

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

November 24, 2014

PLEDGE OF ALLEGIANCE

CALL TO ORDER

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

ROLL CALL

Directors Matheis, Reinhart, Swan, Withers and President LaMar

NOTICE

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

COMMUNICATIONS TO THE BOARD

1. A. Written:

B. Oral:

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. 2014- 53

Items 3-11

3. **MINUTES OF REGULAR BOARD MEETING**

Recommendation: That the minutes of the November 10, 2014 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, Peer Swan and John Withers as described.

5. **RESOLUTION OF COMMENDATION FOR LARRY AGRAN**

Recommendation: That the Board adopt a resolution commending Councilman Larry Agran for his dedicated service to the Irvine community.

Reso No. 2014-

CONSENT CALENDAR – Continued

Next Resolution No. 2014- 53

Items 3-11

6. OCTOBER 2014 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Monthly Interest Rate Swap Summary for October 2014, and Disclosure Report of Reimbursements to Board members and staff; approve the October 2014 Summary of Payroll Ach payments in the total amount of \$2,176,141 and approve the October 2014 accounts payable disbursement summary of warrants 352357 through 353242, workers' compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$38,448,453.

7. UPCOMING PROJECTS STATUS REPORT

Recommendation: Receive and file.

8. DISCOVERY SCIENCE CENTER AGREEMENT VARIANCE NO. 1

Recommendation: That the Board authorize the General Manager to execute a variance in the amount of \$299,370 to the Professional Services Agreement with the Discovery Science Center to provide water education program services for Fiscal Years 2014-15 and 2015-16.

9. SYPHON RESERVOIR INTERIM FACILITIES AND PIPELINE IMPROVEMENTS FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Syphon Reservoir Interim Facilities and Pipeline Improvements, project 30374 (3729); 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.

10. BAKER WATER TREATMENT PLANT PROGRAMMING SUPPORT CONSULTANT SELECTION

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement in the amount of \$168,000 with Arcadis for programming support for the Baker Water Treatment Plant, project 11747 (5027).

11. MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION CONTRACT CHANGE ORDER

Recommendation: That the Board approve Contract Change Order No. 118 in the credit amount of <\$49,147.28> for additional system testing and deletion of work items with J. R. Filanc Construction Co. for the Michelson Water Recycling Plant Phase 2 Expansion, project 30214 (1706).

ACTION CALENDAR

12. **LONG-TERM DISABILITY, LIFE, AND DEPENDENT LIFE INSURANCE COVERAGE FOR CALENDAR YEAR 2015**

Recommendation: That the Board authorize the General Manager to cancel the current contract with Principal Financial and enter into a two-year contract with Hartford for long-term disability, group term life, and dependent life insurance coverage.

13. **THREE-YEAR JANITORIAL SERVICES CONTRACT**

Recommendation: That the Board authorize the General Manager to execute a three-year janitorial services contract with DMS Facility Services, LLC in the total amount of \$590,784.

14. **2015 SEWER COLLECTION SYSTEM MASTER PLAN CONSULTANT SELECTION**

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with AKM Consulting Engineers in the amount of \$891,784 to complete the 2015 sewer collection system master plan, project 21748 (5142).

15. **IRVINE LAKE PIPELINE NORTH CONVERSION PROJECT CONSULTANT SELECTIONS**

Recommendation: That the Board approve a budget decrease in the amount of <\$1,493,600> to the FY 2014-15 Capital Budget for project 30496 (5407); authorize the addition of project 30513 (5823), in the amount of \$7,494,600, to the FY 2014-15 Capital Budget; approve an Expenditure Authorization in the amount of \$1,037,000 for project 30496 (5407); approve an Expenditure Authorization in the amount of \$905,800 for project 30513 (5823); authorize the General Manager to execute a Professional Services Agreement with Kleinfelder/Simon Wong Engineering, in the amount of \$723,654, for engineering services for the Irvine Lake Pipeline North Conversion Reservoir, project 30496 (5407); and authorize the General Manager to execute a Professional Services Agreement with URS Corporation, in the amount of \$659,865, for engineering services for the ILP North Conversion Pipelines, project 30513 (5823).

16. **RATTLESNAKE CHLORINE GAS REMOVAL CONSTRUCTION AWARD**

Recommendation: That the Board authorize a budget increase in the amount of \$724,500, from \$1,706,400 to \$2,430,900, for project 30435 (4959); and authorize the General Manager to execute a construction contract with Schuler Engineering Corporation in the amount of \$1,725,900 for the Rattlesnake Reservoir Chlorine Gas System Removal, project 30435 (4959).

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.

- 17. A. General Manager's Report

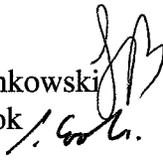
- B. Directors' Comments

- C. CLOSED SESSION CONFERENCE WITH LABOR NEGOTIATOR pursuant to (Government Code Section 54957.6)
Agency Designated Representative: Steven Lamar
Unrepresented Employee: Paul Cook

- D. Adjourn in memory of Ted Martin, President of El Toro Water District

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.

November 24, 2014
Prepared and
Submitted by: L. Bonkowski
Approved by: P. Cook 

CONSENT CALENDAR

MINUTES OF REGULAR BOARD MEETING

SUMMARY:

Provided are the minutes of the November 10, 2014 Regular Board Meeting minutes for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE NOVEMBER 10, 2014 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – Minutes of November 10, 2014 Regular Board Meeting

EXHIBIT "A"

MINUTES OF REGULAR MEETING – NOVEMBER 10, 2014

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President LaMar on November 10, 2014 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Reinhart, Withers, Matheis, LaMar and Swan (by teleconference)

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Engineering and Water Quality Burton, Executive Director of Finance Clary, Executive Director of Operations Shields, Executive Director of Water Policy Weghorst, Director of Treasury and Risk Management Jacobson, Director of Public Affairs Beeman, Director of Human Resources Roney, Director of Water Resources Sanchez, Legal Counsel Arneson (by teleconference), Secretary Bonkowski, Ms. Christine Compton, Mr. Christopher Smithson, Mr. Mike Hoolihan, Mr. Rich Mori, Mr. Jim Reed, Mr. Ed Casey, Ms. Carolyn Emery, Mr. Benjamin Legbandt, Mr. John Jaeger, and other members of the public and staff.

WRITTEN COMMUNICATION:

Mrs. Joan Irvine Smith's assistant asked that the status of the Dyer Road Wellfield be included in the minutes as follows: Currently wells 1, 2, 7, C-8, C-9, 10, 11, 14, 15, and 17 will operate in accordance with the District's annual pumping plan and that wells 3, 4, 5, 6, 12, 13, 16 and 18 will be off.

ORAL COMMUNICATION

Mr. John Jaeger thanked the District Secretary for providing him information to him earlier in the day relative to a broken meter he had reported. He then commented on the recent election results with the incumbents being reelected which he believed was not fair representation from the public at large. He further commented on IRWD's water rates which he felt were punitive and unfair.

ITEMS TOO LATE TO BE AGENDIZED: None.

PRESENTATION

CALAFCO GOVERNMENT LEADERSHIP AWARD

Ms. Carolyn Emery, Executive Officer of the Orange County Local Agency Formation Commission (LAFCO), presented the Board with the CALAFCO Government Leadership Award given to the Orange County Water District, the City of Anaheim, Yorba Linda Water District and IRWD for their contribution to the Orange County Water District annexation process. Ms. Emery thanked General Manager Cook and Mr. Mike Hoolihan for their efforts with regard to the annexation process.

CONSENT CALENDAR

On MOTION by Withers, seconded and unanimously carried by a roll call vote of 5-0 (Matheis, Reinhart, LaMar, Swan and Withers voting aye), CONSENT CALENDAR ITEMS 4 THROUGH 12 WERE APPROVED AS FOLLOWS:

4. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the October 27, 2014 Regular Board meeting be approved as presented.

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

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

6. RESOLUTIONS COMMENDING MWDOC'S DIRECTOR WAYNE CLARK AND OCWD'S DIRECTOR KATHRYN BARR FOR THEIR LONG-STANDING SERVICE TO THEIR RESPECTIVE AGENCIES

Recommendation: That the Board adopt the following two resolutions by title commending Ms. Kathryn Barr for 35 years of dedicated service to the Orange County Water District and Mr. Wayne Clark for 35 years of dedicated service to the Municipal Water District of Orange County.

RESOLUTION NO. 2014-48

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
MS. KATHRYN BARR FOR 35 YEARS OF DEDICATED
SERVICE TO THE ORANGE COUNTY WATER DISTRICT

RESOLUTION NO. 2014-49

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
MR. WAYNE CLARK FOR 35 YEARS OF DEDICATED SERVICE
TO MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

CONSENT CALENDAR (CONTINUED)

7. EAST ORANGE COUNTY WATER DISTRICT INTERCONNECTION REHABILITATION CONSTRUCTION AWARD

Recommendation: That the Board authorize a budget increase in the amount of \$103,700, from \$158,700 to \$262,400, and authorize the General Manager to execute a construction contract with Paulus Engineering, Inc. in the amount of \$163,950 for the East Orange County Water District Interconnection Rehabilitation, project 11799 (5401).

8. STRAND RANCH RECOVERY FACILITIES PROJECT SREX-4 WELL REPLACEMENT FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Strand Ranch Recovery Facilities Project SREX-4 Well Replacement (11289-A), and authorize the General Manager to file a Notice of Completion.

9. STRAND RANCH WELL OPTIMIZATION AND MONITORING PROJECT FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Strand Ranch Well Optimization and Monitoring Project 11794 (5272); authorize the General Manager to file a Notice of Completion; and authorize the payment of retention 35 days after the date of recording the Notice of Completion.

10. ANNUAL FISERV ELECTRONIC COMMERCE SERVICES AGREEMENT EXTENSION

Recommendation: That the Board approve renewal of the Fiserve Electronic Commerce Service Agreement effective October 14, 2014 through October 13, 2015 in the amount of \$162,000.

11. REVISIONS TO DISTRICT RULES AND REGULATIONS

Recommendation: That the Board adopt the following resolutions by title:

RESOLUTION NO. 2014-50

RESOLUTION RESCINDING RESOLUTION NO. 2012-1
AND ESTABLISHING REVISED RULES AND REGULATIONS
OF THE IRVINE RANCH WATER DISTRICT FOR WATER,
SEWER, RECYCLED WATER, AND NATURAL
TREATMENT SYSTEM SERVICE AND EXHIBIT "A" THERETO.

CONSENT CALENDAR (CONTINUED)

RESOLUTION NO. 2014-51

RESOLUTION OF THE BOARD OF DIRECTORS OF IRVINE RANCH WATER DISTRICT, ORANGE COUNTY, CALIFORNIA ADOPTING REVISIONS NOT MODIFYING SERVICE DELIVERY CHARGES IN THE SCHEDULE OF RATES AND CHARGES IN EXHIBIT "B" TO THE RULES AND REGULATIONS OF IRVINE RANCH WATER DISTRICT FOR WATER, SEWER, RECYCLED WATER, AND NATURAL TREATMENT SYSTEM SERVICE

12. PROPOSED CONSUMER PRICE INDEX CHANGES TO SALARY GRADE SCHEDULE AND EMPLOYEE COST OF LIVING ADJUSTMENTS

Recommendation: That the Board approve a 2.0% increase to the salary grade ranges for all eligible represented and unrepresented positions and a 2.0% Cost of Living Adjustment for each eligible represented and unrepresented employee, both effective December 1, 2014; and adopt the following resolution by title:

RESOLUTION NO. 2014-52

RESOLUTION OF THE BOARD OF DIRECTORS OF IRVINE RANCH WATER DISTRICT, RESCINDING RESOLUTION NO. 2014-25 AND ESTABLISHING A REVISED SCHEDULE OF POSITIONS AND SALARY RATE RANGES

ACTION CALENDAR

PROPOSED REVISIONS TO THE IRWD POTABLE WATER SUPPLY RELIABILITY POLICY PRINCIPLES

Executive Director of Water Policy Weghorst said that IRWD's Potable Water Supply Reliability Policy Principles paper was adopted by the Board on August 8, 2008. Mr. Weghorst said that due to the severe drought and new factors that have the potential to affect water supplies in California, staff has updated the District's Potable Water Supply Reliability Policy Principles paper to guide IRWD's participation in MWDOC's county-wide study, and the District's update to its own Water Supply Reliability Study. He then highlighted several of the policy principles. Following discussion, on MOTION by Matheis, seconded and unanimously carried by a roll call vote of 5-0 (Matheis, Reinhart, LaMar, Swan and Withers voting ayes), THE BOARD ADOPTED THE REVISED POLICY PRINCIPLES PAPER ON POTABLE WATER SUPPLY RELIABILITY.

PROPOSED REVISIONS TO THE IRWD DESALINATION POLICY PRINCIPLES

Executive Director of Water Policy Weghorst reported that the current drought and ongoing consideration being given by Orange County water agencies to the proposed Huntington Beach and Doheny Beach ocean desalination projects have resulted in the need to update IRWD's Desalination Policy Principles paper. Mr. Weghorst said that the updated principles paper addresses policy areas that are important in directing comments on reports and analyses being prepared for different desalination projects. He said that the principles will also help guide the District's participation in workshops with the Groundwater Producers and interested agencies to be conducted in the near future. Mr. Weghorst then reviewed all of the principles related to the potential desalination projects.

Director Swan reported that this item was reviewed by the Ocean Desalination Ad Hoc Committee on November 6, 2014 and that the Committee concurred with the revisions in the policy being presented. In response to Director Reinhart's suggestion to add language to clarify the use of brackish water, it was the consensus to adopt the policy as presented by staff subject to including language on brackish water at a later date. On MOTION by Swan, seconded and unanimously carried by a roll call vote of 5-0 (Matheis, Reinhart, LaMar, Swan and Withers voting ayes), **SUBJECT TO CLARIFYING THE USE OF BRACKISH WATER AT A LATER DATE, THE BOARD ADOPTED THE REVISED IRWD DESALINATION POLICY PRINCIPLES.**

LOS ALISOS WATER RECYCLING PLANT PONDS BIOSOLIDS REMOVAL AND DISPOSAL CONSTRUCTION AWARD

General Manager Cook reported that the Los Alisos Water Recycling Plant (LAWRP) Biosolids Removal project will dredge, dewater, haul, and dispose of a maximum 4,500 dry tons of biosolids that have accumulated in Ponds 3, 4, and 5 at the LAWRP. On September 23, 2014, the project was advertised to a select list of five contractors with Synagro-WWT, Inc. as the apparent low bidder. It was noted that the omission of the project schedule in Synagro-WWT's bid was deemed by legal counsel and staff not to be an irregularity that could affect the bid amount or afford the bidder a competitive advantage. On MOTION by Swan, seconded and unanimously carried by a roll call vote of 5-0 (Matheis, Reinhart, LaMar, Swan and Withers voting ayes), **THE BOARD AUTHORIZED A BUDGET INCREASE IN THE AMOUNT OF \$2,052,700, FROM \$1,779,900 TO \$3,832,600, TO THE LOS ALISOS WATER RECYCLING PLANT (LAWRP) BIOSOLIDS REMOVAL PROJECT; FOUND THAT THE IRREGULARITY IN THE BID OF SYNAGRO-WWT, INC. DID NOT AFFECT THE BID AMOUNT OR GIVE THE BIDDER A COMPETITIVE ADVANTAGE OVER OTHER BIDDERS AND WAIVED THE IRREGULARITY; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH SYNAGRO-WWT, INC. IN THE AMOUNT OF \$3,485,431 FOR THE LAWRP PONDS BIOSOLIDS REMOVAL AND DISPOSAL, PROJECT 20219 (5521).**

REVIEW OF 2014 LEGISLATIVE ACTIVITIES AND 2015 LEGISLATIVE PLANNING

Ms. Christine Compton reported on the expected 2015 legislative/regulatory issues followed by planned projects for Proposition 1 funding. Following discussion on the proposed projects for funding, it was determined a Board workshop be held to discuss the major capital projects prior to finalizing the list. On MOTION by Matheis, seconded and unanimously carried by a roll call vote of 5-0 (Matheis, Reinhart, LaMar, Swan and Withers voting ayes), SUBJECT TO HOLDING A BOARD WORKSHOP TO REVIEW THE LIST OF PLANNED PROJECTS FOR PROPOSITION 1 FUNDING, THE BOARD ADOPTED THE PRELIMINARY LIST OF IRWD PLANNED PROJECTS FOR PROP. 1 FUNDING, ADOPTED THE PROPOSED INITIAL 2015 LEGISLATIVE AND REGULATORY RESOURCE ALLOCATION PLAN AND THE LEGISLATIVE/REGULATORY ISSUES AND ACTIVITIES OF HIGH CONCERN TO IRWD IN 2015.

GENERAL MANAGER'S REPORT – None.

DIRECTORS' COMMENTS

Director Matheis commented on the election results and noted the low turnout. She noted the upcoming Exchange Club of Irvine breakfast event on November 20th.

Director Withers reported on his attendance at the UCI/IRWD reception and also said that he will be attending an OCSD Board meeting this Wednesday.

Director Swan reported on his speaking engagement at a Rotary Club meeting representing the District, an Orange County Forum meeting, a meeting with Supervisor Todd Spitzer, an OCWD Board meeting, a Newport Chamber of Commerce meeting, and an NWRI meeting with Director LaMar.

Director LaMar reported on his attendance at a MWDOC/MWD Board meeting, a MWDOC Board and Member Agency Elected Officials Forum, a meeting with Supervisor Todd Spitzer, a WACO Committee meeting, and an NWRI Clarke Prize conference and awards ceremony.

Consultant Jim Reed reported on the meetings he attended on behalf of IRWD including an ISDOC meeting, a SOCWA Board meeting, a Lake Forest Chamber of Commerce meeting, and a Lake Forest sports park dedication ceremony.

CLOSED SESSION

President LaMar said that the following Closed Sessions would be held:

CLOSED SESSION CONFERENCE WITH REAL PROPERTY NEGOTIATOR RELATIVE TO Government Code Section 54956.8

Property: OCSD Service Area 7 Sewer Infrastructure

Agency Negotiator: Paul Cook, General Manager

Purpose of Negotiations: Proposed Acquisition of Property - Price and terms;

**CLOSED SESSION CONFERENCE WITH REAL PROPERTY NEGOTIATOR RELATIVE TO
Government Code Section 54956.8**

Property: Water assets appurtenant to or associated with APNs - 042-340-023, 042-340-025, 042-340-039, 042-230-043, 042-340-034, 042-340-035, 042-340-037, 048-010-016, 048-010-018, 048-020-030 (Utica Ranch located in Kings County California near Utica Avenue and Interstate 5)

Negotiating Parties: Steven Jackson and Ernest Conant

Agency Negotiator: Paul Cook, General Manager

Purpose of Negotiations: Price and Terms of Payment

OPEN SESSION

Following the Closed Session on the first and second item, the meeting was reconvened with Directors La Mar, Matheis, and Reinhart present. No action was reported.

ADJOURNMENT

There being no further business, President LaMar adjourned the meeting at 8:00 p.m.

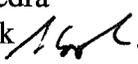
APPROVED and SIGNED this 24th day of November, 2014.

President, IRVINE RANCH WATER DISTRICT

Secretary, IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:
Bowie, Arneson, Wiles & Giannone

Legal Counsel

November 24, 2014
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

11/18/14 CORO Water Conference, Los Angeles, CA
11/19/14 MWDOC Director Wayne Clark Retirement Event
11/20/14 Exchange Club of Irvine Annual Breakfast Meeting
11/25/14 Meeting with Bruce Newell & OCFA Division Chief Greg McKeown

Mary Aileen Matheis

11/18/14 CORO Water Conference, Los Angeles, CA
11/19/14 MWDOC Director Wayne Clark & OCWD Director Kathryn Barr Retirement Event
11/20/14 Exchange Club of Irvine Annual Breakfast Meeting
11/24/14 Water System Meeting with Foothill Community Association

Peer Swan

11/17/14 Meeting with General Manager Paul Cook regarding District activities
11/19/14 MWDOC Director Wayne Clark & OCWD Director Kathryn Barr Retirement Event
11/20-21/14 ACWA Board Meeting, Sacramento, CA
11/24/14 Water System Meeting with Foothill Community Association

John Withers

11/18/14 CORO Water Conference, Los Angeles, CA
11/19/14 MWDOC Director Wayne Clark Retirement Event
11/20/14 Exchange Club of Irvine Annual Breakfast Meeting

RECOMMENDATION:

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

LIST OF EXHIBITS:

None

November 24, 2014

Prepared and

Submitted by: L. Bonkowsky

Approved by: Paul A. Cook

LB
/Cook

CONSENT CALENDAR

RESOLUTION COMMENDING LARRY AGRAN
FOR HIS 28 YEARS OF DEDICATED SERVICE TO THE CITY OF IRVINE

SUMMARY:

A Resolution has been prepared for Mr. Larry Agran for his 28 years of dedicated service to the City of Irvine. Staff will be presenting the resolution to Mr. Agran at his celebration on December 2, 2014. The Resolution is provided as Exhibits "A".

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2014-53

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
MR. LARRY AGRAN FOR 28 YEARS OF DEDICATED
SERVICE TO THE CITY OF IRVINE

LIST OF EXHIBIT:

Exhibit "A" – Resolution

EXHIBIT "A"

RESOLUTION NO. 2014-53

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY,
CALIFORNIA COMMENDING MR. LARRY AGRAN FOR
28 YEARS OF DEDICATED SERVICE TO THE CITY OF IRVINE

WHEREAS, Mr. Larry Agran has provided 28 years of dedicated service to the Irvine Community; and

WHEREAS, Mr. Agran first served on the Irvine City Council from 1978 to 1990 which included six years as Mayor. Under his leadership, Irvine received national recognition for its pioneering program in cultural programming and youth services, affordable housing, recycling and open space preservation; and

WHEREAS, Mr. Agran is to be recognized for founding and leading a number of non-profit organizations in the 1990s including the Local Elected Official Project, the Center of Innovative Diplomacy, and City Vote. As the founder of Project '99, from 1994 to 1999, Mr. Agran actively worked to promote the creation of the Orange County Great Park at the former Marine Corps Base at El Toro; and

WHEREAS, Mr. Agran returned to service on the Irvine City Council when he was elected in November 1998. In November 2000, he was elected Mayor of Irvine and reelected in 2002. After completing two consecutive terms as Mayor, Mr. Agran was elected to a four-year term as a City of Irvine Councilmember and was reelected for three consecutive terms. During this time, the City strategically grew into one of the premier master-planned cities in the county, promoting environmental stewardship, state-of-the-art transportation programs and systems, an enterprising business environment, and a high quality of life for its residents; and

WHEREAS, during Mr. Agran's tenure, the Irvine Ranch Water District (IRWD) appreciated his valuable insight and support over the years relating to various water-related issues and city issues including his representation at IRWD/City of Irvine Ad Hoc Committee meetings from 2000 to 2004 at which discussions were held on the Orange County Great Park along with various upcoming District projects; and

WHEREAS, Mr. Agran is to be recognized for six years of service as the Chair of the Board of Directors of the Orange County Great Park Corporation which helped to bring about the design, construction and operation of the Great Park.

NOW, THEREFORE, BE IT RESOLVED: The Board of Directors of Irvine Ranch Water District wishes to commend and express its sincere appreciation to Mr. Larry Agran for his exemplary leadership and outstanding service to the Irvine community.

ADOPTED, SIGNED AND APPROVED this 24th day of November, 2014.

President, Irvine Ranch Water District
and of the Board of Directors thereof

Secretary, Irvine Ranch Water District and
of the Board of Directors thereof

November 24, 2014 *TF 80*
Prepared by: T. Fournier/J. Davis *JF*
Submitted by: R. Jacobson/Cheryl Clary *CC*
Approved by: Paul Cook *PC*

CONSENT CALENDAR

OCTOBER 2014 TREASURY REPORTS

SUMMARY:

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

- A. The Investment Summary Report for October 2014. This Investment Summary Report is in conformity with the 2014 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 October 31, 2014, as outlined in Exhibit "B".
- C. The Summary of Payroll ACH payments in the total amount of \$2,176,141, as outlined in Exhibit "C".
- D. The October 31, 2014 Disbursement Summary of warrants 352357 through 353242, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$38,448,453, as outlined in Exhibit "D".
- E. The Disclosure Report of Reimbursements to Board Members and Staff for October 2014, detailing payments or reimbursements for individual charges of \$100.00 or more per transaction, as outlined in Exhibit "E".

FISCAL IMPACTS:

As of October 31, 2014, the book value of the investment portfolio was \$286,322,189, with a 0.48% rate of return and a market value of \$286,213,618. Based on the District's September 30, 2014 quarterly real estate investment rate of return of 12.18%, the District's weighted average return for the fixed income and real estate investments was 2.80%.

As of October 31, 2014, the total notional amount of the interest rate swap portfolio was \$130 million of fixed payer swaps. Cash accrual in October from all swaps was negative \$648,918.

Payroll ACH payments totaled \$2,176,141, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for October totaled \$38,448,453.

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, THE MONTHLY INTEREST RATE SWAP SUMMARY FOR OCTOBER 2014, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF; APPROVE THE OCTOBER 2014 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$2,176,141 AND APPROVE THE OCTOBER 2014 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 352357 THROUGH 353242, WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$38,448,453.

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
- Exhibit "E" – Disclosure of Reimbursements to Board Members and Staff

10/31/14

SETTLEMENT *	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	Y1FC	ORIGINAL COST	CARRY VALUE	MARKET VALUE 10/31/2014 (1)	UNREALIZED GAIN/(LOSS) (2)	
10/15/14			12/01/14		LAIF	State of California Tsy.	\$50,000,000		0.240%		\$50,000,000.00	\$50,000,000.00	50,009,064.20	9,064.20	
10/15/14			11/15/14		LAIF BABS	State of California Tsy.	8,048,941		0.240%		\$8,048,941.02	\$8,048,941.02	8,050,400.16	1,459.14	
08/27/14	N/A	N/A	11/19/14	NR	FHLB - Discount Note	Fed Home Loan Bank Discount Note	5,000,000	0.045%	0.046%		4,999,475.00	4,999,887.50	4,999,950.00	62.50	
08/13/14	N/A	N/A	12/11/14	NR	FHLB - Discount Note	Fed Home Loan Bank Discount Note	5,000,000	0.065%	0.066%		4,998,916.67	4,999,638.89	4,999,850.00	211.11	
08/13/14	N/A	N/A	01/30/15	NR	FHLB - Discount Note	Fed Home Loan Bank Discount Note	10,000,000	0.090%	0.091%		9,995,750.00	9,997,750.00	9,999,300.00	1,550.00	
08/13/14	N/A	N/A	05/20/15	NR	FNMA - Discount Note	Fed Natl Mortgage Discount Note	10,000,000	0.130%	0.132%		9,989,888.89	9,992,777.78	9,996,400.00	3,622.22	
08/13/14	N/A	N/A	06/09/15	NR	FHLB - Discount Note	Fed Home Loan Mortgage Corp Discount Note	10,000,000	0.150%	0.152%		9,987,500.00	9,990,833.33	9,995,800.00	4,966.67	
08/13/14	N/A	N/A	07/29/15	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	15,000,000	0.125%	0.182%		14,991,750.00	14,993,635.71	14,994,000.00	364.29	
03/04/14	N/A	N/A	08/28/15	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Mortgage Corp	2,000,000	0.500%	0.225%		2,008,140.00	2,004,505.54	2,005,240.00	734.46	
03/04/14	N/A	N/A	08/28/15	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	8,000,000	0.375%	0.225%		8,017,720.00	8,009,808.12	8,013,440.00	3,631.88	
05/28/14	N/A	N/A	09/10/15	Aaa/AA+/AAA	FHLB - Note	Fed Home Loan Mortgage Corp	5,000,000	1.750%	0.165%		5,101,550.00	5,067,627.98	5,017,150.00	(50,477.98)	
10/09/14	One Time	03/26/15	10/20/15	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.270%	0.239%	0.201%	5,001,600.00	5,001,502.13	5,002,250.00	747.87	
10/09/14	N/A	N/A	12/01/15	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.270%	0.233%	0.233%	5,002,100.00	5,001,984.45	4,999,400.00	(2,584.45)	
10/29/14	N/A	N/A	12/18/15	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.300%	0.200%	0.200%	5,005,670.00	5,005,629.01	5,001,350.00	(4,279.01)	
05/27/14	N/A	N/A	12/21/15	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.375%	0.241%		5,010,450.00	5,007,568.50	5,007,850.00	281.50	
01/15/13	N/A	07/15/13	01/15/16	NA/AA+/AAA	FHLB - Note	Fed Home Loan Bank	5,000,000	0.375%	0.390%		4,997,750.00	4,998,939.73	5,001,650.00	2,710.27	
03/14/13	Continuous	09/07/13	03/07/16	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	740,741	0.470%	0.490%	0.730%	734,740.74	738,030.00	740,277.78	2,247.78	
03/14/14	Continuous	06/10/14	03/10/16	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.350%	0.413%	0.874%	4,993,750.00	4,995,744.50	4,992,050.00	(3,694.50)	
04/12/13	Continuous	07/12/13	04/12/16	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.410%	0.447%	0.851%	4,994,500.00	4,997,350.36	4,989,550.00	(7,800.36)	
04/29/14	Continuous after	07/25/14	04/25/16	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.390%	0.448%	0.878%	4,994,250.00	4,995,577.48	4,986,500.00	(9,077.48)	
05/12/14	Continuous after	05/12/15	05/12/16	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.480%	0.480%	0.480%	5,000,000.00	5,000,000.00	4,998,550.00	(1,450.00)	
12/19/13	Quarterly	11/20/13	05/20/16	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.520%	0.520%	0.520%	5,000,000.00	5,000,000.00	4,985,350.00	(14,650.00)	
01/13/14	Continuous	03/27/14	06/27/16	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.500%	0.552%	0.552%	4,993,750.00	4,995,700.46	4,990,450.00	(5,250.46)	
05/08/14	N/A	N/A	07/05/16	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.375%	0.484%		4,988,300.00	4,990,924.71	4,989,800.00	(1,124.71)	
04/29/14	Continuous after	07/29/14	07/29/16	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.550%	0.550%	0.550%	5,000,000.00	5,000,000.00	4,991,800.00	(8,200.00)	
02/11/14	Continuous after	08/11/14	08/11/16	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.570%	0.590%	0.590%	4,997,500.00	4,998,220.94	4,991,200.00	(7,020.94)	
12/31/13	Quarterly	06/14/13	09/14/16	Aaa/AA+/AAA	FHLB - Note	Fed Home Loan Mortgage Corp	5,000,000	0.650%	0.759%	0.759%	4,985,500.00	4,989,976.21	4,997,250.00	7,273.79	
03/14/13	Continuous	12/26/12	09/26/16	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.680%	0.683%	0.690%	4,999,500.00	4,999,731.04	4,997,000.00	(2,731.04)	
12/03/13	One Time	11/25/14	11/25/16	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.750%	0.647%	0.716%	5,005,000.00	5,003,471.07	5,002,050.00	(1,421.07)	
12/09/13	Quarterly	12/09/14	12/09/16	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.700%	0.727%	0.780%	4,996,000.00	4,997,193.43	4,991,000.00	(6,193.43)	
12/19/13	Quarterly	06/19/14	12/19/16	Aaa/AA+/AAA	FHLB - Note	Fed Home Loan Mortgage Corp	5,000,000	0.750%	0.750%	0.750%	5,000,000.00	5,000,000.00	5,004,000.00	4,000.00	
12/20/13	Quarterly	06/19/14	12/19/16	Aaa/AA+/AAA	FHLB - Note	Fed Home Loan Mortgage Corp	5,000,000	0.750%	0.755%	0.755%	4,999,250.00	4,999,466.44	5,004,000.00	4,533.56	
12/27/13	Continuous after	06/24/14	12/27/16	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.750%	0.760%	0.760%	4,998,500.00	4,998,922.90	5,000,150.00	1,227.10	
12/27/13	S	Quarterly	06/27/14	12/27/16	Aaa/AA+/AAA	FHLB - Note	Fed Home Loan Mortgage Corp	2,500,000	0.500%	0.550%	0.550%	2,498,750.00	2,499,102.42	2,494,825.00	(4,277.42)
03/13/14	Quarterly	06/13/14	03/13/17	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.875%	0.946%	1.719%	4,989,500.00	4,991,732.21	4,998,100.00	6,367.79	
04/25/14	Continuous after	04/24/15	04/24/17	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.900%	0.976%	1.142%	4,988,750.00	4,990,640.41	5,015,000.00	24,359.59	
10/28/14	Quarterly	01/28/15	04/28/17	Aaa/AA+/AAA	FHLB - Note	Fed Home Loan Mortgage Corp	10,000,000	0.820%	0.820%	0.820%	10,000,000.00	10,000,000.00	9,963,500.00	(36,500.00)	
06/30/14	Quarterly	09/30/14	06/30/17	Aaa/AA+/AAA	FHLB - Note	Fed Home Loan Mortgage Corp	5,000,000	1.150%	1.113%	0.709%	5,005,500.00	5,004,877.74	4,988,550.00	(16,327.74)	
08/28/14	Quarterly	11/25/14	08/25/17	Aaa/AA+/AAA	FHLB - Note	Fed Home Loan Mortgage Corp	5,000,000	1.125%	1.139%	1.139%	4,998,000.00	4,998,118.94	5,001,900.00	3,781.06	
10/24/14	Continuous after	09/18/13	09/18/17	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.980%	1.033%	1.033%	4,992,500.00	4,992,556.60	4,988,700.00	(3,856.60)	
10/30/14	Quarterly	01/30/15	10/30/17	NA/AA+/NR	FHLB - Note	Fed Home Loan Mortgage Corp	5,000,000	1.100%	1.100%	1.100%	5,000,000.00	5,000,000.00	4,995,150.00	(4,850.00)	
10/13/14	N/A	N/A	04/30/16	NR	Direct Muni	ETWD	1,864,030	4.570%	4.570%	4.570%	1,864,030.06	1,864,030.06	1,864,030.06		
SUB-TOTAL							\$278,153,712				\$278,174,772.38	\$278,162,397.61	\$278,053,827.20	(\$108,570.41)	
RESTRICTED CASH (Swap Collateral Deposits)															
10/01/14					Collateral Deposit	Citi-Group	\$6,459,791		0.090%		\$6,459,790.97	\$6,459,790.97	6,459,790.97		
10/17/14					Collateral Deposit	Merrill Lynch	\$1,700,000		0.090%		\$1,700,000.00	\$1,700,000.00	1,700,000.00		
SUB-TOTAL							\$8,159,791				\$8,159,790.97	\$8,159,790.97	\$8,159,790.97		
TOTAL INVESTMENTS							\$286,313,503				\$286,334,563.35	\$286,322,188.58	\$286,213,618.17		
					Petty Cash						3,400.00				
					October	Bank of America					1,417,837.06				
											\$287,755,800.41				

(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

Outstanding Variable Rate Debt	\$332,300,000
Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps)	\$202,300,000
Investment Balance:	\$287,755,800
Investment to Variable Rate Debt Ratio:	142%
Portfolio - Average Number of Days To Maturity	481

	Investment Portfolio	Real Estate Portfolio (3)	Weighted Avg. Return
October	0.48%	12.18%	2.80%
September	0.45%	12.18%	2.73%
Change	0.03%		

This Investment Summary Report is in conformity with the 2014 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures.

IRVINE RANCH WATER DISTRICT
SUMMARY OF MATURITIES

10/31/14

DATE	TOTAL	%	LAIF	AGENCIES	COLLATERAL DEPOSIT	Direct Muni	Agency Discount Notes
10/14	\$66,208,732	23.12%	\$58,048,941		\$8,159,791		
11/14	5,000,000	1.75%					5,000,000
12/14	5,000,000	1.75%					5,000,000
01/15	10,000,000	3.49%					10,000,000
02/15							
03/15							
04/15							
05/15	10,000,000	3.49%					10,000,000
06/15	10,000,000	3.49%					10,000,000
07/15	15,000,000	5.24%		15,000,000			
08/15	10,000,000	3.49%		10,000,000			
09/15	5,000,000	1.75%		5,000,000			
SUB-TOTAL	\$136,208,732	47.57%	\$58,048,941	\$30,000,000	\$8,159,791		\$40,000,000
13 Months - 3 YEARS							
10/1/2015 - 12/30/15	20,000,000	6.99%		20,000,000			
01/01/16 - 03/31/2016	10,740,741	3.75%		10,740,741			
04/01/16 - 06/30/2016	25,000,000	8.73%		25,000,000			
07/01/16 - 9/30/2016	25,000,000	8.73%		25,000,000			
10/01/16 - 12/31/2016	27,500,000	9.60%		27,500,000			
1/1/2017 - 3/31/2017	5,000,000	1.75%		5,000,000			
04/01/17-06/30/17	20,000,000	6.99%		20,000,000			
07/01/17 - 9/30/2017	10,000,000	3.49%		10,000,000			
10/30/17 - 12/31/2017	5,000,000	1.75%		5,000,000			
04/30/2036	1,864,030	0.65%				1,864,030	
TOTALS	\$286,313,503	100.00%	\$58,048,941	\$178,240,741	\$8,159,791	\$1,864,030	\$40,000,000

% OF PORTFOLIO

20.28%

62.25%

2.85%

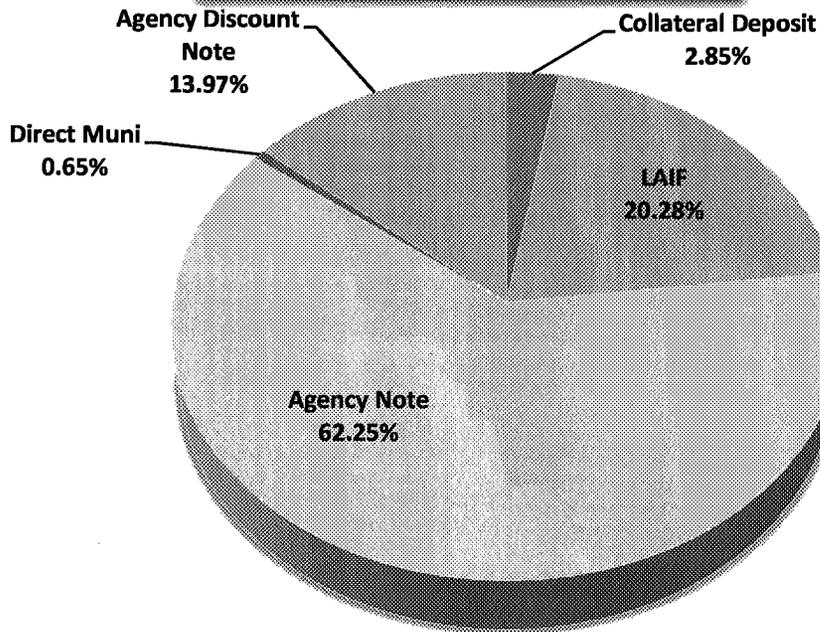
0.65%

13.97%

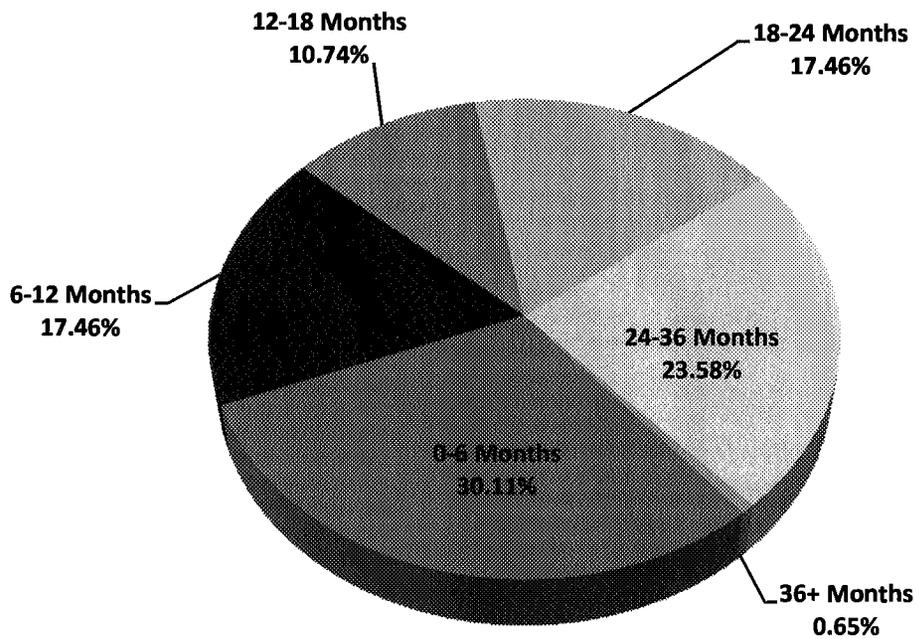
October 2014 INVESTMENT PORTFOLIO

October 31, 2014

Portfolio by Investment Type



Portfolio by Maturities



Irvine Ranch Water District
 Summary of Real Estate
 9/30/2014

	<u>ACQUISITION DATE</u>	<u>PROPERTY TYPE</u>	<u>OWNERSHIP INTEREST</u>	<u>ORIGINAL COST</u>	<u>RATE OF RETURN QUARTER ENDED Sep-14</u>
Sycamore Canyon	Dec-92	Apartments	Fee Simple	\$ 43,550,810	15.98%
Wood Canyon Villas	Jun-91	Apartments	Limited Partner	\$ 6,000,000	8.56%
ITC (230 Commerce)	Jul-03	Office Building	Fee Simple	\$ 5,739,845	5.68%
Waterworks Business Pk.	Nov-08	Research & Dev.	Fee Simple	\$ 8,630,577	3.62%
Sand Canyon Professional Center	Jul-12	Medical Office	Fee Simple	\$ 8,648,594	8.41%
				<u>\$ 72,569,826</u>	<u>12.18%</u>

IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT
INVESTMENT ACTIVITY
October

