMON TO SITES 1 & 2)		
Sheet	**Dwg #**	**Description**
1	G-1	TITLE SHEET
2	G-2	LOCATION & VICINITY MAPS & DRAWING INDEX
3	G-3	GENERAL NOTES
4	G-4	SYMBOLS & ABBREVIATIONS
5	C-1	CIVIL DETAILS
6	L-1	LANDSCAPING & IRRIGATION DETAILS - 1
7	L-2	LANDSCAPING & IRRIGATION DETAILS - 2
8	A-1	ARCHITECTURAL ABBREVIATIONS AND NOTES
9	A-2	ARCHITECTURAL DETAIL - 1
10	A-3	ARCHITECTURAL DETAIL - 2
11	S-1	STRUCTURAL NOTES
12	S-2	STRUCTURAL DETAILS - 1
13	S-3	STRUCTURAL DETAILS - 2
14	M-1	MECHANICAL DETAILS - 1
15	M-2	MECHANICAL DETAILS - 2
16	HVAC-1	HVAC DETAILS
17	E-1	ELECTRICAL SYMBOLS & ABBREVIATIONS
18	E-2	HVAC CONTROL SCHEMATICS
19	E-3	CONTROL PANEL DETAIL (PLC)
20	E-4	ELECTRICAL DETAILS - 1
21	E-5	ELECTRICAL DETAILS - 2
22	I-1	INSTRUMENTATION SYMBOLS & ABBREVIATIONS
23	I-2	INSTRUMENTATION INSTALLATION DETAILS
SITE 1: COMBINED BPS (ZONE 3 TO 4 DOMESTIC & ZONE B TO C RECYCLED)		
24	1C-1	SITE AND YARD PIPING PLAN
25	1C-2	SUCTION PIPING PROFILES (DOMESTIC AND RECYCLED)
26	1C-3	DISCHARGE PIPING PROFILES - 1 (DOMESTIC 4 & 4R)
27	1C-4	DISCHARGE PIPING PROFILES - 2 (RECYCLED WATER & STORM DRAIN)
28	1C-5	PAVING AND GRADING PLAN
29	1C-6	PAVING AND GRADING DETAILS
30	1C-7	GATE, WALL, AND SIGNAGE PLAN
31	1C-8	DETAILS - 1
32	1C-9	DETAILS - 2
33	1L-1	SITE LANDSCAPING PLAN
34	1L-2	SITE IRRIGATION PLAN
35	1A-1	DOOR & ROOF HATCH SCHEDULES
36	1A-2	FLOOR PLAN
37	1A-3	ROOF DRAINAGE PLAN AND DETAILS
38	1A-4	ELEVATIONS
39	1A-5	TITLE 24: CERTIFICATE OF COMPLIANCE (BUILDING ENVELOPE)
40	1S-1	STRUCTURAL BASIS OF DESIGN & INSPECTION REQUIREMENTS
41	1S-2	FLOOR PLAN
42	1S-3	SECTIONS
43	1S-4	DETAILS

44	1M-1	FLOOR PLAN
45	1M-2	DOMESTIC WATER PUMP SECTION
46	1M-3	FIRE PUMP SECTION
47	1M-4	RECYCLED WATER PUMP SECTIONS
48	1M-5	ZONE 4R PRV PLAN AND DETAILS
49	1M-6	PUMP CURVES
50	1M-7	MECHANICAL DETAILS
51	1M-8	TITLE 24: CERTIFICATE OF COMPLIANCE (MECHANICAL)
52	1HVAC-1	HVAC SCHEDULE
53	1HVAC-2	HVAC PLAN
54	1E-1	ELECTRICAL SITE PLAN
55	1E-2	GROUNDING AND LIGHTING PLAN
56	1E-3	SINGLE LINE DIAGRAM
57	1E-4	FLOOR PLAN & MCC ELEVATIONS
58	1E-5	BOOSTER PUMP CONTROL SCHEMATIC - 1 (CONSTANT SPEED)
59	1E-6	BOOSTER PUMP CONTROL SCHEMATIC - 2 (VARIABLE SPEED)
60	1E-8	POWER PANEL SCHEDULE
61	1E-10	ELECTRICAL DETAILS
62	1E-11	CONDUIT AND WIRE SCHEDULE
63	1E-12	TITLE 24: CERTIFICATE OF COMPLIANCE (LIGHTING)
64	1I-1	PROCESS INSTRUMENTATION DIAGRAM - 1 (DOMESTIC: PUMPS, PRESSURE SENSOR, & FLOWMETER)
65	1I-2	PROCESS INSTRUMENTATION DIAGRAM - 2 (RECYCLED: PUMPS)
66	1I-3	PROCESS INSTRUMENTATION DIAGRAM - 3 (INTRUSION SWITCHES, HVAC, MISC)
67	1I-4	PROCESS INSTRUMENTATION DIAGRAM - 4 (GENERATOR)
SITE 2: EMERGENCY BPS (ZONE 3 TO 4 DOMESTIC)		
68	2C-1	SITE AND YARD PIPING PLAN
69	2C-2	SUCTION & DISCHARGE PIPING PROFILES
70	2C-3	PAVING AND GRADING PLAN
71	2C-4	PAVING AND GRADING DETAILS
72	2C-5	GATE, WALL, AND SIGNAGE PLAN
73	2C-6	DETAILS
74	2L-1	SITE LANDSCAPING & IRRIGATION PLAN
75	2A-1	FLOOR AND ROOF PLAN, AND DETAILS
76	2A-2	ELEVATIONS, DOOR & ROOF HATCH SCHEDULES
77	2A-3	TITLE 24: CERTIFICATE OF COMPLIANCE (BUILDING ENVELOPE)
78	2S-1	STRUCTURAL BASIS OF DESIGN & INSPECTION REQUIREMENTS
79	2S-2	FLOOR PLAN & SECTIONS
80	2S-3	DETAILS
81	2M-1	FLOOR PLAN & PUMP SECTION
82	2M-2	GENERATOR SECTION
83	2M-3	GENERATOR EXHAUST DETAILS
84	2M-4	PUMP CURVE
85	2M-5	MECHANICAL DETAILS
86	2M-6	TITLE 24: CERTIFICATE OF COMPLIANCE (MECHANICAL)
87	2HVAC-1	HVAC SCHEDULE & PLAN
88	2E-1	ELECTRICAL SITE PLAN
89	2E-2	GROUNDING AND LIGHTING PLAN
90	2E-3	SINGLE LINE DIAGRAM
91	2E-4	FLOOR PLAN & MCC ELEVATIONS
92	2E-5	BOOSTER PUMP CONTROL SCHEMATIC

93	2E-6	POWER PANEL SCHEDULE
94	2E-7	ELECTRICAL DETAILS
95	2E-8	CONDUIT AND WIRE SCHEDULE
96	2E-9	TITLE 24: CERTIFICATE OF COMPLIANCE (LIGHTING)
97	2I-1	PROCESS INSTRUMENTATION DIAGRAM - 1 (PUMP)
98	2I-2	PROCESS INSTRUMENTATION DIAGRAM - 2 (INTRUSION SWITCHES, HVAC, MISC)
99	2I-3	PROCESS INSTRUMENTATION DIAGRAM - 3 (GENERATOR)

1.9 Probable Construction Costs:

LEE & RO recognizes that a dependable construction cost estimate is an essential tool for monitoring and evaluating project success. LEE & RO will make sure quantity take-offs are detailed, comprehensive, and complete. In addition, we will obtain current prices from vendors and contractors. The estimate will be a dynamic document, which will benefit from refinement during the course of the project to reflect the additional detail available as the design progresses.

LEE & RO will update construction costs at each milestone. All cost estimates are developed using spreadsheets, facilitating regular updates. Any change in the estimated construction cost shall be discussed with the District Project Manager.

1.10 Standards:

LEE & RO is familiar with, will comply with, and implement as necessary, the following IRWD publications as related to this project:

- IRWD Project Manual
- IRWD Construction Manual
  - IRWD's: General Technical Specifications (latest version)
  - IRWD's: Standard Drawings (most recent Rev Oct/2009)
- IRWD's: Rules and Regulation for Water, Sewer, Recycled Water and Natural Treatment System, Service (most recent Rev Dec/2011)
- IRWD's: Procedural Guidelines and General Design Requirements, Development Services
- Electrical Standards (Rev Feb 2007)
- Chapter 7 – Instrumentation and Control

EXHIBIT 1: PROJECT BUDGET (Estimated Engineering Effort)

Planning Area 18 Zone 3 to 4 Domestic Water and Zone B to C Recycled Water Booster Pump Stations

TASK NO.	ENGINEERING CLASSIFICATIONS: E8 Managing Eng, E7 Supervising Eng, E6 Principal Eng, E5 Senior Eng, E3 Associate Engineer, E2 Assistant Eng, T4 Designer, T3 Associate Designer, A2 Word Processor II (See Billing Rate Schedule for Entire Labor Classifications)	LEE & RO Hours per Labor Category								Total Hours	Labor Cost	Other Direct Costs (ODCs)	Subconsultants	TOTAL FEES
		E8	E7	E6	E5	E3	T4	T3	A2					
		Billing Rates ($/Hour)												
	PROJECT TASK DESCRIPTION	$198	$180	$164	$149	$121	$108	$95	$70		1.00			
1	**Project Management**													
1.A	Weekly / Monthly Status Reports (Schedule of 28 weeks from NTP to Final Submittal)			16					8	24	$3,184			$3,184
1.B	Meetings and Workshops													
1.B.1	General Project Management and Design Development Meetings (RFP Specified 8 two-hour meetings)			16		16				32	$4,560	$400		$4,960
1.B.2	Coordination Meetings with Agencies and Stakeholders (RFP Specified 8 two-hour meetings)			20	26					46	$7,154	$300		$7,454
1.B.3	Discussion of Design Recommendations in PDR (RFP Specified 1 two-hour workshop)			6	6					12	$1,878	$100		$1,978
1.B.4	60% Design Review (RFP Specified 1 two-hour workshop)			6	6					12	$1,878	$100		$1,978
1.B.5	90% Design Review (RFP Specified 1 two-hour workshop)			6	6					12	$1,878	$100		$1,978
1.C	QA/QC	24	60	40					16	140	$23,232			$23,232
	SUBTOTAL TASK 1 - PROJECT MANAGEMENT	24	60	110	44	16	0	0	24	278	$43,764	$1,000	$0	$44,764
2	**Preliminary Design Report Validation Memorandum**													
2.A	Prepare and Submit Draft PDR Validation Memo		4	40		24		24	16	108	$13,584	$100		$13,684
	SUBTOTAL TASK 2 - PDR VALIDATION MEMO	0	4	40	0	24	0	24	16	108	$13,584	$100	$0	$13,684
3	**Final Design**													
3.A	Prepare Project Manual in Standard IRWD format		8	40	32	64			56	200	$24,432	$100		$24,532
3.B	Prepare Construction Plans (Labor is included in Sub-Tasks 3.K.1 thru 3.K.4)													
3.C	Perform Utility Research			4		16	16			36	$4,320	$100		$4,420
3.D	Perform Surveying (Advanced Survey Concepts Surveying Subconsultant)			1		4				5	$946		$3,110	$3,758
3.E	Noise Modeling (VSA & Associates Noise Subconsultant)			2		4				6	$812		$8,900	$9,712
3.F	Electrical / I&C Design		16	72	64	60	60	56		332	$43,664	$200		$43,864
3.G	Landscaping & Irrigation Design (NUVIS Landscape Architect & Irrigation Subconsultant)			2		16				18	$2,264		$14,600	$16,864
3.H	Prepare Project Schedule			6		16				22	$2,920			$2,920
3.I	Prepare Liquidated Damages Spreadsheet			2	4					6	$924			$924
3.J	Prepare and Update Opinion of Probable Construction Costs at each Design Submittal		2	16	8	24				50	$7,080			$7,080
3.K	Prepare Design Deliverables (Total of 99 Sheets)													
3.K.1	60% Design Submittal (5 half-size, 1 full-size, and 1 Dwg CD)		20	60	88	120	180	360		828	$94,712	$300		$95,012
3.K.2	90% Design Submittal (5 half-size, 1 full-size, 1 Dwg CD, 3 Color Coded Project Manual)		16	40	60	80	100	180		476	$55,960	$400		$56,360
3.K.3	100% Design Submittal (5 half-size, 1 full-size, 1 Dwg CD, 3 Color Coded Project Manual and CD, Design Calcs Notebook)		16	20	40	32	40	60		208	$26,012	$600		$26,612
3.K.4	Final Mylars and Specification Original	4	4	16	8		16		8	56	$7,616	$400		$8,016
	Work on the Following Tasks Shall Only Proceed on an As-Needed Basis Via Separate Authorization from IRWD													
3.L	Geotechnical Investigation (RFP Specified Budget of $10,000)									0	$0	$10,000		$10,000
3.M	Permits and Coordination (RFP Specified Budget of $5,000)									0	$0	$5,000		$5,000
3.N	Miscellaneous Services (RFP Specified Budget of $15,000)									0	$0	$15,000		$15,000
3.O	Surge Analysis (RFP Specified Budget of $15,000)									0	$0	$15,000		$15,000
	SUBTOTAL TASK 3 - FINAL DESIGN	4	82	281	304	436	412	660	64	2,243	$271,364	$47,100	$26,610	$345,074
4	**Bid Phase Services (Schedule of 5 weeks to Bid Opening)**													
4.A	Addenda Preparation (Assist with up to four (4) addenda)													
4.A.a	Plan Revisions (RFP Specified Budget of 20 hours of staff time)			8		9		4		20	$2,660			$2,660
4.A.b	Specification Revisions (RFP Specified Budget of 15 hours of staff time)			8		7				15	$2,159	$100		$2,259
4.A.c	Bidders Questions (RFP Specified Budget of 15 hours of staff time)			6		9				15	$2,073	$100		$2,173
4.B	Pre-Bid Meeting (RFP Specified One 2-hour pre-bid meeting)			2						2	$328	$100		$428
	SUBTOTAL TASK 4 - BID PHASE SERVICES	0	0	24	0	24	0	4	0	52	$7,220	$300	$0	$7,520
5	**Construction Phase Services**													
5.A	Project Meetings (RFP Specified 20 one-hour construction meetings)			40		20				60	$8,080	$2,400		$11,380
5.B	Respond to RFIs from Contractor (RFP Specified 40 RFIs) (Assume 3 hrs per RFI)		8	40		72				120	$16,712			$16,712
5.C	Minor Plan Revisions (RFP Specified Budget of 60 hours of staff time)			16		32		12		60	$7,636			$7,636
5.D	Site Visits (RFP Specified 6 two-hour visits)			12		12				24	$3,420	$720		$4,140
5.E	Shop Drawing Review (RFP Specified 100 total submittals, including resubmittals) (Assumed 3 hrs per submittal)		20	60	40	180				300	$41,180			$41,180
5.F	Prepare As-Built Record Drawings (24" x 36" Mylar)			4		12		50		66	$6,856	$700		$7,556
	SUBTOTAL TASK 5 - CONSTRUCTION PHASE SERVICES	0	28	172	40	328	0	62	0	630	$84,786	$3,820	$0	$89,606
	TOTAL NOT TO EXCEED	28	174	627	388	828	412	750	104	3,311	$420,718	$52,320	$26,610	$499,648

Exhibit 2
LEE & RO, Inc.
FY 2012-2013 HOURLY BILLING RATE SCHEDULE
(Effective From November 1, 2012 to October 31, 2013)

Notes: Rates are subject to change in accordance with established company procedures. The fiscal year starts on November 1 and the rates normally change on the last Saturday of October.

PERSONNEL CLASSIFICATION			BILLING RATES ($/HOUR)
ENGINEERS			
Engineer 8	E8	Managing Engineer	198
Engineer 7	E7	Supervising Engineer	180
Engineer 6	E6	Principal Engineer	164
Engineer 5	E5	Senior Engineer	149
Engineer 4	E4	Engineer	135
Engineer 3	E3	Associate Engineer	121
Engineer 2	E2	Assistant Engineer	108
Engineer 1	E1	Junior Engineer	95
CAD/DESIGNERS			
Technician 6	T6	Principal Designer	135
Technician 5	T5	Senior Designer	121
Technician 4	T4	Designer	108
Technician 3	T3	Associate Designer	95
Technician 2	T2	Draftsperson	82
Technician 1	T1	Junior Draftsperson	70
RESIDENT ENGINEERS / CONSTRUCTION INSPECTORS			
Field Professional 6	F6	Principal Resident Engineer	164
Field Professional 5	F5	Senior Resident Engineer	149
Field Professional 4	F4	Principal Inspector/Resident Engineer	135
Field Professional 3	F3	Senior Inspector	121
Field Professional 2	F2	Inspector	108
Field Professional 1	F1	Assistant Inspector	95
ADMINISTRATIVE			
Administrative 4	A4	Administrative Professional	95
Administrative 3	A3	Word Processor III	82
Administrative 2	A2	Word Processor II	70
Administrative 1	A1	Word Processor I/Clerical	60

Labor Class for Each Team Member

Eric Lovering, PE	E6
Sal Calderon, PE	E7
Jon Thomsic, PE	E6
Clayton Cheng, PE	E5
Ryan Morgan, PE	E3
Henry DeJesus, AIA	E3
Lee Badertscher, PE	E7
M. Steve Ro, PE	E8
Dhiru Patel, PE	E8