MATURITIES/SALES/CALLS

PURCHASES

DATE	SECURITY TYPE	PAR	YIELD	Settlement Date	Maturity Date	SECURITY TYPE	PAR	YIELD TO MATURITY
10/3/2014	FHLB - Discount Note	\$8,000,000	0.04%	10/9/2014	10/20/2015	FHLB - Note	\$5,000,000	0.24%
10/9/2014	FNMA - Note	\$5,000,000	0.46%	10/9/2014	12/1/2015	FHLB - Note	\$5,000,000	0.23%
10/22/2014	FFCB	\$10,000,000	0.43%	10/13/2014	4/30/2036	Direct Muni - Installment Sale	\$740,845	4.57%
10/23/2014	FHLB - Discount Note	\$10,000,000	0.01%	10/22/2014	10/23/2014	FHLB - Discount Note	\$10,000,000	0.01%
10/24/2014	FHLB - Discount Note	\$5,000,000	0.01%	10/23/2014	10/24/2014	FHLB - Discount Note	\$5,000,000	0.01%
10/28/2014	FHLMC - Note	\$5,000,000	0.30%	10/23/2014	10/29/2014	FHLB - Discount Note	\$5,000,000	0.01%
10/28/2014	FHLMC - Note	\$5,000,000	1.00%	10/24/2014	9/18/2017	FFCB - Note	\$5,000,000	1.03%
10/29/2014	FNMA - Note	\$5,000,000	0.50%	10/28/2014	4/28/2014	FHLMC - Note	\$10,000,000	0.82%
10/29/2014	FHLB - Discount Note	\$5,000,000	0.01%	10/29/2014	12/15/15	FHLB - Note	\$5,000,000	0.20%
10/30/2014	FHLB - Note	\$5,000,000	0.85%	10/30/2014	10/30/2017	FHLMC - Note	\$5,000,000	1.10%
10/30/2014	FHLB - Note Partial Call	\$3,703,704	0.49%					

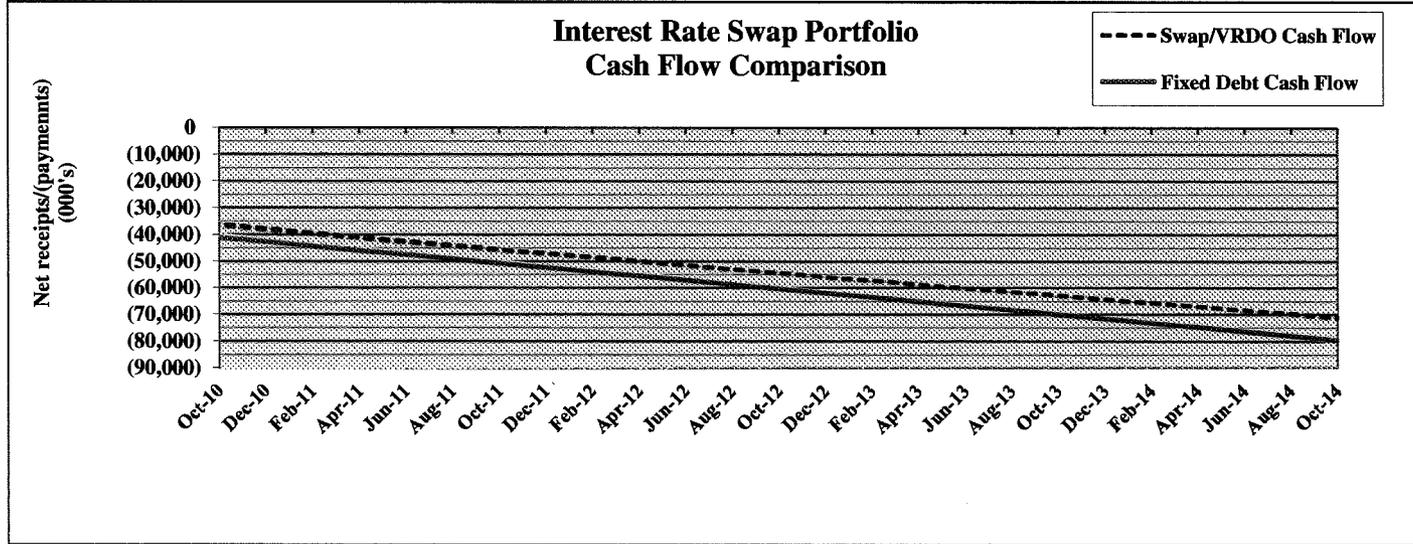
**IRVINE RANCH WATER DISTRICT
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL
October 31, 2014**

Exhibit "B"

								LIBOR Avg %					
								Prior Mo	Current Mo	12-Mo Avg			
								0.16%	0.15%	0.16%			
Current Fiscal Year Active Swaps								Cash Flow				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	4.6	ML	\$ 20,000,000	FXP	LIBOR	6.200%	\$ (103,997)	\$ (104,153)	\$ (406,189)	\$ (7,854,739)	\$ 15,843,504	\$ (4,156,496)
6/4/2006	6/4/2019	4.6	CG	20,000,000	FXP	LIBOR	6.200%	(103,997)	(104,153)	(406,189)	(7,854,739)	15,832,853	(4,167,147)
6/17/2006	6/17/2019	4.6	CG	30,000,000	FXP	LIBOR	6.140%	(154,492)	(154,650)	(603,272)	(11,643,443)	23,795,565	(6,204,435)
3/10/2007	3/10/2029	14.4	ML	30,000,000	FXP	LIBOR	5.687%	(142,789)	(142,981)	(557,673)	(10,411,621)	18,943,519	(11,056,481)
3/10/2007	3/10/2029	14.4	CG	30,000,000	FXP	LIBOR	5.687%	(142,789)	(142,981)	(557,673)	(10,411,621)	18,880,095	(11,119,905)
Totals/Weighted Avgs		9.1		\$ 130,000,000			5.949%	\$ (648,064)	\$ (648,918)	\$ (2,530,996)	\$ (48,176,164)	\$ 93,295,536	\$ (36,704,464)
Total Current Year Active Swaps				\$ 130,000,000				\$ (648,064)	\$ (648,918)	\$ (2,530,996)	\$ (48,176,164)	\$ 93,295,536	\$ (36,704,464)

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								
\$ (648,064)	\$ (648,918)	\$ (2,530,996)	\$ (48,176,164)	\$ 93,295,536	\$ (36,704,464)								



Cash Flow Comparison Synthetic Fixed vs. Fixed Rate Debt	
Cash Flow to Date	
Synthetic Fixed =	\$70,507,613
Fixed Rate =	\$78,986,857
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

October
2014

DATE	AMOUNT	VENDOR	PURPOSE
10/3/2014	725,546.21	BANK OF AMERICA	ACH Payments for Payroll
10/17/2014	726,121.05	BANK OF AMERICA	ACH Payments for Payroll
10/31/2014	724,473.72	BANK OF AMERICA	ACH Payments for Payroll
	<u>\$2,176,140.98</u>		

Exhibit "D"

IRWD Ledger

Void Payment Register

Report Date: 03-NOV-2014 17:32

Include Zero Amount Payments: Yes
Display Payee Address: No

Period From: 01-OCT-14

Page: 1
To: 31-OCT-14
Date: Void Date

Bank: Bank of America N.A.

Branch: Los Angeles

Account: Checking AP and PR

Bank Account Currency: USD

Payment Currency: USD (US Dollar)

Payment Number	Date	Payee Name	Site	Address	Payment Amount	Void Date
Payment Document: IRWD CHECK						
348398	02-MAY-14	LIN, QILING	YORBA LINDA		36.10	01-OCT-14
348421	02-MAY-14	SAUL, MICHAEL	LONG BEACH		54.63	01-OCT-14
348472	08-MAY-14	DECKER, SILLA	SANTA ANA		18.61	01-OCT-14
348501	08-MAY-14	INOUE, CHRIS	GLENDALE		15.50	01-OCT-14
348517	08-MAY-14	MALONE, MICHAEL	SAN CLEMENTE		12.15	01-OCT-14
348837	22-MAY-14	DUONG, JIMMY	SANTA ANA		35.06	01-OCT-14
348852	22-MAY-14	FOULADI, HOUSSEIN	IRVINE		28.32	01-OCT-14
348890	22-MAY-14	LEE, CRYSTAL	FULLERTON		301.68	01-OCT-14
348968	22-MAY-14	STOCHLIA, JILL	ANAHEIM		25.26	01-OCT-14
349312	05-JUN-14	CUESTA CONSTRUCTION CO.	COSTA MESA		1,000.00	01-OCT-14
349357	05-JUN-14	GREENSOUND TECHNOLOGY	IRVINE		176.81	03-OCT-14
349400	05-JUN-14	LACY, CAITLIN	LAGUNA NIGUEL		30.48	01-OCT-14
349411	05-JUN-14	MARTIN, PEGGY	HUBER HEIGHTS		58.27	01-OCT-14
349610	12-JUN-14	COUNTY OF ORANGE	SANTA ANA 1		158.55	03-OCT-14
349743	12-JUN-14	WAKISAKA, HIROSHI	CERRITOS		40.64	01-OCT-14
349908	18-JUN-14	PASUPULETI, SURENDRA	MISSION VIEJO		24.68	01-OCT-14
349933	18-JUN-14	RSI DEVELOPMENT, LLC	NEWPORT BEACH		820.61	03-OCT-14
349967	18-JUN-14	WANG, DAVID	SAN LEADRO		10.37	01-OCT-14
350108	26-JUN-14	MANAGEMENT ONE	DANA POINT		17.00	01-OCT-14
350140	26-JUN-14	PERCIVAL, JOE	LAGUNA BEACH		11.25	01-OCT-14
352266	29-SEP-14	DANG, HA-NHU	PAY		49.69	21-OCT-14
352348	30-SEP-14	SIMMONS, FRANCES	PAY		22.95	22-OCT-14
352725	14-OCT-14	INTERNAL REVENUE SERVICE	FRESNO		154,529.65	14-OCT-14
352731	16-OCT-14	De La Torre, Sergio (Sergio	HOME		118.79	29-OCT-14
353236	30-OCT-14	WATER QUALITY INC	HELENDALE		15,000.00	31-OCT-14

Payment Document Subtotal 172,597.05

Bank Account Subtotal 172,597.05

Report Count: 25

Report Total 172,597.05 Total Voids

IRWD Ledger

Void Payment Register

Report Date: 03-NOV-2014 17:32

Include Zero Amount Payments: Yes
Display Payee Address: No

Period From: 01-OCT-14

Page: 2
To: 31-OCT-14
Date: Void Date

*** End of Report ***

IRWD Ledger Payment Register For 01-OCT-14 To 31-OCT-14 Report Date: 03-NOV-2014 17:32
 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								
352357		02-OCT-14	Mossbarger, Anthony J (Tony)		41.05	02-OCT-14	41.05	Reconciled
352358		02-OCT-14	Wilson, Brett		127.50	07-OCT-14	127.50	Reconciled
352359		02-OCT-14	Kelly, Cheryl D (Cheryl)		180.32	07-OCT-14	180.32	Reconciled
352360		02-OCT-14	Cook, Cody S		125.00	20-OCT-14	125.00	Reconciled
352361		02-OCT-14	Chaney, David (Dave)		180.00	03-OCT-14	180.00	Reconciled
352362		02-OCT-14	Blaska, Erika M (Erika)		529.46	02-OCT-14	529.46	Reconciled
352363		02-OCT-14	Lassalette, James P (Jim)		90.00	20-OCT-14	90.00	Reconciled
352364		02-OCT-14	Pan, Jenny W (Jenny)		18.48	27-OCT-14	18.48	Reconciled
352365		02-OCT-14	Moore, Jonathon C (Jon)		60.00	08-OCT-14	60.00	Reconciled
352366		02-OCT-14	Cortez, Malcolm A (Malcolm)		134.40	06-OCT-14	134.40	Reconciled
352367		02-OCT-14	Fournier, Tanja L (Tanja)		910.60	06-OCT-14	910.60	Reconciled
352368		02-OCT-14	A&A WIPING CLOTH CO		682.56	07-OCT-14	682.56	Reconciled
352369		02-OCT-14	AAF INTERNATIONAL		1,251.34	06-OCT-14	1,251.34	Reconciled
352370		02-OCT-14	ACORN MEDIA		4,256.48	07-OCT-14	4,256.48	Reconciled
352371		02-OCT-14	AIRGAS-WEST, INC.		289.08	06-OCT-14	289.08	Reconciled
352372		02-OCT-14	ANDERSON AND HOWARD ELECTRIC, INC		7,340.00	07-OCT-14	7,340.00	Reconciled
352373		02-OCT-14	ANDERSONPENNA PARTNERS, INC		19,000.00	09-OCT-14	19,000.00	Reconciled
352374		02-OCT-14	APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC		651.26	06-OCT-14	651.26	Reconciled
352375		02-OCT-14	AT&T		2,537.17	08-OCT-14	2,537.17	Reconciled
352376		02-OCT-14	AVISTA TECHNOLOGIES, INC		6,027.30	06-OCT-14	6,027.30	Reconciled
352377		02-OCT-14	BILL'S SWEEPING SERVICE INC		575.00	07-OCT-14	575.00	Reconciled
352378		02-OCT-14	BIO-ACOUSTICAL CORP.		1,247.00	06-OCT-14	1,247.00	Reconciled
352379		02-OCT-14	BIOMAGIC INC		7,755.26	15-OCT-14	7,755.26	Reconciled
352380		02-OCT-14	BLACK & VEATCH CORPORATION		288,021.55	10-OCT-14	288,021.55	Reconciled
352381		02-OCT-14	BOWIE, ARNESON, WILES & GIANNONE		24,203.83	17-OCT-14	24,203.83	Reconciled

IRWD Ledger Payment Register For 01-OCT-14 To 31-OCT-14 Report Date: 03-NOV-2014 17:32
 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								
352382		02-OCT-14	C WELLS PIPELINE MATERIALS INC		6,001.35	14-OCT-14	6,001.35	Reconciled
352383		02-OCT-14	CALIFORNIA BARRICADE INC		2,467.50	07-OCT-14	2,467.50	Reconciled
352384		02-OCT-14	CALTROL, INC.		5,722.64	06-OCT-14	5,722.64	Reconciled
352385		02-OCT-14	CANON SOLUTIONS AMERICA, INC.		407.01	06-OCT-14	407.01	Reconciled
352386		02-OCT-14	CDW GOVERNMENT LLC		2,221.91	06-OCT-14	2,221.91	Reconciled
352387		02-OCT-14	CERTIFIED TRANSPORTATION		1,261.95	06-OCT-14	1,261.95	Reconciled
352388		02-OCT-14	CITY OF IRVINE		205.64	03-OCT-14	205.64	Reconciled
352389		02-OCT-14	CLEARINGHOUSE		477.67	06-OCT-14	477.67	Reconciled
352390		02-OCT-14	CONEYBEARE INC		13,278.78	07-OCT-14	13,278.78	Reconciled
352391		02-OCT-14	COX COMMUNICATIONS		106.72	06-OCT-14	106.72	Reconciled
352392		02-OCT-14	CREATIVE ALLIANCE GROUP LLC		500.00	07-OCT-14	500.00	Reconciled
352393		02-OCT-14	DATAZEO, INC.		71.52	07-OCT-14	71.52	Reconciled
352394		02-OCT-14	DCSE INC		4,950.00	03-OCT-14	4,950.00	Reconciled
352395		02-OCT-14	DELPHIN COMPUTER SUPPLY		1,992.60	07-OCT-14	1,992.60	Reconciled
352396		02-OCT-14	DEPARTMENT OF INDUSTRIAL RELATIONS STATE OF CALIFORNIA		450.00	06-OCT-14	450.00	Reconciled
352397		02-OCT-14	EAST ORANGE COUNTY WATER DISTRICT		5,211.69	06-OCT-14	5,211.69	Reconciled
352398		02-OCT-14	EI&C ENGINEERING INC		29,200.00	15-OCT-14	29,200.00	Reconciled

352399	02-OCT-14	EXCHANGE CLUB OF IRVINE		500.00				Negotiable
352400	02-OCT-14	EXECUTIVE LIGHTING & ELECTRIC		3,369.91	03-OCT-14	3,369.91		Reconciled
352401	02-OCT-14	FARRELL & ASSOCIATES		124.68	06-OCT-14	124.68		Reconciled
352402	02-OCT-14	FEDEX		620.70	08-OCT-14	620.70		Reconciled
352403	02-OCT-14	FERGUSON ENTERPRISES, INC.		9,939.24	06-OCT-14	9,939.24		Reconciled
352404	02-OCT-14	FIRST CHOICE SERVICES		267.57	07-OCT-14	267.57		Reconciled
352405	02-OCT-14	FISERV		300.25	03-OCT-14	300.25		Reconciled
352406	02-OCT-14	FRANCHISE TAX BOARD		395.88	10-OCT-14	395.88		Reconciled
352407	02-OCT-14	FRANK LA PLACA EXTERMINATING INC		175.00	03-OCT-14	175.00		Reconciled
352408	02-OCT-14	FRED EMMERT		1,685.45	03-OCT-14	1,685.45		Reconciled
352409	02-OCT-14	GEIGER BROS		5,974.29	06-OCT-14	5,974.29		Reconciled

IRWD Ledger Payment Register For 01-OCT-14 To 31-OCT-14 Report Date: 03-NOV-2014 17:32
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 3
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
352410	02-OCT-14	GOULDS PUMPS, INC.			2,848.93	06-OCT-14	2,848.93	Reconciled
352411	02-OCT-14	GRAINGER			7,953.57	06-OCT-14	7,953.57	Reconciled
352412	02-OCT-14	GRAYBAR ELECTRIC COMPANY			2,183.58	06-OCT-14	2,183.58	Reconciled
352413	02-OCT-14	HARRINGTON INDUSTRIAL PLASTICS LLC			473.52	03-OCT-14	473.52	Reconciled
352414	02-OCT-14	HDR ENGINEERING INC			143,805.42	09-OCT-14	143,805.42	Reconciled
352415	02-OCT-14	HILL BROTHERS CHEMICAL COMPANY			14,040.90	07-OCT-14	14,040.90	Reconciled
352416	02-OCT-14	HOME DEPOT USA INC			546.25	08-OCT-14	546.25	Reconciled
352417	02-OCT-14	HSU, CHAI-LIN			106.38	17-OCT-14	106.38	Reconciled
352418	02-OCT-14	HUING, ALICE			154.53	06-OCT-14	154.53	Reconciled
352419	02-OCT-14	HUNSAKER & ASSOCIATES IRVINE			3,112.00	06-OCT-14	3,112.00	Reconciled
352420	02-OCT-14	II FUELS INC			12,153.00	07-OCT-14	12,153.00	Reconciled
352421	02-OCT-14	INDUSTRIAL METAL SUPPLY CO			748.56	07-OCT-14	748.56	Reconciled
352422	02-OCT-14	INFOSYS LIMITED			94,950.00	09-OCT-14	94,950.00	Reconciled
352423	02-OCT-14	INTEGRATED PERFORMANCE CONSULTANTS, INC.			900.00	03-OCT-14	900.00	Reconciled
352424	02-OCT-14	INTERNAL REVENUE SERVICE			100.00	09-OCT-14	100.00	Reconciled
352425	02-OCT-14	IRVINE PIPE & SUPPLY INC			5,300.79	03-OCT-14	5,300.79	Reconciled
352426	02-OCT-14	IRWD EMPLOYEE ASSOCIATION			680.00	20-OCT-14	680.00	Reconciled
352427	02-OCT-14	IRWD-PETTY CASH CUSTODIAN			681.95	03-OCT-14	681.95	Reconciled
352428	02-OCT-14	JOHN G. ALEVIZOS D.O. INC.			140.00	07-OCT-14	140.00	Reconciled
352429	02-OCT-14	JOHNSTONE SUPPLY			812.25	03-OCT-14	812.25	Reconciled
352430	02-OCT-14	KIMBALL MIDWEST			559.19	07-OCT-14	559.19	Reconciled
352431	02-OCT-14	KOELLER NEBEKER CARLSON & HALUCK, LLP			11,345.70	07-OCT-14	11,345.70	Reconciled
352432	02-OCT-14	KS DIRECT LLC			6,383.88	03-OCT-14	6,383.88	Reconciled
352433	02-OCT-14	LCS TECHNOLOGIES, INC.			13,150.00	10-OCT-14	13,150.00	Reconciled
352434	02-OCT-14	LEWIS OPERATING CORP			800.00	06-OCT-14	800.00	Reconciled
352435	02-OCT-14	LGC GEOTECHNICAL, INC.			9,382.50	03-OCT-14	9,382.50	Reconciled
352436	02-OCT-14	M2 MARMONT LLC			162.13	28-OCT-14	162.13	Reconciled

IRWD Ledger Payment Register For 01-OCT-14 To 31-OCT-14 Report Date: 03-NOV-2014 17:32
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 4
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
352437	02-OCT-14	MC FADDEN-DALE INDUSTRIAL			9.81	03-OCT-14	9.81	Reconciled
352438	02-OCT-14	MC MASTER CARR SUPPLY CO			1,306.65	07-OCT-14	1,306.65	Reconciled
352439	02-OCT-14	MOBILE MODULAR MANAGEMENT CORPORATION			972.00	07-OCT-14	972.00	Reconciled
352440	02-OCT-14	NEON, INC.			2,872.80	03-OCT-14	2,872.80	Reconciled
352441	02-OCT-14	OLIN CORPORATION			16,956.36	09-OCT-14	16,956.36	Reconciled

352442	02-OCT-14	ON ASSIGNMENT LAB SUPPORT	2,425.68	06-OCT-14	2,425.68	Reconciled
352443	02-OCT-14	ONESOURCE DISTRIBUTORS LLC	715.72	06-OCT-14	715.72	Reconciled
352444	02-OCT-14	PACIFIC COAST BOLT CORP	3,787.11	03-OCT-14	3,787.11	Reconciled
352445	02-OCT-14	PACIFIC PARTS & CONTROLS INC	2,559.12	07-OCT-14	2,559.12	Reconciled
352446	02-OCT-14	PACIFIC RESOURCE RECOVERY	3,305.80	07-OCT-14	3,305.80	Reconciled
352447	02-OCT-14	PARKHOUSE TIRE INC	5,319.13	07-OCT-14	5,319.13	Reconciled
352448	02-OCT-14	PENTAIR VALVES & CONTROLS US LP	628.73	07-OCT-14	628.73	Reconciled
352449	02-OCT-14	PERS LONG TERM CARE	720.46	08-OCT-14	720.46	Reconciled
352450	02-OCT-14	PINNACLE LANDSCAPE COMPANY	13,120.00	08-OCT-14	13,120.00	Reconciled
352451	02-OCT-14	PIVOT INTERIORS INC	11,304.47	07-OCT-14	11,304.47	Reconciled
352452	02-OCT-14	PONTON INDUSTRIES INC	4,577.04	10-OCT-14	4,577.04	Reconciled
352453	02-OCT-14	PRAXAIR DISTRIBUTION INC	2,313.65	07-OCT-14	2,313.65	Reconciled
352454	02-OCT-14	PRO GROWERS INC	39,156.48	09-OCT-14	39,156.48	Reconciled
352455	02-OCT-14	PRUDENTIAL OVERALL SUPPLY	168.30	06-OCT-14	168.30	Reconciled
352456	02-OCT-14	PTI SAND & GRAVEL INC	1,053.65	07-OCT-14	1,053.65	Reconciled
352457	02-OCT-14	RAM AIR ENGINEERING INC	3,938.53	03-OCT-14	3,938.53	Reconciled
352458	02-OCT-14	RBF CONSULTING	160.00	07-OCT-14	160.00	Reconciled
352459	02-OCT-14	RBF CONSULTING	960.00	06-OCT-14	960.00	Reconciled
352460	02-OCT-14	RED WING SHOES	196.99	07-OCT-14	196.99	Reconciled
352461	02-OCT-14	REFRIGERATION SUPPLIES	671.19	03-OCT-14	671.19	Reconciled
352462	02-OCT-14	RESPONSE ENVELOPE, INC	6,025.30	08-OCT-14	6,025.30	Reconciled

IRWD Ledger Payment Register For 01-OCT-14 To 31-OCT-14 Report Date: 03-NOV-2014 17:32
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 5
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
352463		02-OCT-14	SAFETY-KLEEN SYSTEMS, INC		500.85	07-OCT-14	500.85	Reconciled
352464		02-OCT-14	SANTA ANA BLUE PRINT		2,237.59	09-OCT-14	2,237.59	Reconciled
352465		02-OCT-14	SCHINDLER ELEVATOR CORPORATION		174.45	08-OCT-14	174.45	Reconciled
352466		02-OCT-14	SHAMROCK SUPPLY CO INC		119.17	03-OCT-14	119.17	Reconciled
352467		02-OCT-14	SOURCEMEDIA LLC		3,562.92	09-OCT-14	3,562.92	Reconciled
352468		02-OCT-14	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT		451.57	08-OCT-14	451.57	Reconciled
352469		02-OCT-14	SOUTH COAST WATER CO.		476.00	07-OCT-14	476.00	Reconciled
352470		02-OCT-14	SOUTHERN CALIFORNIA EDISON COMPANY		791,868.78	03-OCT-14	791,868.78	Reconciled
352471		02-OCT-14	SOUTHERN CALIFORNIA SECURITY CENTER, INC.		773.10	08-OCT-14	773.10	Reconciled
352472		02-OCT-14	SOUTHERN COUNTIES LUBRICANTS LLC		1,542.19	06-OCT-14	1,542.19	Reconciled
352473		02-OCT-14	SPARKLETTS		392.15	09-OCT-14	392.15	Reconciled
352474		02-OCT-14	STATE WATER RESOURCES CONTROL BOARD		28,014.37	10-OCT-14	28,014.37	Reconciled
352475		02-OCT-14	T AND S LARSEN MAINTENANCE		400.00	06-OCT-14	400.00	Reconciled
352476		02-OCT-14	TESTAMERICA LABORATORIES, INC		249.90	06-OCT-14	249.90	Reconciled
352477		02-OCT-14	TRANSCAT, INC		7,955.17	09-OCT-14	7,955.17	Reconciled
352478		02-OCT-14	TROPICAL PLAZA NURSERY INC		3,780.00	03-OCT-14	3,780.00	Reconciled
352479		02-OCT-14	TRUGREEN LANDCARE LLC		1,380.00	06-OCT-14	1,380.00	Reconciled
352480		02-OCT-14	ULTIMATE DETAILING		150.00	07-OCT-14	150.00	Reconciled
352481		02-OCT-14	ULTRA SCIENTIFIC		88.75	08-OCT-14	88.75	Reconciled
352482		02-OCT-14	UNITED PARCEL SERVICE INC		170.95	06-OCT-14	170.95	Reconciled
352483		02-OCT-14	VCS ENVIRONMENTAL		413.75	03-OCT-14	413.75	Reconciled
352484		02-OCT-14	VERIZON CALIFORNIA INC		346.81	09-OCT-14	346.81	Reconciled
352485		02-OCT-14	VERIZON WIRELESS SERVICES LLC		7,408.15	08-OCT-14	7,408.15	Reconciled
352486		02-OCT-14	VRIDE INC		10,111.59	09-OCT-14	10,111.59	Reconciled

IRWD Ledger Payment Register For 01-OCT-14 To 31-OCT-14 Report Date: 03-NOV-2014 17:32

BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 6
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
352487		02-OCT-14	VULCAN MATERIALS COMPANY		2,535.79	06-OCT-14	2,535.79	Reconciled
352488		02-OCT-14	WALTERS WHOLESALE ELECTRIC		46.36	09-OCT-14	46.36	Reconciled
352489		02-OCT-14	WATERLINE TECHNOLOGIES INC		4,200.36	03-OCT-14	4,200.36	Reconciled
352490		02-OCT-14	WAXIE'S ENTERPRISES, INC		570.44	06-OCT-14	570.44	Reconciled
352491		02-OCT-14	WEBER WATER RESOURCES CA, LLC		700.00	09-OCT-14	700.00	Reconciled
352492		02-OCT-14	WECK LABORATORIES INC		4,835.00	03-OCT-14	4,835.00	Reconciled
352493		02-OCT-14	NATIONAL READY MIXED CONCRETE CO.	ENCINO 1	576.72	07-OCT-14	576.72	Reconciled
352494		02-OCT-14	NATIONAL READY MIXED CONCRETE CO.	ENCINO 1	536.80	07-OCT-14	536.80	Reconciled
352495		03-OCT-14	LGC GEOTECHNICAL, INC.	SAN CLEMENTE 2	1,520.00	10-OCT-14	1,520.00	Reconciled
352496		09-OCT-14	Steward, Bonnie A (Bonnie)		129.95	10-OCT-14	129.95	Reconciled
352497		09-OCT-14	McCarter, David G (David)		190.00	23-OCT-14	190.00	Reconciled
352498		09-OCT-14	Bertsch, Frederick J (Jeff)		345.90	20-OCT-14	345.90	Reconciled
352499		09-OCT-14	Pan, Jenny W (Jenny)		6.16	27-OCT-14	6.16	Reconciled
352500		09-OCT-14	Lew, Kelly N (Kelly)		122.14	14-OCT-14	122.14	Reconciled
352501		09-OCT-14	Mortimer, Landon A		200.00	10-OCT-14	200.00	Reconciled
352502		09-OCT-14	Bonkowski, Leslie A (Leslie)		155.73	14-OCT-14	155.73	Reconciled
352503		09-OCT-14	Lewis, Lyndy R		47.04	24-OCT-14	47.04	Reconciled
352504		09-OCT-14	Weghorst, Paul A (Paul)		118.00			Negotiable
352505		09-OCT-14	Habiger, Steve Jr (Steve)		124.68	10-OCT-14	124.68	Reconciled
352506		09-OCT-14	Martinez, Veronica P		366.24	10-OCT-14	366.24	Reconciled
352507		09-OCT-14	ACORN MEDIA		1,052.54	10-OCT-14	1,052.54	Reconciled
352508		09-OCT-14	AIRGAS-WEST, INC.		4,646.87	14-OCT-14	4,646.87	Reconciled
352509		09-OCT-14	ALEXANDER CONTRACT SERVICES INC		106,937.23	20-OCT-14	106,937.23	Reconciled
352510		09-OCT-14	ALMAZAN, MELANIE		33.79	15-OCT-14	33.79	Reconciled
352511		09-OCT-14	ALPHA TRAFFIC SERVICES, INC.		520.00	15-OCT-14	520.00	Reconciled

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 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								
352512		09-OCT-14	AMERICAN GEOTECHNICAL, INC.		1,253.00	10-OCT-14	1,253.00	Reconciled
352513		09-OCT-14	ANTHEM BLUE CROSS		415.62	20-OCT-14	415.62	Reconciled
352514		09-OCT-14	ANTHEM BLUE CROSS		2,012.80	20-OCT-14	2,012.80	Reconciled
352515		09-OCT-14	ANTHEM BLUE CROSS		1,089.40	20-OCT-14	1,089.40	Reconciled
352516		09-OCT-14	ANTHONY SUFFREDINI		2,000.00	20-OCT-14	2,000.00	Reconciled
352517		09-OCT-14	APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC		158.08	14-OCT-14	158.08	Reconciled
352518		09-OCT-14	APPLIED MEMBRANES INC		245.53	14-OCT-14	245.53	Reconciled
352519		09-OCT-14	AQUFLOW		2,635.20	15-OCT-14	2,635.20	Reconciled
352520		09-OCT-14	ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA		33,595.76	17-OCT-14	33,595.76	Reconciled
352521		09-OCT-14	AT&T		81.48	15-OCT-14	81.48	Reconciled
352522		09-OCT-14	AT&T		1,877.47	15-OCT-14	1,877.47	Reconciled
352523		09-OCT-14	AT&T		2,871.38	15-OCT-14	2,871.38	Reconciled
352524		09-OCT-14	AUTOZONE PARTS, INC.		328.93	14-OCT-14	328.93	Reconciled
352525		09-OCT-14	AVISTA TECHNOLOGIES, INC		14,684.27	16-OCT-14	14,684.27	Reconciled
352526		09-OCT-14	BATTERIES PLUS AND BATTERIES PLUS BULBS		993.17	17-OCT-14	993.17	Reconciled
352527		09-OCT-14	BEST BUY BUSINESS ADVANTAGE ACCOUNT		5,700.00	14-OCT-14	5,700.00	Reconciled
352528		09-OCT-14	BIO-ACOUSTICAL CORP.		245.00	10-OCT-14	245.00	Reconciled

352529	09-OCT-14	BIOMERIEUX INC	833.18	14-OCT-14	833.18	Reconciled
352530	09-OCT-14	BLEAK, JUDY	99.58	15-OCT-14	99.58	Reconciled
352531	09-OCT-14	BONGJOO, KIM	53.04			Negotiable
352532	09-OCT-14	BORCHARD SURVEYING & MAPPING, INC.	5,930.00	27-OCT-14	5,930.00	Reconciled
352533	09-OCT-14	BOYD & ASSOCIATES	225.00	15-OCT-14	225.00	Reconciled
352534	09-OCT-14	BRAVO, OMAR	58.36			Negotiable
352535	09-OCT-14	BUSH & ASSOCIATES INC	5,706.00			Negotiable
352536	09-OCT-14	C WELLS PIPELINE MATERIALS INC	11,432.24	20-OCT-14	11,432.24	Reconciled
352537	09-OCT-14	CALIFORNIA BARRICADE INC	2,932.50	15-OCT-14	2,932.50	Reconciled
352538	09-OCT-14	CALIFORNIA CHASSIS INC	2,854.00	15-OCT-14	2,854.00	Reconciled
352539	09-OCT-14	CANON FINANCIAL SERVICES, INC	7,106.66	14-OCT-14	7,106.66	Reconciled

IRWD Ledger
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
352540		09-OCT-14	CAPTIVE AUDIENCE MARKETING INC.		85.32	15-OCT-14	85.32	Reconciled
352541		09-OCT-14	CAROLLO ENGINEERS, INC		423,582.95	17-OCT-14	423,582.95	Reconciled
352542		09-OCT-14	CHANG, PATRICE		132.30	22-OCT-14	132.30	Reconciled
352543		09-OCT-14	CHAVEZ, RICARDO		7.39			Negotiable
352544		09-OCT-14	CHIEN, ROY		54.16	16-OCT-14	54.16	Reconciled
352545		09-OCT-14	CITY OF TUSTIN		656,380.91	15-OCT-14	656,380.91	Reconciled
352546		09-OCT-14	CIVILSOURCE, INC.		1,485.00	14-OCT-14	1,485.00	Reconciled
352547		09-OCT-14	CLA-VAL COMPANY		9,772.96	10-OCT-14	9,772.96	Reconciled
352548		09-OCT-14	CLEAN ENERGY		1,324.65	14-OCT-14	1,324.65	Reconciled
352549		09-OCT-14	COASTAL IGNITION & CONTROLS, INC		928.25	16-OCT-14	928.25	Reconciled
352550		09-OCT-14	COASTLINE EQUIPMENT COMPANY		103.05	14-OCT-14	103.05	Reconciled
352551		09-OCT-14	COMER, LEANNA		23.69			Negotiable
352552		09-OCT-14	COMPUCOM SYSTEMS, INC.		2,013.03	14-OCT-14	2,013.03	Reconciled
352553		09-OCT-14	COMERY MANUFACTURING, INC.		334.60	14-OCT-14	334.60	Reconciled
352554		09-OCT-14	CONEYBEARE INC		3,750.79	15-OCT-14	3,750.79	Reconciled
352555		09-OCT-14	CONTROLLED KEY SYSTEMS INC		13,636.56	17-OCT-14	13,636.56	Reconciled
352556		09-OCT-14	D & G SIGNS		334.80	14-OCT-14	334.80	Reconciled
352557		09-OCT-14	DANDENDERG, DILLON		66.64			Negotiable
352558		09-OCT-14	DEX MEDIA INC.		74.25	16-OCT-14	74.25	Reconciled
352559		09-OCT-14	DINH, JUDY		33.39			Negotiable
352560		09-OCT-14	DUDEK		3,705.00	15-OCT-14	3,705.00	Reconciled
352561		09-OCT-14	EAGLE PRINT DYNAMICS		1,368.51	14-OCT-14	1,368.51	Reconciled
352562		09-OCT-14	EBRAHIM, MONA		266.98	21-OCT-14	266.98	Reconciled
352563		09-OCT-14	EO MACARTHUR LLC		70.77	17-OCT-14	70.77	Reconciled
352564		09-OCT-14	EUROFINS EATON ANALYTICAL, INC.		360.00	15-OCT-14	360.00	Reconciled
352565		09-OCT-14	EXECUTIVE LIGHTING & ELECTRIC		2,019.06	10-OCT-14	2,019.06	Reconciled
352566		09-OCT-14	FARRELL & ASSOCIATES		188.82	10-OCT-14	188.82	Reconciled
352567		09-OCT-14	FARWEST CORROSION CONTROL CO		9,760.00	15-OCT-14	9,760.00	Reconciled
352568		09-OCT-14	FERGUSON ENTERPRISES, INC.		198.72	14-OCT-14	198.72	Reconciled
352569		09-OCT-14	FIDELITY SECURITY LIFE INSURANCE COMPANY		6,055.87	17-OCT-14	6,055.87	Reconciled

IRWD Ledger
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
352570		09-OCT-14	FIRST CHOICE SERVICES		142.97	15-OCT-14	142.97	Reconciled
352571		09-OCT-14	FISHER SCIENTIFIC COMPANY LLC		777.12	14-OCT-14	777.12	Reconciled
352572		09-OCT-14	FULLER TRUCK ACCESSORIES		130.08	10-OCT-14	130.08	Reconciled
352573		09-OCT-14	GANAHL LUMBER CO.		4,163.00	15-OCT-14	4,163.00	Reconciled
352574		09-OCT-14	GEIS, LAWRENCE J		93.77	17-OCT-14	93.77	Reconciled
352575		09-OCT-14	GENERAL ELECTRIC COMPANY		4,690.56	14-OCT-14	4,690.56	Reconciled

352576	09-OCT-14	GILBERT, DAVID G	29.56	15-OCT-14	29.56	Reconciled
352577	09-OCT-14	GJ AUTOMOTIVE EQUIPMENT CO INC	367.27	10-OCT-14	367.27	Reconciled
352578	09-OCT-14	GLADWELL GOVERNMENTAL SERVICES, INC.	240.00	20-OCT-14	240.00	Reconciled
352579	09-OCT-14	GORDON, ROBERT L	27.53	20-OCT-14	27.53	Reconciled
352580	09-OCT-14	GRAINGER	2,184.26	14-OCT-14	2,184.26	Reconciled
352581	09-OCT-14	GREEN COAST INDUSTRIES, INC.	18,787.16	20-OCT-14	18,787.16	Reconciled
352582	09-OCT-14	GRUBER, EVAN	71.11			Negotiable
352583	09-OCT-14	GUO, ZEXU	71.50	14-OCT-14	71.50	Reconciled
352584	09-OCT-14	H2O INNOVATION USA INC	3,959.28	17-OCT-14	3,959.28	Reconciled
352585	09-OCT-14	HAAKER EQUIPMENT COMPANY	1,291.01	10-OCT-14	1,291.01	Reconciled
352586	09-OCT-14	HACH COMPANY	310.62	14-OCT-14	310.62	Reconciled
352587	09-OCT-14	HAYES, DAN/LISA	26.77	28-OCT-14	26.77	Reconciled
352588	09-OCT-14	HILL BROTHERS CHEMICAL COMPANY	10,589.60	16-OCT-14	10,589.60	Reconciled
352589	09-OCT-14	HILL BROTHERS CHEMICAL COMPANY	1,843.05	15-OCT-14	1,843.05	Reconciled
352590	09-OCT-14	HOME DEPOT USA INC	1,086.60	15-OCT-14	1,086.60	Reconciled
352591	09-OCT-14	HSU, PENNY	111.46	14-OCT-14	111.46	Reconciled
352592	09-OCT-14	HURST, AMY	36.39	14-OCT-14	36.39	Reconciled
352593	09-OCT-14	HUYNH, ANNA	231.93			Negotiable
352594	09-OCT-14	II FUELS INC	26,358.15	15-OCT-14	26,358.15	Reconciled
352595	09-OCT-14	INDUSTRIAL METAL SUPPLY CO	307.93	14-OCT-14	307.93	Reconciled
352596	09-OCT-14	IRONMAN PARTS & SERVICE	487.50	14-OCT-14	487.50	Reconciled
352597	09-OCT-14	IRVINE PIPE & SUPPLY INC	882.69	10-OCT-14	882.69	Reconciled
352598	09-OCT-14	ISAJI, HIDEYO	64.44			Negotiable
352599	09-OCT-14	JCI JONES CHEMICALS INC	5,006.75	14-OCT-14	5,006.75	Reconciled

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 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								
352600		09-OCT-14	JOHN G. ALEVIZOS D.O. INC.		205.00	14-OCT-14	205.00	Reconciled
352601		09-OCT-14	JOHN MICHAEL COVAS		138.70	23-OCT-14	138.70	Reconciled
352602		09-OCT-14	KANG, HYUNJOO		35.71			Negotiable
352603		09-OCT-14	KELLEY BLUE BOOK, INC.		75.60	14-OCT-14	75.60	Reconciled
352604		09-OCT-14	KHAN, SHAFIQ R		333.70	14-OCT-14	333.70	Reconciled
352605		09-OCT-14	KHATAMI-FAR, NASRIN		32.70			Negotiable
352606		09-OCT-14	KILL-N-BUGS TERMITE AND PEST CONTROL SERVICES		4,395.00	10-OCT-14	4,395.00	Reconciled
352607		09-OCT-14	KIM, PYUNG SOO		34.89	27-OCT-14	34.89	Reconciled
352608		09-OCT-14	KIMBALL MIDWEST		599.75	14-OCT-14	599.75	Reconciled
352609		09-OCT-14	KOELLER NEBEKER CARLSON & HALUCK, LLP		17,026.43	15-OCT-14	17,026.43	Reconciled
352610		09-OCT-14	KS DIRECT LLC		1,391.04	10-OCT-14	1,391.04	Reconciled
352611		09-OCT-14	KYAW, HTET S		181.62			Negotiable
352612		09-OCT-14	LAM, TIFFANY		26.23	14-OCT-14	26.23	Reconciled
352613		09-OCT-14	LGC GEOTECHNICAL, INC.		1,662.03	10-OCT-14	1,662.03	Reconciled
352614		09-OCT-14	LIFE CHURCH		705.83			Negotiable
352615		09-OCT-14	LIN, GINIA		82.02	24-OCT-14	82.02	Reconciled
352616		09-OCT-14	LU'S LIGHTHOUSE, INC.		146.88	14-OCT-14	146.88	Reconciled
352617		09-OCT-14	LUMAPAS, JOWEL		59.43	20-OCT-14	59.43	Reconciled
352618		09-OCT-14	LUMENYTE INTERNATIONAL CORP		248.03	24-OCT-14	248.03	Reconciled
352619		09-OCT-14	MAKRIS, SUSAN		52.85			Negotiable
352620		09-OCT-14	MANN, PETER		86.47	14-OCT-14	86.47	Reconciled
352621		09-OCT-14	MBC APPLIED ENVIRONMENTAL SCIENCES		1,300.00	10-OCT-14	1,300.00	Reconciled
352622		09-OCT-14	MC MASTER CARR SUPPLY CO		6,254.98	14-OCT-14	6,254.98	Reconciled
352623		09-OCT-14	MOLINA, STACEY		38.96	15-OCT-14	38.96	Reconciled
352624		09-OCT-14	MSC INDUSTRIAL SUPPLY CO		422.73	20-OCT-14	422.73	Reconciled
352625		09-OCT-14	MULVANEY, JUDITH A		27.73	15-OCT-14	27.73	Reconciled
352626		09-OCT-14	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		66,200.00	16-OCT-14	66,200.00	Reconciled
352627		09-OCT-14	MURPHY, BRIAN		301.95			Negotiable
352628		09-OCT-14	MUTUAL PROPANE		93.73	14-OCT-14	93.73	Reconciled
352629		09-OCT-14	NATURES IMAGE INC		1,971.58	14-OCT-14	1,971.58	Reconciled