Exhibit 3
LEE & RO, Inc.
Other Direct Costs (ODC) Billing Schedule
FY 2013

(From November 1, 2012 to October 31, 2013)

Automobile Mileage	$0.565 / mile IRS Published Rate
In-house Reproduction	$0.09 / sheet (8 1/2 x 11 Bond B & W) $0.25 / sheet (8 1/2 x 11 Bond - Color) $0.15 / sheet (11 x 17 Bond B & W) $0.45 / Sheet (11 x 17 Colors) $1.00 / sheet (24 x 36 Bond) Vellum
Original	$5.00/Sheet (24 x 36 or 22 x 34)
Mylar Original	$7.50 / sheet (24 x 36 or 22 x 34)
Subconsultant Mark-up	Subconsultant invoice amount plus 10% mark-up, unless otherwise Client specifies
Reproduction by Outside Printing Firm	Invoice amount plus 10% Handling Charge unless otherwise Client specifies
Other Direct Costs and Expenses (Overnight Mailing, Equipment Rental, Project-Specific Engineering Software or IT Services, etc.)	At Cost

Exhibit "C"

IRVINE RANCH WATER DISTRI

Expenditure Authorization

Project Name: PA18 ZN 3-4 BPS
EPMS Project No: 10446 **EA No:** 2
Oracle Project No: 1648
Project Manager: MORI, RICHARD
Project Engineer: MCGEHEE, JOSEPH
Request Date: March 12, 2013

ID Split: Miscellaneous

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:	$290,900
This Request:	$210,000
Total EA Requests:	$500,900
Previously Approved Budget:	$2,679,700
Budget Adjustment Requested this EA:	$0
Updated Budget:	$2,679,700
Budget Remaining After This EA	$2,178,800

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	0	20,000	20,000	0	20,000	20,000	2/07	12/13
ENGINEERING DESIGN - OUTSIDE	200,000	250,000	450,000	50,000	400,000	450,000	2/07	12/13
DESIGN STAFF FIELD SUPPORT	0	5,000	5,000	0	5,000	5,000	2/07	12/13
ENGINEERING - CA&I IRWD	0	0	0	0	20,000	20,000	1/14	5/15
ENGINEERING - CA&I OUTSIDE	0	0	0	0	100,000	100,000	1/14	5/15
CONSTRUCTION FIELD SUPPORT	0	0	0	0	5,000	5,000	1/14	5/15
CONSTRUCTION	0	0	0	(50,000)	2,000,000	1,950,000	1/14	5/15
LEGAL	0	2,000	2,000	0	2,000	2,000	2/07	5/15
Contingency - 5.00% Subtotal	$10,000	$13,900	$23,900	$0	$127,700	$127,700		
Subtotal (Direct Costs)	$210,000	$290,900	$500,900	$0	$2,679,700	$2,679,700		
Estimated G/A - 180.00% of direct labor*	$1,200	$43,800	$45,000	$0	$90,000	$90,000		
Total	$211,200	$334,700	$545,900	$0	$2,769,700	$2,769,700		
Direct Labor	$0	$25,000	$25,000	$0	$50,000	$50,000		

***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: _____ 3/13/13

Department Director: RKM _____ 3/13/13

Finance: _____

Board/General Manager: _____

**** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of $2, ect is further described in the attached staff report and additional documents, if any, which are hereby incorporat 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: PA18 ZN B-C BPS
EPMS Project No: 30446 **EA No:** 2
Oracle Project No: 1063
Project Manager: MORI, RICHARD
Project Engineer: MCGEHEE, JOSEPH
Request Date: March 12, 2013

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:	$290,900
This Request:	$105,000
Total EA Requests:	$395,900
Previously Approved Budget:	$1,813,500
Budget Adjustment Requested this EA:	$0
Updated Budget:	$1,813,500
Budget Remaining After This EA	$1,417,600

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	0	20,000	20,000	0	20,000	20,000	2/07	12/13
ENGINEERING DESIGN - OUTSIDE	100,000	250,000	350,000	25,000	325,000	350,000	2/07	12/13
DESIGN STAFF FIELD SUPPORT	0	5,000	5,000	0	5,000	5,000	2/07	12/13
ENGINEERING - CA&I IRWD	0	0	0	0	20,000	20,000	1/14	5/15
ENGINEERING - CA&I OUTSIDE	0	0	0	0	100,000	100,000	1/14	5/15
CONSTRUCTION FIELD SUPPORT	0	0	0	0	5,000	5,000	1/14	5/15
CONSTRUCTION	0	0	0	(25,000)	1,250,000	1,225,000	1/14	5/15
LEGAL	0	2,000	2,000	0	2,000	2,000	2/07	5/15
Contingency - 5.00% Subtotal	$5,000	$13,900	$18,900	$0	$86,500	$86,500		
Subtotal (Direct Costs)	$105,000	$290,900	$395,900	$0	$1,813,500	$1,813,500		
Estimated G/A - 180.00% of direct labor*	$1,200	$43,800	$45,000	$0	$90,000	$90,000		
Total	$106,200	$334,700	$440,900	$0	$1,903,500	$1,903,500		
Direct Labor	$0	$25,000	$25,000	$0	$50,000	$50,000		

*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: _____ 3/13/13

Department Director: RKM _____ 3/13/13

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, ect is further described in the attached staff report and additional documents, if any, which are hereby incorpora f official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-

March 25, 2013
Prepared by: J. Moeder/R. Mori
Submitted by: K. Burton
Approved by: Paul Cook

ACTION CALENDAR

DYER ROAD WELL FIELD WELL NOS. 2 AND 5 REHABILITATIONS AND ON-CALL HYDROGEOLOGIST CONSULTANT SELECTION

SUMMARY:

Dyer Road Well Field Well No. 2 (DRWF No. 2) and Dyer Road Well Field Well No. 5 (DRWF No. 5) have experienced decreased production over the years and need to be rehabilitated. Staff also anticipates that other District wells will require rehabilitation on a more frequent basis as the wells continue to age. Staff received proposals from hydrogeologist firms to prepare a rehabilitation design and to provide construction oversight for the rehabilitation of DRWF No. 2 and DRWF No. 5, and to provide on-call hydrogeologist services for future well rehabilitation projects. Staff recommends that the Board:

- Authorize the addition of DRWF No. 2 and DRWF No. 5 Rehabilitation Project 11693 in the amount of $706,000 to the FY 2012-13 Capital Budget;
- Authorize the addition of a 3-year Domestic Water System Well Rehabilitation Program Project 11672 in the amount of $2,097,900 to the FY 2012-13 Capital Budget;
- Authorize the addition of a 3-year Recycled Water System Well Rehabilitation Program Project 30402 in the amount of $1,029,000 to the FY 2012-13 Capital Budget;
- Approve an Expenditure Authorization in the amount of $79,000 for the DRWF No. 2 and DRWF No. 5 Rehabilitation Project 11693;
- Approve an Expenditure Authorization in the amount of $196,400 for the 3-year Domestic Water System Well Rehabilitation Program Project 11672;
- Approve an Expenditure Authorization in the amount of $106,000 for the 3-year Recycled Water System Well Rehabilitation Program Project 30402;
- Authorize the General Manager to execute a Professional Services Agreement in the amount of $102,194 with Richard C. Slade & Associates for design and construction phase services for the DRWF No. 2 and DRWF No. 5 Rehabilitation Project 11693;
- Authorize the General Manager to execute a Professional Services Agreement in the amount of $150,000 with Richard C. Slade & Associates for on-call well rehabilitation design and construction phase services for future well rehabilitation projects; and
- Authorize the General Manager to execute a Professional Services Agreement in the amount of $150,000 with Geoscience for on-call well rehabilitation design and construction phase services for future well rehabilitation projects.

BACKGROUND:

The District's wells were constructed as far back as the 1970's. The wells are aging, and staff anticipates that several rehabilitation projects will be required in the near future to maintain well production and to obtain the anticipated service life of the wells. Staff has identified two wells, DRWF No. 2 and DRWF No. 5, that need to be rehabilitated immediately to maintain reliability in the Dyer Road Well Field. These wells have decreased in specific capacity, and videos of the

wells show biofilm and blocked louvers. In addition, DRWF No. 2 has holes in the casing, which is resulting in sanding and damage to the mechanical equipment. DRWF No. 2 was taken offline in July 2012.

DRWF No. 2 and DRWF No. 5 Consultant Selection:

Proposals for design and construction phase services for the rehabilitation of DRWF No. 2 and DRWF No. 5 were received from Geoscience, Richard C. Slade & Associates (Slade), Thomas Harder & Company, and a team of Wildermuth Environmental/Shannon & Wilson. Staff recommends that Slade be selected for the DRWF No. 2 and No. 5 rehabilitation project as their design approach and level of effort are consistent with the project goals. Slade's proposed design and construction services fee is $102,194. Slade has worked on previous well projects including the rehabilitations of Wells 78, 107, ET-1 and ET-2. The Consultant Selection Matrix is presented as Exhibit "A". A copy of Slade's scope of work and fee proposal is presented as Exhibit "B".

Well Rehabilitation Program and On-Call Consultant Selection:

Staff consistently monitors the performance of all the active domestic and non-potable wells in the District. Video surveys are performed to examine the condition of the wells and the integrity of the casings. Select staff participates on an internal Groundwater Coordination Committee, which consists of engineering, operations and maintenance staff that meets routinely to discuss the health of the wells and to determine which wells should be considered for future rehabilitation. The Groundwater Coordination Committee recommends the implementation of an ongoing, annual Well Rehabilitation Program that provides for the proactive design and construction of well rehabilitations with the goal of increasing well field reliability, improving well field performance, and minimizing well down time.

As a basis for establishing a budget, the proposed Well Rehabilitation Program will allocate funding for the rehabilitation of two domestic water wells and one non-potable well per year for the next three fiscal years. In support of the program, a hydrogeologist on-call services component was included in the Request for Proposals issued for the rehabilitation of DRWF No. 2 and No. 5. The intent of the on-call services component is to retain two hydrogeologist firms that are capable of providing design and construction phase services for future well rehabilitation projects. Staff recommends the selection of two consultants for on-call Professional Service Agreements to provide the needed design and construction phase services for a 2-year period.

Staff anticipates that the design and construction oversight costs of future well rehabilitation projects will be similar to those presented in the proposals for DRWF No. 2 and No. 5. Based on the proposed fees, staff recommends that the budget for each on-call agreement be established at $150,000, which is anticipated to provide adequate funding for the design and construction oversight for two to three rehabilitation projects per agreement. When future well rehabilitation projects are identified, staff will solicit both on-call firms for a detailed scope of work and fee proposal to obtain competitive proposals. By having the on-call agreements in place, staff will be able to expedite rehabilitation efforts immediately upon identification of a well problem. This

approach will also help to minimize periods of extended down time as is the case for DRWF No. 2.

After review of the proposals, staff recommends that Richard C. Slade & Associates and Geoscience each be awarded an on-call Professional Services Agreement, each in the amount of $150,000. Both Slade and Geoscience have worked on other IRWD well design, construction, and rehabilitation projects for the District and have a thorough understanding of the issues associated with the local groundwater basin. Staff recommends the selection of these two firms as they were the two highest rated firms based upon the proposals received. A billing rate schedule for Geoscience is presented as Exhibit "C".

FISCAL IMPACTS:

Projects 11693 (4326), 11672 (4327), and 30402 (4328) are not included in the FY 2012-13 Capital Budget. Staff requests the addition of Projects 11693 (4326), 11672 (4327), and 30402 (4328) to the FY 2012-13 Capital Budget and approval of Expenditure Authorizations for design and bid phase services as shown in the table below and in Exhibit "D". Expenditure Authorizations for construction and construction phase services for DRWF No. 2, DRWF No. 5, and any future well rehabilitation projects will be requested when the construction contracts are awarded.

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
11693 (4326)	$0	$ 706,000	$ 706,000	$0	$ 79,000	$ 79,000
11672 (4327)	$0	$2,097,900	$2,097,900	$0	$196,400	$196,400
30402 (4328)	$0	$1,029,000	$1,029,000	$0	$106,000	$106,000
Total	$0	$3,832,900	$3,832,900	$0	$381,400	$381,400

ENVIRONMENTAL COMPLIANCE:

DRWF No. 2 and DRWF No. 5 Rehabilitations are categorically exempt from CEQA as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 C, which provides exemption for repair and maintenance. The future rehabilitation projects are subject to the California Environmental Quality Act (CEQA). In conformance with the California Code of Regulations Title 14, Chapter 3, Section 15004, the appropriate environmental document will be prepared when "meaningful information" becomes available.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 19, 2013.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION OF DRWF NO. 2 AND DRWF NO. 5 REHABILITATION PROJECT 11693 (4326) IN THE AMOUNT OF $706,000 TO THE FY 2012-13 CAPITAL BUDGET; AUTHORIZE THE ADDITION OF A 3-YEAR DOMESTIC WATER SYSTEM WELL REHABILITATION PROGRAM PROJECT 11672 (4327) IN THE AMOUNT OF $2,097,900 TO THE FY 2012-13 CAPITAL BUDGET; AUTHORIZE THE ADDITION OF A 3-YEAR RECYCLED WATER SYSTEM WELL REHABILITATION PROGRAM PROJECT 30402 (4328) IN THE AMOUNT OF $1,029,000 TO THE FY 2012-13 CAPITAL BUDGET; APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF $79,000 FOR THE DRWF NO. 2 AND DRWF NO. 5 REHABILITATION PROJECT 11693 (4326); APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF $196,400 FOR THE 3-YEAR DOMESTIC WATER SYSTEM WELL REHABILITATION PROGRAM PROJECT 11672 (4327); APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF $106,000 FOR THE 3-YEAR RECYCLED WATER SYSTEM WELL REHABILITATION PROGRAM PROJECT 30402 (4328); AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT IN THE AMOUNT OF $102,194 WITH RICHARD C. SLADE & ASSOCIATES FOR DESIGN AND CONSTRUCTION PHASE SERVICES FOR THE DRWF NO. 2 AND DRWF NO. 5 REHABILITATION PROJECT 11693 (4326); AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT IN THE AMOUNT OF $150,000 WITH RICHARD C. SLADE & ASSOCIATES FOR ON-CALL WELL REHABILITATION DESIGN AND CONSTRUCTION PHASE SERVICES FOR FUTURE WELL REHABILITATION PROJECTS; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT IN THE AMOUNT OF $150,000 WITH GEOSCIENCE FOR ON-CALL WELL REHABILITATION DESIGN AND CONSTRUCTION PHASE SERVICES FOR FUTURE WELL REHABILITATION PROJECTS.

LIST OF EXHIBITS:

Exhibit "A" – Consultant Selection Matrix
Exhibit "B" – Richard C. Slade & Associate's Proposed Scope of Work and Fee Proposal
Exhibit "C" – Geoscience's Billing Rate Schedule
Exhibit "D" – Expenditure Authorizations

EXHIBIT "A"

CONSULTANT SELECTION MATRIX

DRWF No. 2 and No. 5 Rehabilitation

Item	Description	Weights	Geoscience		Richard C. Slade & Associates		Thomas Harder & Company		Wildermuth/Shannon & Wilson	
A	TECHNICAL APPROACH	**40%**								
1	Overall Project Understanding / Approach	40%	2		1		4		3	
2	Scope of Proposal	60%	2		1		3		4	
	Weighted Score (Technical Approach)		2.0		1.0		3.4		3.6	
B	QUALIFICATION AND EXPERIENCE	**60%**								
1	Firm/Team	60%	2		1		3		4	
2	Project Manager	40%	2 Diane Smith, 30 yrs		1 Earl LaPensee, 24 yrs		3 Thomas Harder, 23 yrs		4 Bill Leever, 21 yrs	
	Weighted Score (Experience)		2.0		1.0		3.0		4.0	
	COMBINED WEIGHTED SCORE		2.0		1.0		3.2		3.8	
	Ranking of Consultants		**2**		**1**		**3**		**4**	
C	SCOPE OF WORK									
TASK			Task Hours	FEE	Task Hours	FEE	Task Hours	FEE	Task Hours	FEE
1	Review Video Surveys and Available Information		21	$3,176	60	$9,267	24	$4,711	79	$12,371
2	Conduct Sidwall Sampling and Provide Analyses		20	$3,025	--	$334	24	$2,640		
3	Develop Tech Specs and Project Manual		76	$12,212	57	$13,660	100	$9,760	101	$14,991
4	Provide Bid Phase Support		12	$2,111	10	$1,780	28	$3,020	21	$3,916
5	Construction Phase Services and Project Management		468	$68,970	338	$49,279	574	$57,270	234	$35,886
6	Preparation of Summary Reports		120	$17,072	54	$7,874	82	$8,060	208	$31,850
7	Miscellaneous Services			$20,000		$20,000		$20,000		$20,000
	TOTAL ENGINEERING SERVICES FEE		717	**$126,566**	519	**$102,194**	832	**$105,461**	643	**$119,014**
D	OTHER									
	Sub Consultants	Hydrogeo	In-House		In-House		In-House		Shannon & Wilson	
	Exceptions taken to IRWD Std. Contract		None		None		None		None	
	Insurance (Professional & General Liability)		Yes		Yes		Yes		Yes	

Phase 2 – Tentative Operations for Rehabilitation

The following lists specific but preliminary well rehabilitation operations that could be performed in each well. However, final well rehabilitation operations need to be determined following a more complete review of the newly-generated data and information (from the Phase 1 work). For this Phase 2 work, a set of Technical Specifications will be prepared to provide the final well rehabilitation operations that can be performed on the well. These operations may include:

1. Mechanical cleaning, including wire brushing and using the AirBursting®, Bore Blasting®, or Sonar-Jet® methods or utilizing a relatively new method of development by the jetting of water known as the WellJet® Process.
2. Dual swab airlifting and swabbing, including chemical treatment, using appropriate available solutions or acids determined necessary by earlier findings from the initial Phase 1 operations.
3. Re-developing and re-testing the well with a temporary test pump to determine possible improvements in specific capacity.
4. Having the Contractor do the necessary repairs or replacement of the permanent pump, column, etc.
5. Installing the permanent pump, with the intake set at a depth that is deep enough for anticipated pumping levels, but still within a section of blank casing (if possible).
6. Testing the well with the permanent pump to obtain the current (new) specific capacity.