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 Payment Type: All

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 Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
352630		09-OCT-14	NGUYEN, HELEN		38.78	22-OCT-14	38.78	Reconciled
352631		09-OCT-14	NGUYEN, LONG		95.20	14-OCT-14	95.20	Reconciled
352632		09-OCT-14	NINYO & MOORE		33,897.50	16-OCT-14	33,897.50	Reconciled
352633		09-OCT-14	NIRVANA ALONSO		890.00	15-OCT-14	890.00	Reconciled
352634		09-OCT-14	NMG GEOTECHNICAL INC		7,074.00	17-OCT-14	7,074.00	Reconciled
352635		09-OCT-14	ODELL, TERESE		144.81	15-OCT-14	144.81	Reconciled
352636		09-OCT-14	OLIN CORPORATION		13,314.86	17-OCT-14	13,314.86	Reconciled
352637		09-OCT-14	ON ASSIGNMENT LAB SUPPORT		2,176.72	14-OCT-14	2,176.72	Reconciled
352638		09-OCT-14	ONESOURCE DISTRIBUTORS LLC		1,562.81	14-OCT-14	1,562.81	Reconciled
352639		09-OCT-14	ORACLE AMERICA, INC.		192,888.64	16-OCT-14	192,888.64	Reconciled
352640		09-OCT-14	ORANGE COUNTY AUTO PARTS CO		1,259.05	10-OCT-14	1,259.05	Reconciled
352641		09-OCT-14	ORANGE COUNTY FIRE PROTECTION		435.00	10-OCT-14	435.00	Reconciled
352642		09-OCT-14	ORANGE COUNTY SANITATION DISTRICT		1,570.00	14-OCT-14	1,570.00	Reconciled
352643		09-OCT-14	ORANGE COUNTY VECTOR CONTROL DISTRICT		2,328.95	10-OCT-14	2,328.95	Reconciled
352644		09-OCT-14	OSTS, INC		2,025.00	10-OCT-14	2,025.00	Reconciled
352645		09-OCT-14	OUTSOURCE TECHNICAL LLC		36,328.00	17-OCT-14	36,328.00	Reconciled
352646		09-OCT-14	PAC RIM ENGINEERING		2,812.50	17-OCT-14	2,812.50	Reconciled
352647		09-OCT-14	PACIFIC COAST BOLT CORP		2,052.86	10-OCT-14	2,052.86	Reconciled
352648		09-OCT-14	PACIFIC HYDROTECH CORPORATION		7,431.19	15-OCT-14	7,431.19	Reconciled
352649		09-OCT-14	PACIFIC HYDROTECH CORPORATION		16,865.89	16-OCT-14	16,865.89	Reconciled
352650		09-OCT-14	PACIFIC HYDROTECH CORPORATION		461,644.56	17-OCT-14	461,644.56	Reconciled
352651		09-OCT-14	PALMER, JENNIFER		10.78	14-OCT-14	10.78	Reconciled
352652		09-OCT-14	PAPER DEPOT DOCUMENT DESTRUCTION LLC		798.59	10-OCT-14	798.59	Reconciled
352653		09-OCT-14	PARK, JUNG JA		66.72	14-OCT-14	66.72	Reconciled
352654		09-OCT-14	PARKHOUSE TIRE INC		2,137.19	15-OCT-14	2,137.19	Reconciled
352655		09-OCT-14	PARKWAY LAWNMOWER SHOP		179.17	14-OCT-14	179.17	Reconciled

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 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								
352656		09-OCT-14	PIVOT INTERIORS INC		2,809.57	10-OCT-14	2,809.57	Reconciled
352657		09-OCT-14	POLLARDWATER.COM		256.25	15-OCT-14	256.25	Reconciled
352658		09-OCT-14	PONTON INDUSTRIES INC		2,021.96	17-OCT-14	2,021.96	Reconciled
352659		09-OCT-14	POURDANESH, MANSUREH		31.88			Negotiable
352660		09-OCT-14	PRAXAIR DISTRIBUTION INC		214.26	15-OCT-14	214.26	Reconciled
352661		09-OCT-14	PRUDENTIAL OVERALL SUPPLY		4,815.90	14-OCT-14	4,815.90	Reconciled
352662		09-OCT-14	PTI SAND & GRAVEL INC		1,397.49	14-OCT-14	1,397.49	Reconciled
352663		09-OCT-14	PURE EFFECT INC		6,448.00	10-OCT-14	6,448.00	Reconciled
352664		09-OCT-14	QUALITY LAWN SERVICE		280.00	14-OCT-14	280.00	Reconciled
352665		09-OCT-14	RAM AIR ENGINEERING INC		3,094.47	14-OCT-14	3,094.47	Reconciled
352666		09-OCT-14	RAMARAJAN, SANTHANAM		58.49	14-OCT-14	58.49	Reconciled
352667		09-OCT-14	REAL GREEN INC.		26,435.00	17-OCT-14	26,435.00	Reconciled
352668		09-OCT-14	REED, JAMES D		1,907.04	21-OCT-14	1,907.04	Reconciled
352669		09-OCT-14	RICHARD C SLADE & ASSOCIATES LLC		8,686.00	23-OCT-14	8,686.00	Reconciled
352670		09-OCT-14	RINGCLEAR LLC		71.16	15-OCT-14	71.16	Reconciled
352671		09-OCT-14	S & S POWER ENGINEERING		219.53	14-OCT-14	219.53	Reconciled
352672		09-OCT-14	SANTA ANA BLUE PRINT		665.93	17-OCT-14	665.93	Reconciled
352673		09-OCT-14	SANTA MARGARITA		4,186.48	14-OCT-14	4,186.48	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
352674	09-OCT-14		FORD SANTIAGO AQUEDUCT COMMISSION		22,018.99	17-OCT-14	22,018.99	Reconciled
352675	09-OCT-14		SEAL ANALYTICAL INC		1,041.69	14-OCT-14	1,041.69	Reconciled
352676	09-OCT-14		SECURTEC DISTRICT PATROL, INC.		10,600.00	21-OCT-14	10,600.00	Reconciled
352677	09-OCT-14		SEPARATION PROCESSES INC		2,950.75	15-OCT-14	2,950.75	Reconciled
352678	09-OCT-14		SHAMROCK SUPPLY CO INC		1,175.58	10-OCT-14	1,175.58	Reconciled
352679	09-OCT-14		SHEN, MEILI		34.99	20-OCT-14	34.99	Reconciled
352680	09-OCT-14		SINGH, GOVIND		191.72	24-OCT-14	191.72	Reconciled
352681	09-OCT-14		SOLORIO, ALEX		35.67			Negotiable

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
352682	09-OCT-14		SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT		2,868.50	15-OCT-14	2,868.50	Reconciled
352683	09-OCT-14		SOUTH COAST ANSWERING SERVICE		605.81	14-OCT-14	605.81	Reconciled
352684	09-OCT-14		SOUTH COAST WATER CO.		40.00	14-OCT-14	40.00	Reconciled
352685	09-OCT-14		SOUTHERN CALIFORNIA EDISON COMPANY		72,895.86	15-OCT-14	72,895.86	Reconciled
352686	09-OCT-14		SOUTHERN CALIFORNIA SECURITY CENTER, INC.		1,654.65	16-OCT-14	1,654.65	Reconciled
352687	09-OCT-14		SPATIAL WAVE, INC.		11,120.00	15-OCT-14	11,120.00	Reconciled
352688	09-OCT-14		SWAINS ELECTRIC MOTOR SERVICE		588.00			Negotiable
352689	09-OCT-14		TACOS AND COMPANY		721.44	17-OCT-14	721.44	Reconciled
352690	09-OCT-14		THE CAPITAL GROUP COMPANIES		3,875.09			Negotiable
352691	09-OCT-14		THERMO FISHER SCIENTIFIC LLC		295.71	14-OCT-14	295.71	Reconciled
352692	09-OCT-14		THOMPSON TANK, INC.		4,718.58	17-OCT-14	4,718.58	Reconciled
352693	09-OCT-14		THYSSENKRUPP ELEVATOR CORPORATION		336.36	14-OCT-14	336.36	Reconciled
352694	09-OCT-14		TIC-IPG-COMMON		19,372.18	16-OCT-14	19,372.18	Reconciled
352695	09-OCT-14		TIC-OFFICE PROPERTIES		358.98	20-OCT-14	358.98	Reconciled
352696	09-OCT-14		TOOLANDER ENGINEERING INC		2,490.00	14-OCT-14	2,490.00	Reconciled
352697	09-OCT-14		TRENT, GRACE		2.57			Negotiable
352698	09-OCT-14		TROPICAL PLAZA NURSERY INC		49,916.99	15-OCT-14	49,916.99	Reconciled
352699	09-OCT-14		TRUCPARCO		2,906.03	15-OCT-14	2,906.03	Reconciled
352700	09-OCT-14		TRUGREEN LANDCARE LLC		28,073.13	16-OCT-14	28,073.13	Reconciled
352701	09-OCT-14		UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA		879.00	14-OCT-14	879.00	Reconciled
352702	09-OCT-14		UNITED CENTRAL BANK		1,534.60	27-OCT-14	1,534.60	Reconciled
352703	09-OCT-14		UNITED PARCEL SERVICE INC		36.75	14-OCT-14	36.75	Reconciled

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 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								
352704	09-OCT-14		UNITED STATES POST OFFICE		23,333.33	20-OCT-14	23,333.33	Reconciled
352705	09-OCT-14		VA CONSULTING, INC		7,045.00	14-OCT-14	7,045.00	Reconciled
352706	09-OCT-14		VERIZON WIRELESS SERVICES LLC		801.66	15-OCT-14	801.66	Reconciled
352707	09-OCT-14		VWR INTERNATIONAL, LLC		7,826.51	14-OCT-14	7,826.51	Reconciled
352708	09-OCT-14		WASTE MANAGEMENT OF ORANGE COUNTY		4,602.39	14-OCT-14	4,602.39	Reconciled
352709	09-OCT-14		WATERLINE TECHNOLOGIES INC		7,799.60	10-OCT-14	7,799.60	Reconciled
352710	09-OCT-14		WATERWISE CONSULTING, INC.		1,000.00	14-OCT-14	1,000.00	Reconciled

352711	09-OCT-14	WAXIE'S ENTERPRISES, INC	704.26	15-OCT-14	704.26	Reconciled
352712	09-OCT-14	WECK LABORATORIES INC	5,355.00	10-OCT-14	5,355.00	Reconciled
352713	09-OCT-14	WEI, YI	155.10	10-OCT-14	155.10	Reconciled
352714	09-OCT-14	WILDERMUTH ENVIRONMENTAL INC	18,968.27	20-OCT-14	18,968.27	Reconciled
352715	09-OCT-14	WILLIAM LYON HOMES	253.70			Negotiable
352716	09-OCT-14	WILSON, KRISTINA	38.67	14-OCT-14	38.67	Reconciled
352717	09-OCT-14	WU, JUIYU	94.40	14-OCT-14	94.40	Reconciled
352718	09-OCT-14	YP LLC	122.00	17-OCT-14	122.00	Reconciled
352719	09-OCT-14	YUI HSIEH	682.50	15-OCT-14	682.50	Reconciled
352720	09-OCT-14	ZAVALA, JORGE	27.27	20-OCT-14	27.27	Reconciled
352721	09-OCT-14	ZENON ENVIRONMENTAL CORPORATION	37,323.25	17-OCT-14	37,323.25	Reconciled
352722	09-OCT-14	EMPLOYEE BENEFIT PAY SPECIALIST, INC	1,005.00	17-OCT-14	1,005.00	Reconciled
352723	09-OCT-14	Thatcher, Forrest HOME R (Ray)	538.47	14-OCT-14	538.47	Reconciled
352724	13-OCT-14	JCI JONES CINCINNATI CHEMICALS INC	5,505.50	17-OCT-14	5,505.50	Reconciled
352725	14-OCT-14	INTERNAL REVENUE SERVICE FRESNO	154,529.65			Voided
352726	16-OCT-14	Compton, Christine A	57.96			Negotiable
352727	16-OCT-14	Jackson, Gina C (Gina)	115.73	21-OCT-14	115.73	Reconciled
352728	16-OCT-14	Lassalette, James P (Jim)	200.00	20-OCT-14	200.00	Reconciled
352729	16-OCT-14	Davis, Jennifer R (Jennifer)	198.94	20-OCT-14	198.94	Reconciled

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 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								
352730		16-OCT-14	Ruiz, Ricky (Ricky)		410.00	28-OCT-14	410.00	Reconciled
352731		16-OCT-14	De La Torre, Sergio (Sergio)		118.79			Voided
352732		16-OCT-14	Bonkowski, Thomas J (Thomas)		81.20	20-OCT-14	81.20	Reconciled
352733		16-OCT-14	3M COMPANY		248.13	20-OCT-14	248.13	Reconciled
352734		16-OCT-14	A & V CONTRACTORS INC		1,245.00	20-OCT-14	1,245.00	Reconciled
352735		16-OCT-14	ADS LLC		1,991.00	20-OCT-14	1,991.00	Reconciled
352736		16-OCT-14	ADVANCED JOINING TECHNOLOGIES		356.36	29-OCT-14	356.36	Reconciled
352737		16-OCT-14	AGILENT TECHNOLOGIES, INC.		1,779.84	20-OCT-14	1,779.84	Reconciled
352738		16-OCT-14	AIRGAS-WEST, INC.		1,979.67	20-OCT-14	1,979.67	Reconciled
352739		16-OCT-14	ALL AMERICAN ASPHALT		870.94	20-OCT-14	870.94	Reconciled
352740		16-OCT-14	ALPHA TRAFFIC SERVICES, INC.		570.00	17-OCT-14	570.00	Reconciled
352741		16-OCT-14	APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC		676.83	20-OCT-14	676.83	Reconciled
352742		16-OCT-14	ARC-ZONE.COM, INC		206.34	21-OCT-14	206.34	Reconciled
352743		16-OCT-14	ARCADIS U.S., INC.		66,722.27	23-OCT-14	66,722.27	Reconciled
352744		16-OCT-14	ARMORCAST PRODUCTS COMPANY		8,060.91	20-OCT-14	8,060.91	Reconciled
352745		16-OCT-14	AST CORPORATION		103,150.00	20-OCT-14	103,150.00	Reconciled
352746		16-OCT-14	AT&T		3,511.53	21-OCT-14	3,511.53	Reconciled
352747		16-OCT-14	AT&T		2,014.33	22-OCT-14	2,014.33	Reconciled
352748		16-OCT-14	AT&T		48.18	21-OCT-14	48.18	Reconciled
352749		16-OCT-14	AUTOZONE PARTS, INC.		234.84	20-OCT-14	234.84	Reconciled
352750		16-OCT-14	BDC SPECIAL WASTE		207.20	20-OCT-14	207.20	Reconciled
352751		16-OCT-14	BEACHWALK, INC		24.82			Negotiable
352752		16-OCT-14	BEST DRILLING AND PUMP, INC.		55,240.60	22-OCT-14	55,240.60	Reconciled
352753		16-OCT-14	BIGWIG MONSTER, LLC		900.00	17-OCT-14	900.00	Reconciled
352754		16-OCT-14	BOYD & ASSOCIATES		85.00	20-OCT-14	85.00	Reconciled
352755		16-OCT-14	BURKE, WILLIAMS & SORENSEN, LLP		195.00	20-OCT-14	195.00	Reconciled
352756		16-OCT-14	BURKE/WACO		3,686.45	22-OCT-14	3,686.45	Reconciled
352757		16-OCT-14	CALIFORNIA BARRICADE INC		1,365.00	21-OCT-14	1,365.00	Reconciled
352758		16-OCT-14	CANON FINANCIAL SERVICES, INC		1,315.46	20-OCT-14	1,315.46	Reconciled

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352804	16-OCT-14	KIMBALL MIDWEST	975.89	22-OCT-14	975.89	Reconciled
352805	16-OCT-14	LAGUNA BEACH COUNTY WATER DISTRICT	19,898.43	22-OCT-14	19,898.43	Reconciled
352806	16-OCT-14	LAKE CONSTRUCTION / EZ DOCK	1,918.92	20-OCT-14	1,918.92	Reconciled
352807	16-OCT-14	LEIGHTON CONSULTING, INC.	2,393.30			Negotiable
352808	16-OCT-14	LEWIS BRISBOIS BISGAARD AND SMITH LLP	18,535.87	22-OCT-14	18,535.87	Reconciled
352809	16-OCT-14	LEWIS OPERATING CORP	3,225.00	21-OCT-14	3,225.00	Reconciled

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

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
352810		16-OCT-14	LILLESTRAND LEADERSHIP CONSULTING, INC.		2,783.32			Negotiable
352811		16-OCT-14	LUBRICATION ENGINEERS, INC.		4,926.53	20-OCT-14	4,926.53	Reconciled
352812		16-OCT-14	MANASSEH, MICHELLE		37.96	27-OCT-14	37.96	Reconciled
352813		16-OCT-14	MARVIN GARDENS LLC		246.58	16-OCT-14	246.58	Reconciled
352814		16-OCT-14	MC MASTER CARR SUPPLY CO		3,934.59	21-OCT-14	3,934.59	Reconciled
352815		16-OCT-14	MISCOWATER		9,122.41	23-OCT-14	9,122.41	Reconciled
352816		16-OCT-14	MONKEY JOE SPEAK		1,574.90	20-OCT-14	1,574.90	Reconciled
352817		16-OCT-14	MSC INDUSTRIAL SUPPLY CO		635.84	24-OCT-14	635.84	Reconciled
352818		16-OCT-14	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		11,789.20	22-OCT-14	11,789.20	Reconciled
352819		16-OCT-14	NATIONAL READY MIXED CONCRETE CO.		1,766.56	20-OCT-14	1,766.56	Reconciled
352820		16-OCT-14	NORI, PAUL		185.83			Negotiable
352821		16-OCT-14	O'HAREN GOVERNMENT RELATIONS		6,500.00	21-OCT-14	6,500.00	Reconciled
352822		16-OCT-14	OLIN CORPORATION		19,922.62	23-OCT-14	19,922.62	Reconciled
352823		16-OCT-14	ON ASSIGNMENT LAB SUPPORT		2,386.07	20-OCT-14	2,386.07	Reconciled
352824		16-OCT-14	ONESOURCE DISTRIBUTORS LLC		3,860.89	20-OCT-14	3,860.89	Reconciled
352825		16-OCT-14	ORANGE COUNTY AUTO PARTS CO		359.34	17-OCT-14	359.34	Reconciled
352826		16-OCT-14	ORANGE COUNTY SANITATION DISTRICT		1,570.00	17-OCT-14	1,570.00	Reconciled
352827		16-OCT-14	OUTSOURCE TECHNICAL LLC		17,480.00	27-OCT-14	17,480.00	Reconciled
352828		16-OCT-14	PACIFIC COAST BOLT CORP		493.97	17-OCT-14	493.97	Reconciled
352829		16-OCT-14	PACIFIC GAS AND ELECTRIC COMPANY		21.92	20-OCT-14	21.92	Reconciled
352830		16-OCT-14	PERS LONG TERM CARE		720.46	22-OCT-14	720.46	Reconciled
352831		16-OCT-14	PHILLIPS PLYWOOD CO, INC.		245.28	21-OCT-14	245.28	Reconciled
352832		16-OCT-14	PRANITIS, LEO		26.38	20-OCT-14	26.38	Reconciled
352833		16-OCT-14	PRAXAIR DISTRIBUTION INC		3,123.20	21-OCT-14	3,123.20	Reconciled
352834		16-OCT-14	PSB INTEGRATED MARKETING		3,092.50	17-OCT-14	3,092.50	Reconciled

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 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								
352835		16-OCT-14	R C FOSTER CORPORATION		523,434.10	29-OCT-14	523,434.10	Reconciled
352836		16-OCT-14	R&B AUTOMATION INC		7,766.25	20-OCT-14	7,766.25	Reconciled
352837		16-OCT-14	RAINBOW DISPOSAL CO INC		979.14	20-OCT-14	979.14	Reconciled
352838		16-OCT-14	RAM AIR ENGINEERING INC		4,403.00	17-OCT-14	4,403.00	Reconciled
352839		16-OCT-14	SANTA ANA BLUE PRINT		147.48	22-OCT-14	147.48	Reconciled
352840		16-OCT-14	SANTA MARGARITA FORD		163.93	17-OCT-14	163.93	Reconciled
352841		16-OCT-14	SAVANT CONSTRUCTION INC		813.18	17-OCT-14	813.18	Reconciled
352842		16-OCT-14	SHAMROCK SUPPLY CO		219.09	17-OCT-14	219.09	Reconciled

352843	16-OCT-14	INC SHAW PUMP & SUPPLY, INC.	2,815.34	23-OCT-14	2,815.34	Reconciled
352844	16-OCT-14	SHOFFEITT PIPELINE INC	867.75	22-OCT-14	867.75	Reconciled
352845	16-OCT-14	SIGMA-ALDRICH INC	635.11	20-OCT-14	635.11	Reconciled
352846	16-OCT-14	SNAP-ON INCORPORATED	794.05	21-OCT-14	794.05	Reconciled
352847	16-OCT-14	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	1,354.71	23-OCT-14	1,354.71	Reconciled
352848	16-OCT-14	SOUTH COAST WATER CO.	151.68	21-OCT-14	151.68	Reconciled
352849	16-OCT-14	SOUTHERN CALIFORNIA EDISON COMPANY	60,615.59	17-OCT-14	60,615.59	Reconciled
352850	16-OCT-14	SPATIAL WAVE, INC.	6,800.00	17-OCT-14	6,800.00	Reconciled
352851	16-OCT-14	SS MECHANICAL CORPORATION	5,092.56	21-OCT-14	5,092.56	Reconciled
352852	16-OCT-14	SS MECHANICAL CORPORATION	96,758.54	21-OCT-14	96,758.54	Reconciled
352853	16-OCT-14	STANDARD REGISTER COMPANY	2,423.58	20-OCT-14	2,423.58	Reconciled
352854	16-OCT-14	SULLY-MILLER CONTRACTING CO.	44,650.00	21-OCT-14	44,650.00	Reconciled
352855	16-OCT-14	TEKDRAULICS	1,053.24	20-OCT-14	1,053.24	Reconciled
352856	16-OCT-14	TESTAMERICA LABORATORIES, INC	244.65	20-OCT-14	244.65	Reconciled
352857	16-OCT-14	THE FURMAN GROUP, INC.	10,145.00	24-OCT-14	10,145.00	Reconciled
352858	16-OCT-14	THE GAS COMPANY	1,367.82	20-OCT-14	1,367.82	Reconciled

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 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								
352859		16-OCT-14	THE NEW HOME COMPANY		433.57	30-OCT-14	433.57	Reconciled
352860		16-OCT-14	THE SUMMIT AT TURTLE RIDGE		20,019.15	27-OCT-14	20,019.15	Reconciled
352861		16-OCT-14	TRI POINT HOMES INC		17.00	30-OCT-14	17.00	Reconciled
352862		16-OCT-14	TRIPAC MARKETING INC		757.36	17-OCT-14	757.36	Reconciled
352863		16-OCT-14	TROPICAL PLAZA NURSERY INC		459.00	17-OCT-14	459.00	Reconciled
352864		16-OCT-14	TRUCPARCO		2,794.01	22-OCT-14	2,794.01	Reconciled
352865		16-OCT-14	TRUGREEN LANDCARE LLC		261.57	20-OCT-14	261.57	Reconciled
352866		16-OCT-14	UNITED PARCEL SERVICE INC		61.10	20-OCT-14	61.10	Reconciled
352867		16-OCT-14	UNITED SITE SERVICES OF CALIFORNIA INC		369.22	21-OCT-14	369.22	Reconciled
352868		16-OCT-14	URS CORPORATION		36,636.25	23-OCT-14	36,636.25	Reconciled
352869		16-OCT-14	VERIZON CALIFORNIA INC		46.46	23-OCT-14	46.46	Reconciled
352870		16-OCT-14	VWR INTERNATIONAL, LLC		1,932.83	21-OCT-14	1,932.83	Reconciled
352871		16-OCT-14	WASTE MANAGEMENT OF ORANGE COUNTY		216.02	20-OCT-14	216.02	Reconciled
352872		16-OCT-14	WAXIE'S ENTERPRISES, INC		359.42	21-OCT-14	359.42	Reconciled
352873		16-OCT-14	WECK LABORATORIES INC		235.00	17-OCT-14	235.00	Reconciled
352874		16-OCT-14	WILLIAM LYON HOMES		990.93			Negotiable
352875		17-OCT-14	REACH EMPLOYEE ASSISTANCE INC	PLACENTIA	873.60			Negotiable
352876		17-OCT-14	PRINCIPAL LIFE INSURANCE	DES MOINES 1	26,796.48	27-OCT-14	26,796.48	Reconciled
352877		17-OCT-14	LIN, THEODORE PAY		2,236.66			Negotiable
352878		17-OCT-14	STATE WATER RESOURCES CONTROL BOARD	MS 0511	5,975.00	28-OCT-14	5,975.00	Reconciled
352879		23-OCT-14	Moeder, Jacob J (Jacob)		280.00			Negotiable
352880		23-OCT-14	Davis, Jennifer R (Jennifer)		109.36	27-OCT-14	109.36	Reconciled
352881		23-OCT-14	Bailey, Johnathan R		156.00	27-OCT-14	156.00	Reconciled
352882		23-OCT-14	Hoffman, Michael S (Mike)		175.00			Negotiable

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 Payment Type: All Display Supplier Address: No

Cleared

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
352883		23-OCT-14	Swan, Peer		705.92			Negotiable
352884		23-OCT-14	Moore, Rory M (Rory)		240.00	30-OCT-14	240.00	Reconciled
352885		23-OCT-14	Norman, Tammy		224.19			Negotiable
352886		23-OCT-14	A & V CONTRACTORS INC		23,655.00	28-OCT-14	23,655.00	Reconciled
352887		23-OCT-14	ABC ICEHOUSE, INC.		181.50	29-OCT-14	181.50	Reconciled
352888		23-OCT-14	ADT SECURITY SERVICES INC		391.89	30-OCT-14	391.89	Reconciled
352889		23-OCT-14	AGRONICK, JIM		28.25			Negotiable
352890		23-OCT-14	AIRGAS-WEST, INC.		1,281.99	27-OCT-14	1,281.99	Reconciled
352891		23-OCT-14	ALLIED ELECTRONICS INC		144.64	28-OCT-14	144.64	Reconciled
352892		23-OCT-14	ALPHA TRAFFIC SERVICES, INC.		520.00	30-OCT-14	520.00	Reconciled
352893		23-OCT-14	AMERICAN MESSAGING SERVICES LLC		2,645.56	28-OCT-14	2,645.56	Reconciled
352894		23-OCT-14	ANDERSONPENNA PARTNERS, INC		13,980.00	30-OCT-14	13,980.00	Reconciled
352895		23-OCT-14	APM ORANGE COUNTY		34.79			Negotiable
352896		23-OCT-14	APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC		324.80	27-OCT-14	324.80	Reconciled
352897		23-OCT-14	AQUA-METRIC SALES COMPANY		20,359.30			Negotiable
352898		23-OCT-14	ARC-ZONE.COM, INC		1,067.06	28-OCT-14	1,067.06	Reconciled
352899		23-OCT-14	AT&T		49.59	29-OCT-14	49.59	Reconciled
352900		23-OCT-14	AT&T		3,132.97	28-OCT-14	3,132.97	Reconciled
352901		23-OCT-14	AUTOZONE PARTS, INC.		592.68	27-OCT-14	592.68	Reconciled
352902		23-OCT-14	AZIM, NEMAT		54.88	28-OCT-14	54.88	Reconciled
352903		23-OCT-14	BATES, SHANNON		35.70			Negotiable
352904		23-OCT-14	BATTERIES PLUS AND BATTERIES PLUS BULBS		898.73			Negotiable
352905		23-OCT-14	BATTERY SPECIALTIES		265.72	27-OCT-14	265.72	Reconciled
352906		23-OCT-14	BDT PRODUCTS INC		206.86	28-OCT-14	206.86	Reconciled
352907		23-OCT-14	BEST BUY BUSINESS ADVANTAGE ACCOUNT		1,815.83	28-OCT-14	1,815.83	Reconciled
352908		23-OCT-14	BILL'S SWEEPING SERVICE INC		460.00	27-OCT-14	460.00	Reconciled
352909		23-OCT-14	BIOMAGIC INC		8,795.52	28-OCT-14	8,795.52	Reconciled
352910		23-OCT-14	BRANDON M. ARANT		3,400.00			Negotiable
352911		23-OCT-14	Wilson, Brett		445.04	29-OCT-14	445.04	Reconciled
352912		23-OCT-14	BRITHINEE ELECTRIC		9,025.12	27-OCT-14	9,025.12	Reconciled
IRWD Ledger Payment Register For 01-OCT-14 To 31-OCT-14 Report Date: 03-NOV-2014 17:32								
BANK: Bank of America N.A.			Branch : Los Angeles		Account: Checking AP and PR		Page: 22	
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								
352913		23-OCT-14	BSK ASSOCIATES		1,430.00	28-OCT-14	1,430.00	Reconciled
352914		23-OCT-14	BTF PRECISE MICROBIOLOGY INC.		525.20	28-OCT-14	525.20	Reconciled
352915		23-OCT-14	BUSH & ASSOCIATES INC		1,150.00			Negotiable
352916		23-OCT-14	BUSS, SARA		93.25	28-OCT-14	93.25	Reconciled
352917		23-OCT-14	C WELLS PIPELINE MATERIALS INC		4,099.68			Negotiable
352918		23-OCT-14	C WELLS PIPELINE MATERIALS INC		19,918.44			Negotiable
352919		23-OCT-14	CALIFORNIA BARRICADE INC		4,910.00	27-OCT-14	4,910.00	Reconciled
352920		23-OCT-14	CALTROL, INC.		28,702.75	29-OCT-14	28,702.75	Reconciled
352921		23-OCT-14	CAMERON, LYDIA		29.16			Negotiable
352922		23-OCT-14	CANON FINANCIAL SERVICES, INC		600.48	28-OCT-14	600.48	Reconciled
352923		23-OCT-14	CARY, SEAN		198.43	30-OCT-14	198.43	Reconciled
352924		23-OCT-14	CHEN, SUN CHE		60.49			Negotiable
352925		23-OCT-14	CHONG, CHOL		42.48	29-OCT-14	42.48	Reconciled
352926		23-OCT-14	CITY OF IRVINE		11,412.88	30-OCT-14	11,412.88	Reconciled
352927		23-OCT-14	CITY OF NEWPORT BEACH		1,234.93	28-OCT-14	1,234.93	Reconciled
352928		23-OCT-14	CLEANTECH OC		1,000.00	27-OCT-14	1,000.00	Reconciled
352929		23-OCT-14	COASTLINE EQUIPMENT COMPANY		265.88	27-OCT-14	265.88	Reconciled
352930		23-OCT-14	COMMERCIAL DOOR OF ORANGE COUNTY, INC.		1,189.94	28-OCT-14	1,189.94	Reconciled
352931		23-OCT-14	COMPONENTS CENTER INC		1,168.22	28-OCT-14	1,168.22	Reconciled
352932		23-OCT-14	CON-AM INC		92.47			Negotiable
352933		23-OCT-14	CONEYBEARE INC		13,615.77	30-OCT-14	13,615.77	Reconciled
352934		23-OCT-14	CONSOLIDATED ELECTRICAL		558.30	24-OCT-14	558.30	Reconciled

352935	23-OCT-14	DISTRIBUTORS, INC.							
352936	23-OCT-14	CORELOGIC INC			24.00	28-OCT-14	24.00	Reconciled	
		CORO SOUTHERN CALIFORNIA			2,500.00			Negotiable	
352937	23-OCT-14	COX COMMUNICATIONS			3,153.85	27-OCT-14	3,153.85	Reconciled	
352938	23-OCT-14	CREDENTIAL CHECK CORPORATION			95.10	27-OCT-14	95.10	Reconciled	
352939	23-OCT-14	D & G SIGNS			3,453.00	27-OCT-14	3,453.00	Reconciled	
352940	23-OCT-14	DALEY & HEFT LLP			11,089.15			Negotiable	
352941	23-OCT-14	DATA CLEAN CORPORATION			513.25	28-OCT-14	513.25	Reconciled	
352942	23-OCT-14	DELL MARKETING LP			11,425.37	29-OCT-14	11,425.37	Reconciled	

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 23
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
352943		23-OCT-14	DIMAANO, CAROL		20.74			Negotiable
352944		23-OCT-14	DIRECTV INC		105.98	27-OCT-14	105.98	Reconciled
352945		23-OCT-14	DISCOVERY SCIENCE CENTER		1,195.74	27-OCT-14	1,195.74	Reconciled
352946		23-OCT-14	DONG, KATHY		95.08	30-OCT-14	95.08	Reconciled
352947		23-OCT-14	DOTSON, TRACY		36.06			Negotiable
352948		23-OCT-14	DUDLEY RIDGE WATER DISTRICT		50,678.21	30-OCT-14	50,678.21	Reconciled
352949		23-OCT-14	DUNEK, ROBERT		46.50	28-OCT-14	46.50	Reconciled
352950		23-OCT-14	EAST ORANGE COUNTY WATER DISTRICT		3,611.10	28-OCT-14	3,611.10	Reconciled
352951		23-OCT-14	EDWARDS, KEITH		34.99	30-OCT-14	34.99	Reconciled
352952		23-OCT-14	EMPLOYEE BENEFIT SPECIALIST, INC		1,020.00	28-OCT-14	1,020.00	Reconciled
352953		23-OCT-14	ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC.		11,684.11	29-OCT-14	11,684.11	Reconciled
352954		23-OCT-14	ENVIRONMENTAL SCIENCE ASSOCIATES		2,952.50	27-OCT-14	2,952.50	Reconciled
352955		23-OCT-14	EO MACARTHUR LLC		289.28			Negotiable
352956		23-OCT-14	EQUIPMENT DIRECT INC		352.01	27-OCT-14	352.01	Reconciled
352957		23-OCT-14	Flotho, Eric (Eric)		488.69	27-OCT-14	488.69	Reconciled
352958		23-OCT-14	FEDEX		277.10	29-OCT-14	277.10	Reconciled
352959		23-OCT-14	FIERRO, SERGIO D		3,324.99			Negotiable
352960		23-OCT-14	FIRE EXTINGUISHING SAFETY & SERVICE		572.07	27-OCT-14	572.07	Reconciled
352961		23-OCT-14	FISHER SCIENTIFIC COMPANY LLC		19.35	27-OCT-14	19.35	Reconciled
352962		23-OCT-14	GALEWICK, VINCENT		820.03			Negotiable
352963		23-OCT-14	GARCIA, EVANGELINA		34.00	30-OCT-14	34.00	Reconciled
352964		23-OCT-14	GDS2		24,420.00			Negotiable
352965		23-OCT-14	GIFFORD, KELLY		50.00			Negotiable
352966		23-OCT-14	GILLESPIE, DONNA		22.23			Negotiable
352967		23-OCT-14	GLOBALSTAR INC		374.77	27-OCT-14	374.77	Reconciled
352968		23-OCT-14	GRAINGER		4,152.00	27-OCT-14	4,152.00	Reconciled
352969		23-OCT-14	GRAYBAR ELECTRIC COMPANY		3,864.73	27-OCT-14	3,864.73	Reconciled
352970		23-OCT-14	GWINCO CONSTRUCTION & ENGR		998.04			Negotiable
352971		23-OCT-14	HACH COMPANY		10,602.00			Negotiable
352972		23-OCT-14	HILL BROTHERS CHEMICAL COMPANY		217.95	27-OCT-14	217.95	Reconciled

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

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
352973		23-OCT-14	HILL BROTHERS CHEMICAL COMPANY		6,375.20	27-OCT-14	6,375.20	Reconciled
352974		23-OCT-14	HILLEBRECHT, WARREN K		426.23	29-OCT-14	426.23	Reconciled
352975		23-OCT-14	HOME DEPOT USA INC		165.54	30-OCT-14	165.54	Reconciled
352976		23-OCT-14	HORIZON TECHNOLOGY INC		297.57	28-OCT-14	297.57	Reconciled
352977		23-OCT-14	HUNSAKER & ASSOCIATES IRVINE		2,128.00			Negotiable
352978		23-OCT-14	IEM CORPORATION		3,821.00	27-OCT-14	3,821.00	Reconciled
352979		23-OCT-14	IDENTICARD SYSTEMS WORLDWIDE INC		278.81	29-OCT-14	278.81	Reconciled
352980		23-OCT-14	INDUSTRIAL ELECTRIC MACHINERY LLC		1,146.03			Negotiable
352981		23-OCT-14	INDUSTRIAL METAL		244.66	27-OCT-14	244.66	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
352982	23-OCT-14		SUPPLY CO		87,400.00			Negotiable
352983	23-OCT-14		INFOSYS LIMITED		1,817.23	27-OCT-14	1,817.23	Reconciled
			IRON MOUNTAIN INFORMATION MANAGEMENT INC					
352984	23-OCT-14		IRVINE PACIFIC, LP		162.24	27-OCT-14	162.24	Reconciled
352985	23-OCT-14		IRVINE PIPE & SUPPLY INC		781.36	24-OCT-14	781.36	Reconciled
352986	23-OCT-14		IRVINE PROPERTY MANAGEMENT		31.95	27-OCT-14	31.95	Reconciled
352987	23-OCT-14		JACOBY, ROBERT		32.55			Negotiable
352988	23-OCT-14		JCI JONES CHEMICALS INC		4,404.40	27-OCT-14	4,404.40	Reconciled
352989	23-OCT-14		JOHN G. ALEVIZOS D.O. INC.		450.00	28-OCT-14	450.00	Reconciled
352990	23-OCT-14		JOHNSON CONTROLS, INC.		626.09	28-OCT-14	626.09	Reconciled
352991	23-OCT-14		KAWAS, ZENIA		20.03			Negotiable
352992	23-OCT-14		KENNY THE PRINTER		664.21	24-OCT-14	664.21	Reconciled
352993	23-OCT-14		KIM, JANICE		30.95			Negotiable
352994	23-OCT-14		KLEINFELDER WEST INC		2,250.64	27-OCT-14	2,250.64	Reconciled
352995	23-OCT-14		KS DIRECT LLC		2,201.04	24-OCT-14	2,201.04	Reconciled
352996	23-OCT-14		LA HABRA FENCE COMPANY INC		7,235.00	29-OCT-14	7,235.00	Reconciled
352997	23-OCT-14		LAKE FOREST RESTAURANT LLC		95.25			Negotiable
352998	23-OCT-14		LEE, JERI		419.99	29-OCT-14	419.99	Reconciled
352999	23-OCT-14		LEE, SHAYLA		30.98			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 25
 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								
353000	23-OCT-14		LU'S LIGHTHOUSE, INC.		562.62	27-OCT-14	562.62	Reconciled
353001	23-OCT-14		LUBRICATION ENGINEERS, INC.		3,745.20	27-OCT-14	3,745.20	Reconciled
353002	23-OCT-14		MA, MARGARET		66.28			Negotiable
353003	23-OCT-14		MANSON, MICHAEL		17.21	28-OCT-14	17.21	Reconciled
353004	23-OCT-14		MARCELLA, MICHAEL		152.90			Negotiable
353005	23-OCT-14		MARTIN, DOROTHY		579.75	27-OCT-14	579.75	Reconciled
353006	23-OCT-14		MATHEWS, MICHAEL		43.29			Negotiable
353007	23-OCT-14		MC FADDEN-DALE INDUSTRIAL		23.11	28-OCT-14	23.11	Reconciled
353008	23-OCT-14		MC MASTER CARR SUPPLY CO		3,748.18	27-OCT-14	3,748.18	Reconciled
353009	23-OCT-14		MILLER, DAVID		27.49	29-OCT-14	27.49	Reconciled
353010	23-OCT-14		MILLER, WAYNE F		2.13			Negotiable
353011	23-OCT-14		MISCOWATER		13,628.79			Negotiable
353012	23-OCT-14		MISSION PAVING & SEALING INC		818.03			Negotiable
353013	23-OCT-14		MOBILE MODULAR MANAGEMENT CORPORATION		972.00	27-OCT-14	972.00	Reconciled
353014	23-OCT-14		MODY, NITON O		13.06			Negotiable
353015	23-OCT-14		MSC INDUSTRIAL SUPPLY CO		436.59			Negotiable
353016	23-OCT-14		MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		35,463.00	28-OCT-14	35,463.00	Reconciled
353017	23-OCT-14		MYERS, HALEY		40.40	24-OCT-14	40.40	Reconciled
353018	23-OCT-14		NALCO CAL WATER, LLC		240.00	27-OCT-14	240.00	Reconciled
353019	23-OCT-14		NATIONAL READY MIXED CONCRETE CO.		4,078.49	27-OCT-14	4,078.49	Reconciled
353020	23-OCT-14		NATURALWELL, LLC		770.00	24-OCT-14	770.00	Reconciled
353021	23-OCT-14		NELSON, JOHN		1,385.45	27-OCT-14	1,385.45	Reconciled
353022	23-OCT-14		NOREX INC		3,610.00	27-OCT-14	3,610.00	Reconciled
353023	23-OCT-14		OAK CREEK VILLAGE MAINT ASSN		2,145.16	29-OCT-14	2,145.16	Reconciled
353024	23-OCT-14		OLIN CORPORATION		19,937.61	30-OCT-14	19,937.61	Reconciled
353025	23-OCT-14		ONESOURCE DISTRIBUTORS LLC		587.17	27-OCT-14	587.17	Reconciled
353026	23-OCT-14		ORANGE COUNTY AUTO PARTS CO		175.72	27-OCT-14	175.72	Reconciled
353027	23-OCT-14		ORANGE COUNTY TREASURER		264.00	24-OCT-14	264.00	Reconciled
353028	23-OCT-14		ORANGE COUNTY WATER DISTRICT		138.58	24-OCT-14	138.58	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 26
 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
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Payment Document : IRWD CHECK