Important in the preparation of the Technical Specifications is to evaluate discharge options for the National Pollutant Discharge Elimination System (NPDES) permit, and to provide a program for treating the discharge so that compliance with the IRWD's NPDES permit is achieved at the well site.

SCOPE OF HYDROGEOLOGIC SERVICES

Our proposed scope of hydrogeologic services differs somewhat from the tasks as outlined in the IRWD RFP. The recommended services described herein are based on our cursory review of the data provided to date by IRWD; on our current understanding of the project; and on our approach that has been used in many other well rehabilitation projects for various agencies, including prior ones for IRWD.

Task 1 – Meetings & Scheduling

Prepare for and attend an initial, "kick-off" meeting with IRWD Staff with regard to discussing the goals and parameters of the project. During this kick-off meeting, RCS will conduct a visit to each site to further help evaluate site-specific conditions for logistical considerations (such as access, discharge points, presence of utilities, storage room and nearby residences). Further, RCS will attend a maximum of one additional project meeting with IRWD Staff, as requested, during the course of the project and will assist IRWD in the scheduling of future activities at each well site.

These two meetings exclude the pre-bid and pre-construction meetings provided for in other tasks below.

Task 2 – Review and Evaluate Well Data & Prepare Memoranda

This task will consist of reviewing available data for each well, as provided by the IRWD and of any previous work that may be conducted (above). Further, we will review our company files for any data and/or information on hydrogeologic conditions in the vicinity of the two wells.

During this task, Pacific Surveys will be used to collect samples of scale/biofilm only from DRWF Well 2 because there is no pump in this well (the tool cannot access Well 5, which still has a pump). A groundwater sample will then be collected from DRWF Well 5 (using the existing pump). These samples from the two wells will be used as representative of both wells, as the water quality and biofilm conditions in each well are likely similar. (This also saves the money needed to otherwise install a test pump etc. in DRWF Well 2). An RCS field geologist will be present to help retrieve the samples. The samples will be submitted to Water Systems Engineering Laboratory, of Ottawa, Kansas for water quality characterization, including speciation of biological materials. RCS will subcontract with these firms, and costs for their services are provided in our Fee Proposal (presented under separate cover).

Further, a dynamic spinner survey can be performed in DRWF Well 5 at this time, because the pump is still in this well. RCS will be onsite to observe the dynamic spinner survey. This task can be performed on the same day that the scale/biofilm samples are collected from DRWF Well 2. This survey will provide baseline data on the current, pre-rehabilitation flow regime in at least DRWF Well 5, which can be compared to similar subsequent surveys conducted near the end of well rehabilitation operations (i.e., pumping tests). A dynamic survey cannot be performed on DRWF Well 2, because its pump has already been removed.

RCS will review the field and laboratory data and prepare a Memorandum for each well with regard to the observed downwell conditions. These Memoranda will include our preliminary recommendations as to what future rehabilitation options could be implemented in each well, and will be used as guidance for our subsequent preparation of the Technical Specifications for Rehabilitation.

Task 3 – Prepare Technical Specifications for Rehabilitation

Based on the available well data, and on the results of the site visit, the laboratory test data and the downwell surveys, RCS shall prepare Technical Specifications and line item bid sheets for well rehabilitation operations for each well. It is likely that only one set of Technical Specifications will need to be prepared, which can then be bid out and performed under one contract. Our Technical Specifications can be melded with current IRWD project documents. The specifications will include the following:

1. Equipment to be utilized and size of work area needed.
2. The possible need for additional site security fencing.
3. The type of site preparation work needed at each site before the contractor mobilizes his equipment.
4. Sound/noise mitigation/security measures, if needed.

5. Video surveys to be performed during and following rehabilitation of the wells. Pre-rehabilitation videos for each well were performed in November 2012 and therefore, another initial video in March is not considered to be necessary at this time; this will save survey costs.
6. The depth and intervals of well casing to be rehabilitated.
7. The possible installation of a liner (to mitigate any downwell sanding problems).
8. Type of mechanical well rehabilitation methods will be evaluated and included in the specifications, as needed. These methods could include the following types:
   - Wire brushing & bailing.
   - Dual-swab airlifting and surging.
   - "Air-Jetting", consisting of either Airbursting®/Bore Blasting®.
   - Sonar-Jet® methods (using small scale, downwell explosives).
   - Use of the WellJet® method of rehabilitation (herein referred to as "Water-Jetting").
9. The type of various chemicals and emplacement methods that might be needed during chemical rehabilitation (if deemed necessary).
10. Discharge locations and treatment options/consideration for the discharge of all fluids generated from each well during all rehabilitation tasks (especially if chemicals are used).
11. Parameters for pumping development and well testing.
12. Discharge requirements and NPDES permit compliance.
13. A bid item for repair/replacement of the permanent pump by the Contractor.
14. Other work, if deemed necessary in subsequent review of well conditions (e.g., the need for well patches or liners, although these are not anticipated to be needed at this time).

A line item estimate for the probable cost of the rehabilitation work will also be prepared for each well. This will be provided to IRWD to permit comparison of bids received. The Technical Specifications will be prepared to account for the rehabilitation of both wells under a single well rehabilitation contract. We assume that IRWD will be sending out the entire well rehabilitation package for competitive bidding.

Task 4 - Pre-Bid Meeting and Bid Assistance

The purpose of the pre-bid meeting is to help potential bidders better understand site logistics such as access, available water supply, location of utilities, and fluids disposal options at each well site. Prime consideration will be focused on discharge of fluids from the rehabilitation and subsequent testing of each well.

RCS will prepare for and attend a single pre-bid meeting for both wells, and provide pre-bid clarifications and/or addenda, if necessary, for well rehabilitation. We will also assist IRWD in the review and analysis of bids received.

Task 5 – Field Monitoring of Well Rehabilitation Operations

Once a contract has been awarded to the successful bidder by IRWD, RCS geologists will be available to provide field observation of Contractor activities at each well site. This observation is to provide the IRWD with a record of Contractor activities at the site and to help document that the Contractor performed the work in compliance with the Technical Specifications. Tasks that RCS will perform during the rehabilitation project for the two wells could likely consist of the following:

- *Subtask 5.1: Pre-construction Meeting*. Attendance at an initial pre-construction meeting with the Contractor (a single meeting for both wells). This will be to acquaint the Contractor selected by IRWD with the project goals and discuss final scheduling issues and lines of communication.
- *Subtask 5.2: Pump Removal (DRWF Well 5 Only)*. Observe the removal of the permanent pump from DRWF Well 5. At this time, a sample of the scale can be collected from the pump column, along with a water sample from the well, and submitted to WSE for complete profiling and compared to the results of the previous sampling (during Phase 1) to check for similarities. Following this, each well can be sounded for its total current depth.
- *Subtask 5.3: Downwell Surveys*. Casing Inspection Thickness Measurement (CITM) tool surveys of each well. It should be noted here that the CITM is a heavy tool (weighing ±250 lbs) and will need a crane to lift it. Thus, the use of this particular tool and the necessary crane will be provided for in the Technical Specifications for this well.
- *Subtask 5.4: Wire Brushing & Bailing*. Wire brushing of each well casing and removal of sediment fill, via bailing. The RCS geologist will be present to measure the brush, to check if it is of the correct diameter, and observe this brushing. It is anticipated, at this time, that only one day of brushing and bailing will be performed in each well.
- *Subtask 5.5: Mechanical Development*. Performing "Air-jetting", "Sonar-Jetting, or "Water-Jetting" methods, as needed. At the current time, it is anticipated that the AirBursting Method will be performed. An RCS geologist will be present onsite when the selected method is being performed.
- *Subtask 5.6: Chemical Development (Optional)*. Performing chemical development of the wells, if needed. The onsite RCS geologist will record the volumes and types of chemicals used in the process and during use of a dual-swab tool for chemical emplacement.
- *Subtask 5.7: Swabbing & Airlifting*. Conduct dual swab airlifting and swabbing to removal the chemicals and help redevelop the wells; RCS will monitor this work.
- *Subtask 5.8: Interim Video Surveys*. An interim video survey will be performed to determine if mechanical redevelopment of each well has been successful in cleaning the well casing; the RCS field geologist will be present to observe the survey in each well. Following this, it is anticipated that the Contractor will be performing installation of the test pump in each well; RCS personnel will provide the Contractor with

information on the depth of the pump installations and will be present to observe installation of the pumps (see Subtask 5.13, below).

- *Subtask 5.9: Pumping Redevelopment*. RCS will be present on a part-time basis, during startup and near the end of pumping development, at each well. RCS will obtain the pumping development sheets from the pumper, on a daily basis (via FAX or email) during the development process.
- *Subtask 5.10: Pumping Tests*. Pumping tests will follow pumping redevelopment. Title 22 water samples will be collected by the onsite field geologist and will deliver the samples to the IRWD laboratory. In addition, RCS will equip each well with a downwell pressure transducer to record changes in water levels during testing. Further, the onsite field geologist will measure specific field water quality parameters while onsite, including temperature, electrical conductivity, pH, turbidity and other IRWD-requested parameters, such as dissolved oxygen (DO) and the oxidation-reduction potential (ORP). It is assumed that the Contractor will obtain a National Pollutant Discharge Elimination System (NPDES) permit and will collect samples for analysis, and fulfill the reporting requirements of the permit. Discharges will be performed to local drains at/near each site, which eventually drain into Delhi Channel, located approximately 650 ft west of DRWF Well 2. Near the end of pumping, a final spinner survey will be performed in each well to help determine if changes in flow regime have occurred downwell. (See Subtask 5.11, below.)
- *Subtask 5.11: Spinner Survey & Pump Removal*. An RCS field geologist will be present to observe the spinner survey in each well. It is anticipated that the pumper will remove the test pump shortly after completion of testing and chlorinate each well. The RCS field geologist will be present to observe only the chlorination activities on each well.
- *Subtask 5.12: Final Spinner & Video Surveys*. Following test pump removal, a final video and static spinner survey of each rehabilitated well will be performed to help document the final post-rehabilitation condition of the wells. An RCS field geologist will be present at each well to observe these final surveys.
- *Subtask 5.13: Re-Installation of the Permanent Pump*. Upon installation of the final pump by the Contractor, RCS will monitor/observe the installation of the permanent pump in each well. The RCS field geologist will be present on a full-time basis to document the Contractor's activities during pump installation through daily field notes and photographs and check for compliance with the Technical Specifications.

Following the above-listed well rehabilitation work, it is anticipated that the Contractor will repair/replace, as necessary, the permanent pump in DRFW Well 5. This will be performed under a separate bid item. However, the RCS field geologist will not be present onsite during this task and the final tasks for the re-installation of the permanent pump are anticipated to be performed by IRWD field inspectors.

Task 6 – Prepare Summary Reports

Prepare a separate Summary of Well Rehabilitation Operations report for each well to help document the rehabilitation operations. Each report will discuss rehabilitation operations and

summarize our observations regarding rehabilitation work. Final recommendations regarding new production rates will also be provided in the report. This report will consist of the following:

- A chronologic history of well rehabilitation operations.
- A description of each method used and the results of those methods.
- Daily field reports by the onsite field geologist.
- An evaluation/analysis of the final pumping tests in each well and an assessment of new pumping capacities and specific capacities.
- Recommendations for the pump depth setting and pumping rate for the permanent pump in each well.
- Discussion of the water quality conditions based on the final Title 22 sampling results.
- Photographs to help document rehabilitation methods.
- Supporting documentation on well rehabilitation operations, including but not limited to types and volumes of chemicals, if used, the Contractor's daily records, pumping development and testing sheets, and laboratory results of collected water, bacteriological and scale samples.
- The reports will also have attendant tables, figures and drawings to help document work conducted on the two wells.

A Draft report will be submitted to the IRWD Staff for their review and comment. Following that review, IRWD comments will be incorporated and three (3) bound copies of the Final report along with an Adobe PDF file of the document will be submitted to IRWD.

Task 7 – Miscellaneous Services

RCS will provide IRWD with hydrogeologic services at the request of IRWD Staff, on an as-needed basis. These services will be used if additional and/or anticipated services are needed on the project. For example, currently it is not anticipated that the well will need either a liner or swaged well patch. However, should it be revealed in subsequent videos that such work may need to be required, then our field monitoring services can be included under this task.

It is understood, through the RFP, that we are to establish a budget of $20,000 for this task and that written authorization from IRWD will need to be obtained prior to any work requested by its staff. Our work during this task will be on a time & expense (T&E) basis.

RICHARD C. SLADE & ASSOCIATES LLC
CONSULTING GROUNDWATER GEOLOGISTS

FEE PROPOSAL
FOR HYDROGEOLOGIC AND ENGINEERING SERVICES
DYER ROAD WELL NOS. 2 & 5
IRVINE RANCH WATER DISTRICT
IRVINE, ORANGE COUNTY, CALIFORNIA

This Fee Proposal provides an estimate of consulting costs prepared by Richard C. Slade & Associates LLC, Consulting Groundwater Geologists (RCS), for field and office services with regard to rehabilitation of Irvine Ranch Water District (IRWD) Dyer Road Well Field (DRWF) Wells 2 and 5, in Irvine, Orange County, California. The estimated budget for our costs is submitted in response to a Request for Proposal (RFP) distributed by the IRWD, dated February 5. 2013.

COST ESTIMATE FOR HYDROGEOLOGIC SERVICES

Attached Table 1 provides details of the RCS's costs for each of the tasks listed in our Scope of Services, presented under separate cover. For the proposed project, our estimate for the cost of our professional hydrogeologic services during rehabilitation of Dyer Road Well Nos. 2 and 5 is as follows:

Task 1	Meetings & Scheduling	$2,207.00
Task 2	Review and Evaluate Well Data & Prepare Memoranda	$7,060.00
Task 3	Prepare Technical Specifications	$9,086.00
Task 4	Pre-Bid Meeting and Bid Assistance	$1,780.00
Task 5	Field Monitoring of Well Rehabilitation Operations	$49,279.00
Task 6	Prepare Summary Reports	$7,874.00
Task 7	Miscellaneous Services (If needed)	$20,000.00
	Outside Services	$4,908.00
	Total Cost Estimate:	**$102,194.00**

Table 1 provides our man-hour and cost analysis for each of the above listed tasks. Note that Task 5, Field Monitoring of Well Rehabilitation Operations provides a total cost for both wells. However, Tables 2A and 2B provide separate breakdowns of well rehabilitation costs for each well, as requested by the RFP. Those tables show the individual field costs for the wells, as follows:

DRWF Well 2: $24,096.00

DRWF Well 5: $25,183.00

Our services will be billed on a time-and materials basis, with the total estimated cost representing a not-to-exceed limit within the limits of our assumptions presented below. RCS

12750 VENTURA BLVD., SUITE 202, STUDIO DISTRICT, CALIFORNIA 91604
PHONE: (818) 506-0418 • FAX: (818) 506-1343 • NAPA VALLEY PHONE: (707) 963-3914

and its geologists are committed to this project. RCS is a small company and our professional staff of five people consists of experienced groundwater geologists. Our estimated fees are realistic and well considered, and are based on our long-term experience in providing the same types of services required for your project.

Please note that we are willing and able to negotiate the cost of services on this project.

RCS will employ the use of one subcontractor, Pacific Surveys of Claremont, CA to perform a flow meter survey in DRWF Well 5 and sidewall sampling in DRWF Well 2. In addition, water samples collected from both wells will be submitted to Water Systems Engineering Inc., of Ottawa, Kansas, for complete profiling of the scale and water collected from the well by Pacific Surveys. We have assigned a 15% surcharge to the cost for each of these subcontractors.

Our cost estimate for the above scope of work is virtually entirely dependent on third-party contractor operations for rehabilitation of the two wells. Invoices for the project will be submitted to the District on a monthly basis for review and processing. In addition to this invoice, a monthly status update report will be included outlining the work conducted to date and the percentage of the budget expended.

With regard to our on-call hydrogeologic services, our work will be billed at the same rates as shown in our attached Schedule of Charges and will be billed on a time & expense basis. It is understood that such work will not be performed unless specifically requested by IRWD and only upon written approval by IRWD Staff.

Key Assumptions & Contingencies for Well Rehabilitation

The cost estimate is based on the following key assumptions for third-party operations:

1. RCS will only be present when actual work is being performed and not during setup of Contractor's equipment. Thus RCS will keep in communication with the Contractor during work on each well.
2. It is anticipated that the Contractor will apply for and obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges to the local storm drain system. Discharges will be performed to local drains at/near each site, which eventually drain into Delhi Channel, located approximately 650 ft west of DRWF Well 2. In addition, it is expected that the Contractor will provide for a laboratory, deliver the samples for analysis and fulfill the monitoring and reporting requirements of the NPDES permit. RCS will assist the Contractor, with the field sampling, monitoring and reporting of the discharge.