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
353029		23-OCT-14	PACIFIC COAST BOLT CORP		1,790.92	24-OCT-14	1,790.92	Reconciled
353030		23-OCT-14	PANG, MONICA		44.78	30-OCT-14	44.78	Reconciled
353031		23-OCT-14	PARK, JINKU		83.53	28-OCT-14	83.53	Reconciled
353032		23-OCT-14	PAULUS ENGINEERING INC		12,103.95	28-OCT-14	12,103.95	Reconciled
353033		23-OCT-14	PAYNE & FEARS LLP		304.98	24-OCT-14	304.98	Reconciled
353034		23-OCT-14	PETERSON/CHASE		738.83			Negotiable
353035		23-OCT-14	PINNACLE LANDSCAPE COMPANY		1,142.00	27-OCT-14	1,142.00	Reconciled
353036		23-OCT-14	PINNACLE TOWERS LLC		615.79	27-OCT-14	615.79	Reconciled
353037		23-OCT-14	PRAXAIR DISTRIBUTION INC		241.69	28-OCT-14	241.69	Reconciled
353038		23-OCT-14	PRO GROWERS INC		3,491.37			Negotiable
353039		23-OCT-14	PSB INTEGRATED MARKETING		3,331.25	24-OCT-14	3,331.25	Reconciled
353040		23-OCT-14	PTI SAND & GRAVEL INC		890.96	29-OCT-14	890.96	Reconciled
353041		23-OCT-14	PURE EFFECT INC		988.76	28-OCT-14	988.76	Reconciled
353042		23-OCT-14	QUINCY COMPRESSOR LLC		6,227.28	28-OCT-14	6,227.28	Reconciled
353043		23-OCT-14	R & R INDUSTRIAL SERVICES, INC.		1,415.68	28-OCT-14	1,415.68	Reconciled
353044		23-OCT-14	R&B AUTOMATION INC		11,726.96	29-OCT-14	11,726.96	Reconciled
353045		23-OCT-14	RAM AIR ENGINEERING INC		2,847.82	24-OCT-14	2,847.82	Reconciled
353046		23-OCT-14	RBF CONSULTING		7,720.78	27-OCT-14	7,720.78	Reconciled
353047		23-OCT-14	RICHARD C SLADE & ASSOCIATES LLC		3,794.00			Negotiable
353048		23-OCT-14	RINCON TRUCK CENTER INC.		524.09	24-OCT-14	524.09	Reconciled
353049		23-OCT-14	RYLAND HOMES OF CALIFORNIA INC		17.00	28-OCT-14	17.00	Reconciled
353050		23-OCT-14	SALAMEH, ADNAN		32.80			Negotiable
353051		23-OCT-14	SALAS, BRETT		115.81			Negotiable
353052		23-OCT-14	SANCHEZ, SUSAN		115.41			Negotiable
353053		23-OCT-14	SANTA ANA BLUE PRINT		623.19			Negotiable
353054		23-OCT-14	SANTA ANA WATERSHED PROJECT AUTHORITY		21,150.00	29-OCT-14	21,150.00	Reconciled
353055		23-OCT-14	SANTA MARGARITA FORD		578.01	27-OCT-14	578.01	Reconciled
353056		23-OCT-14	SECURTEC DISTRICT PATROL, INC.		1,600.00			Negotiable

IRWD Ledger
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 03-NOV-2014 17:32
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar) Page: 27
 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								
353057		23-OCT-14	SHAMROCK SUPPLY CO INC		1,968.62	27-OCT-14	1,968.62	Reconciled
353058		23-OCT-14	SOUTH ORANGE COUNTY WASTEWATER AUTHORITY		63,740.75	30-OCT-14	63,740.75	Reconciled
353059		23-OCT-14	SOUTHERN CALIFORNIA EDISON COMPANY		385,110.89	24-OCT-14	385,110.89	Reconciled
353060		23-OCT-14	SPITZ, MICHAEL		16.97	28-OCT-14	16.97	Reconciled
353061		23-OCT-14	STANDARD SCREW PRODUCTS		120.65			Negotiable
353062		23-OCT-14	STANTEC CONSULTING SERVICES INC.		1,739.60	27-OCT-14	1,739.60	Reconciled
353063		23-OCT-14	STATE BOARD OF EQUALIZATION		41,553.00			Negotiable
353064		23-OCT-14	STERIS CORPORATION		4,453.21	27-OCT-14	4,453.21	Reconciled
353065		23-OCT-14	STONES, ROGER		28.25			Negotiable
353066		23-OCT-14	T.E. ROBERTS, INC.		160,807.45	28-OCT-14	160,807.45	Reconciled
353067		23-OCT-14	TABARES ENTERTAINMENT INC		555.88			Negotiable
353068		23-OCT-14	TALLEY INC		718.20	27-OCT-14	718.20	Reconciled
353069		23-OCT-14	TANNBAUM, ZVI		11.25			Negotiable
353070		23-OCT-14	THE NEW HOME COMPANY		17.00			Negotiable
353071		23-OCT-14	THONG, LY		34.43			Negotiable
353072		23-OCT-14	TIC-IPG-COMMON		922.28	24-OCT-14	922.28	Reconciled
353073		23-OCT-14	TIC-RETAIL PROPERTIES		116.96			Negotiable
353074		23-OCT-14	TROPICAL PLAZA NURSERY INC		65,318.40	28-OCT-14	65,318.40	Reconciled
353075		23-OCT-14	TRUCPARCO		856.97	28-OCT-14	856.97	Reconciled
353076		23-OCT-14	TUTTLE-CLICK FORD LINCOLN		27,423.47	30-OCT-14	27,423.47	Reconciled
353077		23-OCT-14	ULTRA SCIENTIFIC		750.08	28-OCT-14	750.08	Reconciled
353078		23-OCT-14	UNITED SITE SERVICES OF		478.25	27-OCT-14	478.25	Reconciled

353079	23-OCT-14	CALIFORNIA INC						
353080	23-OCT-14	URS CORPORATION	14,327.01	30-OCT-14	14,327.01	Reconciled		
		VALLEY CREST	863.88			Negotiable		
353081	23-OCT-14	LANDSCAPE						
353082	23-OCT-14	VERIZON CALIFORNIA INC	246.91	29-OCT-14	246.91	Reconciled		
353083	23-OCT-14	VERTECH INDUSTRIAL SYSTEMS, LLC	8,947.37	28-OCT-14	8,947.37	Reconciled		
		VWR INTERNATIONAL, LLC	49.38	27-OCT-14	49.38	Reconciled		

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 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								
353084		23-OCT-14	WACO FILTERS CORPORATION		6,931.79	29-OCT-14	6,931.79	Reconciled
353085		23-OCT-14	WANIEK, MARY BETH		185.84	24-OCT-14	185.84	Reconciled
353086		23-OCT-14	WATERLINE TECHNOLOGIES INC		2,840.00	24-OCT-14	2,840.00	Reconciled
353087		23-OCT-14	WAXIE'S ENTERPRISES, INC		1,464.38	27-OCT-14	1,464.38	Reconciled
353088		23-OCT-14	WECK LABORATORIES INC		4,575.00	24-OCT-14	4,575.00	Reconciled
353089		23-OCT-14	WEDEBT, MATTHEW		52.84			Negotiable
353090		23-OCT-14	WESTERN AV		436.64	27-OCT-14	436.64	Reconciled
353091		23-OCT-14	WESTERN EXTERMINATOR COMPANY		8,647.00	30-OCT-14	8,647.00	Reconciled
353092		23-OCT-14	WESTWOOD CONTRACTORS INC		725.32	29-OCT-14	725.32	Reconciled
353093		23-OCT-14	WISCONSIN STATE LABORATORY OF HYGENE		600.00	27-OCT-14	600.00	Reconciled
353094		23-OCT-14	WM VANDERGEEST LANDSCAPE CARE INC		857.44			Negotiable
353095		23-OCT-14	ZEILER, CHRIS		26.58			Negotiable
353096		24-OCT-14	Fournier, Tanja L HOME (Tanja)		500.00	27-OCT-14	500.00	Reconciled
353097		29-OCT-14	DANG, HA-NHU	PAY	49.69	30-OCT-14	49.69	Reconciled
353098		30-OCT-14	McNulty, Amy K (Amy)		8.38			Negotiable
353099		30-OCT-14	Perez, Cesar (Cesar)		88.02			Negotiable
353100		30-OCT-14	Compton, Christine A		66.14			Negotiable
353101		30-OCT-14	Smyth, Jeffrey S (Jeff)		44.39			Negotiable
353102		30-OCT-14	Oldewage, Lars D (Lars)		1,581.04			Negotiable
353103		30-OCT-14	Bergen, Melinda J (Mindy)		40.13			Negotiable
353104		30-OCT-14	De La Torre, Sergio (Sergio)		118.79			Negotiable
353105		30-OCT-14	AFLAC		10,504.64			Negotiable
353106		30-OCT-14	AIRGAS-WEST, INC.		418.98			Negotiable
353107		30-OCT-14	ALPHA TRAFFIC SERVICES, INC.		570.00			Negotiable
353108		30-OCT-14	AMERICAN GEOTECHNICAL, INC.		500.00			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 29
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
353109		30-OCT-14	APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC		506.45			Negotiable
353110		30-OCT-14	AQUA-METRIC SALES COMPANY		7,728.37			Negotiable
353111		30-OCT-14	AT&T		2,283.98			Negotiable
353112		30-OCT-14	AUSTIN HARDWOODS, INC		14.66			Negotiable
353113		30-OCT-14	AUTOZONE PARTS, INC.		434.44			Negotiable
353114		30-OCT-14	BILL'S SWEEPING SERVICE INC		575.00			Negotiable
353115		30-OCT-14	BLACK & VEATCH CORPORATION		357,888.82			Negotiable
353116		30-OCT-14	Garcia, Brad L (Brad)		848.00			Negotiable
353117		30-OCT-14	BRICKLEY ENVIRONMENTAL		7,500.00			Negotiable

353118	30-OCT-14	C WELLS PIPELINE MATERIALS INC	41,145.84	Negotiable
353119	30-OCT-14	CALIFORNIA BARRICADE INC	3,472.50	Negotiable
353120	30-OCT-14	CANON FINANCIAL SERVICES, INC	295.92	Negotiable
353121	30-OCT-14	CANON SOLUTIONS AMERICA, INC.	407.01	Negotiable
353122	30-OCT-14	CAPTIVE AUDIENCE MARKETING INC.	85.32	Negotiable
353123	30-OCT-14	CAROLLO ENGINEERS, INC	8,359.00	Negotiable
353124	30-OCT-14	CITY OF ORANGE	347.26	Negotiable
353125	30-OCT-14	CITY OF TUSTIN	68,034.22	Negotiable
353126	30-OCT-14	CLEARINGHOUSE	477.67	Negotiable
353127	30-OCT-14	COAST PLUMBING HEATING AND AIR, INC	375.00	Negotiable
353128	30-OCT-14	COLONIAL LIFE & ACCIDENT INSURANCE CO.	2,562.18	Negotiable
353129	30-OCT-14	CONEYBEARE INC	25,496.38	Negotiable
353130	30-OCT-14	COX COMMUNICATIONS	106.71	Negotiable
353131	30-OCT-14	D & G SIGNS	9,266.40	Negotiable
353132	30-OCT-14	DALEY & HEFT LLP	420.00	Negotiable
353133	30-OCT-14	DELL MARKETING LP	2,194.66	Negotiable
353134	30-OCT-14	DELPHIN COMPUTER SUPPLY	699.30	Negotiable

IRWD Ledger Payment Register For 01-OCT-14 To 31-OCT-14 Report Date: 03-NOV-2014 17:32
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 30
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
353135		30-OCT-14	DEX MEDIA INC.		74.25			Negotiable
353136		30-OCT-14	DRAEGER SAFETY INC		893.33			Negotiable
353137		30-OCT-14	DURANCEAU CONSULTING SERVICES, LLC		2,600.00			Negotiable
353138		30-OCT-14	EAGLE PRINT DYNAMICS		1,737.10			Negotiable
353139		30-OCT-14	EXECUTIVE LIGHTING & ELECTRIC		227.22			Negotiable
353140		30-OCT-14	EXPRESSAIR		62.00			Negotiable
353141		30-OCT-14	EXTERRAN ENERGY SOLUTIONS LP		97,506.92			Negotiable
353142		30-OCT-14	FARRELL & ASSOCIATES		290.02			Negotiable
353143		30-OCT-14	FEDEX		146.05			Negotiable
353144		30-OCT-14	FEDEX NATIONAL LTL, INC		1,780.75			Negotiable
353145		30-OCT-14	FIRST CHOICE SERVICES		861.09			Negotiable
353146		30-OCT-14	FISERV		286.00			Negotiable
353147		30-OCT-14	FISHER SCIENTIFIC COMPANY LLC		895.27			Negotiable
353148		30-OCT-14	FRANK LA PLACA EXTERMINATING INC		175.00			Negotiable
353149		30-OCT-14	GILLOGLY, GERALYNN M		100.03			Negotiable
353150		30-OCT-14	GRAINGER		402.13			Negotiable
353151		30-OCT-14	HACH COMPANY		5,456.27			Negotiable
353152		30-OCT-14	HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY		182.28			Negotiable
353153		30-OCT-14	HILL BROTHERS CHEMICAL COMPANY		3,608.80			Negotiable
353154		30-OCT-14	HOME DEPOT USA INC		668.32			Negotiable
353155		30-OCT-14	HYDRO-SCAPE PRODUCTS INC		373.99			Negotiable
353156		30-OCT-14	II FUELS INC		24,599.10			Negotiable
353157		30-OCT-14	INDUSTRIAL METAL SUPPLY CO		109.49			Negotiable
353158		30-OCT-14	INTERNAL REVENUE SERVICE		100.00			Negotiable
353159		30-OCT-14	IRONMAN PARTS & SERVICE		2,413.82			Negotiable
353160		30-OCT-14	IRVINE PIPE & SUPPLY INC		7,005.35			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 31
 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								

353161	30-OCT-14	IRWD EMPLOYEE ASSOCIATION	740.00	Negotiable
353162	30-OCT-14	IRWD-PETTY CASH CUSTODIAN	1,201.99	Negotiable
353163	30-OCT-14	JACOBS PROJECT MANAGEMENT CO.	32,200.00	Negotiable
353164	30-OCT-14	JCI JONES CHEMICALS INC	10,860.30	Negotiable
353165	30-OCT-14	JOHN G. ALEVIZOS D.O. INC.	50.00	Negotiable
353166	30-OCT-14	KALBAN INC	851.63	Negotiable
353167	30-OCT-14	KENNY THE PRINTER	1,373.46	Negotiable
353168	30-OCT-14	KRILEY EXCA-BREAK, INC	13,500.00	Negotiable
353169	30-OCT-14	LEWIS OPERATING CORP	600.00	Negotiable
353170	30-OCT-14	MAILFINANCE INC	870.39	Negotiable
353171	30-OCT-14	MARKET-THINK, LLC	4,357.50	Negotiable
353172	30-OCT-14	MARVIN GARDENS LLC	2,593.70	Negotiable
353173	30-OCT-14	MC MASTER CARR SUPPLY CO	10,327.66	Negotiable
353174	30-OCT-14	MERRILL LYNCH, PIERCE, FENNER & SMITH INCORPORATED	25,894.85	Negotiable
353175	30-OCT-14	MODERN WATER INC	1,085.81	Negotiable
353176	30-OCT-14	MUNICIPAL MAINTENANCE EQUIPMENT INC	93.50	Negotiable
353177	30-OCT-14	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY	287,032.95	Negotiable
353178	30-OCT-14	NATURES IMAGE INC	813.00	Negotiable
353179	30-OCT-14	NAVIGANT CONSULTING, INC	4,890.00	Negotiable
353180	30-OCT-14	NMG GEOTECHNICAL INC	7,347.00	Negotiable
353181	30-OCT-14	OLIN CORPORATION	19,744.94	Negotiable
353182	30-OCT-14	ORANGE COUNTY AUTO PARTS CO	80.94	Negotiable
353183	30-OCT-14	ORANGE COUNTY VECTOR CONTROL DISTRICT	5,424.78	Negotiable
353184	30-OCT-14	OUTSOURCE TECHNICAL LLC	18,848.00	Negotiable
353185	30-OCT-14	PACIFIC COAST BOLT CORP	406.30	Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 32
 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								
353186		30-OCT-14	PARADA PAINTING INC		6,183.50			Negotiable
353187		30-OCT-14	PARKHOUSE TIRE INC		6,405.49			Negotiable
353188		30-OCT-14	PAYNE & FEARS LLP		2,354.38			Negotiable
353189		30-OCT-14	PERS LONG TERM CARE		720.46			Negotiable
353190		30-OCT-14	PINNACLE LANDSCAPE COMPANY		6,560.00			Negotiable
353191		30-OCT-14	PRAXAIR DISTRIBUTION INC		2,610.31			Negotiable
353192		30-OCT-14	PRE-PAID LEGAL SERVICES INC		1,989.21			Negotiable
353193		30-OCT-14	QUICKEL PAVING INC		4,295.00			Negotiable
353194		30-OCT-14	RAIN FOR RENT		3,124.99			Negotiable
353195		30-OCT-14	RAM AIR ENGINEERING INC		3,638.17			Negotiable
353196		30-OCT-14	REAL GREEN INC.		26,371.25			Negotiable
353197		30-OCT-14	RED WING SHOES		742.56			Negotiable
353198		30-OCT-14	ROBERT F. THORPE		2,844.00			Negotiable
353199		30-OCT-14	RYAN HERCO PRODUCTS CORP		1,773.90			Negotiable
353200		30-OCT-14	SA INTERNATIONAL, INC.		369.00			Negotiable
353201		30-OCT-14	SANTA ANA BLUE PRINT		279.26			Negotiable
353202		30-OCT-14	SANTA MARGARITA FORD		198.16			Negotiable
353203		30-OCT-14	SECURTEC DISTRICT PATROL, INC.		4,250.00			Negotiable
353204		30-OCT-14	SHAMROCK SUPPLY CO INC		13,773.85			Negotiable
353205		30-OCT-14	SHOPSABRE		22,840.00			Negotiable
353206		30-OCT-14	SIGNATURE FLOORING INC		535.00			Negotiable
353207		30-OCT-14	SOUTH COAST WATER DISTRICT		2,481.00			Negotiable
353208		30-OCT-14	SOUTHERN CALIFORNIA EDISON		436,075.69			Negotiable

353209 30-OCT-14 COMPANY SOUTHERN CALIFORNIA SECURITY CENTER, INC. 22.68 Negotiable
 353210 30-OCT-14 SOUTHERN COUNTIES LUBRICANTS LLC 2,607.58 Negotiable
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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 33
 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								
353211		30-OCT-14	SOUTHWEST THERMAL TECHNOLOGY, INC.		3,310.85			Negotiable
353212		30-OCT-14	SPARKLETTS		299.28			Negotiable
353213		30-OCT-14	STAR BRITE BUILDING MAINTENANCE INC		11,963.75			Negotiable
353214		30-OCT-14	STATE BOARD OF EQUALIZATION		685.56			Negotiable
353215		30-OCT-14	STEEL UNLIMITED INC		979.56			Negotiable
353216		30-OCT-14	STEVEN ENTERPRISES INC		528.40			Negotiable
353217		30-OCT-14	T AND S LARSEN MAINTENANCE		400.00			Negotiable
353218		30-OCT-14	TESTAMERICA LABORATORIES, INC		557.15			Negotiable
353219		30-OCT-14	TETRA TECH, INC		6,948.75			Negotiable
353220		30-OCT-14	THE IRVINE COMPANY LLC		2,889.93			Negotiable
353221		30-OCT-14	THERMO FISHER SCIENTIFIC LLC		584.17			Negotiable
353222		30-OCT-14	THOMAS HARDER & CO		6,788.00			Negotiable
353223		30-OCT-14	THYSSENKRUPP ELEVATOR CORPORATION		902.70			Negotiable
353224		30-OCT-14	TROPICAL PLAZA NURSERY INC		1,990.63			Negotiable
353225		30-OCT-14	TRUCPARCO		995.43			Negotiable
353226		30-OCT-14	TRUGREEN LANDCARE LLC		19,080.45			Negotiable
353227		30-OCT-14	UNITED PARCEL SERVICE INC		80.64			Negotiable
353228		30-OCT-14	US BANK NAT'L ASSOC N.DAKOTA		12,350.68			Negotiable
353229		30-OCT-14	US BANK NAT'L ASSOCIATION NORTH DAKOTA		48,264.97			Negotiable
353230		30-OCT-14	USA BLUEBOOK		145.79			Negotiable
353231		30-OCT-14	VERIZON CALIFORNIA INC		294.62			Negotiable
353232		30-OCT-14	VERIZON WIRELESS SERVICES LLC		7,102.26			Negotiable
353233		30-OCT-14	VRIDE INC		10,085.00			Negotiable
353234		30-OCT-14	VWR INTERNATIONAL, LLC		3,597.70			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 34
 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								
353235		30-OCT-14	WALTERS WHOLESALE ELECTRIC		452.30			Negotiable
353236		30-OCT-14	WATER QUALITY INC		15,000.00			Voided
353237		30-OCT-14	WATERSMART SOFTWARE, INC		15,000.00			Negotiable
353238		30-OCT-14	WAXIE'S ENTERPRISES, INC		1,777.14			Negotiable
353239		30-OCT-14	WECK LABORATORIES INC		5,170.00			Negotiable
353240		30-OCT-14	WESTERN EXTERMINATOR COMPANY		1,580.00			Negotiable
353241		30-OCT-14	WIRELESS WATCHDOGS, LLC		936.00			Negotiable
353242		30-OCT-14	WRIGHT, JOE		129.08			Negotiable

Payment Document Subtotal: 9,628,923.47 7,253,335.00

Payment Document : IRWD Wire

10637	01-OCT-14	WONG, RYAN	LOS ANGELES	125.80	Negotiable
10638	01-OCT-14	SHAO, SIMON WEN	ARCADIA	24.77	Negotiable
10639	06-OCT-14	PCL CONSTRUCTION, INC.	ACCT 6971821722	1,321,785.00	Negotiable
10640	06-OCT-14	PCL CONSTRUCTION, INC.	ESR 141511.1	146,865.00	Negotiable
10641	07-OCT-14	TEST CORP	MISSION VIEJO	91.42	Negotiable
10642	07-OCT-14	TRANG, LINDA	HUNTINGTON BEAC	64.61	Negotiable
10643	08-OCT-14	CALPERS	SACRAMENTO 1	370,884.64	Negotiable
10644	14-OCT-14	INTERNAL REVENUE SERVICE	FRESNO	154,529.65	Negotiable
10645	14-OCT-14	FRANCHISE TAX BOARD	SACRAMENTO	42,264.50	Negotiable
10646	14-OCT-14	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	9,652.91	Negotiable
10647	14-OCT-14	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	500.17	Negotiable

IRWD Ledger
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 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 35
 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 Wire								
10648		14-OCT-14	CALIFORNIA DEPARTMENT OF CHILDRN SUPPORT SERVICES	SACRAMENTO	2,376.90			Negotiable
10649		14-OCT-14	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	10,431.89			Negotiable
10650		14-OCT-14	GREAT WEST	DENVER	93,558.95			Negotiable
10651		14-OCT-14	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	176,110.00			Negotiable
10652		14-OCT-14	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	2,403,761.59			Negotiable
10653		14-OCT-14	SUMITOMO MITSUI BANKING CORPORATION	NEW YORK	470.47			Negotiable
10654		14-OCT-14	U.S. BANK NATIONALPAY ASSOCIATION		2,501,380.84			Negotiable
10655		14-OCT-14	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	3,247.92			Negotiable
10656		14-OCT-14	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	487.50			Negotiable
10657		14-OCT-14	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	1,312.50			Negotiable
10658		14-OCT-14	SUMITOMO MITSUI BANKING CORPORATION	NEW YORK	1,331.51			Negotiable
10659		14-OCT-14	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	603.32			Negotiable
10660		14-OCT-14	SUMITOMO MITSUI BANKING CORPORATION	NEW YORK	70,680.57			Negotiable
10661		14-OCT-14	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	33,724.69			Negotiable
10662		14-OCT-14	U.S. BANK NATIONALPAY ASSOCIATION		64,060.98			Negotiable
10663		14-OCT-14	BANK OF AMERICA	SAN FRANCISCO	64,195.98			Negotiable
10664		15-OCT-14	BANK OF AMERICA	SAN FRANCISCO	2,501,323.30			Negotiable
10665		15-OCT-14	FILANC-BALFOUR BEATTY JV	WEST COVINA	4,386,857.52			Negotiable

IRWD Ledger
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 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 36
 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 Wire								
10666		15-OCT-14	FILANC-BALFOUR BEATTY JV	ESR 211084000	487,428.61			Negotiable
10667		22-OCT-14	YORK INSURANCE SERVICES GROUP INC - CA	PAY	14,250.50			Negotiable

10668	22-OCT-14	YORK INSURANCE SERVICES GROUP INC - CA	PAY		4,063.60	Negotiable
10669	23-OCT-14	YORK INSURANCE SERVICES GROUP INC - CA	PAY		8,666.60	Negotiable
10670	23-OCT-14	EMPLOYEE BENEFIT SPECIALIST, INC	PAY		19.23	Negotiable
10671	23-OCT-14	INTERNAL REVENUE SERVICE	FRESNO		153,511.26	Negotiable
10672	23-OCT-14	FRANCHISE TAX BOARD	SACRAMENTO		42,110.60	Negotiable
10673	27-OCT-14	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO		9,102.81	Negotiable
10674	27-OCT-14	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR		500.17	Negotiable
10675	27-OCT-14	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO		2,376.90	Negotiable
10676	27-OCT-14	EMPLOYEE BENEFIT SPECIALIST, INC	PAY		11,378.29	Negotiable
10677	27-OCT-14	CALPERS	SACRAMENTO		82,368.29	Negotiable
10678	27-OCT-14	CALPERS	SACRAMENTO		84,820.75	Negotiable
10679	27-OCT-14	U.S. BANK NATIONALST. LOUIS ASSOCIATION			9,964.95	Negotiable
10680	27-OCT-14	MUNICIPAL WATER DISTRICT OF ORANGEVALLEY COUNTY	FOUNTAIN		1,166,182.03	Negotiable
10681	29-OCT-14	YORK INSURANCE SERVICES GROUP INC - CA	PAY		5,973.10	Negotiable
10682	30-OCT-14	MERRILL LYNCH CAPITAL SERVICES, INC	CHARLOTTE		360,000.00	Negotiable
10683	30-OCT-14	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK		4,900.00	Negotiable

IRWD Ledger
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

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 Account: Checking AP and PR Page: 37
 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 Wire								
10684		30-OCT-14	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	1,666.67			Negotiable
10685		30-OCT-14	U.S. BANK NATIONALST. LOUIS ASSOCIATION		5,794,250.00			Negotiable
10686		31-OCT-14	INTERNAL REVENUE SERVICE	FRESNO	153,705.18			Negotiable
10687		31-OCT-14	FRANCHISE TAX BOARD	SACRAMENTO	41,959.31			Negotiable
10688		31-OCT-14	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	8,585.65			Negotiable
10689		31-OCT-14	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	500.17			Negotiable
10690		31-OCT-14	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	2,376.90			Negotiable
10691		31-OCT-14	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	10,306.50			Negotiable
10692		31-OCT-14	GREAT WEST	DENVER	91,917.91			Negotiable
10693		31-OCT-14	FILANC-BALFOUR BEATTY JV	ESR 211084000	590,209.69			Negotiable
10694		31-OCT-14	J.R. FILANC CONSTRUCTION COMPANY INC.	ESCONDIDO	174,438.99			Negotiable
10695		31-OCT-14	FILANC-BALFOUR BEATTY JV	WEST COVINA	5,311,887.25			Negotiable
Payment Document Subtotal:					28,992,126.81			
Bank Account Subtotal :					38,621,050.28		7,253,335.00	
Report Count : 945	Report Total:				38,621,050.28	7,253,335.00		
					Total Disbursements			

*** End of Report ***

38,621,050.28 Disbursements
 <172,597.05> Voids
 38,448,453.23 Total Disbursements

D - 23

Exhibit "E"

IRWD Gov Code 53065.5 Disclosure Report

Payment or Reimbursements for Individual charges of \$100 or more per transaction for services or product received.

01-OCT-14 to 31-OCT-14

NAME	CHECK	CHECK DATE	TRANSACTION	ITEM DESCRIPTION	EXPENSE JUSTIFICATION
Bailey, Johnathan	352881	23-Oct-14	156.00	Membership/Certification	CWEA membership renewal
Bertsch, Jeff	352498	9-Oct-14	161.99	Other(Misc)	Operating supplies - Port replicator for MS surface
Blaska, Erika	352362	2-Oct-14	185.76	Other(Misc)	Meeting supplies
Blaska, Erika	352362	2-Oct-14	250.00	Other(Misc)	Meeting supplies
Bonkowski, Leslie	352502	9-Oct-14	155.73	Other(Misc)	Meeting supplies
Chaney, Dave	352361	2-Oct-14	180.00	Membership/Certification	State Water Board Wastewater Grade II exam fee
Cook, Cody S	352360	2-Oct-14	125.00	Other(Misc)	Safety shoes reimbursement
Davis, Jennifer	352729	16-Oct-14	198.94	Other(Misc)	Meeting supplies
De La Torre, Sergio	353104	30-Oct-14	118.79	Other(Misc)	Safety shoes reimbursement
Fournier, Tanja	352367	2-Oct-14	696.99	Lodging	Three nights room and tax, attending NAGDA Conf., San Antonio, TX Sept. 14-17, 2014
Fournier, Tanja	353096	24-Oct-14	500.00	Other(Misc)	Meeting supplies
Habiger, Steve Jr	352505	9-Oct-14	124.68	Membership/Certification	Water Distribution System Operation and Maintenance certification
Hoffman, Michael S	352882	23-Oct-14	175.00	Membership/Certification	CWEA Collection Grade III exam fee
Lassalette, Jim	352728	16-Oct-14	200.00	Other(Misc)	Safety shoes reimbursement
Lew, Kelly N	352500	9-Oct-14	122.14	Other(Misc)	Meeting supplies
McCarter, David	352497	9-Oct-14	140.00	Membership/Certification	Distribution Grade IV certification renewal
McNulty, Amy	353098	30-Oct-14	437.70	Airfare	Rountrip to/from San Francisco, attending Drought Workshop Aug. 13, 2014
Moeder, Jacob	352879	23-Oct-14	280.00	Membership/Certification	ASCE membership renewal
Moore, Rory	352884	23-Oct-14	240.00	Membership/Certification	CWEA renewal fee
Mortimer, Landon	352501	9-Oct-14	200.00	Other(Misc)	Safety shoes reimbursement
Norman, Tammy	352885	23-Oct-14	224.19	Other(Misc)	Meeting supplies
Oldewage, Lars	353102	30-Oct-14	445.00	Registration Fees	CA-NV Section AWWA 2014 Fall Conference, Reno, NV Oct. 21-23, 2014
Oldewage, Lars	353102	30-Oct-14	286.20	Airfare	CA-NV Section AWWA 2014 Fall Conference, Reno, NV Oct. 21-23, 2014
Oldewage, Lars	353102	30-Oct-14	100.57	Lodging	CA-NV Section AWWA 2014 Fall Conference, Reno, NV Oct. 21-23, 2014
Oldewage, Lars	353102	30-Oct-14	100.57	Lodging	CA-NV Section AWWA 2014 Fall Conference, Reno, NV Oct. 21-23, 2014
Oldewage, Lars	353102	30-Oct-14	202.00	Membership/Certification	WEF membership renewal
Oldewage, Lars	353102	30-Oct-14	181.00	Membership/Certification	ACS-American Chemical Society membership renewal
Ruiz, Ricky	352730	16-Oct-14	180.00	Membership/Certification	Grade II Wastewater Treatment Plant Operator exam fee
Ruiz, Ricky	352730	16-Oct-14	230.00	Membership/Certification	Grade II Wastewater Treatment Plant Operator certification
Steward, Bonnie	352496	9-Oct-14	129.95	Other(Misc)	Safety shoes reimbursement
Swan, Peer	352883	23-Oct-14	494.20	Airfare	Roundtrip to/from Sacramento, attending ACWA Board meeting Sept. 25, 2014
Swan, Peer	352883	23-Oct-14	125.50	Lodging	Room and tax at Citizens hotel, Sacramento, attending ACWA Board meeting Sept. 25, 2014

Total Amount: \$ 7,347.90

06
November 24, 2014

Prepared by: M. Cortez/M. Hoolihan/
K. Lew/S. Malloy/R. Mori

Submitted by: K. Burton (KB)

Approved by: Paul Cook / *[Signature]*

CONSENT CALENDAR

UPCOMING PROJECTS STATUS REPORT

SUMMARY:

A status report of IRWD's Upcoming Projects is presented for the Board's review.

BACKGROUND:

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

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on November 18, 2014.

RECOMMENDATION:

RECEIVE AND FILE.

LIST OF EXHIBITS:

Exhibit "A" – Upcoming Projects Status Report

EXHIBIT "A"

IRWD UPCOMING PROJECTS STATUS REPORT

Project Name	Start	Start	Construction	Construction
	Planning	Design	Award	Final Acceptance
MWRP Phase 2 Expansion Landscaping				Fall 2014
SJM Building Campus Mold Remediation				Winter 2015
Sewer Manhole Rehabilitation		Winter 2015		
Wells 11 and 15 Surge Tank Replacement		Fall 2014		
RMS at Foothill Zone 6 and Portola Zone 9			Winter 2015	Fall 2015
2014 Sewer Rehabilitation				Fall 2014
EOCWD Interconnect Improvements				Winter 2015
Cathodic Protection for GAP Pipe Segment			Winter 2015	Winter 2015
Foothill Ranch Zone 6 and Coastal Zone 4 BPS Check Valve Replacement				Winter 2015
SJM Campus Paving				Fall 2014
Riparian View Access Gates				Fall 2014
SAC/Baker Pipeline CP Improvements				Winter 2015
Zone 1 Reservoir Recoating			Winter 2015	Spring 2015
San Joaquin Reservoir Actuator Repair/Replacement				Winter 2015
Silverado Canyon Rd DW Pipeline Improvements				Winter 2015
Newport Coast CP (Joint Bonding)			Fall 2014	Winter 2015
PA 51, Marine Way DW, RW (RA w/Heritage Fields)			Winter 2015	Winter 2016
PA 51, Ridge Valley, Marine to Trabuco, DW, S (RA w/Heritage Fields)				Winter 2015
PA 51, Ridge Valley, Trabuco to Irvine Blvd, DW, S, RW (RA w/Heritage Fields)				Winter 2015
PA 51, C St from Trabuco Rd to LQ St, S (RA w/Heritage Fields)				Winter 2015
PA 51, Reach A Sewer from Marine Way to Trabuco Rd (RA w/Heritage Fields)				Winter 2015
PA 51, C St from Ridge Valley to LN St, DW, RW (RA w/Heritage Fields)				Winter 2015
PA 51, LQ St from Ridge Valley to LY St, S, RW (RA w/Heritage Fields)				Winter 2015
PA 51, LN St from C St to LY St, DW, RW (RA w/Heritage Fields)				Winter 2015
PA 51, South C St and LY St, S, RW (RA w/Heritage Fields)				Winter 2015
Tustin Legacy Villas Capital Sewer (RA w/ICDC)				Winter 2015
PA 1, Orchard Hills Neighborhood 2 RW (RA w/ICDC)				Winter 2015
PA 1, Orchard Hills Zone C RW (RA w/ICDC)				Winter 2015
PA 5B, Phase 1A DW, RW (RA w/ICDC)				Winter 2015
PA 5B, Phase 1B RW (RA w/ICDC)				Spring 2015
PA 5B, Phase 2 RW (RA w/ICDC)				Spring 2015
PA 5B, RW Zone B Improvements (RA w/ICDC)				Spring 2015
PA 6, Neighborhood 3, Phase 1 RW (RA w/ICDC)				Spring 2015
Technology Drive Extension Zone B RW (RA w/ICDC)		Fall 2014	Spring 2015	Fall 2016
Barranca, Armstrong to Tustin Ranch Road DW, S, RW Facilities (RA w/Tustin)				Winter 2015
Warner, Legacy Rd to Tustin Ranch Rd, Capital DW and RW Improvements (RA w/Tustin)				Winter 2015
Warner and Armstrong DW, RW (RA w/Tustin)				Spring 2015
PA 18 South, Hidden Canyon DW RW (RA w/Toll Brothers)				Spring 2015

IRWD UPCOMING PROJECTS STATUS REPORT

Project Name	Start	Start	Construction	Construction
	Planning	Design	Award	Final Acceptance
MWRP Biosolids and Energy Recovery Facilities				Fall 2016
MWRP Phase 2 Expansion - MBR Repair				Spring 2015
Baker Water Treatment Plant				Spring 2016
Baker Raw Water Conveyance Facilities				Spring 2015
Sand Canyon Avenue Grade Separation				Fall 2014
Hidden Canyon Zone 3 to 4 and B to C Booster Pump Stations				Spring 2015
Peters Canyon Channel Water Capture and Reuse Pipeline			Spring 2015	Summer 2016
Stockdale West Wellhead and Conveyance Facilities			Spring 2015	Summer 2016
ILP North Conversion - Pipelines		Fall 2014	Spring 2016	Summer 2017
ILP North Conversion - Reservoir		Fall 2014	Spring 2016	Summer 2017
Michelson Lift Station Relocation (RA w/LBA)				Winter 2015
Well 115 Replacement				Fall 2014
Well OPA-1 Equipping				Winter 2015
Rattlesnake Chlorine Gas System Replacement			Fall 2014	Fall 2015
LAWRP Treatment Plant Master Plan	Summer 2015			
MWRP Secondary Repair and Rehabilitation		Fall 2015		
Dyer Road Well Field Well No. 5 Rehabilitation				Fall 2014
Wells ET-1 and ET-2 Rehabilitation			Fall 2014	Spring 2015
LAWRP Ponds Biosolids Removal and Disposal			Fall 2014	Spring 2015
Great Park SAMP Update	In-Process			
WRMP Update - Chap 2,3,4,5, 7,10	In-Process			
Sewer Collection System Master Plan/Generation Factors	In-Process			
Update to Replacement Planning Model	Winter 2016			
Syphon Reservoir Expansion Payback Analysis	In-Process			
	Category	Months		
	Winter	Jan. Feb. & Mar.		
	Spring	Apr. May & June		
	Summer	Jul. Aug. & Sep.		
	Fall	Oct. Nov. & Dec.		

November 24, 2014
Prepared by: B. Beeman
Submitted by: P. Weghorst
Approved by: Paul Cook 

CONSENT CALENDAR

DISCOVERY SCIENCE CENTER AGREEMENT VARIANCE NO. 1

SUMMARY:

In April 2013, the IRWD Board of Directors approved a three-year Professional Services Agreement with the Discovery Science Center (DSC) to implement a water education outreach program for schools throughout the IRWD service area. The agreement provided sufficient funding for the first year of the program at \$149,685. To fund the outreach program for Fiscal Years 2014-15 and 2015-16, staff recommends the Board approve a variance to the Professional Services Agreement with DSC in the amount of \$299,370.

BACKGROUND:

IRWD and DSC have partnered to deliver water education programs to students within the District's service area since 2007. During this time DSC has provided in-classroom lessons and field trip opportunities for students from kindergarten through eighth grade.

The primary goal of IRWD and DSC's partnership is to provide water education programs for students within the District's service area to encourage conservation and resource protection, and to provide general knowledge about water supply and related issues. The curriculum is designed to meet and support the state education standards. The water education program also provides a key Best Management Practice under the existing Memorandum of Understanding with the California Urban Water Conservation Council.

On April 8, 2013, the Board approved a three-year Professional Services Agreement with DSC which provided funding in the amount of \$149,685 for the first year of the water education outreach program. To continue the program for the remaining two years of the agreement, staff recommends that the Board approve Variance No. 1 to the Professional Services Agreement with DSC to fund it at the same level of \$149,685 for each of Fiscal Years 2014-15 and 2015-16 for a total of \$299,370. Variance No. 1 is provided as Exhibit "A".

FISCAL IMPACTS:

The water education program with DSC will be funded from approved operating budgets for FY 2014-15 and FY 2015-16 at \$149,685 for each year. The water education program is funded from over-allocation funding.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on November 4, 2014.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A VARIANCE IN THE AMOUNT OF \$299,370 TO THE PROFESSIONAL SERVICES AGREEMENT WITH THE DISCOVERY SCIENCE CENTER TO PROVIDE WATER EDUCATION PROGRAM SERVICES FOR FISCAL YEARS 2014-15 AND 2015-16.

LIST OF EXHIBITS:

Exhibit "A" – Variance No. 1 to Professional Services Agreement with Discovery Science Center

Exhibit "A"
IRVINE RANCH WATER DISTRICT
PROFESSIONAL SERVICES VARIANCE

Project Title: Discovery Science Center _____

Project No.: IRWD Water Education Program _____ Date: October 29, 2014
Purchase Order No.: 51575 _____ Variance No.: 1 _____

Originator: IRWD ENGINEER/CONSULTANT Other (Explain) _____

Description of Variance (attach any back-up material):

On April 8, 2013, the Board approved a three-year professional services agreement with DSC which provided funding in the amount of \$149,685 which was intended to provide funding for the first year of the program. To continue this valuable program for the remaining two years consistent with the attached scope of work, a variance to the Professional Services Agreement with DSC is needed to fund the program at the same level of \$149,685 for each of Fiscal Years 2014-15 and 2015-16.