Payment will be based on the hours worked and the hourly rates as described in the attached Table 1 listing the man-hour breakdown for the listed tasks. Because the exact number of hours required to complete the different tasks for well rehabilitation are outside the direct control of RCS, we recommend that all field monitoring services be performed on a time and expense basis, and that if the periods required to complete these tasks are expected to exceed our estimates once well rehabilitation operations are underway, RCS will notify your office in a timely fashion.

SCHEDULE OF CHARGES AND CONDITIONS

PROFESSIONAL HOURLY RATES

Principal Groundwater Geologist	$260.00 per hour
Senior Groundwater Geologist	$182.00 per hour
Staff Groundwater Geologist	$135.00 per hour
Geologic Logging/Field Work, Water Wells	$98.00 per hour
Clerical, Graphics and GIS Work	$68.00 per hour
Depositions and Court Testimony (4-hour minimum per day)	$425.00 per hour

SPECIAL EQUIPMENT AND SERVICES

Pressure Transducers	$40.00 per day
(for water level monitoring during aquifer testing)	(Weekly Rates Available)
Field Water Quality Probe (T, pH, EC)	$50.00 per day
Electric Tape Water Level Probe	$25.00 per day
Drilling Exploration, Water Quality Laboratory	Cost + 15%
Job Supplies, Reproduction, etc.	Cost + 15%
Automobile Mileage	$0.565 per mile

CONDITIONS

Findings, conclusions, and recommendations will be prepared, within the limits prepared by the client, in accordance with generally accepted professional hydrogeologic practice. No other warranty, either express or implied, is made by any verbal or written reports or services furnished for this project.

Invoices will be issued, at our option, on a monthly basis or when the work is completed. A service charge of 1½% per month will be payable on any amount not paid within 30 days. Any attorney fees or other costs incurred in collecting delinquent charges shall be paid by the client.

Client will furnish rights-of-way to land required for field visits and field operations such as sampling or testing of water wells.

November 2012

TABLE 1
RCS MANHOUR AND COST ESTIMATE DETAIL
DYER ROAD WELLFIELD WELLS 2 & 5 REHABILITATIONS
FEBRUARY 2013

TASK LISTING	PRINCIPAL GROUNDWATER GEOLOGIST		SENIOR GROUNDWATER GEOLOGIST		STAFF GROUNDWATER GEOLOGIST		FIELD GROUNDWATER GEOLOGIST		CLERICAL PERSONNEL		TOTAL MANHOURS	DIRECT COSTS	TOTAL TASK COST
	BILLING RATES												
	$260		$182		$135		$98		$68				
	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST			
TASK 1 Meetings & Scheduling	4	$1,040	6	$1,092	0	$0	0	$0	0	$0	10	$75	$2,207
TASK 2 Review and Evaluate Well Data & Prepare Memoranda	4	$1,040	6	$1,092	24	$3,240	16	$1,568	0	$0	50	$120	$7,060
TASK 3 Prepare Technical Specifications	6	$1,560	16	$2,912	32	$4,320	0	$0	3	$204	57	$90	$9,086
TASK 4 Pre-Bid Meeting and Bid Assistance	1	$260	6	$1,092	2	$270	0	$0	1	$68	10	$90	$1,780
TASK 5 Field Monitoring of Well Rehabilitation Operations	4	$1,040	27	$4,914	27	$3,645	378	$37,044	2	$136	438	$2,500	$49,279
TASK 6 Prepare Summary Report	4	$1,040	6	$1,092	40	$5,400	0	$0	4	$272	54	$70	$7,874
TASK 7 Miscellaneous Services (if needed)	0	$0	0	$0	0	$0	0	$0	0	$0	0	$20,000	$20,000
SUBTOTALS>>	23	$5,980	67	$12,194	125	$16,875	394	$38,612	10	$680	619	$22,945	$97,286
											ESTIMATED COSTS FOR RCS SERVICES>		$97,286
OUTSIDE SERVICES + 15%													
											Dynamic Spinner Survey DRWF Well 5 Only (Pacific Surveys):		$3,309
											Downwell Sidewall Sampling DRWF Well 2 Only (Pacific Surveys):		$334
											Profiling of Water & Scale Samples, Well 5 (Water Systems Engineering Laboratory):		$1,265
											SUBTOTAL OUTSIDE SERVICES:		$4,908
											TOTAL ESTIMATED COSTS FOR SERVICES>		$102,194

TABLE 2A
RCS MANHOUR AND COST ESTIMATE DETAIL
INDIVIDUAL COSTS FOR DYER ROAD WELLFIELD WELL 2 REHABILITATION - TASK 5 FIELD MONITORING
FEBRUARY 2013

TASK LISTING	PRINCIPAL GROUNDWATER GEOLOGIST		SENIOR GROUNDWATER GEOLOGIST		STAFF GROUNDWATER GEOLOGIST		FIELD GROUNDWATER GEOLOGIST		CLERICAL PERSONNEL		TOTAL MANHOURS	DIRECT COSTS	TOTAL TASK COST
	BILLING RATES												
	$260		$182		$135		$98		$68				
	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST			
TASK 5 - FIELD MONITORING OF WELL REHABILITATION OPERATIONS													
Subtask 5.1 Pre-Construction Meeting	0	$0	3	$546	0	$0	0	$0	1	$68	4	$60	$674
Subtask 5.2 Pump Removal	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Subtask 5.3 Downwell Surveys	0	$0	0	$0	0	$0	8	$784	0	$0	8	$0	$784
Subtask 5.4 Wire Brushing & Bailing	0	$0	1	$182	1	$135	10	$980	0	$0	12	$60	$1,357
Subtask 5.5 Mechanical Development	0	$0	1	$182	1	$135	10	$980	0	$0	12	$60	$1,357
Subtask 5.6 Chemical Development (Optional)	0	$0	1	$182	1	$135	20	$1,960	0	$0	22	$120	$2,397
Subtask 5.7 Swabbing & Airlifting	0	$0	1	$182	1	$135	20	$1,960	0	$0	22	$120	$2,397
Subtask 5.8 Interim Video Survey	0	$0	1	$182	1	$135	4	$392	0	$0	6	$60	$769
Subtask 5.9 Pumping Redevelopment	1	$260	1	$182	2	$270	16	$1,568	0	$0	20	$120	$2,400
Subtask 5.10 Pumping Tests	1	$260	1	$182	4	$540	24	$2,352	0	$0	30	$380	$3,714
Subtask 5.11 Spinner Survey & Pump Removal	0	$0	1	$182	1	$135	16	$1,568	0	$0	18	$120	$2,005
Subtask 5.12 Final Spiner & Video Surveys	0	$0	1	$182	1	$135	8	$784	0	$0	10	$60	$1,161
Subtask 5.13 Pump Re-Installation	0	$0	1	$182	1	$135	48	$4,704	0	$0	50	$60	$5,081
SUBTOTALS>>	2	$520	13	$2,366	14	$1,890	184	$18,032	1	$68	214	$1,220	$24,096
											ESTIMATED COSTS FOR RCS FIELD SERVICES, WELL 2>		$24,096

TABLE 2B
RCS MANHOUR AND COST ESTIMATE DETAIL
INDIVIDUAL COSTS FOR DYER ROAD WELLFIELD WELL 5 REHABILITATION - TASK 5 FIELD MONITORING
FEBRUARY 2013

TASK LISTING	PRINCIPAL GROUNDWATER GEOLOGIST		SENIOR GROUNDWATER GEOLOGIST		STAFF GROUNDWATER GEOLOGIST		FIELD GROUNDWATER GEOLOGIST		CLERICAL PERSONNEL		TOTAL MANHOURS	DIRECT COSTS	TOTAL TASK COST
	BILLING RATES												
	$260		$182		$135		$98		$68				
	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST			
TASK 5 - FIELD MONITORING OF WELL REHABILITATION OPERATIONS													
Subtask 5.1 Pre-Construction Meeting	0	$0	3	$546	0	$0	0	$0	1	$68	4	$60	$674
Subtask 5.2 Pump Removal	0	$0	1	$182	1	$135	10	$980	0	$0	12	$60	$1,357
Subtask 5.3 Downwell Surveys	0	$0	0	$0	0	$0	8	$784	0	$0	8	$0	$784
Subtask 5.4 Wire Brushing & Bailing	0	$0	1	$182	1	$135	10	$980	0	$0	12	$60	$1,357
Subtask 5.5 Mechanical Development	0	$0	1	$182	1	$135	10	$980	0	$0	12	$60	$1,357
Subtask 5.6 Chemical Development (Optional)	0	$0	1	$182	1	$135	20	$1,960	0	$0	22	$120	$2,397
Subtask 5.7 Swabbing & Airlifting	0	$0	1	$182	1	$135	20	$1,960	0	$0	22	$120	$2,397
Subtask 5.8 Interim Video Survey	0	$0	1	$182	1	$135	4	$392	0	$0	6	$60	$769
Subtask 5.9 Pumping Redevelopment	1	$260	1	$182	2	$270	16	$1,568	0	$0	20	$120	$2,400
Subtask 5.10 Pumping Tests	1	$260	1	$182	2	$270	24	$2,352	0	$0	28	$380	$3,444
Subtask 5.11 Spinner Survey & Pump Removal	0	$0	1	$182	1	$135	16	$1,568	0	$0	18	$120	$2,005
Subtask 5.12 Final Spiner & Video Surveys	0	$0	1	$182	1	$135	8	$784	0	$0	10	$60	$1,161
Subtask 5.13 Pump Re-installation	0	$0	1	$182	1	$135	48	$4,704	0	$0	50	$60	$5,081
SUBTOTALS>>	2	$520	14	$2,548	13	$1,755	194	$19,012	1	$68	224	$1,280	$25,183
											ESTIMATED COSTS FOR RCS FIELD SERVICES, WELL 5>		$25,183