Engineering & Management Cost Impact:

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
DSC Fee for service FY 2014/15						\$149,685
DSC Fee for service FY 2015/16						\$149,685
Total \$ =						\$299,370

Schedule Impact:

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
	No impact			

Required Approval Determination:

Total Original Contract	\$149,685 _____	<input type="checkbox"/> Director: Cumulative total of Variances less than or equal to \$50,000.
Previous Variances \$0 _____		
This Variance	\$299,370 _____	<input type="checkbox"/> Executive Director: Cumulative total of Variances less than or equal to \$75,000.
Total Sum of Variances	\$299,370 _____	
New Contract Amount	\$449,055 _____	<input type="checkbox"/> General Manager: Cumulative total of Variances less than or equal to \$100,000.
Percentage of Total Variances to Original Contract	<u>200</u> %	<input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$100,000.

ENGINEER/CONSULTANT: Discovery Science Center _____ IRVINE RANCH WATER DISTRICT
Company Name

Project Engineer/Manager _____ Date _____ Department Director _____ Date _____

Engineer's/Consultant's Management _____ Date _____ General Manager/Board _____ Date _____

**Discovery Science Center
Irvine Ranch Water District
3-year Educational Outreach Scope of Work (2013 – 2016)**

Discovery Science Center (DSC) will continue to conduct water educational programs for Irvine Ranch Water District (IRWD).

1. Parties:

Discovery Science Center, 2500 North Main Street, Santa Ana, CA 92705
Contact: Sean Fitzgerald, Director of Strategic Development sfitzgerald@discoverycube.org
and Janet Yamaguchi, Vice President, Education jyamaguchi@discoverycube.org

Irvine Ranch Water District, 15600 Sand Canyon Avenue, Irvine, CA 92618
Contact: Beth Beeman, Director of Public Affairs, beeman@irwd.com and
Shannon Reed, Public Affairs Manager, reeds@irwd.com.

2. Obligations of the parties:

Scope of work

DSC will continue to deliver water education programs for IRWD. It is proposed that during the next three years (2013 – 2016), DSC will deliver assembly-style programs to K-5th grade students within the IRWD service area, as has been done during the previous three years. DSC will also deliver a two-part workshop-style program to middle school students within the IRWD-service area, along with a field trip program to the San Joaquin Marsh and/or Michelson Water Recycling facility, as appropriate. In addition, DSC will continue to develop public education programs at the San Joaquin Marsh for the edification of the residents within the IRWD service area. These Marsh-focused water education programs will be delivered by DSC staff. The goals of all of the water education programs are to ensure that IRWD service area residents are aware of the work performed by IRWD and that they have a firm understanding of the natural scarcity of water in their region, and to encourage and empower these residents to help conserve, protect, and preserve our most precious resource, water. During the span of this contract, DSC staff will continue to work closely and meet frequently with IRWD staff, who oversees the IRWD/DSC educational programs.

Deliverables

DSC will teach:

- 10,000 K-5th grade students in assembly-style programs at a rate of \$3.65 per student
- 1,800 middle school students in two-part workshop-style programs at a rate of \$9.30 per student
- 1,800 middle school students in a field trip to San Joaquin Marsh and/or the Michelson Water Recycling facility at a rate of \$12.00 per student. This rate also pays for the buses to transport the students. These 1,800 students are the same students involved in the 2-part workshop-style programs.
- 1,800 conservation kits were added to the middle school program at a rate of \$14.70 per kit. The water conservation kits would allow the students to immediately put into place the water conservation concepts that they learn during the program. The kits will also

encourage multi-generational education as the students become the instructors at home for their family. Each take-home kit would include a 1.5 gallon per minute (gpm) showerhead, 1.5 gpm swivel spray kitchen aerator, two 1.0 gpm bathroom aerators, toilet water saver fill cycle diverter, two toilet leak detection tablets, flow meter bag, water conservation wheel, and accompanying home survey. DSC will order and distribute the kits, along with directions for how to use the kits and for the completion/assessment of the home survey.

- Print and provide take-home, grade-specific booklets to the 10,000 K-5th grade students engaged in the assembly-style programs at a rate of \$2.25 per booklet.
- Promote the water education programs to the schools within the IRWD service area.
- Create, develop and implement a continuing series of public education programs held at the San Joaquin Marsh to facilitate public understanding of the work of IRWD, the function of the Marsh, and how to conserve and preserve water. In addition, permanent projects at the Marsh, such as educational gardens and informational graphics, will be developed and fabricated, led by DSC staff, but in concert with IRWD staff.

3. Payment Terms:

Similarly to the previous three years, DSC will invoice IRWD at the end of each month by providing a series of reports detailing the numbers and grade levels of students, names of schools, dates of participation, etc, associated with the deliverables. Monthly, DSC will report on programs provided during the previous month, as well as a yearly update of students and schools that have reserved the program. Once received, IRWD will pay invoices within a 30-day period. In addition, DSC will provide IRWD with an annual report on the home survey results captured through the use and dissemination of the water conservation kits.

4. 2013-2016 Budget: per year of program

Component	Rate	Quantity	Total	20%* Admin	Total
Assembly Programs	\$3.65/student	10,000	\$36,500	\$7,300	\$43,800
Water Quality Classes	\$9.30/student	1,800	\$16,740	\$3,348	\$20,088
Field Trip (Buses)	\$12.00/student	1,800	\$21,600	\$4,320	\$25,920
Conservation Kits	\$14.70/student	1,800	\$26,460	\$5,292	\$31,752
Assembly Materials	\$2.25/student	2,050	\$22,500	n/a	\$22,500
Brochures/Expenses	n/a	n/a	\$5,625	n/a	\$5,625
TOTAL					\$149,685

* A 20 percent administration fee will be added to the student classes and kits (see budget) as per previous years' contracts. This administration fee covers DSC's supporting staff, such as bookings, marketing and supervisory.

November 24, 2014

Prepared by: H. Cho/M. Cortez

Submitted by: K. Burton *KB*

Approved by: Paul Cook *PC*

CONSENT CALENDAR

SYPHON RESERVOIR INTERIM FACILITIES AND PIPELINE IMPROVEMENTS FINAL ACCEPTANCE

SUMMARY:

The Syphon Reservoir Interim Facilities and Pipeline Improvements Project is complete. The contractor, Paulus Engineering, completed the required work and all punch list items. The project has received final inspection and acceptance of construction is recommended.

BACKGROUND:

The Syphon Reservoir Interim Facilities and Pipeline Improvements Project constructed filtration and disinfection facilities, miscellaneous site improvements (e.g. security gate, paving, fencing, air compressor system), and pipeline improvements to connect Syphon Reservoir to the Zone A system. The design was completed in December 2012. Paulus was awarded the construction contract on January 28, 2013 and completed construction in October 2014.

Project Title:	Syphon Reservoir Interim Facilities and Pipeline Improvements
Project No.:	30374 (3729)
Design Engineer:	URS Corporation
Construction Management by:	IRWD Staff
Contractor:	Paulus Engineering
Original Contract Cost:	\$1,529,800.00
Final Contract Cost:	\$1,870,528.65
Original Contract Days:	180
Final Contract Days:	518
Final Change Order Approved On:	November 6, 2014

A summary of the project Contract Change Orders is given in the Staff Report, attached as Exhibit "A".

FISCAL IMPACTS:

Project 30374 (3729) is not included in the FY 2014-15 Capital Budget. The existing budget is sufficient to fund the final payment for the project.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA) and in conformance of California Code of Regulations Title 14, Chapter 3, Article 6, a Notice of Intent to adopt a Mitigated Negative Declaration was filed with the County of Orange on December 15, 2012. Pursuant to State Guideline § 15073, the IS/MND was made available for public review for a period of 30 days beginning December 15, 2012 and concluded January 14, 2013. The Mitigated Negative Declaration was adopted by the Irvine Ranch Water District Board of Directors on January 28, 2013.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE SYPHON RESERVOIR INTERIM FACILITIES AND PIPELINE IMPROVEMENTS, PROJECT 30374 (3729); AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION; AND AUTHORIZE THE PAYMENT OF THE RETENTION 35 DAYS AFTER THE DATE OF RECORDING THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

EXHIBIT "A" – Staff Report, Summary of Construction Change Orders

EXHIBIT "A"

Staff Report

Syphon Reservoir Interim Facilities and Pipeline Improvements Summary of Contract Change Orders

In general, the project contract cost and schedule were impacted by several causes as discussed below:

1. Crean Lutheran High School Athletic Field Development: *Additional cost of \$143,300 and additional contract time of 157 days.*

Crean changed the design of their adjacent athletic field development twice during the project. Crean revised their access road location, parking lot design, added tennis courts and a right turn lane into their property from Portola Parkway. Their site changes caused the realignment of the District's pipelines and the relocation of the SCE service and transformer locations on the IRWD site.

2. District-initiated additional work: *Additional cost of \$106,200 and additional contract time 134 days.*

The District initiated changes to the scope of work including: the deletion of the strainer backwash lift station and construction of the gravity sewer for the strainer backwash, modifications to the input/output signals from the facility, removal of expansive soil, additional site lighting for added security, additional site drainage, modification of the access road, burying the proposed at-grade air line on the dam face to deter theft, providing a pipe gate at the facilities entrance roadway rather than a chain link fence gate, additional pipe bollards, and epoxy coating the chemical containment area to comply with Orange County Fire Authority requirements.

3. Unknown existing on site facilities: *Additional cost of \$91,200 and additional contract time of 32 days.*

During the course of construction, Paulus encountered unknown utilities and a buried concrete structure on site that conflicted with the proposed improvements and caused the re-routing of the piping to the new facility.

4. Filtration System: *Additional contract time of 15 days.*

The strainer manufacturer, Hellan Strainer, provided two strainers that did not match their submittal drawings. Modifications of the strainer installation and associated piping were required. Hellan Strainer paid for a portion of the additional costs.

The following table reflects the approved Construction Change Orders of the project.

Syphon Reservoir Interim Facilities and Pipeline Improvements
Construction Change Order Summary

CCO	Description	Cost	Days
1	Standby equipment costs due to delay in 48-inch storm drain re-design and City of Irvine Misc. Eng. Permit approval due to utility conflicts.	\$47,672.00	14
2	Pothole unknown pipe locations, remove buried 125'x12'x3' concrete structure, and remove expansive soil under equipment enclosure	\$43,522.60	18
3	Deletion of strainer backwash lift station and force main and addition of a strainer backwash holding tank, replacement of the 3/4-inch rock access road with decomposed granite, adding a drop manhole for reservoir underdrain flow measurement.	(\$40,206.12)	80
4	Burying the stainless steel air line up damface to prevent potential theft, applying hydromulch over pipelines for erosion control, addition of a drain line from the air compressor valve vault.	\$16,851.49	6
5	Install 265 ft. of 8-inch sewer on IRWD property to connect to Crean's sewer. Non-compensatory time extension for Crean's design changes.	\$30,541.61	64
6	Install 516 ft. of 8-inch sewer on Crean property. Non-compensatory time extension for Crean's design changes.	\$46,195.40	66
7	Upsize electric feeder wire from service pedestal to MCC, add light for additional security.	\$16,150.93	9
8	Move SCE pull box due to Crean road conflict, add 135 ft. of 4-inch DW pipe and air vacuum valve due to Crean design change, add ball valve to chemical tank vent pipe.	\$29,158.54	14
9	Relocate SCE service pedestal due to Crean design change, add I/O card for additional I/O signals, cost for strainer re-installation due to manufacturer error.	\$37,443.89	13
10	Provide pipe gate rather than chain link gate, provide bollards around SCE transformer and pedestal, provide high and low pressure switch for strainer backwash pump.	\$22,380.02	12
11	Pipe supports for strainer modifications, strainer control panel modifications, additional road base around site, hydromulch to stabilize soil.	\$23,424.92	10
12	Additional strainer pipe supports, pipe bollards around site, additional SCE pull box needed for access road re-design, wiring changes for additional inputs/outputs, epoxy coating for chemical containment area required by OCFA, compressor condensate drain pipe.	\$67,593.37	32
	Total Contract Change Orders	\$340,728.65	338
	Original Contract Amount	\$1,529,800.00	180
	Final Contract Amount	\$1,870,528.65	518

November 24, 2014

Prepared by: J. Nash/R. Mori

Submitted by: K. Burton *KLB*

Approved by: Paul Cook *PC*

CONSENT CALENDAR

BAKER WATER TREATMENT PLANT PROGRAMMING SUPPORT CONSULTANT SELECTION

SUMMARY:

PCL Construction is currently constructing the Baker Water Treatment Plant. Consulting support services are needed to assist with providing oversight of PCL's system integrator during the development of the plant control systems. Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement with Arcadis in the amount of \$168,000 to provide programming support services for the Baker Plant.

BACKGROUND:

During the planning stages for the construction management phase, oversight of the contractor-selected system integrator was anticipated to be provided by staff. Subsequent to those planning efforts, a few changes have occurred that require the implementation of a new approach to complete this work. First, the two staff members with the expertise to perform the oversight left the District. Second, the Automation Group has moved from the Engineering Department to the Operations Department and, with this transition, the District is now utilizing consultants to support the implementation of IRWD's capital projects so that the Automation Group can focus on maintaining the District's extensive automation systems and equipment. Automation staff will continue to support the project, but in a more limited role as-needed.

Consultant Selection:

With the implementation of the District's new SCADA system, only a few consulting firms have the extensive experience and knowledge of the District's programming standards and requirements needed to oversee the programming efforts associated with the Baker Plant. Arcadis is one of those firms and a key member, Mr. Reza Afshin, is uniquely qualified to immediately fill the programming oversight role. Mr. Afshin served in a similar capacity providing oversight of the system integration for the Wells 21 and 22 Desalter and has more recently provided PLC programming support services for the Michelson Water Recycling Plant Phase 2 Expansion where he worked closely with staff and gained an exceptional understanding of the District's programming procedures, standards, requirements, and functionality.

PCL's system integrator, KDC Systems, is in the early stages of the control system development. Staff anticipates the programming efforts will ramp up in the next month and then remain at a high level for about one year. The proposal from Arcadis is based upon providing programming support services on about a half time basis throughout the one-year programming period. Arcadis will provide submittal and RFI support for programming related items, attendance at programming meetings and workshops, bench testing support services, and general oversight and support services related to the development of the plant control system. Arcadis' proposal for the work is presented as Exhibit "A" in the amount of \$168,000.

A budget of \$198,900 for the District to perform this work was previously established and included in the total project cost approved by the Baker Project Participants. That budget will now be used to fund completion of the work by Arcadis. Staff recommends the execution of a Professional Services Agreement, in the amount of \$168,000, with Arcadis for the programming support services described above.

In accordance with the Amended and Restated Agreement for Construction, Operation, and Maintenance of the Baker Plant, the Baker Project Committee approved the execution of this Professional Services Agreement with Arcadis.

FISCAL IMPACTS:

Project 11747 (5027) is included in the FY 2014-15 Capital Budget. The existing budget is sufficient to fund the work.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA) and an Environmental Impact Report (EIR) was prepared in conformance with California Code of Regulations Title 14, Chapter 3, Article 7. The Final EIR was certified and adopted by the Board in April 2011. Addenda No. 1 and No. 2 to the EIR were prepared in accordance with Section 15164 of the CEQA Guidelines and were approved by the Board in February 2012, and March 2013, respectively.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on November 18, 2014.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT IN THE AMOUNT OF \$168,000 WITH ARCADIS FOR PROGRAMMING SUPPORT FOR THE BAKER WATER TREATMENT PLANT, PROJECT 11747 (5027).

LIST OF EXHIBITS:

Exhibit "A" – Arcadis' Proposal

EXHIBIT "A"



The Water Division of ARCADIS

Mr. Joel Nash, PE

Irvine Ranch Water District
15600 Sand Canyon Avenue,
Irvine, CA 92618

Subject:

Proposal of Programming Support Services for Baker WTP Construction

Dear Mr.Nash:

ARCADIS is pleased to present this proposal to the District for providing programming support services for the Baker WTP Construction Project. These services will provide programming technical support to the District's Baker Construction Management Team, with the system integration effort, because of our extensive knowledge with the District's programming requirement and standards. Attached please find the detailed scope of work with our estimates.

Our senior control system engineer Reza Afshin will be assigned to this project, and he will take assignments directly from the District's Project Manager in close coordination with Arcadis' group manager Eric Niu located in the Irvine office. Reza's billing rate will be fixed at \$150 per hour through 2015. Our proposed hourly rate is a fully-load hourly rate including salary, overhead, administrative costs, miscellaneous fees and all reimbursable expenses. We anticipate total effort will not exceed \$168,000.00.

We look forward to being of further service. Should you have any questions or desire additional information, please feel free to call either of us. Thank you for providing this opportunity to us.

Sincerely,

Eric Niu, PE, PMP
Principle in Charge

Imagine the result

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

WATER SERVICES

Date:
Nov 3, 2014

Contact:
Eric Niu, PE, PMP

Phone:
949.450.7930

Email:
Eric.Niu@arcadis-us.com



The Water Division of ARCADIS

Scope of Work

1. Review the conformed engineering plans/specifications, and historical RFI/Meeting minutes/responses between the System Integrator and the District to develop detailed understanding of the project process requirements. 40 hours- \$6,000
2. Work with the District, review and respond to questions from all submittals including RFI's related to SCADA system integration. 120 hours- \$18,000
3. Assist the District in the review of control panel shop drawings for vendor supplied package systems with PLC's including Microfiltration (PALL), UV disinfection, centrifuge and chlorine dioxide. The package systems PLC's are required to transfer specific information to the District PLC's and will be integrated into the Districts SCADA system. 80 hours- \$12,000
4. Attend thirty-six (36) planned workshops including reviewing and responding to Questions submitted prior to each workshop overview, participating in workshops to assist the District in addressing any questions and address any issues after the workshop. There are nine (9) process areas listed in section 17330. Four (4) workshops are required for each area for a total of thirty six (36) workshops. The amount of effort and time for these workshops may vary as the project progresses. 480 hours- \$72,000
5. Attend and witness SCADA Bench Testing to ensure new SCADA system conforms to the District's standard, and prepare report on bench testing. 40 hours- \$6,000
6. Assist staff in the review and QA/QC O&M manuals concerning the system integration. 80 hours- \$12,000
7. Assist staff in the review and revisions to the District PLC Programming Standards master document provided by the system integrator. 80 hours- \$12,000
8. Other work as assigned by the District related to supporting the programming efforts. 200 hours- \$30,000

The items listed above result in a total of 1120 hours and a not-to-exceed fee of \$168,000.

DB
November 24, 2014
Prepared by: S. Malloy
Submitted by: K. Burton *KLB*
Approved by: Paul Cook *Paul Cook*

CONSENT CALENDAR

MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION
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 (CCO) No. 118 in the credit amount of <\$49,147.28> for additional system testing and deletion of work items. This is the final CCO for the project.

BACKGROUND:

Construction of the MWRP Phase 2 Expansion and Flood Protection Improvements project was awarded to J. R. Filanc Construction, Co. in July 2009 in the amount of \$87,479,450. This project will expand the recycled water production capacity of MWRP to 28 million gallons per day and protect MWRP from flooding of San Diego Creek.

CCO No. 118:

An extensive testing and start-up protocol was established for each treatment process to ensure that they perform correctly during operation. The testing protocol was described at bid time, was further refined during construction, and included testing the computer controls for each treatment process such as the headworks, primary sedimentation, membrane bioreactors, high rate clarifier, and ultraviolet disinfection facility. Each treatment process required its own unique testing scenarios. The protocol included testing the process during normal operation as well as failures of each particular piece of equipment or process. The testing protocol was very detailed and orderly. Because of this thorough protocol, system failures were averted, and each treatment process was brought into service with minimal disruption to the existing facility. In particular, the headworks was put into service without any impacts to the existing plant system or diversions to the Orange County Sanitation District.

The testing protocol required a large investment of resources from IRWD, IRWD's consultants, and Filanc. IRWD employed a start-up engineer to oversee the entire testing process. Filanc committed several of its staff members to perform various required testing. Some of the testing requirements could not have been taken into account by Filanc during bid time. Therefore, staff and Filanc agreed that Filanc would be reimbursed in the amount of \$145,000 for staff costs beyond an agreed upon baseline time frame.

Additionally, CCO No. 118 includes a total credit amount of <\$194,147.28> for several work items that were deleted from the project. These items include:

- Deletion of Bid Item A-32 (Differing Site Conditions);
- Deletion of Bid Items B-12 (Construct driveway approach), B-13 (Sawcut, remove and dispose existing curb and gutter), and B-14 (Construct 6-inch curb and gutter);
- Deletion of landscaping at front of MWRP (The work was performed by a landscape company hired directly by IRWD);
- Donation to Shadetree Nursery (the nursery provided the plants located around the northern portion of the floodwall);
- Deletion of Gate 10, which was part of CCO-095 (Gate 10 was installed by another contractor hired directly by IRWD);
- Backcharge for the irrigation line break at the flow equalization basins (IRWD had the line repaired by another contractor); and
- Deletion of several pieces of electrical and instrumentation equipment.

CCO No. 118, in the net amount of <\$49,147.28> includes the labor to perform the aforementioned testing and credits for the deletion of work items from the Contract. CCO No. 118 is attached as Exhibit "A". CCO No. 118, in the absolute value of \$339,147.28, requires Board approval per the IRWD Procurement Policy. This is the final CCO for the MWRP Phase 2 Expansion project.

FISCAL IMPACTS:

The MWRP Phase 2 Expansion and Flood Protection Improvement, Project 30214 (1706) is included in the FY 2014-15 Capital Budget. The existing budget is sufficient to fund CCO No. 118 with Filanc.

ENVIRONMENTAL COMPLIANCE:

The Michelson Water Recycling Plant Phase 2 Expansion and Flood Protection Improvements, Projects 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118) 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 November 18, 2014.

RECOMMENDATION:

THAT THE BOARD APPROVE CONTRACT CHANGE ORDER NO. 118 IN THE CREDIT AMOUNT OF <\$49,147.28> FOR ADDITIONAL SYSTEM TESTING AND DELETION OF WORK ITEMS WITH J. R. FILANC CONSTRUCTION CO. FOR THE MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION, PROJECT 30214 (1706).

LIST OF EXHIBITS:

- Exhibit "A" – Contract Change Order No. 118
- Exhibit "B" – Contract Change Order Summary

CON. EXHIBIT "A" ER

IRVINE RANCH WATER DISTRICT

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



C.O. No. 118

Final

Project No. 20214, 30214,
(1599,1706)

MWRP Phase 2 Expansion

Project Title

Date: November 12, 2014

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
1. Delete LSH-2231 and conduit C-757 per RFI 116 (CR-118) PR 20214 (1599) Task 3510	\$0.00	\$1,695.00	0
2. Delete HRC and MBR Lighting Modifications per RFIs 193 and 240 (CR-119) PR 20214 (1599) Task 3510	\$0.00	\$4,861.53	0
3. Shadetree Nursery Plant Donation (CR-385) PR 20214 (1599) Task 3505	\$0.00	\$6,000.00	0
4. Delete Landscaping at MWRP Gate 1 (CR-386) PR 20214 (1599) Task 3505	\$0.00	\$39,932.00	0
5. Deletion of Gate 10 from CR-288/CCO-095 (CR-387) PR 20214 (1599) Task 3505	\$0.00	\$20,158.75	0
6. Backcharge for Irrigation Line Break at Flow Equalization Basins (CR-408) PR 20214 (1599) Task 3520	\$0.00	\$1,500.00	0
7. Deletion of Bid Items B-12, B-13, and B-14 (CR-409)	\$0.00	\$20,000.00	0
8. Deletion of Bid Item A-32 (Differing Site Conditions) (CR-410)	\$0.00	\$100,000.00	0
9. Additional Support for System Testing (CR-402)	\$145,000.00	\$0.00	0
Notes: 1. The project completion date of June 13, 2014 is unchanged with this Change Order.			
TOTAL	\$145,000.00	\$194,147.28	0

DAYS ±

1. NET AMOUNT THIS CHANGE ORDER	=	(\$49,147.28)	0
2. ORIGINAL CONTRACT AMOUNT	=	\$87,479,450.00	1,094
3. TOTAL PREVIOUS CHANGE ORDER(S)	=	\$6,052,572.88	681
4. TOTAL BEFORE THIS CHANGE ORDER (2+ 3)	=	\$93,532,022.88	1,775
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4)	=	\$93,482,875.60	1,775

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

-----A CREDIT OF Forty-Nine Thousand One Hundred Forty-Seven and 28/100-----Dollars

11/12/14 Date J R Filanc Construction Co. Contractor Sean MacGregor By: Sean MacGregor, Project Manager

SIGNATURE	DATE	APPROVAL LEVEL REQUIRED
	<u>11-12-14</u> Date	Department Director Approval Required <input type="checkbox"/>
	<u>11-12-14</u> Date	Executive Department Director Approval Required <input type="checkbox"/>
	<u>11-12-14</u> Date	General Manager Approval Required <input type="checkbox"/>
	<u>11-12-14</u> Date	Board Approval Required <input checked="" type="checkbox"/>
By _____ Date _____		
Purchase Order No. _____		

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

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

EXHIBIT "B"

MWRP Phase 2 Expansion and Flood Protection Improvements PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118) Construction Summary

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount						Contract Days				Original Completion Date:
			Original Contract Amount: \$ 87,479,450.00						Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
1	Approved by Director of Engineering and Construction Approved on November 19, 2009			\$195.40	\$0.00	\$195.40	0.0%	\$87,479,645.40	0	0	0	1,094	8/1/2012
	1.1 Partnering Workshop – IRWD and the Contractor agreed to split equally the cost of partnering. The initial partnering workshop was held on September 3, 2009. This change request represents the Contractor’s portion of the cost of that initial workshop. It is a credit to IRWD.	A	(\$6,561.60)						0				
	1.2 Installation of Bollards – The Contractor installed bollards around the IRWD MWRP Phase 2 Field Office Trailer and K-rails around the interim sodium hypochlorite System to protect from traffic	A	\$ 3,655.72						0				
	1.3 Relocation of 4-inch Natural Gas Pipeline	B	\$ 3,101.28						0				
2	Approved by Director of Engineering and Construction Approved on December 3, 2009			\$16,018.04	\$195.40	\$16,213.44	0.0%	\$87,495,663.44	0	0	0	1,094	8/1/2012
	2.1 Previously Approved Change Request #4 – Tree Removal and Grinding at Flood Improvements and Duck Club	A	\$ 6,696.00						0				
	2.2 Previously Approved NOPE #1 – Demolish Abandoned Building	D	\$ 7,641.87						0				
	2.3 Repair of 10-inch PVC Groundwater Line at the New Headworks Area	B	\$ 1,680.17						0				
3	Approved by Director of Engineering and Construction Approved on December 18, 2009			\$0.00	\$16,213.44	\$16,213.44	0.0%	\$87,495,663.44	0	0	0	1,094	8/1/2012
	3.1 Construct Temporary Access Road to Staging Area 3	A	\$ -						0				
4	Approved by Board of Directors Approved on January 25, 2010			\$143,950.10	\$16,213.44	\$160,163.54	0.2%	\$87,639,613.54	0	0	0	1,094	8/1/2012
	4.1 Upsize Area 600 Aeration Blower from 350 to 500 hp	C	\$ 66,355.57						0				
	4.2 Upsizing Soft Starters for Area 700 Blowers from 350 to 450 hp	C	\$ 41,529.75						0				
	4.3 Infrared Windows to Measure Stray Currents	A	\$ 36,064.78						0				
5	Approved by Director of Engineering and Construction Approved on December 29, 2009			\$5,081.52	\$160,163.54	\$165,245.06	0.2%	\$87,644,695.06	0	0	0	1,094	8/1/2012
	5.1 Relocation of K-rail to Allow Construction Equipment access for pond maintenance (PR 10942)	D	\$ 5,081.52						0				
6	Approved by Engineering & Operations Comm Approved on January 19, 2010			\$77,478.00	\$165,245.06	\$242,723.06	0.3%	\$87,722,173.06	0	0	0	1,094	8/1/2012
	6.1 WAS and Skimming Pumps Replacement (PR 20779)	D	\$ 77,478.00						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

		Contract Amount							Contract Days				Original Completion Date:
		Original Contract Amount: \$ 87,479,450.00							Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
7	Approved by AGM Approved on February 9, 2010			\$10,214.87	\$242,723.06	\$252,937.93	0.3%	\$87,732,387.93	0	0	0	1,094	8/1/2012
	7.1 Relocation and Repair of Unknown Utilities. The Contractor relocated a 1-inch air line and repaired a 2-inch chlorine line, both of which were not shown on the Plans. (CCR #10)	B	\$ 2,588.36						0				
	7.2 Removal and Disposal of Unknown Electrical Ductbanks at future Sodium Hypochlorite Feed Facility. (CCR #12)	B	\$ 2,216.31						0				
	7.3 Non-compensable Weather-Related Delay	B	\$ -						0				
	7.4 Non-compensable Time Extension Due to Change Order No.	C	\$ -						0				
	7.5 Addition of Manways on Sodium Hypochlorite Tanks (CCR #23)	A	\$ 5,410.20						0				
8	Approved by Board of Directors Approved on February 22, 2010			-\$1,135,820.75	\$252,937.93	-\$882,882.82	-1.0%	\$86,596,567.18	0	0	0	1,094	8/1/2012
	8.1 Delete Bid Item A.28 -- System Integration	A	\$ (1,624,460.00)						0				
	8.2 System Integration Coordination and SCADA Hardware Procurement	A	\$ 488,639.25						0				
9	Approved by AGM Approved on March 18, 2010			-\$36,064.78	-\$882,882.82	-\$918,947.60	-1.1%	\$86,560,502.40	0	0	0	1,094	8/1/2012
	9.1 Deletion of Change Order 4, Line Item 3 -- Installation of Infrared Windows.	A	\$ (36,064.78)						0				
10	Approved by AGM Approved on March 23, 2010			\$6,963.45	-\$918,947.60	-\$911,984.15	-1.0%	\$86,567,465.85	0	0	0	1,094	8/1/2012
	10.1 Removal of 18-inch pipe and installation of 24-inch blind flange at Sodium Hypochlorite System excavation (CR #24)	B	\$2,708.66						0				
	10.2 Addition of 24-inch side manway for Manganese Hydroxide tanks (CR #27)	A	\$5,667.83						0				
	10.3 Relocation of 54" Primary Effluent Line (CR #29)	A	(\$15,928.00)						0				
	10.4 Change in PVC C900/C905 Manufacturer (CR #30)	A	\$14,514.96						0				
11	Approved by Director of Engineering and Construction Approved on April 26, 2010			\$21,033.73	-\$911,984.15	-\$890,950.42	-1.0%	\$86,588,499.58	0	0	0	1,094	8/1/2012
	11.1 Abandoned 24-inch line at high rate clarifier location (CR #026)	B	\$15,782.97						0				
	11.2 Exploratory Excavation for Duct Bank at MPS-2 electrical building	B	\$3,035.98						0				
	11.3 Provide chain operators and chain, and grease fittings for plug valves for the WAS/Skimming Pumps Replacement Project (PR 20779) (CR #036)	D	\$2,214.78						0				
12	Approved by Director of Engineering and Construction Approved on April 28, 2010			\$17,121.47	-\$890,950.42	-\$873,828.95	-1.0%	\$86,605,621.05	0	0	0	1,094	8/1/2012
	12.1 Relocation of Existing 10-inch and 6-inch GW line (CR #014)	B	\$17,121.47						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount						Contract Days				Original Completion Date:
			Original Contract Amount: \$ 87,479,450.00						Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
13	Approved by AGM Approved on April 28, 2010 13.1 Modifications in Checkered Aluminum Plates at the Headworks Area (CR 037)	C	\$34,095.00	\$34,095.00	-\$873,828.95	-\$839,733.95	-1.0%	\$86,639,716.05	0	0	0	1,094	8/1/2012
14	Approved by Director of Engineering and Construction Approved on May 4, 2010 14.1 Electrical Substation Work (Two additional 5-inch Conduits and Connection btwn IRWD and SCE) (CR 028)	A	\$16,655.10	\$16,655.10	-\$839,733.95	-\$823,078.85	-0.9%	\$86,656,371.15	0	0	0	1,094	8/1/2012
15	Approved by AGM Approved on May 21, 2010 15.1 Credit for Not Relocating the 18-inch diameter drain line at HRC (CR #019) 15.2 Credit for Slab Penetration Modifications, Detail P17 (RFI 0102) (CR #032)	A A	(\$42,262.00) (\$6,745.95)	-\$49,007.95	-\$823,078.85	-\$872,086.80	-1.0%	\$86,607,363.20	0	0	0	1,094	8/1/2012
16	Approved by Director of Engineering and Construction Approved on May 25, 2010 16.1 Abandonment of 6" Pipes at MBR Screen Area (CR 042) 16.2 Addition of Three Transformers at UV Disinfection Facility (RFI 0149) 16.3 Remove encasement on existing utilities to allow construction of future Primary Sedimentation Tanks (CR 051)	B C B	\$2,536.36 \$18,633.63 \$1,188.43	\$22,358.42	-\$872,086.80	-\$849,728.38	-1.0%	\$86,629,721.62	0	0	0	1,094	8/1/2012
17	Approved by Engineering & Operations Committee Approved on June 15, 2010 17.1 Demolition of Old Clarifier Bottoms (CR 013)	B	(\$55,420.00)	-\$55,420.00	-\$849,728.38	-\$905,148.38	-1.0%	\$86,574,301.62	0	0	0	1,094	8/1/2012
18	Approved by Director of Engineering and Construction Approved on July 28, 2010 18.1 Water Control Gate Revisions (CR #034) 18.2 Repair of Existing Vault west of High Rate Clarifier (CR 18.3 Additional Demolition at Abandoned Aerobic Digester Area (CR #063)	C B B	\$17,923.23 \$1,451.75 \$5,507.26	\$24,882.24	-\$905,148.38	-\$880,266.14	-1.0%	\$86,599,183.86	0	0	0	1,094	8/1/2012
19	Approved by Director of Engineering and Construction Approved on July 30, 2010 19.1 Platform modifications at Sodium Hypochlorite Feed System (CR 025) 19.2 Pothole of existing 36-inch filter influent pipe (CR 043) 19.3 Delete 6" knife gate valve and add 6" plug valve at Primary Sedimentation (CR 046) 19.4 Repair of reclaimed water leak near old control room (CR 19.5 MBR fine screen cover plates modifications (CR 064)	A A A B B	\$2,478.67 \$4,503.99 \$662.31 \$1,173.07 \$7,240.64	\$16,058.68	-\$880,266.14	-\$864,207.46	-1.0%	\$86,615,242.54	0	0	0	1,094	8/1/2012
20	Approved by Assistant GM Approved on August 26, 2010 20.1 Area 600 Blower Discharge Modifications (CR 050)	A	\$34,622.27	\$34,622.27	-\$864,207.46	-\$829,585.19	-0.9%	\$86,649,864.81	0	0	0	1,094	8/1/2012

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

		Contract Amount							Contract Days				Original Completion Date:
		Original Contract Amount: \$ 87,479,450.00							Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
21	Approved from Board of Directors Approved on August 23, 2010 21.1 Valve Vaults Modifications (CR 020)	A	\$277,384.97	\$277,384.97	-\$829,585.19	-\$552,200.22	-0.6%	\$86,927,249.78	0	0	0	1,094	8/1/2012
22	Approved by Director of Engineering and Construction Approved on August 26, 2010 22.1 Site Cleanup Due to Existing Filter Overflow (CR 065) 22.2 Hollow shaft motor modifications to Vertical Turbine & Vertical Propeller Pumps (CR 069)	B A	\$4,271.51 \$18,845.55	\$23,117.06	-\$552,200.22	-\$529,083.16	-0.6%	\$86,950,366.84	0	0	0	1,094	8/1/2012
23	Approved by Director of Engineering and Construction Approved on September 9, 2010 23.1 MBR Anoxic Wall Modifications (CR 061) 23.2 Repair Existing 6-inch GW near SCE Station (CR 067) 23.3 Unforeseen Conditions at SCE Conduit Installation (CR 075)	C B B	\$6,399.86 \$3,449.83 \$13,719.91	\$23,569.60	-\$529,083.16	-\$505,513.56	-0.6%	\$86,973,936.44	0	0	0	1,094	8/1/2012
24	Approved by Engineering and Operations Committee Approved on September 21, 2010 24.1 UVE Piping Modifications at Chlorine Contact Tanks (CR	A	(\$52,172.00)	-\$52,172.00	-\$505,513.56	-\$557,685.56	-0.6%	\$86,921,764.44	0	0	0	1,094	8/1/2012
25	Approved by Board of Directors Approved on September 27, 2010 25.1 Modifications to Campus Drive Entrance (CR 022)	A	\$186,651.45	\$186,651.45	-\$557,685.56	-\$371,034.11	-0.4%	\$87,108,415.89	0	0	0	1,094	8/1/2012
26	Approved by Director of Engineering and Construction Approved on October 20, 2010 26.1 Change of Strut Material from FRP to Stainless Steel 316/Install CAT5 Cable from PLC 1600 to PLC 9 (CR 074) [PR 20214, 30214] 26.2 Existing Primary Sludge Pump Room Demolition and Modifications (CR 076) [PR 20214, 30214] 26.3 Fence Repair at SCE Substation (CR 078) [PR 20214, 30214] 26.4 SHC Electrical and Controls and Milestone Revisions (CR 079) [PR 20214, 30214] 26.5 Change to more Energy Efficient Air Conditioning Units (Five Total) (Submittal 15604-001) (CR 081) [PR 20214, 30214] 26.6 Grouting of the Sodium Hypochlorite Tanks at their Permanent Site (CR 084) [PR 20214, 30214]	A C B B A A	\$1,539.18 \$3,909.94 \$1,957.62 \$324.07 \$9,101.41 \$2,560.52	\$19,392.74	-\$371,034.11	-\$351,641.37	-0.4%	\$87,127,808.63	0	0	0	1,094	8/1/2012
27	Approved by Engineering & Operations Committee Approved on November 4, 2010 27.1 Primary Sedimentation Tanks Flo-Clip Baffles Value Engineering (CR 080)	A	(\$58,157.82)	-\$58,157.82	-\$351,641.37	-\$409,799.19	-0.5%	\$87,069,650.81	0	0	0	1,094	8/1/2012
28	Approved by GM Approved on November 24, 2010 28.1 Ducts for Future Phase 3 MBR (RFI 44) (RFI 016) 28.2 Sodium Hypochlorite LCP Modifications (CR 071)	A A	\$32,021.80 \$7,503.44	\$39,525.24	-\$409,799.19	-\$370,273.95	-0.4%	\$87,109,176.05	0	0	0	1,094	8/1/2012

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

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29	Approved by Director of Engineering & Construction Approved on December 22, 2010			\$23,964.61	-\$370,273.95	-\$346,309.34	-0.4%	\$87,133,140.66	0	0	0	1,094	8/1/2012	
29.1	MBR Aeration Piping Access Platforms (CR-066)	A	\$14,074.73						0					
29.2	Electrical Conduit Installation near MWRP Phase 2 Trailers (Unforeseen Conditions) (CR 077)	B	\$9,889.88						0					
30	Approved by Assistant GM Approved on December 22, 2010			\$48,684.10	-\$346,309.34	-\$297,625.24	-0.3%	\$87,181,824.76	0	0	0	1,094	8/1/2012	
30.1	Pipe Support (20-PE and 18-ML) Modifications per Submittal 15090-003 (CR 073)	C	\$20,880.97						0					
30.2	Material Change to SS 316 for Dry Type Transformer Submittal 16460-001 and Panelboard Submittal 16441-002	A	\$27,803.13						0					
31	Approved by Engineering & Operations Committee Approved on January 18, 2011			\$61,136.74	-\$297,625.24	-\$236,488.50	-0.3%	\$87,242,961.50	0	0	0	1,094	8/1/2012	
31.1	Modifications at Campus Drive Access (CR 085)	A	\$61,136.74						0					
32	Approved by Director of Engineering & Construction Approved on January 31, 2011			\$24,303.15	-\$236,488.50	-\$212,185.35	-0.2%	\$87,267,264.65	0	0	0	1,094	8/1/2012	
32.1	Delete Grout Fillet and Add Embeds at Headworks Grit Chambers (CR 090)	A	\$8,156.20						0					
32.2	LCPs for Vertical Recirculating Chopper Pumps and Sump Pumps (CR 097)	C	\$15,000.00						0					
32.3	Install Additional "Pipe Below Ground" Warning Tape (CR-099)	A	\$1,146.95						0					
33	Approved by Board of Directors Approved on February 28, 2011			\$282,840.15	-\$212,185.35	\$70,654.80	0.1%	\$87,550,104.80	0	0	0	1,094	8/1/2012	
33.1	Revised chlorine feed to filters (CR-038)	C	-\$3,510.68						0					
33.2	PEPS meter vaults and bypass piping revisions (CR-039)	C	-\$165,696.50						0					
33.3	MPS-2 Pump Discharge Pipe Modifications (NOPE #003/CR-040)	D	\$54,005.58						0					
33.4	Modifications to MPS-2 Building Due to Unknown Duct Banks (RFI 160) (CR-049)	B	\$16,500.00						0					
33.5	WAS/Foam Pump Revisions (CR-053)	C	-\$5,696.40						0					
33.6	Floodwall Revisions per County of Orange and FEMA comments (CR-083)	A	\$350,685.85						0					
33.7	Modifications to Grating Supports at PST Splitter Box (CR-33.8)	C	\$5,266.73						0					
33.8	Change to NEMA 3R SS 316 Cabinets and Additional Taps for UV Disinfection Transformers Added by CR 047/CO 16 (CR-104)	A	\$12,003.29						0					
33.9	Miscellaneous Time & Material								0					
	Demo Oversized Footing/Rebar on Existing Retaining Wall behind Paint Shop (CR-100)	B	\$5,391.41						0					
	Removal of Unknown Concrete at the North Interceptor (CR-107)	B	\$2,917.38						0					
	Thrust block on storage line at HRC vault (CR-108)	B	\$3,638.22						0					
	Removal of encased pipe for pile driving at MBR (CR-109)	B	\$2,756.79						0					
	Repair pile damaged when performing CR-109 (CR-110)	B	\$1,320.34						0					

**MWRP Phase 2 Expansion and Flood Protection Improvements
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34	Install hydrophilic waterstop at PST launders (CR-113) Approved by Director of Engineering & Construction Approved on March 23, 2011	B	\$3,258.14	\$21,844.56	\$70,654.80	\$92,499.36	0.1%	\$87,571,949.36	0	0	0	1,094	8/1/2012
34.1	Groundwater Well Modifications (CR-041) [PR 20214, 30214]	A	\$2,338.20						0				
34.2	Bypass for Shutdown at HRC Vault (CR-106) [PR 20214, 30214]	A	\$11,200.90						0				
34.3	Removal and Disposal of Abandoned 8-inch Reclaimed Water Line in the area of North Influent Interceptor Junction Structure (CR-111) [PR 20214, 30214]	B	\$3,039.17						0				
34.4	Additional Pipe Supports for 20" PE at MBR (CR-135) [PR 20214, 30214]	B	\$2,811.22						0				
34.5	Repair existing 6-in Reclaimed Water Line near Headworks (CR-138) [PR 20214, 30214]	C	\$2,455.07						0				
35	Approved by Asst. GM Approved on April 18, 2011			\$43,741.00	\$92,499.36	\$136,240.36	0.2%	\$87,615,690.36	0	0	0	1,094	8/1/2012
35.1	Area 600 Blower Discharge Modifications (CR-055) [PR 20214, 30214]	A	\$28,785.00						0				
35.2	Area 600 Blower Structural Support Modifications (CR-077) [PR 20214, 30214]	B	\$14,956.00						0				
36	Approved by Director of Engineering and Construction Approved on May 16, 2011			\$23,514.97	\$136,240.36	\$159,755.33	0.2%	\$87,639,205.33	0	0	0	1,094	8/1/2012
36.1	Area 300 Primary Sedimentation and Area 700 Membrane Bioreactors FRP Launder Modifications (CR-087) [PR 20214, 30214]	A	\$4,757.27						0				
36.2	Area 700 Membrane Bioreactors GE Piping Modifications (CR-136) [PR 20214, 30214]	B	\$16,933.64						0				
36.3	Addition of speed feedback on Various variable speed pumps (Chemical Systems) (CR-116) [PR 20214, 30214]	A	\$1,824.06						0				
37	Approved by Assistant GM Approved on May 30, 2011			\$46,369.50	\$159,755.33	\$206,124.83	0.2%	\$87,685,574.83	0	0	0	1,094	8/1/2012
37.1	Replacement of Existing Area 600 Discharge Pipe Coupling (CR-117) [PR 20214, 30214]	A	\$14,011.85						0				
37.2	Modifications to Primary Sedimentation Tank Embeds and Cover Plates (CR-125) [PR 20214, 30214]	A	\$6,751.65						0				
37.3	Increase of Bid Item A.8 - Additional Pre-drilling of Piles (CR-098) - 3,658 LF@ \$7/LF [PR 20214, 30214]	B	\$25,606.00						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
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38	Approved by Director of Engineering and Construction Approved on May 30, 2011			\$24,692.00	\$206,124.83	\$230,816.83	0.3%	\$87,710,266.83	0	0	0	1,094	8/1/2012
38.1	Two-Sided (Split Faced) Masonry for Flood Protection Improvements (CR-088) [PR 20542, 30542]	C	\$19,704.00						0				
38.2	Architectural Modifications of MBR Building per Revised Drawing A-702 (CR-149) [PR 20214, 30214]	C	\$4,988.00						0				
39	Approved by Engineering & Operations Committee Approved on June 21, 2011			\$60,515.80	\$230,816.83	\$291,332.63	0.3%	\$87,770,782.63	0	0	0	1,094	8/1/2012
39.1	Additional Architectural Modifications at High Rate Clarifier (CR-082) [PR 20214, 30214]	A	\$60,515.80						0				
40	Approved by Director of Engineering and Construction Approved on June 23, 2011			\$23,214.05	\$291,332.63	\$314,546.68	0.4%	\$87,793,996.68	0	0	0	1,094	8/1/2012
40.1	Double Containment Piping Modification for Sodium Hypochlorite System (CR-095) [PR 20214, 30214/Oracle]	A	\$16,157.16						0				
40.2	Change of Enclosure from NEMA 4 to NEMA 4X SS for Chopper Pumps in CR-097 (CR-133) [PR 20214,	A	\$1,347.00						0				
40.3	Sodium Hypochlorite Tank Pad at PST Odor Control (CR-146) [PR 20214, 30214/Oracle 1599, 1706]	B	\$5,709.89						0				
41	Approved Assistant GM Approved on June 24, 2011			\$48,005.26	\$314,546.68	\$362,551.94	0.4%	\$87,842,001.94	0	0	0	1,094	8/1/2012
41.1	MPS-2 replacement of existing valves (NOPE #4) (CR-126) [PR 20214, 30214/Oracle 1599, 1706]	A	\$35,068.26						0				
41.2	Graybar Modifications per RFI 372 (CR-144) [PR 20214, 30214/Oracle 1599, 1706]	A	\$3,429.00						0				
41.3	Steel Joists Modifications Due to Additional Load Requirements per Submittal 05221-001 (CR-153) [PR 20214,	B	\$9,508.00						0				
42	Approved by Engineering & Operations Committee Approved on July 13, 2011			\$59,150.74	\$362,551.94	\$421,702.68	0.5%	\$87,901,152.68	0	0	0	1,094	8/1/2012
42.1	MBR Aeration and Permeate Piping Modifications (CR-048) [PR 20214, 30214/Oracle 1599, 1706]	B	\$59,150.74						0				
43	Approved by Board of Directors Approved on July 25, 2011			\$1,132,283.71	\$421,702.68	\$1,553,986.39	1.8%	\$89,033,436.39	120	0	120	1,214	11/29/2012
43.1	Pipelines and Utilities for Future Biosolids (CR-017) (PR 20847/Oracle 1617)	D	\$503,272.17						60				
43.2	Biosolids Sewer Force Main (CR-045) (PR 20847/Oracle	D	\$626,976.14						60				
43.3	Geotechnical Investigation at Staging Area 2 for Biosolids Project (CR 137) (PR 20847/Oracle 1617)	D	\$2,035.40						0				

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44	Approved on Director of Engineering & Construction Approved on August 18, 2011			\$24,974.48	\$1,553,986.39	\$1,578,960.87	1.8%	\$89,058,410.87	0	120	120	1,214	11/29/2012
44.1	Chemical Systems Pump Pad Modifications (CR-105) (PR 20214,30214/Oracle 1599,1706)	A	\$1,833.71						0				
44.2	Installation of 6" Gate Valve and Change of Pipe Size on PW near SII Junction (CR-140) (PR 20214,30214/Oracle	A	\$9,141.00						0				
44.3	PLC-300 additional I/O to accommodate VFD change of Primary Sludge Pumps (PR 20214,30214/Oracle 1599,1706)	A	\$13,999.77						0				
44.4	Non-compensable time extension of Milestone 5 – Floodwall Installation delay due to FEMA review and regulatory compliance	B	\$0.00						0				
45	Approved by Director of Engineering & Construction Approved on August 29, 2011			\$24,935.87	\$1,578,960.87	\$1,603,896.74	1.8%	\$89,083,346.74	0	0	0	1,214	11/29/2012
45.1	Deletion of Monorail and Door Modifications at Headworks (CR-103) (PR 20214,30214/Oracle 1599,1706)	A	\$3,570.03						0				
45.2	Hollow Metal Door Modifications (CR-156) (PR 20214,30214/Oracle 1599,1706)	A	\$7,396.38						0				
45.3	Miscellaneous T&M (CR-166) (PR 20214,30214/Oracle 1599,1706)	B	\$13,969.46						0				
46	Approved by Board of Directors Approved on September 26, 2011			\$476,789.37	\$1,603,896.74	\$2,080,686.11	2.4%	\$89,560,136.11	0	120	120	1,214	11/29/2012
46.1	Replacement of Sand Canyon Zone A and Associated Piping, Valves, and Appurtenances (CR-130) (PR 30038/Oracle 1643)	D	\$455,216.07						0				
46.2	As Needed Potholing Related to Strainer Replacement and Pipe Installation (CR-130) (PR 30038/Oracle 1643)	D	\$21,573.30						0				
47	Approved by Director of Engineering & Construction Approved on October 13, 2011			\$24,215.90	\$2,080,686.11	\$2,104,902.01	2.4%	\$89,584,352.01	0	120	120	1,214	11/29/2012
47.1	Installation of Davits at PST, MBR, SBW Walkway, and HRC (CR-134) (PR 20214 (1599)/30214 (Oracle 1706))	A	\$6,153.02						0				
47.2	Miscellaneous T&M Work (CR-183) (PR 20214 (1599)/30214 (Oracle 1706))	B	\$18,062.88						0				

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48	Approved by Director of Engineering & Construction Approved on October 18, 2011			\$24,860.93	\$2,104,902.01	\$2,129,762.94	2.4%	\$89,609,212.94	0	120	120	1,214	11/29/2012
48.1	Primary splitter box low pressure air pipe material and restraints (CR-162)/(PR 20214 (1599)/30214 (Oracle 1706))	C	\$6,583.45						0				
48.2	FRP Launder Modifications at MBR RAS Box (CR-168)/(PR 20214 (1599)/30214 (Oracle 1706))	C	\$4,318.00						0				
48.3	Concrete with PVC behind Auto Slop (CR-112)/(PR 20214 (1599)/30214 (Oracle 1706))	B	\$1,262.67						0				
48.4	Door Hardware Modifications per RFI-0339 (CR-139)/(PR 20214 (1599)/30214 (Oracle 1706))	C	\$7,428.82						0				
48.5	SBW Pumps Low Level Circuit modifications (CR-178)/(PR 20214 (1599)/30214 (Oracle 1706))	C	\$2,261.42						0				
48.6	Site Lighting Modifications (CR-068)/(PR 20214 (1599)/30214 (Oracle 1706))	C	\$3,006.57						0				
49	Approved from Board of Directors Approved on October 24, 2011			\$318,886.24	\$2,129,762.94	\$2,448,649.18	2.8%	\$89,928,099.18	0	120	120	1,214	11/29/2012
49.1	Biosolids Indicator Piles (CR-175)/PR 20847 (1617)	D	\$318,886.24						0				
50	Approved by Director of Engineering & Construction Approved on November 21, 2011			\$24,957.84	\$2,448,649.18	\$2,473,607.02	2.8%	\$89,953,057.02	0	120	120	1,214	11/29/2012
50.1	Odor scrubber cleaning at Primary Sedimentation Tanks (CR-158) (PR 20214,30214/Oracle 1599,1706)	A	\$2,564.33						0				
50.2	Existing Ductbank Modifications (CR-185) (PR 20214,30214/Oracle 1599,1706)	A	\$13,764.46						0				
50.3	Additional Concrete Fillets at High Rate Clarifier (CR-188) (PR 20214,30214/Oracle 1599,1706)	A	\$8,629.05						0				
51	Approved by Director of Engineering & Construction Approved on November 22, 2011			\$24,342.17	\$2,473,607.02	\$2,497,949.19	2.9%	\$89,977,399.19	0	120	120	1,214	11/29/2012
51.1	Filter Pump Station-2(FPS-2) Potable Water Line Addition (CR-172) (PR 20214 (1599)/30214 (Oracle 1706))	A	\$6,296.80						0				
51.2	Pothole 8 Inch Drain Line from High Rate Clarifier to Manhole #3 (CR-197) (PR 20214 (1599)/30214 (Oracle 1706))	B	\$18,045.37						0				
52	Approved by Board of Directors Approved on December 12, 2011			\$284,442.00	\$2,497,949.19	\$2,782,391.19	3.2%	\$90,261,841.19	0	120	120	1,214	11/29/2012
52.1	36" Stormwater Pipeline for Biosolids (CR-174) (PR 20847)	D	\$284,442.00						0				
53	Approved by Director of Engineering & Construction Approved on December 8, 2011			\$24,885.30	\$2,782,391.19	\$2,807,276.49	3.2%	\$90,286,726.49	0	120	120	1,214	11/29/2012
53.1	Modifications to MBR Pump Room Drains and Valve Vaults (CR-096) (PR 20214/30214 (1599/1706))	C	\$8,460.88						0				
53.2	Central Electrical Building Masonry Veneer Modifications (CR-159) (PR 20214/30214 (1599/1706))	C	\$5,243.55						0				
53.3	Sodium Hydroxide Tank Pad Modifications (CR-161)	A	\$2,578.57						0				
53.4	Addition of Gutter and Downspout at Membrane Bioreactors Structure (CR-164) (PR 20214/30214 (1599/1706))	C	\$8,602.30						0				

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54	Approved by Director of Engineering & Construction Approved on December 9, 2011			\$24,569.34	\$2,807,276.49	\$2,831,845.83	3.2%	\$90,311,295.83	0	120	120	1,214	11/29/2012
54.1	Grit Pump and Mixer Power Feed Modifications (CR-115) (PR 20214,30214/Oracle 1599,1706)	A	\$3,764.78						0				
54.2	8-inch Plant Drain Residuals to Headworks Piping Modifications at High Rate Clarifier (CR-171) (PR 20214,30214/Oracle 1599,1706)	A	\$11,720.63						0				
54.3	Vault Drain Line to PEPS (CR-176) (PR 20214,30214/Oracle 1599,1706)	B	\$9,083.93						0				
55	Approved by Director of Engineering & Construction Approved on January 11, 2012			\$24,469.23	\$2,831,845.83	\$2,856,315.06	3.3%	\$90,335,765.06	0	120	120	1,214	11/29/2012
55.1	Sodium Hypochlorite and Ferric Chloride Chemical Piping Additions (CR-128) (PR 20214,30214/Oracle 1599,1706)	A	\$9,994.81						0				
55.2	Modifications to the Existing Filter Effluent Channels (CR- 204) (PR 20214,30214/Oracle 1599,1706)	C	\$14,474.42						0				
56	Approved by Director of Engineering & Construction Approved on January 20, 2012			\$24,315.75	\$2,856,315.06	\$2,880,630.81	3.3%	\$90,360,080.81	47	120	167	1,261	1/15/2013
56.1	Existing Sludge Pump Room Modifications (CR-147) (PR 20214,30214/Oracle 1599,1706)	B	\$19,483.75						0				
56.2	Structural Modifications for 20" LPA Penetration at MBR Building (CR-213) (PR 20214,30214/Oracle 1599,1706)	C	\$4,832.00						47				
57	Approved by Board of Directors Approved on February 27, 2012			\$116,206.53	\$2,880,630.81	\$2,996,837.34	3.4%	\$90,476,287.34	0	167	167	1,261	1/15/2013
57.1	Change from 2-Ton Bridge Crane to 5-Ton Bridge Crane (CR- 195) (PR 20214,30214/Oracle 1599,1706)	C	\$116,206.53						0				
58	Approved by Board of Directors Approved on February 27, 2012			(\$669,030.20)	\$2,996,837.34	\$2,327,807.14	2.7%	\$89,807,257.14	0	167	167	1,261	1/15/2013
58.1	Final Quantity Adjustment due to Differing Site Conditions of Bid Item A.06 – Precast Prestressed Concrete Driven Piles – Structure Piles (PR 20214,30214/Oracle 1599,1706)	B	(\$669,030.20)						0				
59	Approved by Director of Engineering & Construction Approved on February 23, 2012			\$24,975.26	\$2,327,807.14	\$2,352,782.40	2.7%	\$89,832,232.40	0	167	167	1,261	1/15/2013
59.1	South Influent Interceptor Modifications (CR-169) (PR 20214,30214/Oracle 1599,1706)	B	\$24,975.26						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount						Contract Days				Original Completion Date:
			Original Contract Amount: \$ 87,479,450.00						Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
60	Approved by Director of Engineering & Construction Approved on February 24, 2012			\$24,875.42	\$2,352,782.40	\$2,377,657.82	2.7%	\$89,857,107.82	0	167	167	1,261	1/15/2013
60.1	Installation of 1" and 2" Conduits at High Rate Clarifier (CR-058) (PR 20214,30214/Oracle 1599,1706)	B	\$1,225.50						0				
60.2	Floodwall Revisions Due to 5 kV and Transmitter Conflict (CR-148) (PR 20542 (1150)/30542 (1118))	B	\$1,485.98						0				
60.3	Pump call relays for Area 800 polymer and sand feed LCPs (CR-189) (PR 20214,30214/Oracle 1599,1706)	A	\$1,013.84						0				
60.4	Modifications to Flood Wall Entrance on Riparian (CR-222) (PR 20542 (1150)/30542 (1118))	B	\$17,922.87						0				
60.5	Existing 30-Inch Wall Spools at SBW Tank (CR-223)(PR 20214,30214/Oracle 1599,1706)	A	\$3,227.23						0				
61	Approved by Engineering & Operations Committee Approved on March 20, 2012			\$56,853.28	\$2,377,657.82	\$2,434,511.10	2.8%	\$89,913,961.10	0	167	167	1,261	1/15/2013
61.1	Additional sampling stations, samplers, analyzers, and associated electrical, instrumentation, and programming at Primary Effluent Pump Station, Membrane Bioreactor, and Chlorine Contact Tanks (CR-131) (PR 20214,30214/Oracle	A	\$56,853.28						0				
62	Approved by Director of Engineering & Construction Approved on March 19, 2012			\$24,734.25	\$2,434,511.10	\$2,459,245.35	2.8%	\$89,938,695.35	0	167	167	1,261	1/15/2013
62.1	Additional Electrical Work to Site Glass for Scum Line at Primary Sludge Room (CR-044)(PR 20214,30214/Oracle	C	\$3,247.25						0				
62.2	T12/T13 Substation Pad Modifications (CR-120)(PR 20214,30214/Oracle 1599,1706)	C	\$13,144.00						0				
62.3	Removal of ACP Pipe in Primary Sludge Room (CR-124) (PR 20214,30214/Oracle 1599,1706)	B	\$3,562.83						0				
62.4	Pressure Testing of 14-Inch Butterfly Valves at MPS-2 (CR-187) (PR 20214,30214/Oracle 1599,1706)	A	\$2,454.83						0				
62.5	Pipe Rental for Secondary Clarifier Bypass (CR-202) (PR 20214,30214/Oracle 1599,1706)	A	\$2,325.34						0				
62.6	Non-compensatory Time Extension of 117 Days for Milestone #5 – Floodwall Installation	B	\$0.00						0				
63	Approved by Director of Engineering & Construction Approved on March 26, 2012			\$24,724.63	\$2,459,245.35	\$2,483,969.98	2.8%	\$89,963,419.98	0	167	167	1,261	1/15/2013
63.1	Remove and Replace Existing Slide Gate at Backwash Supply Tank (CR-165)(PR 20214,30214/Oracle 1599,1706)	A	\$18,991.09						0				
63.2	HRC Polymer Storage & Feed System Modifications (CR-170)(PR 20214,30214/Oracle 1599,1706)	C	\$3,435.19						0				
63.3	Potholing for Utilities Not Shown on Drawings near MgOH Tanks (CR-211)(PR 20214,30214/Oracle 1599,1706)	C	\$2,298.35						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

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		Original Contract Amount: \$ 87,479,450.00							Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
64	Approved by E&O Committee Approved on April 17, 2012 64.1 Grading Modifications at High Rate Clarifier (CR-179) (PR 20214,30214/Oracle 1599,1706)	A	\$76,429.27	\$76,429.27	\$2,483,969.98	\$2,560,399.25	2.9%	\$90,039,849.25	0	167	167	1,261	1/15/2013
65	Approved by Director of Engineering & Construction Approved on April 19, 2012 65.1 Filler pieces between steel roof joists at CEB (CR-154)(PR 20214,30214/Oracle 1599,1706) 65.2 Highline & Relocate 6-in GW due to revised location of electrical manholes (CR-201)(PR 20214,30214/Oracle 65.3 Additional Building Signage at UV Facility (CR-205) (PR 20214,30214/Oracle 1599,1706) 65.4 Area 400 PEPS Electrical Room HVAC Modifications (CR-215) (PR 20214,30214/Oracle 1599,1706) 65.5 Revisions to the Seimens Pre-Negotiated Component Scope for the Odor Scrubber (CR-226) (PR 20214,30214/Oracle	C B A C A	\$1,072.20 \$10,739.37 \$3,432.94 \$2,186.05 \$6,796.29	\$24,226.85	\$2,560,399.25	\$2,584,626.10	3.0%	\$90,064,076.10	0	167	167	1,261	1/15/2013
66	Approved by General Manager Approved on May 1, 2012 66.1 High Rate Clarifier and Chlorine Contact Tank Coating Modifications (CR-155) 30542 (1118)	A	\$28,953.41	\$28,953.41	\$2,584,626.10	\$2,613,579.51	3.0%	\$90,093,029.51	0	167	167	1,261	1/15/2013
67	Approved by General Manager Approved on May 7, 2012 67.1 Membrane Bioreactors Air Scour Blower Control I/O Conduit Modifications (CR-101) PR 20124 (1599) 67.2 Primary Sludge Pump Modifications (CR-114) PR 20214 (1599)	A A	\$21,906.75 \$26,328.27	\$48,235.02	\$2,613,579.51	\$2,661,814.53	3.0%	\$90,141,264.53	0	167	167	1,261	1/15/2013
68	Approved by Exe. Dir. Of Engineering & Planning Approved on May 18, 2012 68.1 Backwash Surge Line Reroute to Backwash Supply Wetwell (CR-198) PR 30124 (1706) 68.2 Additional Eyewash at the UV Disinfection Facility (CR-200) PR 30214 (1706)	A A	\$20,308.25 \$4,634.95	\$24,943.20	\$2,661,814.53	\$2,686,757.73	3.1%	\$90,166,207.73	0	167	167	1,261	1/15/2013
69	Approved by Exe. Dir. Of Engineering & Planning Approved on May 23, 2012 69.1 Modifications to Existing Slab-On-Grade at Filters (CR-142) PR 30124 (1706) 69.2 Flood Wall Modifications (CR-167) PR 20542 (1150)/PR 30542 (1118) 69.3 Filters Air Flow Meter Repair and Bollards Addition (CR-173) PR 30124 (1706) 69.4 Bridge Crane Photo Sensors at Membrane Bioreactors and Ultraviolet Disinfection Facility (CR-177) PR 20214 (1599)/PR 30214 (1706)	A A A A	\$2,816.82 \$3,488.62 \$2,185.92 \$16,451.50	\$24,942.86	\$2,686,757.73	\$2,711,700.59	3.1%	\$90,191,150.59	0	167	167	1,261	1/15/2013

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

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			Original Contract Amount: \$ 87,479,450.00						Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
70	Approved by General Manager Approved on June 26, 2012 70.1 Credit for Landscape Restoration of a Portion of the Screen Berm North of MWRP (CR-255) PR 20542 (1150)/PR 30542	A	(\$48,672.95)	(\$48,672.95)	\$2,711,700.59	\$2,663,027.64	3.0%	\$90,142,477.64	0	167	167	1,261	1/15/2013
71	Approved by Acting Exec. Director of Engineering & Construction Approved on June 28, 2012 71.1 Surge Tank Tower Cable and Conduit Repair and Relocation (CR-210) /Photocell for 3 nightlights at UV (CR-236) PR 71.2 8" line stop for removal of existing 8" sewer line (CR 217) PR 20214 (1599) 71.3 Demolition of existing 24" SBW Pipe conflicting with new 8" SBW (CR 229) PR 20214 (1599) 71.4 Demolition of existing concrete ductbank encasement near Headworks (CR 233) PR 20214 (1599) 71.5 Installation of 4-inch gate valve and associated repairs near FPS-2 Due to Failure of Existing 4-inch Reclaimed Water Loop (CR 234) PR 30214 (20214)	B B B B A	\$7,226.25 \$6,200.00 \$4,277.45 \$4,596.34 \$1,626.47	\$23,926.51	\$2,663,027.64	\$2,686,954.15	3.1%	\$90,166,404.15	0	167	167	1,261	1/15/2013
72	Approved by Acting Exec. Director of Engineering & Construction Approved on June 28, 2012 72.1 Irrigation Line Road Crossings Additions (CR-186) PR 20214 (1599), 30214 (7106) 72.2 Transformer 12, 13 conduit relocation (CR 239) PR 20214 (1599), 30214 (7106) 72.3 Biosolids conduit realignment near SWP Station (CR 245) PR 20847 (1617) 72.4 Repair of unknown 2" and 4" RW pipe during excavation of biosolids piping (CR 260) PR 20847 (1617)	C B B B	\$14,596.59 \$865.37 \$3,605.70 \$3,980.11	\$23,047.77	\$2,686,954.15	\$2,710,001.92	3.1%	\$90,189,451.92	0	167	167	1,261	1/15/2013
73	Approved by Acting Exec. Director of Engineering & Construction Approved on July 3, 2012 73.1 MBR Roof and Bridge Crane Modifications (CR-264) PR 20214 (1599)	C	\$16,525.80	\$16,525.80	\$2,710,001.92	\$2,726,527.72	3.1%	\$90,205,977.72	0	167	167	1,261	1/15/2013
74	Approved by E&O Committee Approved on July 24, 2012 74.1 Relocation of Existing 16-Inch Reclaimed Water Pipeline near Flow Equalization Basin (CR-240) PR 20542 (1150) and 30542 (1118)	B	\$52,342.09	\$52,342.09	\$2,726,527.72	\$2,778,869.81	3.2%	\$90,258,319.81	0	167	167	1,261	1/15/2013
75	Approved by Board of Directors Approved on August 13, 2012 75.1 MPS-1 Building Demolition and Electrical Relocation (CR-209) PR 20214 (1599) and 30214 (1706)	A	\$473,570.14	\$473,570.14	\$2,778,869.81	\$3,252,439.95	3.7%	\$90,731,889.95	0	167	167	1,261	1/15/2013

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

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Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
76	Approved by General Manager Approved on July 30, 2012			\$29,412.41	\$3,252,439.95	\$3,281,852.36	3.8%	\$90,761,302.36	0	167	167	1,261	1/15/2013
76.1	MPS-2 Pump Pad Modifications (CR-232) PR 30214 (1706)	A	\$29,412.41						0				
77	Approved by Board of Directors Approved on August 27, 2012			\$151,336.95	\$3,281,852.36	\$3,433,189.31	3.9%	\$90,912,639.31	0	167	167	1,261	1/15/2013
77.1	Chlorine Contact Tank Repairs (CR-152) PR 30214 (1706)	B	\$151,336.95						0				
78	Approved by Exec. Dir. Of Engineering and Planning Approved on August 15, 2012			\$24,341.31	\$3,433,189.31	\$3,457,530.62	4.0%	\$90,936,980.62	0	167	167	1,261	1/15/2013
78.1	Unforeseen Conditions Associated with 36-inch HDPE Biosolids Storm Drain Installation PR 20847 (1617)	B	\$11,473.24						0				
78.2	Remove and Replace Two 8-Inch Reclaimed Water Gate Valves on South Side of Chlorine Contact Tanks (CR-257) PR	A	\$1,832.69						0				
78.3	Removal of Unknown Concrete at Existing Structure northwest of PEPS to install 54" PE line PR 20124 (1599)	B	\$6,833.18						0				
78.4	Headworks Scum Piping Modifications (CR-269) PR 20124 (1599)	B	\$4,202.20						0				
79	Pending Approval from General Manager Sent for Approval on September 20, 2012			\$49,030.10	\$3,457,530.62	\$3,506,560.72	4.0%	\$90,986,010.72	0	167	167	1,261	1/15/2013
79.1	Chlorine Contact Tank Repairs (CR-152) PR 30214 (1706)	A	\$49,030.10						0				
80	Approved by Exe. Director of Engineering and Planning Approved on September 24, 2012			\$24,593.00	\$3,506,560.72	\$3,531,153.72	4.0%	\$91,010,603.72	0	167	167	1,261	1/15/2013
80.1	Arc Flash/Coordination Study (CR-252) PR 20214 (1599)	A	\$24,593.00						0				
81	Approved by E&O Committee Approved on November 16, 2012			\$66,811.32	\$3,531,153.72	\$3,597,965.04	4.1%	\$91,077,415.04	0	167	167	1,261	1/15/2013
81.1	Storage Building (CR-295) PR 20847 (1617)	D	\$66,811.32						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

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82	Approved by Exe. Director of Engineering and Planning Approved on November 1, 2012			\$24,888.24	\$3,597,965.04	\$3,622,853.28	4.1%	\$91,102,303.28	0	167	167	1,261	1/15/2013
	82.1 SCADA Programming Modifications at UV Disinfection Facility (CR-235) PR 30214 (1706)	A	\$2,598.23										
	82.2 Re-Fabricate Cofferdam Due to Existing Conditions at Primary Effluent Channel (CR-259) PR 20124 (1599)	B	\$3,904.14										
	82.3 Repair of Existing 6" Waste Activated Sludge (WAS) Pipeline south of Existing Rectangular Secondary Clarifiers (CR-268) PR 20214 (1599)	B	\$2,979.43										
	82.4 Membrane Bioreactor Low Pressure Air Flange Modifications (CR-271) PR 20214 (1599)	B	\$1,394.68										
	82.5 Cut and Plug Abandoned 6-inch sewer line north of existing Headworks (CR-272) PR 20214 (1599)	B	\$429.63										
	82.6 Electrical Manhole No. MHG6C Sump Pump Work (CR-277) PR 20124 (1599)	C	\$2,104.38										
	82.7 Crack Repair of Existing Primary Sedimentation Tank Influent Channel (CR-292) PR 20214 (1599)	B	\$3,476.68										
	82.8 Modifications to Ledger Angle, Grating, and FRP launder troughs in Primary Sedimentation Tank splitter box (CR-293) PR 20214 (1599)	B	\$2,767.83										
	82.9 Pressure Regulators at Headworks (CR-294) PR 20214 (1599)	B	\$5,233.24						0				
83	Approved by Board of Directors Approved on November 26, 2012			-\$228,007.95	\$3,622,853.28	\$3,394,845.33	3.9%	\$90,874,295.33	0	167	167	1,261	1/15/2013
	83.1 Final quantity adjustments for Bid Item No. A.07 - Predrilled Precast Pre-stressed Concrete Drive Piles - Influent Sewer	B	-\$210,094.00						0				
	83.2 Final quantity adjustments for Bid Item No. B.01 - Precast Pre-stressed Concrete Driven Pile	B	\$89,362.00						0				
	83.3 Final quantity adjustments for Bid Item No. B.02 - Predrilled Precast Pre-stressed Concrete Driven Piles.	B	-\$107,275.95						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
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84	Approved by Acting GM Approved on December 28, 2012 84.1 Removal and Disposal of Existing Motors, Pumps, and Equipment in MPS- Building (CR-221) PR 20214, 30214	A	\$37,859.85	\$37,859.85	\$3,394,845.33	\$3,432,705.18	3.9%	\$90,912,155.18	0	167	167	1,261	1/15/2013
85	Approved by Exe. Director of Engineering and Planning Approved on December 28, 2012 85.1 Installation of 10-Inch Tee on Biosolids Piping (CR-253) PR 20847 (1617) 85.2 Two Additional Concrete Supports for the 36-Inch RAS Line at MBR (CR-242) PR 20214 (1599) 85.3 Addition of Two 8-inch Plug Valves to Plant Drain Line for Sampling at Headworks (CR-303) PR 20214 (1599)	D C A	\$1,783.30 \$6,211.81 \$16,054.86	\$24,049.97	\$3,432,705.18	\$3,456,755.15	4.0%	\$90,936,205.15	0	167	167	1,261	1/15/2013
86	Approved by Exe. Director of Engineering and Planning Approved on December 28, 2012 86.1 Removal of Buried Concrete to Allow Construction of Groundwater Well No. 0140 (CR-273) PR 20214 (1599) 86.2 Additional Concrete Fillets on the East Wall Corners of New PSTs (CR-304) PR 20214 (1599) 86.3 HVAC Modifications at PEPS Electrical Room (CR-305) PR 20214 (1599) 86.4 Coating of Vector Station (CR-306) PR 20214 (1599)	B A B A	\$2,893.01 \$10,727.59 \$3,433.39 \$3,174.82	\$20,228.81	\$3,456,755.15	\$3,476,983.96	4.0%	\$90,956,433.96	0	167	167	1,261	1/15/2013
87	Approved by E&O Committee Approved on January 15, 2013 87.1 Research Pads (CR-219) PR 20214 (1599)	D	\$79,315.00	\$79,315.00	\$3,476,983.96	\$3,556,298.96	4.1%	\$91,035,748.96	0	167	167	1,261	1/15/2013
88	Approved by Exe. Director of Engineering and Planning Approved on January 29, 2013 88.1 Headworks Building Load-Out Container Wheel Guides and Stops (CR-249) PR 20214 (1599) 88.2 Modifications to Existing Junction Box at PEPS (CR-291) PR 20214 (1599) 88.3 Investigation to Expose High Pressure Corroded 8-Inch Reclaimed Water Line (CR-298) PR 20214 (1599) 88.4 Alum Sidewalk Revisions (CR-311) PR 20214 (1599) 88.5 Equipment Rental for ES-3 Shutdown (CR-312) PR 20214 88.6 Removal of Unknown Ductbank near South Influent Interceptor (CR-313) PR 20214 (1599)	A B B A B B	\$8,337.79 \$5,249.47 \$1,471.66 \$3,556.22 \$2,423.20 \$3,460.80	\$24,499.14	\$3,556,298.96	\$3,580,798.10	4.1%	\$91,060,248.10	0	167	167	1,261	1/15/2013

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
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89	Approved by Exe. Director of Engineering and Planning Approved on February 6, 2013			\$23,272.79	\$3,580,798.10	\$3,604,070.89	4.1%	\$91,083,520.89	0	167	167	1,261	1/15/2013
89.1	Installation of Ultraviolet (UV) Light Shields at UV Facility (CR-208) PR 30214 (1706)	A	\$8,607.30						0				
89.2	Odor Control Drains to Primary Sedimentation Tanks Effluent Channels (CR-216) PR 20214 (1599)	C	\$1,085.54						0				
89.3	Addition of Standby Sodium Hypochlorite Injection Point (CR-228) PR 20214 (1599)	A	\$2,652.29						0				
89.4	Relocate conduit for Groundwater Well No. 140, North of Primary Sedimentation Tanks (CR-315) PR 20214 (1599)	B	\$1,678.49						0				
89.5	Miscellaneous Modifications at High Rate Clarifier (CR-299) PR 20124 (1599)	B	\$5,014.13						0				
89.6	Miscellaneous Modifications (CR-300) PR 20124 (1599)	B	\$4,235.04						0				
90	Approved by Board of Directors Approved on March 25, 2013			\$410,000.00	\$3,604,070.89	\$4,014,070.89	4.6%	\$91,493,520.89	197	167	364	1,458	7/31/2013
90.1	Project Related Field Office Overhead PR 20214 (1599), 30214 (1706), 20542 (1150), 30542 (1118)	B	\$410,000.00						197				
91	Approved by Exe. Director of Engineering and Planning Approved on March 28, 2013			\$24,948.94	\$4,014,070.89	\$4,039,019.83	4.6%	\$91,518,469.83	0	364	364	1,458	7/31/2013
91.1	Installation of Medium Voltage Switchgear Kirk Keys (CR-182) (PR 20214 (1599), 30214 (1706)	C	\$4,341.69						0				
91.2	Additional Lights, Emergency Lights, and Exit Lights at Various Locations (CR-194) PR 20214 (1599)	A	\$20,607.25						0				
92	Approved by Exe. Director of Engineering and Planning Approved on March 28, 2013			\$49,044.94	\$4,039,019.83	\$4,088,064.77	4.7%	\$91,567,514.77	0	364	364	1,458	7/31/2013
92.1	Modifications to High Rate Clarifier (HRC) and ES-3 Valve Controls (CR-91) PR 30214 (1706)	A	\$18,782.41						0				
92.2	Field Modifications at MSP-2 Circuit Breaker 10 (CR-157) PR	A	\$12,395.07						0				
92.3	Additional Lights at HRC and Existing Primary Sludge Room (CR-256) PR 20214 (1599) and PR 30214 (1706)	A	\$17,867.46						0				
93	Approved by Exe. Director of Engineering and Planning Approved on April 23, 2013			\$23,546.00	\$4,088,064.77	\$4,111,610.77	4.7%	\$91,591,060.77	0	364	364	1,458	7/31/2013
93.1	Electrical Modifications at Headworks Building, MBR Pump Room, and Blower Room (CR-309) PR 20214 (1599)	A	\$23,546.00						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount						Contract Days				Original Completion Date:
			Original Contract Amount: \$ 87,479,450.00						Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
94	Approved by Exe. Director of Engineering and Planning Approved on April 24, 2013			\$22,281.00	\$4,111,610.77	\$4,133,891.77	4.7%	\$91,613,341.77	0	364	364	1,458	7/31/2013
94.1	Headworks Tipping Trough Electrical Modifications (CR-092) PR 20214 (1599)	A	\$3,044.00						0				
94.2	Power to roll-up doors at Membrane Bioreactors and High Rate Clarifier (CR-141) PR 20124 (1599), 30214 (1706)	C	\$2,453.00						0				
94.3	Addition of Safety Ramps at Ultraviolet Disinfection Facility (CR-258) PR 30214 (1706)	A	\$716.00						0				
94.4	Cabinet Pad at Ultraviolet Disinfection Facility (CR-262) PR 30214 (1706)	A	\$1,224.00						0				
94.5	High Rate Clarifier Reclaimed Water Line Extension (CR-284) PR 30214 (1706)	A	\$11,243.00						0				
94.6	Addition of Air Vacuum Valve at Membrane Bioreactor Back Pulse Pump(CR-307) PR 20214 (1599)	B	\$669.00						0				
94.7	Repair of 6-Inch Groundwater Line, east of Chlorine Contact Tank and 3" Potable Water Line at Filters (CR-319) PR 20214 (1599), 30214 (1706)	C	\$1,032.00						0				
94.8	Electrical Rewiring of Membrane Bioreactors Fine Screens (CR-323) PR 20214 (1599)	C	\$1,900.00						0				
95	Approved by Board of Directors Approved on May 27, 2013			\$370,963.00	\$4,133,891.77	\$4,504,854.77	5.1%	\$91,984,304.77	92	364	456	1,550	10/31/2013
95.1	8-inch Reclaimed Water Line Lateral for Biosolids (CR-221) PR 20847 (1617)	D	\$81,600.00						0				
95.2	MWRP Security Fence Improvements (CR-288) PR 20124 (1599), 30214 (1706)	A	\$289,363.00						0				
95.3	Deletion of one water quality sampler (CR-062) PR 20124 (1599), Deletion of demolition of existing and abandoned 30-inch sewer (CR-224) PR 20124 (1599), and Use of Schedule 10 stainless steel in lieu of Schedule 40 for low pressure air at membrane bioreactors (CR-225) PR 20124 (1599)	A	(\$34,390.00)						0				
95.4	Premium offset for Builder's Risk insurance through October 31, 2013	A	\$34,390.00						0				
95.5	Time Extension related to sequencing of CCO No. 74 - MPS-1 Building Demolition and Existing Primary Sedimentation Motor Control Center Electrical Relocation	A	\$0.00						92				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount						Contract Days				Original Completion Date:
			Original Contract Amount: \$ 87,479,450.00						Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
96	Approved by Exe. Director of Engineering and Water Quality Approved on August 19, 2013			\$23,975.88	\$4,504,854.77	\$4,528,830.65	5.2%	\$92,008,280.65	0	456	456	1,550	10/31/2013
96.1	Install 2" flush out assembly per W-13 at end of 4" DW s/o MBR (CR-241) PR 20214 (1599)	A	\$1,528.33						0				
96.2	6-Inch GW Pothing and Concrete Cap (CR-318) PR 20214 (1599)	B	\$7,675.03						0				
96.3	Relocation of UVT and Conductivity Analyzer at UV Structure (CR-328) PR 30214 (1706)	A	\$4,036.26						0				
96.4	Removal of Baffles at Existing PSTs (CR-329) PR 20214 (1599)	A	\$5,405.51						0				
96.5	Blower Room Piping Modifications (CR-335) PR 20214	A	\$5,330.75						0				
97	Approved by Exe. Director of Engineering and Water Quality Approved on October 24, 2013			\$24,999.85	\$4,528,830.65	\$4,553,830.50	5.2%	\$92,033,280.50	0	456	456	1,550	10/31/2013
97.1	New Potable Water Service Line to Existing MWRP Generator Radiators at Headworks (CR-265) PR 20214	D	\$2,562.54						0				
97.2	Removal of Baffles at Existing PSTs (CR-329) PR 20214 (1599)	C	\$5,405.51						0				
97.3	Addition of Master Solenoid Valve for MBR Fine Screens Water Supply (CR-331) PR 20214 (1599)	A	\$5,943.97						0				
97.4	Provide Spent Backwash Turbidity Meter (CR-336) PR 30214 (1706)	C	\$7,099.69						0				
97.5	New Rotameter at Membrane Bioreactor (MBR) Fine Screens (CR-337) PR 20214 (1599)	C	\$1,801.35						0				
97.6	Removal of steel plates at the existing filters (CR-342) PR 30214 (1706)	C	\$2,186.79						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount							Contract Days				Original Completion Date:
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98	Approved by Exe. Director of Engineering and Water Quality Approved on November 1, 2013			\$13,773.34	\$4,553,830.50	\$4,567,603.84	5.2%	\$92,047,053.84	0	456	456	1,550	10/31/2013	
98.1	Seal Exterior Insulation Finishing System (EIFS) of High Rate Clarifier (CR-326) PR 20214 (1599)	A	\$873.28						0					
98.2	Install 2-in Air/Vacuum Valve on High Rate Clarifier Residual Pump Discharge pipe (CR-343) PR 20214 (1599)	C	\$3,231.39						0					
98.3	Install Drain Lines at Primary Sedimentation Tank Pump Room Deck (CR-345) PR 20214 (1599)	A	\$4,938.08						0					
98.4	Install Additional Manhole at South Influent Sewer (CR-346) PR 20214 (1599)	A	\$1,353.23						0					
98.5	Modifications to the Flow Switches at the Primary Sedimentation Tank Sludge Room (CR-214) PR 20214(1599)	A	\$3,798.53						0					
98.6	Removal of Baffles at Existing PSTs (CR-329) PR 20214 (1599) - Credit	C	(\$5,405.51)						0					
98.7	Re-route 1-Inch Conduit from MPS-2 Pump Station to Chlorine Contact Tank (CR-261) PR 20214 (1599)	C	\$3,188.92						0					
98.8	Ultrasonic Flowmeter at Existing Aeration Basins (CR-352) PR 20214 (1599)	C	\$1,795.42						0					
98.9	Non-compensatory item - Repair Leaks in the Existing Primary Sludge Room in Lieu of Filling 100-feet of Abandoned South Influent Sewer as part of CCO-095 with	A	\$0.00						0					
99	Approved by Exe. Director of Engineering and Water Quality Approved on December 3, 2013			\$23,877.70	\$4,567,603.84	\$4,591,481.54	5.2%	\$92,070,931.54	0	456	456	1,550	10/31/2013	
99.1	Area 200 Headworks Modifications (CR-290) PR 20214	A	\$13,360.87						0					
99.2	Remove and replace 12"x12" Slide Gate in Spent Backwash (CR-341) PR 20214 (1599)	A	\$10,516.83						0					
100	Approved by Exe. Director of Engineering and Water Quality Approved on December 5, 2013			\$24,516.80	\$4,591,481.54	\$4,615,998.34	5.3%	\$92,095,448.34	0	456	456	1,550	10/31/2013	
100.1	Provide Modulating Butterfly Valves with AUMA Actuators on FEB discharge to Activated Sludge PR 20214 (1599) (CR-347)	C	\$24,516.80						0					