SECTION 9 – GEOSCIENCE 2013 FEE SCHEDULE

SCHEDULE OF HOURLY RATES

Professional Services	Hourly Rates ($US)
Principal Hydrologist	$280
Principal Hydrologist	
Depositions and Court Testimony	$500
Senior Geohydrologist	$195
Project Geohydrologist	$160
Senior Staff Geohydrologist	$125
Staff Geohydrologist	$115
Graphics and GIS Illustrator	$105
Clerical	$85

Reimbursable Expenses	
Reimbursable Project Expenses	
Telephone, Outside Reproduction,	
Presentation Supplies, Postage, etc.	Cost + 5%
Computer Services	Project Dependent
Internal Photocopying- B&W	$0.10/page
Internal Photocopying - Color	$0.70/page
E-Size Color Plates	$50/Plate
Subconsultant Services	Cost + 10%
Automobile Transportation	Current IRS Allowable Rates
Commercial Travel/Subsistence	Cost + 3%

Note: Fees valid for January 1 – December 31, 2013. All fees subject to change January 1, 2014.

EXHIBIT "D"

IRVINE RANCH WATER DIST

Expenditure Authorization

Project Name: DRWF #2 & #5 REHABILITATION
EPMS Project No: 11693 **EA No:** 1
Oracle Project No: 4326
Project Manager: MORI, RICHARD
Project Engineer: MOEDER, JACOB
Request Date: March 14, 2013

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
101	100.0	REPLACEMENT FUND**
Total	**100.0%**	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	$0
This Request:	$79,000
Total EA Requests:	$79,000
Previously Approved Budget:	$0
Budget Adjustment Requested this EA:	$706,000
Updated Budget:	$706,000
Budget Remaining After This EA	$627,000

Comments: This project is a "Replacement Expense".

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	14,000	0	14,000	14,000	0	14,000	7/13	1/14
ENGINEERING DESIGN - OUTSIDE	40,000	0	40,000	40,000	0	40,000	7/13	1/14
DESIGN STAFF FIELD SUPPORT	10,000	0	10,000	10,000	0	10,000	7/13	1/14
ENGINEERING - CA&I IRWD	0	0	0	12,000	0	12,000	7/13	6/14
ENGINEERING - CA&I OUTSIDE	0	0	0	80,000	0	80,000	7/13	6/14
CONSTRUCTION FIELD SUPPORT	0	0	0	20,000	0	20,000	7/13	6/14
CONSTRUCTION	0	0	0	500,000	0	500,000	7/13	6/14
LEGAL	5,000	0	5,000	10,000	0	10,000	7/13	6/14
WATER QUALITY	10,000	0	10,000	20,000	0	20,000	7/13	6/14
Contingency - % Subtotal	$0	$0	$0	$0	$0	$0		
Subtotal (Direct Costs)	$79,000	$0	$79,000	$706,000	$0	$706,000		
Estimated G/A - 180.00% of direct labor*	$61,200	$0	$61,200	$136,800	$0	$136,800		
Total	$140,200	$0	$140,200	$842,800	$0	$842,800		
Direct Labor	$34,000	$0	$34,000	$76,000	$0	$76,000		

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

EA Originator: RFM [signature] 3/14/13

Department Director: [signature] 3/14/13

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 $860,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorp... n of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.1**

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: WELL REHAB PROGRAM DW 13/14 THRU 15/16
EPMS Project No: 11672 **EA No:** 1
Oracle Project No: 4327
Project Manager: MORI, RICHARD
Project Engineer: MOEDER, JACOB
Request Date: March 14, 2013

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
101	100.0	REPLACEMENT FUND**
Total	**100.0%**	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	$0
This Request:	$196,400
Total EA Requests:	$196,400
Previously Approved Budget:	$0
Budget Adjustment Requested this EA:	$2,097,900
Updated Budget:	$2,097,900
Budget Remaining After This EA	$1,901,500

Comments: Project shall come from "Replacement Expense".

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	42,000	0	42,000	42,000	0	42,000	12/13	6/16
ENGINEERING DESIGN - OUTSIDE	120,000	0	120,000	120,000	0	120,000	12/13	6/16
DESIGN STAFF FIELD SUPPORT	10,000	0	10,000	10,000	0	10,000	12/13	6/16
ENGINEERING - CA&I IRWD	0	0	0	36,000	0	36,000	12/13	6/16
ENGINEERING - CA&I OUTSIDE	0	0	0	240,000	0	240,000	12/13	6/16
CONSTRUCTION FIELD SUPPORT	0	0	0	20,000	0	20,000	12/13	6/16
CONSTRUCTION	0	0	0	1,500,000	0	1,500,000	12/13	6/16
LEGAL	5,000	0	5,000	10,000	0	10,000	12/13	6/16
WATER QUALITY	10,000	0	10,000	20,000	0	20,000	12/13	6/16
Contingency - 5.00% Subtotal	$9,400	$0	$9,400	$99,900	$0	$99,900		
Subtotal (Direct Costs)	**$196,400**	**$0**	**$196,400**	**$2,097,900**	**$0**	**$2,097,900**		
Estimated G/A - 180.00% of direct labor*	$111,600	$0	$111,600	$230,400	$0	$230,400		
Total	$308,000	$0	$308,000	$2,328,300	$0	$2,328,300		
Direct Labor	$62,000	$0	$62,000	$128,000	$0	$128,000		

*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: _____ 3/14/13

Department Director: EKM _____ 3/14/13

Finance: _____

Board/General Manager: _____

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of $2,375,000. This [illegible]ct is further described in the attached staff report and additional documents, if any, which are hereby incorporate 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: WELL REHAB PROGRAM RW 13/14 THRU 15/16
EPMS Project No: 30402 **EA No:** 1
Oracle Project No: 4328
Project Manager: MORI, RICHARD
Project Engineer: MOEDER, JACOB
Request Date: March 14, 2013

ID Split: Miscellaneous

Improvement District (ID) Allocations

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

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	$0
This Request:	$106,000
Total EA Requests:	$106,000
Previously Approved Budget:	$0
Budget Adjustment Requested this EA:	$1,029,000
Updated Budget:	$1,029,000
Budget Remaining After This EA	$923,000

Comments: Project shall come from "Replacement Expense".

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	21,000	0	21,000	21,000	0	21,000	12/13	6/16
ENGINEERING DESIGN - OUTSIDE	60,000	0	60,000	60,000	0	60,000	12/13	6/16
DESIGN STAFF FIELD SUPPORT	10,000	0	10,000	10,000	0	10,000	12/13	6/16
ENGINEERING - CA&I IRWD	0	0	0	18,000	0	18,000	12/13	6/16
ENGINEERING - CA&I OUTSIDE	0	0	0	120,000	0	120,000	12/13	6/16
CONSTRUCTION FIELD SUPPORT	0	0	0	20,000	0	20,000	12/13	6/16
CONSTRUCTION	0	0	0	750,000	0	750,000	12/13	6/16
LEGAL	5,000	0	5,000	10,000	0	10,000	12/13	6/16
WATER QUALITY	10,000	0	10,000	20,000	0	20,000	12/13	6/16
Contingency - % Subtotal	$0	$0	$0	$0	$0	$0		
Subtotal (Direct Costs)	$106,000	$0	$106,000	$1,029,000	$0	$1,029,000		
Estimated G/A - 180.00% of direct labor*	$73,800	$0	$73,800	$160,200	$0	$160,200		
Total	$179,800	$0	$179,800	$1,189,200	$0	$1,189,200		
Direct Labor	$41,000	$0	$41,000	$89,000	$0	$89,000		

***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: _____ 3/14/13

Department Director: _____ 3/14/13

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 $[illegible] ject is further described in the attached staff report and additional documents, if any, which are hereby incorpor of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.15(**