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount						Contract Days				Original Completion Date:
			Original Contract Amount: \$ 87,479,450.00						Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
101	Approved by Acting GM Approved on January 2, 2014			\$49,268.74	\$4,615,998.34	\$4,665,267.08	5.3%	\$92,144,717.08	0	456	456	1,550	10/31/2013
101.1	Install Oil Sample Tubes at the Membrane Bioreactors (CR-308) PR 20214 (1599)	A	\$7,733.82						0				
101.2	Drill and tap discharge risers and install 1" x 1/2" PVC bushings for anti-siphon at MBR Fine Screens (CR-340) PR 20214 (1599)	C	\$489.78						0				
101.3	Remove existing 6-inch primary sludge pipe in the primary sludge pump room (CR-344) PR 20214 (1599)	C	\$2,019.68						0				
101.4	Demolish existing equipment pads in former chlorine room (CR-350) PR 20214 (1599)	A	\$8,212.27						0				
101.5	Groundwater Pump No. 9 Conduit Re-routing (CR-351) PR 20214 (1599)	B	\$12,633.62						0				
101.6	Relocate existing 4-inch potable water (CR-356) PR 20214 (1599)	B	\$1,908.00						0				
101.7	Modify Handrail at spent back wash tank (CR-358) PR 20214 (1599)	A	\$2,716.25						0				
101.8	Install additional hose bibs in headworks load-out room (CR-361) PR 20214 (1599)	A	\$2,709.59						0				
101.9	Install additional solenoid valves at mixed liquor pump station and storm water pump station (CR-333) PR 20214 (1599)	A	\$10,845.73						0				
102	Approved by Exe. Director of Engineering and Planning Approved on January 7, 2014			\$24,985.22	\$4,665,267.08	\$4,690,252.30	5.4%	\$92,169,702.30	0	456	456	1,550	10/31/2013
102.1	Additional pressure switches at Permeate and Backpulse Pumps (CR-355) PR 20214 (1599)	A	\$8,305.92						0				
102.2	Access Ramp to South Junction Structure for Vector Trucks (CR-333) PR 20214 (1599)	B	\$3,461.31						0				
102.3	Miscellaneous Work Time and Materials (CR-364) PR 20214 (1599)	A	\$13,217.99						0				
103	Approved by Exe. Director of Engineering and Planning Approved on January 21, 2014			\$0.00	\$4,690,252.30	\$4,690,252.30	5.4%	\$92,169,702.30	225	456	681	1,775	6/13/2014
103.1	Non-compensatory Time Extension of 125Days per Jan 2, 2014 agreement	A	\$0.00						225				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

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104	Approved by Board of Directors Approved on January 27, 2014			\$242,461.11	\$4,690,252.30	\$4,932,713.41	5.6%	\$92,412,163.41	0	681	681	1,775	6/13/2014
104.1	Riparian View Modifications (CR-83A) PR 20542 (1150), 30542 (1118)	A	\$189,182.30						0				
104.2	Recycled Water Modifications (CR-227) PR 30214 (1706)	A	\$53,278.81						0				
105	Approved by Exe. Director of Engineering and Planning Approved on March 3, 2014			\$24,788.21	\$4,932,713.41	\$4,957,501.62	5.7%	\$92,436,951.62	0	681	681	1,775	6/13/2014
105.1	Control Chlorine Residual Sample Pump Relocation (CR-282) PR 30542 (1706) Task 3520	A	\$4,793.22						0				
105.2	Membrane Bioreactor LCP-2100/2200 Pump Alarm Modifications per RFI 550 (CR-334) PR 20214 (1599) Task	C	\$1,483.82						0				
105.3	Pothole, Excavate & Reroute utilities to construct the Magnesium Hydroxide Facility (CR-365) PR 20214 (1599)	B	\$7,060.00						0				
105.4	MBR Mixed Liquor Wet Well Float Relocation (CR-366) PR 20214 (1599) Task 3520	B	\$11,451.17						0				
106	Approved by Exe. Director of Engineering and Planning Approved on March 14, 2014			\$23,306.03	\$4,957,501.62	\$4,980,807.65	5.7%	\$92,460,257.65	0	681	681	1,775	6/13/2014
106.1	MBR Communication Modifications (CR-324) PR 20214 (1599) Task 3510	A	\$1,094.48						0				
106.2	Install Time Delay Relays for Headworks Screen Local Control Panels (CR-327) PR 20214 (1599) Task 3510	A	\$978.76						0				
106.3	Air Scour Flow Meter Modifications per RFI 551 (CR-332) PR 20214 (1599) Task 3520	A	\$791.01						0				
106.4	Chemical Containment Curb at MBR Sodium Hypochlorite Tank (CR-353) PR 20214 (1599) Task 3505	A	\$2,878.52						0				
106.5	Corrosion Protection Modifications at PEPS (CR-354) PR 20214 (1599) Task 3520	B	\$4,305.49						0				
106.6	Add Three Stainless Steel Ball Valves to Magnesium Hydroxide Pump Discharge Lines and Hose Connections (CR-367) PR 20214 (1599) Task 3520	A	\$803.42						0				
106.7	Install Gutter and Diverters at MBR Roof (CR-368) PR 20214 (1599) Task 3505	A	\$12,454.35						0				
107	Approved by Exe. Dir of Eng and Water Quality Approved on March 27, 2014			\$41,774.78	\$4,980,807.65	\$5,022,582.43	5.7%	\$92,502,032.43	0	681	681	1,775	6/13/2014
107.1	30-Inch Permeate/30-Inch Filter Effluent Intertie Modifications (CR-370) PR 30214 (1706) Task 3520	A	\$41,774.78						0				
108	Approved by Exe. Director of Engineering and Planning Approved on April 28, 2014			\$20,255.57	\$5,022,582.43	\$5,042,838.00	5.8%	\$92,522,288.00	0	681	681	1,775	6/13/2014
108.1	Install Isolation Valves on MBR Permeate Pump Suction Line (CR-296) PR 20214 (1599) Task 3520	C	\$2,853.30						0				
108.2	Install Orifice Plates for the MBR Mixed Liquor Pumps (CR-349) PR 20214 (1599) Task 3520	C	\$4,753.68						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

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Design Engineer HDR

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	108.3 Davit Crane Modifications at CCT (CR-357) PR 20214 (1599) Task 3520	A	\$3,157.88						0				
	108.4 Install Flange X PE spools on MBR Cassette Grating for mounting LITs and Floats (CR-373) PR 20214 (1599) Task	A	\$9,490.71						0				
109	Approved by Exe. Director of Engineering and Planning Approved on July 14, 2014			\$24,290.82	\$5,042,838.00	\$5,067,128.82	5.8%	\$92,546,578.82	0	681	681	1,775	6/13/2014
	109.1 Install Temp. 21-in PVC temp UV Bypass for UV validation (CR-384) PR 20214 Task 3235	A	\$24,290.82						0				
110	Approved by Exe. Director of Engineering and Planning Approved on July 31, 2014			\$24,757.37	\$5,067,128.82	\$5,091,886.19	5.8%	\$92,571,336.19	0	681	681	1,775	6/13/2014
	110.1 Miscellaneous Time and Materials Items (CR-266, CR-371 and CR-376) PR 20214 (1599) Task 3540	B	\$24,757.37						0				
111	Approved by Exe. Director of Engineering and Planning Approved on August 8, 2014			\$24,993.97	\$5,091,886.19	\$5,116,880.16	5.8%	\$92,596,330.16	0	681	681	1,775	6/13/2014
	111.1 Additional Gates and Termination Posts for Fencing Along Riparian View (CR-374) PR 20214 (1599) Task 3505	A	\$9,117.05						0				
	111.2 Ferric Chloride Relocation (CR-377) PR 20214 (1599) Task 3520	A	\$9,048.40						0				
	111.3 Replace Headworks Screen Panel (CR-379) PR 20214 (1599) Task 3520	B	\$2,189.55						0				
	111.4 Miscellaneous Time and Materials Items (CR-397) PR 20214 (1599) Task 3520	B	\$4,638.97						0				
112	Approved by General Manager Approved on August 12, 2014			\$49,495.35	\$5,116,880.16	\$5,166,375.51	5.9%	\$92,645,825.51	0	681	681	1,775	6/13/2014
	112.1 Modifications to Ultraviolet Diffuser Line (CR-248) PR 20214 (1599) Task 3520	A	\$3,777.59						0				
	112.2 Modifications at Flow Equalization Basins (CR-251) PR 20214 (1599) Task 3520	A	\$4,820.67						0				
	112.3 Potable Water to Secondary Clarifier RAS Pumps (CR-254) PR 20214 (1599) Task 3520	A	\$3,104.81						0				
	112.4 Methanol Tank Modifications (CR-289) PR 20214 (1599) Task 3520	A	\$15,743.50						0				
	112.5 Retaining Wall near the Stormwater Pump Station (CR-317) PR 20214 (1599) Task 3520	C	\$1,582.83						0				
	112.6 Re-setting Risers of Two Pullboxes (CR-348) PR 20214 (1599) Task 3510	C	\$1,056.00						0				
	112.7 Install New Indicating Light Transmitter Mounting Brackets at MBR Fine Screens (CR-369) PR 20214 (1599) Task 3510	A	\$5,397.64						0				
	112.8 Install New Flow Indicating Transmitter Box at South Interceptor (CR-378) PR 20214 (1599) Task 3510	A	\$1,586.56						0				
	112.9 Provide Fuses for MPS-2 Pump 160 (CR-380) PR 20214 (1599) Task 3510	A	\$5,779.54						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

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	112.10 Miscellaneous Time and Materials Items (CR-401) PR 20214 (1599) Task 3520	A	\$6,646.21						0				
113	Approved by Exe. Director of Engineering & Water Quality Approved on August 12, 2014			\$24,174.12	\$5,166,375.51	\$5,190,549.63	5.9%	\$92,669,999.63	0	681	681	1,775	6/13/2014
	113.1 Alum Feed Piping to High Rate Clarifier (CR-280) PR 20214	A	\$9,837.59						0				
	113.2 Additional membrane Bioreactor Roof Gutter Drain Piping (CR-383) PR 20214 (1599) Task 3520	A	\$10,626.22						0				
	113.3 Modifications to Sump Pumping in Existing Electrical Vaults, South of Blower Bldg. (CR-399) PR 20214 (1599) Task 3520	A	\$3,710.31						0				
114	Approved by Exe. Director of Engineering & Water Quality Approved on September 30, 2014			\$62,612.52	\$5,190,549.63	\$5,253,162.15	6.0%	\$92,732,612.15	0	681	681	1,775	6/13/2014
	114.1 Modifications to chlorination locations and sampling locations at the UV Facility (CR-247) PR 20214 (1599) Task 3245	A	\$1,651.95						0				
	114.2 Miscellaneous Electrical-Related Work Items (CR-409) PR 20214 (1599) Task 3510	A	\$57,969.71						0				
	114.3 Headworks Building Retaining Wall (CR-310) PR 20214 (1599) Task 3505	B	\$2,990.86						0				
115	Approved by Board of Directors Approved on October 27, 2014			\$655,000.00	\$5,253,162.15	\$5,908,162.15	6.8%	\$93,387,612.15	0	681	681	1,775	6/13/2014
	115.1 Modifications to curb, paving, and hardscape at MWRP. (CR-288 and CR-390) PR 30214 (1706) Task 3505	A	\$655,000.00						0				
116	Approved by Exe. Director of Engineering & Water Quality Approved on October 27, 2014			\$72,763.77	\$5,908,162.15	\$5,980,925.92	6.8%	\$93,460,375.92	0	681	681	1,775	6/13/2014
	116.1 Headworks Lighting Modifications (CR-089) PR 20214 (1599) Task 3510	A	\$6,597.88						0				
	116.2 Relocation of Ultraviolet Disinfection Facility Instruments and Analyzer (CR-278) PR 20214 (1599) Task 3510	A	\$4,116.19						0				
	116.3 Grading and Trail Restoration near Floodwall (CR-286) PR 20214 (1599) Task 3505	A	\$7,162.00						0				
	116.4 Coating of Retaining Wall Behind Paint Shop (CR-359) PR 20214 (1599) Task 3505	A	\$5,000.00						0				
	116.5 Modifications to the MPS-2 HVAC Ducting (CR-391) PR 20214 (1599) Task 3520	C	\$7,887.70						0				
	116.6 Pump Rental for New Primary Sedimentation Tank Operation (CR-392) PR 20214 (1599) Task 3520	B	\$42,000.00						0				
117	Pending Approval by Exe. Director of Engineering & Water Quality Pending Approval on November 3, 2014			\$71,646.96	\$5,980,925.92	\$6,052,572.88	6.9%	\$93,532,022.88	0	681	681	1,775	6/13/2014
	117.1 Clarification to Roof Closure Pieces (CR-145) PR 20214 (1599) Task 3505	A	\$12,486.00						0				
	117.2 Repainting Alum Tanks to Medium Bronze (CR-190) PR 20214 (1599) Task 3520	B	\$811.00						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

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Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C. O. days	Revised Total Contract Days	Revised Completion Date
	117.3 Interior Protective Coating for Sight Glasses (CR-203) PR 20214 (1599) Task 3520	A	\$1,730.37						0				
	117.4 Miscellaneous Time and Materials – Electrical Related (CR-316) PR 20214 (1599) Task 3510	B	\$5,619.59						0				
	117.5 Primary Effluent Pump Station Surge Suppressors Installation (CR-398) PR 20214 (1599) Task 3520	B	\$51,000.00						0				
118	Pending Approval by Board of Directors Pending Approval on November 24, 2014			-\$49,147.28	\$6,052,572.88	\$6,003,425.60	6.9%	\$93,482,875.60	0	681	681	1,775	6/13/2014
	118.1 Delete LSH-2231 and conduit C-757 per RFI 116 (CR-118) PR 20214 (1599) Task 3510	A	(\$1,695.00)						0				
	118.2 Delete HRC and MBR Lighting Modifications per RFIs 193 and 240 (CR-119) PR 20214 (1599) Task 3510	A	(\$4,861.53)						0				
	118.3 Shadetree Nursery Plant Donation (CR-385) PR 20214 (1599) Task 3505	A	(\$6,000.00)						0				
	118.4 Delete Landscaping at MWRP Gate 1 (CR-386) PR 20214 (1599) Task 3505	A	(\$39,932.00)						0				
	118.5 Deletion of Gate 10 from CR-288/CCO-095 (CR-387) PR 20214 (1599) Task 3505	A	(\$20,158.75)						0				
	118.6 Backcharge for Irrigation Line Break at Flow Equalization Basins (CR-408) PR 20214 (1599) Task 3520	A	(\$1,500.00)						0				
	118.7 Deletion of Bid Items B-12,B-13, and B-14 (CR-409)	A	(\$20,000.00)						0				
	118.8 Deletion of Bid Item A-32 (Differing Site Conditions) (CR-118.9)	A	(\$100,000.00)						0				
	118.9 Additional Support for System Testing (CR-402)	A	\$145,000.00						0				

A - District Convenience/Initiation - Project Related	\$ 2,645,334.41	3.0%
B - Differing Site Conditions	\$ 361,958.85	0.4%
C - Design Oversight	\$ 405,237.11	0.5%
D - District Convenience/Initiation - Non-Project Related	\$ 2,590,895.23	3.0%
TOTAL (A + B + C + D)	\$ 6,003,425.60	6.9%
TOTAL (A+B+C - (CCO No. 8 - SCADA))	\$ 4,548,351.12	5.2%

November 24, 2014
Prepared by: Gretchen Ronin
Submitted by: Jenny Roney
Approved by: Paul Cook 

ACTION CALENDAR

LONG-TERM DISABILITY, LIFE, AND DEPENDENT LIFE INSURANCE COVERAGE FOR CALENDAR YEAR 2015

SUMMARY:

Staff has received renewal rates from Principal Financial for Long-Term Disability (LTD), Group Term Life Insurance (GTL), and Dependent Life Insurance coverage. Principal Financial has proposed an increase of 20.5% for IRWD's GTL coverage, increasing the cost per \$1000 of coverage from \$0.146 to \$0.176. Principal Financial has also proposed an increase of 17% to IRWD's LTD coverage, increasing the cost per \$100 of covered wages from \$0.47 to \$0.55. Staff requested the District's broker, Mercer, to market this coverage to other providers to determine if more competitive rates were available. Hartford Insurance provided the most competitive proposal.

Staff recommends that the Board authorize the General Manager to cancel the District's current contract with Principal Financial; and authorize the General Manager to contract with Hartford Insurance for LTD, GTL, and Dependent Life coverage.

BACKGROUND:

Since 2008, Life insurance, Dependent Life insurance, and Long-Term Disability insurance coverage has been provided by Principal Financial. Prior to 2008, the District contracted with Hartford Insurance for six years. The Hartford proposal for 2015 coverage matches all the components of the District's current coverage.

Through the District's Long-Term Disability insurance program, employees receive 66.67% of covered wages, up to a maximum benefit of \$10,000 per month. This benefit is payable beginning on the 91st day of continuous disability.

The District's Group Term Life insurance program provides coverage in the amount of three or four times an employee's annual salary up to \$1,000,000. Retirees are covered for the amount of their annual salary at the time of retirement. All coverage under GTL terminates at age 70. Dependent Life coverage provides a \$25,000 death benefit in the event of the death of a qualified spouse or dependent child over 6 months of age.

Hartford has proposed a rate of \$0.34 cost per \$100 of covered wages for LTD and \$0.13 per \$1000 of coverage for GTL. These rates are lower than what the District was paying in 2007 when coverage was last provided by Hartford. While the proposed rate for Dependent Life is higher than the District's current rate, the combined rate for all coverages results in significant savings to the District overall. Hartford is also offering a two-year rate guarantee. A summary of the proposals received is attached as Exhibit "A".

FISCAL IMPACTS:

Staff budgeted for a 5% increase for LTD and GTL premiums for the second half of FY 2014-15. Contracting with Hartford for this life coverage will result in estimated annual premiums of \$253,000, approximately \$105,000 or 29.3% under budgeted projections. The premium projections are based on current coverage volumes which can be expected to increase as some of the 25 vacant positions at the District are filled, resulting in estimated savings being reduced but still significant when compared to the proposed rate increases from Principal.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

Due to the timing of when staff received proposals, the upcoming deadline for canceling coverage with Principal Financial, the deadline to install new coverage with Hartford and to provide information to employees at upcoming benefits meetings, this item was not reviewed by the Finance and Personnel Committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO CANCEL THE CURRENT CONTRACT WITH PRINCIPAL FINANCIAL AND ENTER INTO A TWO-YEAR CONTRACT WITH HARTFORD FOR LONG-TERM DISABILITY, GROUP TERM LIFE, AND DEPENDENT LIFE INSURANCE COVERAGE.

LIST OF EXHIBITS:

Exhibit “A” – Summary of Bid Results

EXHIBIT "A"

2015 Renewal & Marketing
Life and Long Term Disability

	Enrolled	Volume	Principal Current	Principal Renewal	Hartford Proposed	Reliance Proposed	Guardian Proposed	Cigna Proposed	Lincoln Proposed	Unum Proposed
Basic Life per \$1,000	376	\$96,110,000	\$0.146	\$0.176	\$0.130	\$0.135	\$0.148	\$0.146	\$0.230	\$0.210
Dependent Life	240	per unit	\$1.25	\$1.25	\$7.05	\$1.25	\$1.25	\$9.208	\$9.84	\$1.25
Long Term Disability per \$100	301	\$2,031,768	<u>\$0.47</u>	<u>\$0.55</u>	<u>\$0.34</u>	<u>\$0.45</u>	<u>\$0.43</u>	<u>\$0.47</u>	<u>\$0.31</u>	<u>\$0.59</u>
Monthly Cost			\$23,881	\$28,390	\$21,094	\$22,418	\$23,261	\$25,791	\$30,765	\$32,471
Annual Cost			\$286,576	\$340,681	\$253,132	\$269,014	\$279,131	\$309,495	\$369,185	\$389,646
Annual \$ Change from Current			n/a	\$54,105	-\$33,445	-\$17,563	-\$7,446	\$22,919	\$82,608	\$103,070
Annual % Change from Current			n/a	18.9%	-11.7%	-6.1%	-2.6%	8.0%	28.8%	36.0%
Rate Guarantee			1 year	1 year	2 years	3 years	2 years	3 years	2 years	3 years

MERCER

November 24, 2014
Prepared by: J. Dayer
Submitted by: K. Drake/P. Shields
Approved by: Paul Cook 

ACTION CALENDAR

THREE-YEAR JANITORIAL SERVICES CONTRACT

SUMMARY:

Staff recommends that the Board authorize the General Manager to execute a three-year janitorial services contract with DMS Facility Services, LLC., in the total amount of \$590,784.

BACKGROUND:

IRWD's Sand Canyon Headquarters (Sites 1-2), Operations Center (Sites 3-13), Los Alisos Water Recycling Plant (Site 14), and 11 satellite facilities (Sites 15-25) totaling 115,000 square feet require ongoing janitorial services. On March 1, 2014, a three-year contract for these services was awarded to Starbrite Building Maintenance, Inc. Subsequent to the award, the contractor consistently fell short of the contract performance standards. Staff initiated a 90-day probation and performance review period effective July 1, 2014. During the probation and performance review period, staff conducted frequent inspections and worked closely with the contractor to ensure standards were met. In spite of this effort, the contractor was unable to perform satisfactorily, and new proposals for janitorial services were solicited.

Contractor Selection:

A Request for Proposal was issued on October 23, 2014 to eight custodial contractors. Five contractors attended the October 28, 2014 job walk. Of the job walk participants, three submitted proposals: American Building Maintenance, Sunset Property Services, Inc., and DMS Facility Services, LLC. The lowest responsive bidder was DMS Facility Services, LLC. with a bid of \$590,784. This bid reflects an increase over the previous contract, driven primarily by increases in labor costs. Legislative actions effecting labor costs on this contract include a 12.5% increase in the California minimum wage effective July 1, 2014, an additional 12.5% increase in the California minimum wage effective January 1, 2016, and the costs associated with the Patient Protection and Affordable Care Act Employer Mandate effective January 1, 2015.

DMS-Services, LLC. provided satisfactory janitorial services to the District on a previous three-year contract and are currently under contract with the Orange County Fire Authority. All of DMS-Services' references provided positive feedback.

FISCAL IMPACTS:

Sufficient funding for janitorial services through June 30, 2015 is included in the FY 2014-15 Operating Budget. Staff will include the needed funding in the FY 2015-16 and FY 2016-17 and FY 2017-18 Operating Budgets to cover the cost of the new contract.

Action Calendar: Three-Year Janitorial Services Contract.

November 24, 2014

Page 2

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on November 18, 2014.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A THREE-YEAR JANITORIAL SERVICES CONTRACT WITH DMS FACILITY SERVICES, LLC. IN THE TOTAL AMOUNT OF \$590,784.

LIST OF EXHIBITS:

Exhibit "A" – Three-year Janitorial Contract Bid Summary

Exhibit "A"
Three Year Janitorial Contract
Bid Summary November 18,2014

Contractor	1st year Lump Sum	Second Year Lump Sum	Third Year Lump Sum	Three Year total
DMS Facility Services, LLC	\$186,624.00	\$202,080.00	\$202,080.00	\$590,784.00
American Building Maintenance, Inc.	\$181,079.00	\$208,689.00	\$224,160.00	\$613,928.00
Sunset Property Services, Inc.	\$236,097.00	\$236,097.00	\$243,179.00	\$715,373.00

Site List

Site # 1	Sand Canyon Headquarters Building
Site #2	Sand Canyon Community Room
Sites #3-13	Operations Center, Michelson Water Recycling Plant, Bldg. 50 (Maintenance Shops), Bldg. 10 (Fleet Services), and Marsh Campus Buildings
Site #14	Los Alisos Water Recycling Plant
Site #15	Deep Aquifer Treatment Plant - Control Room and Restroom
Site #16	Primary Disinfection Facility Restroom
Site #17	Zones 7 & H restrooms
Site #18	Sand Canyon Reservoir Restroom
Site #19	Rattlesnake Pump Station Restroom
Site #20	Rattlesnake Park Restroom
Site #21	San Joaquin Reservoir Control Bldg. Restroom
Site #22	Baker Water Treatment Plant
Site #23	Tustin Wells 21 & 22 Treatment Plant
Site #24	Potable Treatment Plant Control Room and Restroom
Site #25	Foothill Zone 6 & 6A Pump Station Control Room and Restroom

05
November 24, 2014
Prepared by: B. Meserlian/E. Akiyoshi/
M. Hoolihan
Submitted by: K. Burton *KLB*
Approved by: Paul Cook *PC*

ACTION CALENDAR

2015 SEWER COLLECTION SYSTEM MASTER PLAN CONSULTANT SELECTION

SUMMARY:

The 2015 Sewer Collection System Master Plan (SCSMP) project will update the 2006 SCSMP by performing a detailed flow monitoring program, calibrating sewer flow projections, developing a hydraulic model, and analyzing reliability and redundancy for critical sewer collection facilities. In September 2014, a Request for Proposal was sent to seven engineering firms and four proposals were received. Staff evaluated the proposals and recommends that the Board authorize the General Manager to execute a Professional Services Agreement in the amount of \$891,784 with AKM Consulting Engineers.

BACKGROUND:

This project includes a detailed flow monitoring study, development of a calibrated hydraulic model, and completion of the 2015 SCSMP allowing IRWD to achieve the following goals:

- *Quantify changing indoor water use patterns:* Although conservation efforts are decreasing residential indoor water use thus sewer flow projections, new development and redevelopment areas similar to the Irvine Business Complex (IBC) area are increasing sewer flows. This project will update sewerage flow-generation factors;
- *Plan for development growth:* The sewer collection system and flows are growing due to development. The SCSMP update will evaluate the impact to critical facilities;
- *Accommodate changing land uses:* Along with the IBC, the Lake Forest Opportunity Study areas along with the intensified Great Park Neighborhoods have necessitated a re-projection of future system conditions;
- *Provide information for future sewage treatment plant expansion planning:* Both the Michelson Water Recycling and Los Alisos Water Recycling Plants need future expansions. This SCSMP update will verify future flow projections and assist in updating IRWD's Sewage Treatment Plant Master Plan; and
- *Analyze reliability and redundancy of critical facilities:* Large sewer trunk mains, lift stations, diversion structures, and siphons are some of the critical facilities that will be analyzed for reliability and redundancy opportunities.

This project will be implemented over three phases:

Phase 1: Flow monitoring and updating of flow projections; scheduled for completion in the summer of 2015;

Phase 2: Development of a calibrated sewer model that will be utilized to recommend capacity improvements, and capital improvement relating to capacity issues; scheduled for completion in early 2016; and

Phase 3: Preparation of a reliability and redundancy analysis of the sewer collection system for minimizing risk for future spills, and development of a prioritized Capital Improvement Plan; scheduled for completion in spring of 2016.

Consultant Selection Process:

Seven consulting firms were requested to submit proposals for the 2015 SCSMP. RMC Water and Environment, Dudek, AKM Consulting Engineers, and a Stantec/RBF team submitted proposals. The four teams were evaluated based on their team experience, technical approach, and responsiveness to IRWD concerns during the interview.

Although all the teams had their specific strengths, staff recommends the project be awarded to AKM for the following reasons:

- *Technical approach and project understanding:* AKM has an excellent technical approach and understanding of the project. They consistently ranked in the top two on the consultant selection matrix;
- *Local, cohesive team experience:* AKM's office and the entire project team are located within five miles of the District's office. The close proximity of their office will support the close collaboration required for this project. The entire project team has completed a wealth of SCSMP projects as a cohesive unit;
- *Required Level of Effort:* Staff believes that AKM's staff-hour estimates are appropriate for the level of effort anticipated on this project, particularly the hydraulic model development tasks; and
- *Overall Value:* AKM and RMC are closely ranked in the Consultant Selection Matrix which is attached as Exhibit "A". Upon review of proposed hour-breakdowns, overall budgets, and individual billing rates, staff believes that AKM provides the best value for IRWD.

AKM's original fee was \$955,364. Staff negotiated a final scope and fee of \$891,784 and is attached as Exhibit "B".

FISCAL IMPACTS:

Project 21748 (5142) is included in the FY 2014-15 Capital Budget. The existing budget is sufficient to fund the work.

<u>Project No.</u>	<u>Current Budget</u>	<u>Addition <Reduction></u>	<u>Total Budget</u>
21748 (5142)	\$1,155,000	\$0	\$1,155,000

ENVIRONMENTAL COMPLIANCE:

This study is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15262, which provides exemption for planning studies.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on November 18, 2014.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH AKM CONSULTING ENGINEERS IN THE AMOUNT OF \$891,784 TO COMPLETE THE 2015 SEWER COLLECTION SYSTEM MASTER PLAN, PROJECT 21748 (5142).

LIST OF EXHIBITS:

Exhibit "A" – Proposal Evaluation Form

Exhibit "B" – AKM Consulting Engineers' Scope of Work

EXHIBIT "A"

CONSULTANT EVALUATION MATRIX 2015 Sewer Collection System Master Plan Update

Item	Description	Weights	AKM CONSULTING	STANTEC/RBF	RMC	Dudek			
A	TECHNICAL APPROACH	45%							
1	Overall Project Understanding	10%	1	4	2	3			
2	Flow Monitoring, Generation Factor Calibration, and Projections (Tasks 4 and 5)	30%	2	1	3	4			
3	Hydraulic Model Development and Analysis (Tasks 6 and 8)	50%	2	4	1	3			
4	Prioritized CIP and Reliability/Redundancy Analysis (Tasks 9 and 10)	10%	2	3	1	4			
	<u>Weighted Score (Technical Approach)</u>		1.90	3.00	1.70	3.40			
B	QUALIFICATIONS AND EXPERIENCE	45%							
1	Project Manager	10%	1 Zeki Kayiran, PE MS, 40 yrs Exp	2 Robert Reid, PE MBA, 25 yrs Exp	4 Paul Giguere, PE MS, 37 yrs Exp	3 Bob Ohlund, PE BS, 31 yrs Exp			
2	Project Engineer/ Assistant Project Manager	20%	2 Diann Pay, PE MS, 16 yrs	3 Jeff Dunn, PE BS, 20 yrs Exp	1 Andy Baldwin, PE BS, 26 yrs	4 Russ Bergholz, PE BS, 18 yrs Exp			
2	Project Modeler/ Project Engineer	30%	2 Jon Nitta, PE BS, 13 yrs	3 Tori Yokoyama, PE BS, 10 yrs	4 Cathy Greenman, PE MS, 13 yrs	1 Saurabh Thapar, PE MS, 14 yrs			
3	Project Team Experience	30%	1	4	2	3			
4	Firm's Relevant Experience	10%	2	4	1	3			
	<u>Weighted Score (Experience)</u>		1.00	2.40	1.30	2.30			
C	INTERVIEW	10%							
1	Key Topics (General Questions Provided to All Consultants)	50%	1	3	2	4			
2	Q&A	50%	1	4	2	3			
	<u>Weighted Score (Technical Approach)</u>		1.00	3.50	2.00	3.50			
	COMBINED WEIGHTED SCORE		1.41	2.78	1.55	2.92			
	Ranking of Consultants		1	3	2	4			
C	SCOPE OF WORK								
TASK		Task Hours	FEE	Task Hours	FEE	Task Hours	FEE	Task Hours	FEE
1	Project Management/ Meetings & Coordination	200	\$31,200	338	\$56,768	350	\$65,440	105	\$20,560
2	Data Collection and Review	88	\$11,920	81	\$11,493	36	\$7,281	60	\$11,080
3	Land Use Update	120	\$14,200	44	\$8,752	56	\$10,718	62	\$10,360
4	Flow Monitoring Plan and Implementation	104	\$22,280	94	\$14,384	192	\$39,408	196	\$36,021
5	Calibrate Sewer Flow Generation Factors and Update Sewer Flow Projections	328	\$38,880	286	\$39,260	312	\$59,783	120	\$21,460
6	Develop Hydraulic Models of the Existing and Future Sewer Collections Systems	1,256	\$156,640	644	\$77,755	680	\$139,576	372	\$66,520
7	Review and Update IRWD Sewer System Design and Performance Criteria	48	\$8,380	94	\$14,028	76	\$18,927	32	\$5,600
8	Complete Existing and Future System Analysis	948	\$146,350	347	\$42,797	520	\$109,670	264	\$47,040
9	Prioritized Existing and Future Capital Improvement Program	104	\$17,920	184	\$26,770	404	\$80,987	110	\$20,100
10	Reliability and Redundancy Analysis	456	\$62,560	220	\$32,502	128	\$79,057	172	\$31,480
11	Operational Criteria and SSMP Review	124	\$20,300	188	\$28,288	28	\$55,760	68	\$12,040
12	Updating IRWD's SCMP Report	In Task 13		510	\$70,574	248	\$56,561	320	\$55,360
13	Deliverables	780	\$123,436	96	\$30,552	774	\$170,717	166	\$28,700
	SUB-TOTAL ENGINEERING SERVICES, FEE	4,556	\$654,046	3,126	\$448,923	3,804	\$913,785	2,047	\$386,321
15	Flow Monitoring		\$301,318		\$281,425		\$301,318		\$309,567
	TOTAL ENGINEERING SERVICES, FEE	4,556	\$955,364	3,126	\$731,348	3,804	\$1,215,103	2,047	\$675,888
	Avg \$/hr		\$144		\$144		\$240		\$179
D	OTHER								
	Miscellaneous Items								
	Multiplier		-		-		3.3		-
	Conflict of Interest		No		No		NA		No
	Joint Venture		No		No		NA		No
	Addendum Acknowledgement		Yes		Yes		Yes		Yes
	Scope of Work Exclusions		No		No		No		No
	Exceptions taken to IRWD Std. Contract		No		No		No		No
	Insurance (Professional & General Liability)		Yes, Certs Provided		Yes, Certs Provided		Yes, Certs Provided		Yes, Certs Provided

EXHIBIT "B"

The scope of work for a comprehensive sewer collection system master plan (SCSMP) varies greatly depending on the purpose of the study and specific conditions of the study area. Irvine Ranch Water District's (IRWD) Request for Proposal (RFP) is very detailed in its description of the services required. We acknowledge the RFP in its entirety. Following is a detailed description of our understanding of the project and the scope of work.

1.1 Project Understanding

IRWD's latest sewer collection system master plan was completed in 2006. The purpose of this project is to update the 2006 SCSMP. IRWD's major goals are as follows:

1. Identify the necessary infrastructure to support future growth through the year 2035
2. Update and calibrate the sewer collection system hydraulic model
3. Update the sewer flow generation factors and system flow projections
4. Develop a risk analysis based replacement planning model to prioritize capital improvements and replacement projects
5. Review and update sewer system design and performance criteria
6. Identify projects that will improve reliability and redundancy within the existing sewer collection system
7. Organize documentation of all existing sewer collection system facilities

The IRWD sewer service area encompasses approximately 180 square miles, covering some or all of the Cities of Irvine, Lake Forest, Tustin, Newport Beach, and Orange, and portions of unincorporated Orange County. The service area resident population is about 340,000, with much higher daytime population. The primary elements of the sewer system are as follows:

- 995 miles of gravity sewer mains (4-inches to 60-inches in diameter)
- 2 water recycling treatment plants (Michelson and Los Alisos)
- 23 lift stations (11 primary, 9 secondary, 3 private) and associated force mains
- 20 siphons (8-inches to 30-inches in diameter)
- 10 diversion structures

The majority of the sewage collected by IRWD's sewer collection system is conveyed to the Michelson Water Recycling Plant (28 MG capacity) or the Los Alisos Water Recycling Plant (7.5 MG capacity) for treatment. Some of the sewage treated at these facilities is generated outside of IRWD's service area but are conveyed to a connection point and ultimately treated at IRWD's recycling plants (i.e. English Canyon, parts of Tustin, Newport Beach, and Santa Ana Heights).

There are also areas where an outside agency, such as the Orange County Sanitation District is ultimately responsible for treatment (i.e. Irvine Business Complex, Newport Coast). IRWD's system collects the sewage locally and then conveys it to a connection point with the outside agency's trunk sewer system.

Orange Park Acres (OPA) and the Santiago Canyon Areas (SCA) are areas where IRWD consolidated with a former agency and now maintains the sewer system. Currently there are no plans to build, or integrate a new sewer system in these areas. The SCSMP project will not incorporate the OPA or the SCA into the model or report.

1.2 Scope of Work

OVERALL PROJECT MANAGEMENT TASKS

TASK 1: PROJECT MANAGEMENT / MEETINGS & COORDINATION

Project management activities to ensure adherence to schedule and budget, communication between AKM and IRWD, implementation of an effective request for information system, and implementation of an effective quality assurance/quality control (QA/QC) program will include the following:

- Bi-weekly status report that summarizes the work/tasks completed in the previous two weeks, the upcoming work for the next two weeks, list of data received, list of data requests pending, and the status of the project budget and schedule. An email will be sent on the "off" Friday of the IRWD's planning staff's schedule so that the status report will be available Monday morning and the staff can report to upper management on the status of the project.

- Two meetings per month, as needed, with prepared agendas and follow-up meeting minutes within one week following the meeting
- Updated project schedule in MS Project
- Monthly billing statements with list of all tasks, budgets, percent complete, and hours charged to each task

A project kickoff meeting will be held to review the project scope, schedule, responsibilities, and dependencies. A data request list will be provided at this meeting. The data request list will be documented in a spreadsheet format, indicating the following in separate fields: data description, responsible person, date of request, estimated date needed, date received, data file name if applicable, comments. This data request list will initially be included with the bi-weekly status reports. As the data requests are fulfilled, it may not be necessary to continue to attach the list to the email.

It is expected that we will meet with planning and operations staff quite frequently in the beginning stages of the project in order to collect and verify data (geometry of and data in GIS, etc.), confirm system operations, coordinate field work (flow monitoring, calibrations, site visits, etc.), and develop further insight into the system. The work hours for these meetings are included in the fee proposal under Task 1.

TASK 2: DATA COLLECTION AND REVIEW

We will compile a list of data requests that have not already been provided during the proposal process and present it at the kickoff meeting. As the project progresses, the data request list will be updated. The following data will be reviewed and referred to during the course of the project:

- 2006 Sewer Collection System Master Plan
- IRWD Sewer Collection System GIS Geodatabase
- IRWD Rules and Regulations
- IRWD Procedural Guidelines
- 2013 IRWD Sewer System Management Plan and Appendices
- Sewer System Management Plan Audit
- Future development Sub-Area Master Plans and Hydraulic Models
- 2011 to 2014 IRWD utility billing data for potable customers
- IRWD potable customer meter GPS data
- Wonderware SCADA facilities list
- IRWD Record Drawing electronic library
- IRWD GIS land use database (LU_Areas shapefile)
- 2009 San Diego Creek Interceptor Reliability Study
- 2009 Lake Forest Woods Sewer Rehabilitation Preliminary Design Report
- Latest IRWD Sewer Collection System Hydraulic Model (InfoSewer)
- IRWD Water Resources Master Plan and September 2012 Demand Factors (Table 3-1)
- Closed Circuit Television (CCTV) Sewer Inspection Database and Videos, as needed
- Sewer System Atlas Sheets
- SCADA Information
- Lift Station Information (pump specifications, pump curves, SCADA, maintenance logs)
- Inverted Siphon Information (location maps, as-built plans, field inspection logs, and operational descriptions)
- Diversion Structure Information (location maps, as-built plans, field inspection logs and operational descriptions)
- Procedural Guidelines and General Design Requirements
- Fats, Oil, and Grease Program Manual

PHASE I: FLOW MONITORING PLAN DEVELOPMENT AND IMPLEMENTATION

The goal of this Phase is to update the ultimate land use in the service area, and to conduct flow monitoring in support of updating IRWD's sewage flow projections and rainfall dependent infiltration and inflow. The information developed

will be used to formulate the needed existing system improvements per IRWD's criteria, and the improvements needed to support the future developments.

TASK 3: LAND USE UPDATE

We will verify IRWD's ultimate land use assumptions with those in City and County general plan information. We will collect general plan information and available specific plan information for the Cities of Orange, Irvine, Newport Beach, Tustin, Lake Forest, and Costa Mesa (even though outside sewer tributary area, it will be included for this task) and for the County of Orange within the service area. We will also use the provided SAMP data. We will then identify any potential discrepancies between IRWD's Land use Areas GIS layer and the collected general plan information. We will meet with IRWD to discuss the discrepancies and develop a strategy for updating the land use information in the Land Use Areas GIS layer.

For existing land uses, it is our understanding that IRWD updated the Land Use Areas GIS layer in 2012. We will look at land use information for developments that have been constructed in the last two years and update the existing land use information. If needed, we will refer to aerial photographs or field reviews for confirmation of land use development.

Exhibits will be prepared for both the existing and ultimate build out land use information.

TASK 4: FLOW MONITORING PLAN AND IMPLEMENTATION

Task 4.1: Develop Flow Monitoring Plan – The first task of the project will be to develop a flow monitoring plan so that flow meters can be installed as quickly as possible for the inflow and infiltration (I&I) analysis. Since the project is expected to start on December 1st, flow meters for I&I analysis will have to be installed as quickly as possible so as not to miss any potential rain events. Therefore, the flow monitoring plan may be developed in phases, the first being for I&I analysis. Subsequent phases will be to develop a plan for flow monitoring locations that pertain to sewer flow generation. However, we will strive to select all the sites to be complementary, and provide the most benefit for the study.

Task 4.2: Flow Monitoring for Updating Sewer Flow Generation Factors – We will select approximately 35 locations to flow monitor and develop sewer unit flow factors for various land use types. However, these may be combined with the model calibration locations in order to develop the maximum benefit from this effort. The selected locations will cover as many jurisdictions and land use types as possible. The flow monitoring locations will be selected after completing Task 3, which will verify the existing land uses throughout the service area. The flow monitors will be in place for 8 weeks.

Based on our experience, flow monitoring becomes more and more unreliable as the flow depth in the sewer pipe decreases. More accurate measurements result from larger tributary areas, resulting in larger flows with sufficient flow depth. Typically, unit flow factors can be developed for single family residential land uses from sewer flow monitoring data because large areas of single family residential uses can usually be isolated and flow monitored at one or more locations. It is more difficult to isolate large areas of multi-family, commercial, industrial, and institutional land uses. Additionally, because of large variation in industrial land use types and their flow generation, unit flow factors are even more difficult to develop for this land use. We will generate sewer flows from water use for industrial, and possibly some of the commercial areas. If needed, we will utilize water use records to supplement the flow monitoring information to develop the unit flow factors. For example, if a large tributary area encompasses commercial and industrial uses, we can install a flow monitor to capture the total sewage flows but then we can separate out the portion from commercial areas and the portion from the industrial uses by analyzing the water use of each. Depending upon what information is available, we can develop unit flow factors based on acreages, dwelling units, building square footage, population or a combination.

During this phase, we will review the District's high water users and assess if diurnal sewer generation information can be developed from potable water use and whether such an effort would be of benefit to IRWD. We monitored the use and developed potable water diurnal use patterns for 29 high water users. This included several agricultural and landscape irrigation uses, which would not be reviewed; as well as hotels; a mobile home park; industrial customers such as Allergan, Braun Medical, Jazz Semiconductor, and Royalty Carpets; and the Musick Facility. Some of the

industrial average water uses at a single meter were quite large (as high as 913 gpm for Jazz Semiconductor). We will further review the high water users and determine if any additional potable water use monitoring may be beneficial, and monitor them utilizing the District's Meter Master equipment.

Task 4.3: Flow Monitoring for Calibrating the Sewer Collection System Hydraulic Model – We will select approximately 20 locations to flow monitor for purposes of calibrating the developed sewer system hydraulic model. The selected locations are expected to cover large tributary areas at key locations throughout the sewer system. These locations will not coincide with the locations selected for other tasks, however this work will utilize the dry weather flow monitoring information obtained at the I&I monitoring locations. Locations close to existing lift stations with SCADA information will also be avoided. We will utilize the lift station SCADA information to develop diurnal curves for their tributary areas if their pump start and stop levels are below the influent sewer(s), or the volume in the influent sewers can be quantified. If IRWD's SCADA system is not polling the data in short enough time increments to effectively use it, we will install Track-it loggers at the flow meters to record pump start and stop times as part of this effort. The flow monitors will be in place for 8 weeks.

Task 4.4: Flow Monitoring for Inflow and Infiltration Analysis – We will select approximately 10 locations for purposes of conducting an inflow and infiltration (I&I) analysis. The flow monitors will be in place for up to 6 months. We will schedule the flow monitor installations based upon weather forecasts in early December, in order to obtain the most benefit from the data, and may remove them past the rainy season again based upon weather forecasts. The locations selected will encompass the large tributary areas of the trunk sewers as well as known or suspected areas of I&I, such as in the Harvard Avenue Trunk Sewer area. As part of this effort, we will utilize the Harvard Lift Station SCADA information, if possible. We currently anticipate placing monitors along the San Diego Creek Interceptor at Culver Drive, Jeffrey Road, Laguna Canyon Freeway, and at Serrano Creek; along Culver Trunk Sewer at Main Street, Irvine Center Drive, and Irvine Boulevard; and along Harvard Trunk Sewer at the San Diego Creek crossing, Irvine Center Drive, and the I-5 Freeway, assuming the SCADA data at the Harvard Lift Station can be used. See Figure 1 for potential locations.

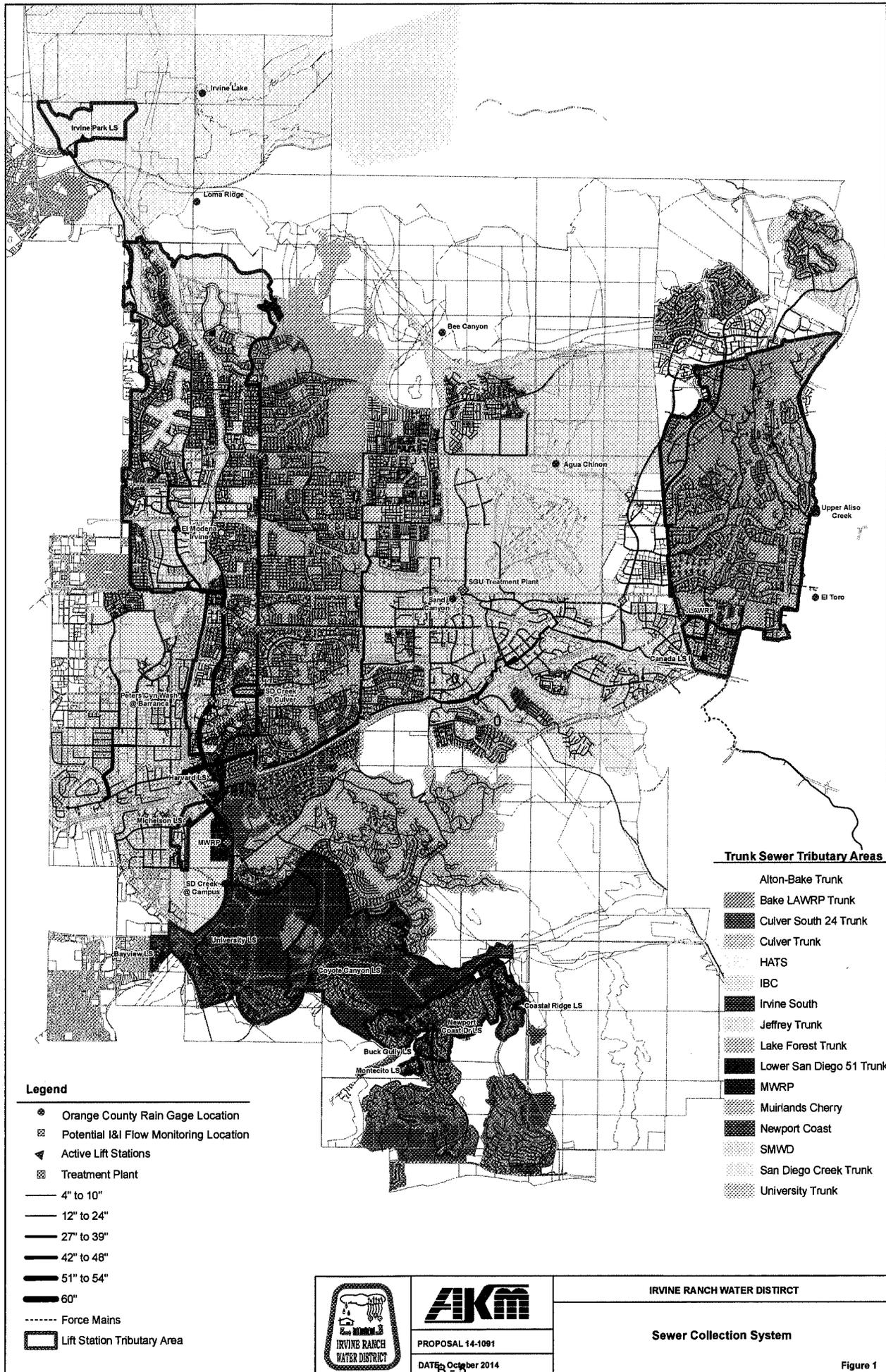
We will obtain rainfall data from Orange County Public Works at eleven (11) stations in and around IRWD's service area (El Toro, Upper Aliso Creek, Aqua Chinon, Sand Canyon, Bee Canyon, Loma Ridge, Irvine Lake, El Modena-Irvine, San Diego Creek at Culver, Peters Canyon Wash at Barranca, San Diego Creek at Campus), as shown on Figure 1. Additionally, we will utilize information from the three gages that IRWD maintains. If needed we will procure additional rain gages through ADS once the actual sites are selected in order to have adequate coverage of the basins.

PHASE II: EXISTING AND FUTURE SYSTEM ANALYSIS

TASK 5: CALIBRATE SEWER FLOW GENERATION FACTORS AND UPDATE SEWER FLOW PROJECTIONS

Task 5.1: Calibrate IRWD's Sewer Flow Generation Factors – The sewer flow generation factors will be calibrated based upon the flow monitoring performed for Task 4.2 and associated land use information (acreage, dwelling units, building square footage), as well as water use information. As described above, we will install Meter Masters at mutually agreed on locations to supplement the data we collected for the Potable Water System Model to develop specific return flow estimates. These will be at sites where irrigation demand is on the non-potable system, and may include well occupied high density residential meters; additional large commercial and industrial users. We will contact the customers to understand their operation and how water used to estimate the return flow patterns.

Task 5.2: Update Sewer Flow Projections – We will update the sewer flow projections by sewer trunk tributary area and sewer-sanitation district based upon the flow monitoring conducted, and information from other agencies (SMWD, ETWD, OCSD). Existing loads will be based on water use that is reduced to match lift station inflow and select flow monitoring data. This process is further described under Task 6.1. Loads for future developments will be based on the developed sewer flow generation factors and the land uses described in each SAMP report.



Legend

- ⊙ Orange County Rain Gage Location
- ⊠ Potential I&I Flow Monitoring Location
- ▲ Active Lift Stations
- ⊠ Treatment Plant
- 4" to 10"
- 12" to 24"
- 27" to 39"
- 42" to 48"
- 51" to 54"
- 60"
- Force Mains
- ⊠ Lift Station Tributary Area

Trunk Sewer Tributary Areas

- Alton-Bake Trunk
- Bake LAW RP Trunk
- Culver South 24 Trunk
- Culver Trunk
- HATS
- IBC
- Irvine South
- Jeffrey Trunk
- Lake Forest Trunk
- Lower San Diego 51 Trunk
- MWRP
- Muirlands Cherry
- Newport Coast
- SMWD
- San Diego Creek Trunk
- University Trunk



PROPOSAL 14-1081
 DATE: October 2014

IRVINE RANCH WATER DISTRICT

Sewer Collection System

Figure 1

The major sewer trunk tributary areas are as follows:

- Alton-Bake Trunk
- Bake LAWRP Trunk
- Culver South 24 Trunk
- Culver Trunk
- Harvard Avenue Trunk Sewer (HATS)
- Irvine Business Complex (IBC)
- Irvine South
- Jeffrey Trunk
- Lake Forest Trunk
- Lower San Diego 51 Trunk
- Muirlands Cherry
- Newport Coast
- San Diego Creek Trunk
- University Trunk

The sewer sanitation districts are as follows:

- Michelson Water Recycling Plant (MWRP)
- Los Alisos Water Recycling Plant (LAWRP)
- Irvine Business Complex (IBC) – to OCSD
- Newport Coast – to OCSD
- Santa Margarita Water District (SMWD)

Task 5.3: Update Diurnal Curves – Diurnal curves will be developed utilizing the flow monitoring data collected in Task 4 for residential and non-residential land use types and for each of the major sewer trunk tributary areas, and large user water meter monitoring locations.

It is anticipated that specific diurnal curves will be developed for the following land use types:

- Low Density Residential
- High Density Residential
- Hotels
- Office Commercial
- Industrial

TASK 6: DEVELOP HYDRAULIC MODELS OF THE EXISTING AND FUTURE SEWER COLLECTION SYSTEMS

The existing and future sewer models will be developed in Innovyze’s InfoSWMM Suite, which is a fully ArcGIS integrated and fully dynamic, geospatial wastewater and stormwater modeling and management software application.

Task 6.1: Develop Existing Hydraulic Model

Per the RFP, the model will not incorporate the Orange Park Acres sewer system or the Santiago Canyon Area sewer facilities.

Model Geometry: The existing Sewer Geodatabase will be the basis for the geometry of the existing hydraulic model. The key pieces of information that will be imported into the model software are as follows:

- For pipes - pipe ID, upstream and downstream manhole ID, pipe diameter, pipe length, upstream and downstream inverts (slopes will be calculated by model)
- For manholes – manhole ID, manhole diameter, manhole invert elevation and manhole rim elevation

We have reviewed the geodatabase and have found the following issues that may need to be resolved during the course of the project in order to build the model:

- Missing manhole IDs in the pipe layer
- Manhole IDs specified in the pipe layer do not exist in the manhole layer

- Pipe ID is incomplete because manhole ID is missing
- Missing inverts in the pipe layer
- Missing slopes in the pipe layer
- Missing diameters in the pipe layer
- Missing rim elevations in the manhole layer

We propose to generate new upstream and downstream manhole ID fields using a spatial join in ArcGIS. This will ensure that the existing manhole IDs in the manhole layer are used to populate the manhole ID fields in the pipe layer before importing data into the model software. New Pipe IDs will also be generated utilizing the upstream and downstream manhole ID names. For pipes 10-inches and larger, there are currently 215 missing one or both of the manhole IDs in the pipe layer.

For pipes 10-inches and larger, there are currently about 150 reaches missing one or both inverts. For these 10-inch and larger pipes that are missing inverts and/or diameters, we propose to review as-built plans to obtain the data. If the pipes are missing slopes but have the invert data, we will not have to review plans because the hydraulic model will calculate the slopes with invert data and pipe length information. The "Actual Length" will be used as seen in the geodatabase if available. Otherwise the GIS shape length will be used. If slopes are available, we will do a comparison of GIS slopes to model calculated slopes. If large discrepancies are found, we will go to as-built plans to confirm the pipe information.

We propose to import all the IRWD owned pipes (excluding laterals and stub-outs) into the hydraulic modeling software. The primary reason for this approach is to enable us to more accurately allocate the loads to the system. Small Thiessen polygons will be created around each manhole, capturing the loads from water meter data attached to each adjacent parcel. The small Thiessen polygons will be the most accurate way to allocate the loads to the correct local sewer system. The routing of the flows will also be more accurate if the total system geometry is in the model. There are an additional 400 reaches missing one or both inverts if we include all the pipes (8-inch and smaller) in the model. We are proposing to estimate the inverts of these reaches and tag them for future reference in lieu of spending additional hours researching as-built plans. In the future, IRWD staff can research the as-built plans and update the hydraulic model. The hydraulic analysis (depth of flow, velocity) for these reaches will not be correct but we will have a general idea of whether or not they could possibly be capacity deficient and should be examined further.

Document Corrections: One field in the existing geodatabase will also be maintained in the hydraulic model so that there is a link back to the geodatabase. Since it is expected to have a one to one relationship when creating the model from the geodatabase, we will be able to create shapefiles from the final model and link the data back to the original geodatabase. Then, if needed, comparison queries can be run to identify where the changes have occurred between the model and the original geodatabase.

The only time the method described above will not work is when the one to one relationship is broken. For example, if it is found that a manhole needs to be inserted into the model to split a pipe into two segments. The pipe and manhole IDs will no longer match with the original geodatabase for this area of the system. Comments will be kept in the model for these types of changes in order to track them. For example, the two pipes will each have a comment noting the original pipe ID and the reason for the change in the model. Maintaining the original pipe ID will be important as it will be the key to linking the changes back to IRWD's original geodatabase.

Allocate Existing Average Loads: We propose to allocate the most recent water billing meter records (excluding meters for recycled water, fire water, construction water, and irrigation water) to the sewer model manholes. This will provide the most accurate spatial distribution of the water use and subsequently sewage generation throughout the system. The allocated water use will be decreased to represent sewage generation by matching lift station inflow and select flow monitoring data from Task 4, particularly the locations selected for calibration purposes.

The water meter shapefile contains unique meter IDs that will be used to link the billing data records to the GIS map. Thiessen polygons will be created around manhole locations and/or clusters of manhole locations.

Peak Loads: Diurnal curves developed in Task 5.3 for the major sewer trunk tributary areas and from lift station SCADA data will be assigned to each manhole. Diurnal curves for specific land uses will be assigned to large sewage generators as needed.

Existing Facilities: We will obtain all facility (lift station, siphon, diversion structure, treatment plant) information from IRWD. We will model each facility based upon as-built construction drawings and the existing operating conditions. Facility elevation data will be based on as-built construction drawings. We will enter pump curves into the model based on the latest field performance tests, if available. Otherwise, we will develop these in the field from wet well level, flow rate, and discharge pressure measurements. At least five points will be input for each pump curve.

Operational Controls and Settings: We will obtain facility controls and settings from IRWD staff and SCADA information. After initial review of facility control/settings information, we will interview IRWD operations staff for further insight into the operation of the system and to discuss any operational problems that the system may experience, particularly at siphons and/or diversion structures. We will schedule field visits to the lift stations, siphons, and diversion structures to fully understand and document their operations. Information collected in the field will be utilized to set up controls in the model.

Task 6.2: Calibrate Existing Extended Period Simulation – We will utilize the flow monitoring information as well as available SCADA data from the lift stations to calibrate the model with the existing system and existing loads. If needed, we will install Track-it loggers at the lift station flow meters that will record the pump start and stop times. This, along with pump start and stop levels, will be used to determine the flow coming into the station. This method assumes that the inflow to the wet well is the same when the pump operates as the period before the pump starts. We will collect data at approximately 10 second intervals to ascertain that these flows are determined as accurately as possible.

Calibration will first involve matching the model average flows and depths to the flow monitoring data and flows recorded/calculated at the lift stations. The model average loads will initially be allocated as described in Task 6.1. If the average loads do not match the flow monitoring data, we will identify the cause, and adjust the loads until a close match is obtained. The peak flows in the model will be dependent on the average loads and the developed diurnal curves. The measured and model flows will be compared at the flow monitoring locations and the lift stations. Adjustments may be made to the individual land use diurnal curves to obtain a close match between the model and the flow monitoring results.

It is our understanding that IRWD is currently in the process of conducting a flow study of the influent flow meters to the MWRP. If the flow data is found to be reliable, we will utilize the data to match the model flows into the MWRP with the actual flow meter data.

Task 6.3: Develop Future Hydraulic Model - The existing system analysis will represent year 2015 conditions. Four additional model scenarios will be created to represent 2020, 2025, 2030, and 2035 conditions. IRWD staff will provide the phasing of the SAMP areas for each 5-year increment. The various SAMP area sewer systems and loads will be added to the appropriate model scenario.

Model Geometry: Available Sub-Area Master Plans (SAMP) reports and model files will be utilized in adding future developments within the future hydraulic model. The future pipe geometry and associated data will be imported from available GIS data or previously completed SAMP models of the future developments.

Allocate Future Loads: The future loads will be based upon the SAMP land uses and the developed sewer flow generation factors.

Peak Loads: Diurnal curves developed in Task 5.3 for the major sewer trunk tributary areas will be assigned to each manhole. Diurnal curves for specific land uses will be assigned to large sewage generators as needed.

Future Facilities: Future facilities will be based upon the SAMP reports and model files and input from IRWD staff.

Task 6.4: Documentation of Facility Attributes and Control Information - The critical data collected on the sewer facilities for the development of the hydraulic model will be compiled in a standalone binder or electronic files (hard drive). This will include but is not limited to the following:

- As-built construction drawings
- Pump curves and field test results
- Operation/Control settings

- Catalog of lift stations, force mains, diversion structures, surcharge monitoring manholes (Smart Covers), flow monitoring structures (if any), and siphons
- Field inspection data (pictures, notes, etc.) completed for this project

For this proposal, we have assumed that field visits to the lift stations, diversion structures, and siphons will be necessary to properly document the facility attributes. Time has been included in our proposal for this work.

TASK 7: REVIEW AND UPDATE IRWD SEWER SYSTEM DESIGN AND PERFORMANCE CRITERIA

We will review IRWD's Design Criteria for Sewer Facilities in the current Procedural Guidelines, the criteria recommendations in the 2006 SCSMP, as well as the criteria of five to seven similar sewer collection agencies. Based on this review and our experience with developing criteria for numerous agencies, we will make recommendations for changes to the existing criteria. At a minimum, the design and performance criteria will cover the following:

- d/D ratio for existing pipes and new construction
- Flow generation factors
- Peaking factors for dry weather flows and wet weather flows
- Gravity pipe criteria (diameter, material, slope, velocity, depth)
- Lift station criteria (number of pumps, wet well sizing, pump types, materials, redundant power, etc.)
- Force main criteria (diameter, velocity, material, redundancy)
- Inverted siphon criteria (diameter, number of barrels, velocity, air jumper, design)

If the topic is already covered in the Procedural Guidelines, we will review the criteria and make recommendations for changes as necessary. If it is a new topic, we will discuss with IRWD the appropriateness of adding the criteria to the Procedural Guidelines.

Based on a preliminary review of the available documents, we propose to discuss the depth of flow to diameter ratio criterion of 0.75 with peak dry weather flows for 18-inch and larger sewers. At a d/D ratio of 0.75, the pipe has approximately 9.7% of full pipe capacity available for wet weather flows before it flows full, which we feel is inadequate. Additionally, prioritizing of improvements at d/D ratios of over 0.82% is not meaningful, as the flow in this range is very unstable.

TASK 8: COMPLETE EXISTING AND FUTURE SYSTEM ANALYSIS

Task 8.1: Inflow and Infiltration Analysis – Inflow and infiltration (I&I) studies are needed to assess the sources and quantities of extraneous flows into the wastewater collection system. This information is then used in establishing capacity criteria in accordance with the Waste Discharge Requirements (WDR). Currently, there is no set standard for wet weather flows. Some agencies use inflow and infiltration resulting from a 10-year 24-hour storm as their standard. However, unless precisely such an event occurs and is monitored in the system, its impact on the system cannot be properly estimated. The more appropriate storm duration may be the time of concentration within the system, particularly if inflow is the primary contributor to RDII.

IRWD maintains three rain gage stations (Coastal, Central, and Foothills). The County of Orange maintains automatic rain gage stations throughout the IRWD service area, covering the cities of Irvine, Lake Forest, Tustin, Newport Beach, and Costa Mesa. We will obtain and use the rainfall information collected at these stations in conjunction with flow monitoring data to develop a relationship between the two. Areas found to have excessive I&I will be reported. Projects will be proposed to investigate I&I sources further and/or reduce I&I in the system.

The general criteria used by most agencies, and accepted in the industry is to define the wet weather flow as a multiple of the peak dry weather flow, such as 1.25 to 1.6 times the peak dry weather flow. If sizable storm events occur during the flow monitoring period, it may be possible to develop peaking relationships for the various basins. We will provide a recommendation on the wet weather flow criteria based upon review of the information collected during the study.

Our approach will be to quantify RDII in known problem areas along larger gravity sewers, such as the Harvard Avenue Trunk Sewer, San Diego Creek Interceptor, and Culver Trunk Sewer, and then prioritize additional RDII studies based on the results of these studies.

Task 8.2: Existing System Analysis

Task 8.2-1: Gravity System Analysis – As stated in Task 7, we will review and update the criteria for depth to diameter ratios and make recommendations for any changes. The selected peak wet weather flow should be conveyed in the pipe at a depth to diameter ratio of 0.80 or less, which is in the stable flow zone.

The analyses conducted with the peak dry weather flows for calibrating the model will constitute existing system analysis. We will identify the deficiencies based on the criteria selected, and formulate replacement and/or relief projects to mitigate the capacity deficiencies. We will review the results with IRWD to verify the deficiencies based on staff's knowledge of the system. Depending on the location of the calculated deficiencies, we may request additional flow monitoring to verify the calculated deficiencies.

Task 8.2-2: Lift Station Analysis – Lift station criteria will be established for wet well capacity, pump capacity, number of pumps, storage, emergency power, and other redundancies to minimize the possibility of overflows. The lift station evaluations will include review of construction plans, pump curves, any field testing results, SCADA data, and maintenance records, as well as a thorough field review. We will utilize the lift station flow data for capacity analysis, as well as the adequacy of the wet wells to preclude frequent cycling of the equipment. As verification of the flow data information, we will utilize the wet well volume between the start and stop levels and pump start and stop times to calculate pump capacities. We will also analyze the lift stations for average, peak dry weather, and peak wet weather capacity. We will then determine if the appropriate level of redundancy as well as emergency wet well capacity is available to avoid overflows. We will determine if each lift station meets the criteria established and current industry standards. We will then make recommendations for bringing them up to current standards.

The recommended criterion for capacity will be that the firm capacity of the pump station (capacity with the largest pump out of service) equal or exceed the selected peak wet weather flow. We will calculate the peak wet weather flow tributary to the lift station with the built-out land use, and assess if the lift station has adequate capacity. We will make recommendations for capacity improvements, if necessary. We will check the wet well capacity and pump cycling, and provide recommendations for improvements as necessary.

Condition assessments will also be conducted of each lift station. We will review available service orders and work request records pertaining to each of the lift stations. We will interview IRWD O&M staff to develop insight into each lift station and conduct a thorough inspection of the facilities. We will also interview IRWD's planning, engineering and operations staff to develop insight into the operation and maintenance of the existing facilities. We will document all necessary information for evaluating the condition of these lift stations.

Task 8.2-3: Force Main Analysis – We will review historical information on the pump station force mains, materials, and their age to formulate a replacement and rehabilitation program for them. We will evaluate the velocity through the force mains based on the pump capacities and pump SCADA data to ensure that they do not exceed the established criteria.

Task 8.2-4: Siphon Analysis – We will simulate the siphons in the model based upon as built drawings supplemented by field reviews. If any siphon is in an area where weekday flows are significantly higher than weekend flows, we will model them with the lower flows to determine the velocities generated throughout the day. We will review the results with IRWD, and conduct additional site visits if necessary to verify the validity of the results. We will assess sulfide generation and odor at the inlet and outlet structures, and assess if any corrosion has occurred. We will interview IRWD's Operations staff to obtain input on their existing operation and issues encountered. Based upon the results of the analyses, IRWD staff's input, and our field observations, we will make recommendations for improvements.

Task 8.2-5: Diversion Structure Analysis – We will model the diversion structures to simulate the normal operating conditions during the flow monitoring period, and as described by IRWD staff. For instance, we understand that at the CSDOC San Mateo Diversion Structure, flows are normally conveyed south to Harvard Lift Station and then to MWRP.

We will also model diverted flows under conditions specified by IRWD to document their performance if and when they are used. We will review the diversion structures in the field to verify their operations and conformance to the model results.

Task 8.3: Assessment of Sulfide Conditions and Potential for Corrosion – We propose to perform this task based upon known problem areas and areas that are likely to experience these problems. This will start with IRWD Operations staff interviews, reviews of maintenance and repair records, and review of CCTV information for the AC pipes. This approach will provide more value to IRWD than repeating an analysis that uses many assumed values.

We will have inspected most of these locations in reviewing the siphons, diversion structures, and pump stations. We will formulate improvement recommendations based upon the findings of this work. These may include installing air jumpers at siphons, lining manholes, wet wells, and structures that have experienced corrosion, and based upon review of AC pipe CCTV inspection information, a phased replacement program for the AC pipes, possibly to coincide with the City's street repaving projects to minimize impact on the customers.

Task 8.4: Future System Analysis – We will conduct future system analysis for each of the four future scenarios (2020, 2025, 2030, and 2035 conditions). The gravity system capacity will be reevaluated, along with lift stations and siphons if the increase in land use changes the tributary flows.

TASK 9: PRIORITIZED EXISTING AND FUTURE SYSTEM CAPITAL IMPROVEMENT PROGRAM

The purpose of this task is to develop a prioritized capital improvement program (CIP) based on the existing and future system analysis. The CIP will be divided into deficiency related projects and future development projects.

The 2006 SCSMP lists operational observation in Sub-Section 7-4, which are operational problems related to debris, FOG, odors, corrosion, I&I, and capacity. The Woods area problems have been addressed, but it is not known if the remainder have been. We will update the list through our interviews, and develop recommendations for addressing them. We will include projects resulting from this review in the prioritized capital improvement program based upon its severity and possibility of causing spills.

The final CIP will also include the projects that will be formulated to address the recommendations of the work included in Tasks 10 and 11.

The improvement projects will be prioritized based upon the possibility of failure and consequence of failure. Projects that will eliminate existing known, calculated and verified capacity deficiencies will be prioritized based on their impact on the health and safety of the public and protection of the environment. We will request that identified capacity deficiencies are verified through flow monitoring or field observations.

Condition deficiency mitigation projects will be prioritized based upon the consequence of failure, with critical structural defects and obstructions being given the highest priority.

PHASE III: RELIABILITY AND REDUNDANCY, OPERATIONAL CRITERIA, CIP, AND SCSMP DELIVERABLE

TASK 10: RELIABILITY AND REDUNDANCY ANALYSIS

We propose to utilize Innovyze's InfoMaster on the modeled sewer facilities, along with the CCTV inspection results, as well as a review of the 2009 San Diego Creek Interceptor Risk Evaluation and Alternative Analysis to create updated risk analysis. The analysis will also include the smaller pipes that have PACP defect grades of 4 and 5.

The InfoMaster program is an ArcGIS-based asset integrity management and capital planning software for water and wastewater networks. It is a powerful tool that assists in characterizing the likelihood and consequence of failure for individual pipes in a network. InfoMaster is a National Association of Sewer Service Companies (NASSCO) certified product. IRWD's CCTV inspection data follows the Pipeline Assessment and Certification Program (PACP) standards and can therefore be easily imported into the InfoMaster software, which already identifies with the same coding system that is required by PACP. InfoMaster has the capability to incorporate any asset data that is in IRWD's geodatabase as well as the CCTV inspection data and hydraulic analysis data. We will meet with IRWD staff to determine the parameters and the importance of each parameter that should be used in developing a prioritized CIP. We currently believe the most important parameters are going to be hydraulic capacity, condition, critical facilities, proximity to waterways, and record of past spills. The importance of each parameter will be characterized by a weighting process which will ultimately determine the likelihood and consequence of failure severity.

We will make recommendations for improving reliability in IRWD's sewer collection system and identify areas for potential redundancy. We will focus on the critical facilities such as the lift stations, large trunk sewers, and siphons. We will review IRWD's existing emergency spill response plan as a part of this task. We will make specific recommendations for improving the EORP, and utilizing it in effectively managing the existing problems until the needed improvements can be implemented. One recommendation would be to develop pump station and siphon specific response plans. Another possible recommendation will be to install additional Smart Covers in areas that may have problems due to either capacity or condition.

We will also interview the operations staff for insight into maintenance and monitoring practices and vulnerable portions of the system. Possible recommendations may include parallel pipelines, permanent flow monitoring, redundant equipment (pumps, etc.), increase of wet well sizes, and/or addition of emergency generators.

In reviewing the redundancy, we will consider the useful lives of the trunk sewers and provide recommendations for their eventual replacement, paralleling, and rehabilitating the existing facility to serve as a redundant/parallel facility.

TASK 11: OPERATIONAL CRITERIA AND SEWER SYSTEM MANAGEMENT PLAN REVIEW

We will review and update the Operational Criteria chapter of the SCSMP, which focuses on IRWD's Fats Oils and Grease (FOG) Program, odor control and corrosion prevention, and areas of high maintenance. The following documents will be reviewed for this task:

- FOG Program documents
- Database of odor complaints
- Siphon as-built plans
- Map/database of high maintenance areas
- Sewer System Management Plan (SSMP) and Audit

We will interview the operations staff to gain further insight into and document the operational problems experienced throughout the system.

We will update sections of the SSMP as it pertains to the SCSMP project. It is anticipated that the following sections will need to be updated due to updated work completed as a part of the SCSMP project:

- Chapter 7: Design and Performance Provisions
- Chapter 9: FOG Control Program
- Chapter 10: System Evaluation and Capacity Assurance Plan

TASK 12: UPDATING IRWD'S SEWER COLLECTION SYSTEM MASTER PLAN REPORT

The Sewer Collection System Master Plan report will be updated as a part of this project. As requested in the RFP, a detailed table of contents is provided here.

Section 1: Introduction

- 1-1: Purpose
- 1-2: Objectives and Scope of Work
- 1-3: Organization of SCSMP Report
- 1-4: Acknowledgments
- 1-5: Abbreviations

Section 2: Study Area

- 2-1: Purpose
- 2-2: Location
- 2-3: Topographical Description
- 2-4: Geotechnical Information
- 2-5: Climate
- 2-6: Land Use Planning
- 2-7: Population

Section 3: Existing System Facilities

- 3-1: General Description
- 3-2: Trunk Systems and Sewersheds
- 3-3: Treatment Plants
- 3-4: Gravity System Facilities
- 3-5: Lift Stations and Force Mains
- 3-6: Siphons
- 3-7: Diversion Structures
- 3-8: Summary of Sewage Flows
- Section 4: Sewer Design and Performance Criteria
 - 4-1: General
 - 4-2: Flow Monitoring
 - 4-3: Sewer Flow Generation Factors
 - 4-4: Diurnal Curves and Peaking Factors
 - 4-5: Gravity Pipeline Criteria
 - 4-6: Force Main Criteria
 - 4-7: Sewer Lift Station Criteria
 - 4-8: Inverted Siphon Criteria
 - 4-9: Service Life
 - 4-10: Criteria for Subarea Master Plans
- Section 5: Hydraulic Sewer Model
 - 5-1: Hydraulic Model Software
 - 5-2: Construction of Model Geometry
 - 5-3: Tributary Areas
 - 5-4: Model Loads
 - 5-5: Lift Stations
 - 5-6: Siphons
 - 5-7: Diversion Structures
 - 5-8: Calibration
- Section 6: Existing System Analysis
 - 6-1: Inflow and Infiltration Analysis
 - 6-2: Capacity Analysis
 - 6-2.1: Gravity Pipelines
 - 6-2.2: Lift Stations and Force Mains
 - 6-2.3: Siphons
 - 6-3: Operational Analysis
 - 6-4: Conclusions and Recommendations
- Section 7: Future System Facilities and Analysis
 - 7-1: Future Developments
 - 7-2: Model Development for Future Facilities
 - 7-3: Capacity Analysis
 - 7-3.1: Gravity Pipelines
 - 7-3.2: Lift Stations and Force Mains
 - 7-3.3: Siphons
 - 7-4: Operational Analysis
 - 7-5: Conclusions and Recommendations
- Section 8: Reliability and Redundancy Analysis
 - 8-1: Purpose
 - 8-2: Risk Analysis
 - 8-3: System Redundancy
 - 8-4: Conclusions and Recommendations
- Section 9: Operational Criteria and Sewer System Management Plan
 - 9-1: Purpose

- 9-2: Fats, Oils, and Grease Program
- 9-3: Odor Control and Corrosion Prevention Program
- 9-4: Operational Observations
- 9-5: Conclusions and Recommendations
- Section 10: Estimated Capital Costs and Capital Improvement Program
 - 10-1: Purpose
 - 10-2: Basis of Costs
 - 10-3: Capital Costs
 - 10-4: Capital Improvement Program Costs

TASK 13: DELIVERABLES

As requested in the RFP, the deliverables will consist of the following:

1. Sewer Collection System Master Plan Report
2. Calibrated Hydraulic Model and Model Documentation Report – The model documentation report will focus on the steps in developing the model, sources of data for the model, details of how the model is organized so that it can be updated in the future, and the calibration process. The SCSMP report will contain as much detail in regards to these topics.
3. Separate Technical Memorandums as mutually agreed upon

All submittals will include binder (5 hard copies) and electronic documentation (one pdf compiled electronic copy) for both the hydraulic model and the SCSMP report.

Task 13.1: 50% Submittal – The SCSMP report will include a draft of Sections 1 through 4 (see the detailed table of contents provided under Task 12). The hydraulic model submittal will consist of the geometry of system with all the model pipes and facilities, including lift stations, siphons, outlets, force mains, and gravity mains.

Task 13.2: 75% Submittal – The SCSMP report will include additional drafts of Sections 5 and 6 (see the detailed table of contents provided under Task 12). The hydraulic model submittal will be fully functional with a calibrated existing system hydraulic model. The geometry of the future system model will also be included. A 75% draft hydraulic model report that includes complete documentation of model development will be submitted. The model report will discuss in detail the following:

- Model geometry and data assumptions, if any
- Sewage loads and allocation of loads
- Flow monitoring
- Diurnal curves
- Facility controls
- Calibration

Task 13.3: 90% Submittal – The SCSMP report will include additional drafts of Sections 7 through 10 (see the detailed table of contents provided under Task 12). The hydraulic model submittal will be fully functional with a calibrated existing system hydraulic model and future system model. A 90% draft hydraulic model report will be submitted, addressing any IRWD comments from the previous submittal.

Task 13.4: Final Submittal – The final hydraulic model, hydraulic model report, and SCSMP report will be submitted after incorporating all IRWD comments. Five hard copies, 1 compiled, print-ready pdf copy of the final reports along with the latest MS Word compatible files will be submitted. All hydraulic model input files used in the analysis, graphics, spreadsheets, databases, GIS coverages, and other media developed for this project will be submitted electronically along with the facility attribute and control information from Task 6.4.

Task 13.5: Workshops – We will conduct three 4-hour long workshops for the review of the 50%, 75%, and 90% submittals. Following the final submittal, we shall hold a 2-day workshop to transfer information such as the following:

- Model construction
- Adding or modifying the model elements

- Model calibration
- Analysis and modeling select scenarios
- Process to update the hydraulic model based on new GIS information that may become available in the future
- Information related to GIS errors or omissions discovered during the model development process so that IRWD's geodatabase can be updated in the future


November 24, 2014

Prepared by: J. McGehee/J. Moeder/
R. Mori ^{RKM}

Submitted by: K. Burton ^{KRB}

Approved by: Paul Cook 

ACTION CALENDAR

IRVINE LAKE PIPELINE NORTH CONVERSION PROJECT CONSULTANT SELECTIONS

SUMMARY:

Staff recently completed the Irvine Lake Pipeline (ILP) North Conversion Study, which recommended the conversion of a significant portion of the ILP from untreated to recycled water through the construction of a new Zone C+ Reservoir and associated pipelines. Staff recommends proceeding with the engineering design of the project under two separate Professional Services Agreements: one for the reservoir and one for the offsite pipelines. Staff solicited proposals from four engineering firms for the design of the proposed reservoir and from five engineering firms for the design of the proposed pipelines. Staff recommends the Board:

- Approve a budget decrease, in the amount of <\$1,493,600>, from \$7,602,100 to \$6,108,500, for the ILP North Conversion Reservoir Project;
- Authorize the addition of the ILP North Conversion Pipelines Project, in the amount of \$7,494,600, to the FY 2014-15 Capital Budget;
- Approve an Expenditure Authorization in the amount of \$1,037,000 for the ILP North Conversion Reservoir Project;
- Approve an Expenditure Authorization in the amount of \$905,800 for the ILP North Conversion Pipelines Project;
- Authorize the General Manager to execute a Professional Services Agreement with Kleinfelder/Simon Wong Engineering, in the amount of \$723,654, for engineering services for the ILP North Conversion Reservoir, Project 30496; and
- Authorize the General Manager to execute a Professional Services Agreement with URS Corporation, in the amount of \$659,865, for engineering services for the ILP North Conversion Pipelines, Project 30513.

BACKGROUND:

The ILP currently extends from Irvine Lake to Rattlesnake Reservoir and serves untreated water to customers in North Tustin, Orchard Hills, and the Irvine Company agricultural users along the ILP. The ILP also supplements the recycled water system by delivering flow to Rattlesnake Reservoir. The ILP will also serve untreated water to the Baker Raw Water Pump Station (RWPS), which is currently under construction, and will ultimately feed the Baker Water Treatment Plant via a connection to the Baker Pipeline at the site of the Baker RWPS.

As part of IRWD's strategic plan to increase recycled water usage and reduce reliance on imported water supplies, staff completed the ILP North Conversion Study which examined alternatives for converting the Rattlesnake Reach of the ILP from untreated to recycled water as shown on Exhibit "A". Staff presented the findings of the study at the September 23, 2014 Engineering and Operations Committee meeting.

The ILP North Conversion Study recommends the establishment of a new hydraulic zone, Zone C+, to feed existing and planned future areas with recycled water. The study findings, which serve as the basis for this project, identify the following improvements associated with the development of a new recycled water Zone C+. As part of the study, the total cost to implement the project was estimated to be \$13 million.

- Construction of a 2.4 million gallon (MG) buried concrete reservoir at the site of IRWD's existing 6.0 MG Santiago Hills Zone 5 Reservoir;
- Various modifications at the Rattlesnake Reservoir Complex including the Zone A-C booster pump station; and
- Construction of approximately 20,000 linear feet of pipelines including 42-inch reservoir inlet and outlet pipelines along Jamboree and Santiago Canyon Road.

To streamline the design and construction of the ILP North Conversion Project, staff divided the project into two components: 1) the Santiago Hills Zone C+ Reservoir and Rattlesnake Reservoir Complex Improvements Project ("ILP North Conversion Reservoir Project"); and 2) the Offsite Pipelines Project ("ILP North Conversion Pipelines Project"). The design and construction of the two projects will progress simultaneously to meet the estimated project completion milestone of the summer of 2017.

Consultant Selection – Reservoir:

Staff received proposals for design of the ILP North Conversion Reservoir Project from Black & Veatch, Carollo Engineers, HDR, and Kleinfelder/Simon Wong Engineering. Kleinfelder/Simon Wong Engineering's proposal presented the most relevant overall reservoir experience as well as unique ideas for locating the new reservoir on the existing site. Kleinfelder/Simon Wong Engineering's ideas optimized the use of available space and minimized the need to procure additional easements. The staff proposed for the Kleinfelder/Simon Wong Engineering team, which includes Psomas as a subconsultant, have successfully completed past reservoir projects including the Planning Area 6 Zone 4, Zone 6, Zone C, and Zone D reservoirs. A copy of the proposal ranking matrix is attached as Exhibit "B".

Kleinfelder/Simon Wong Engineering's proposed design fee is \$621,711. The total contract amount, including construction phase services, is \$723,654. A copy of Kleinfelder/Simon Wong Engineering's scope of work and fee proposal are attached as Exhibit "C".

Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement in the amount of \$723,654 with Simon Wong Engineering since its design approach, schedule, and staff hours are consistent with the project goals.

Consultant Selection – Pipelines:

Staff received proposals for design of the ILP North Conversion Pipelines Project from Dudek, Hunsaker & Associates, Tetra Tech, VA Consulting, and URS Corporation (URS). URS's proposal presented an excellent understanding of the project and included extensive investigations of available pipe alignments, including initial public utility searches, a clear understanding of the traffic control requirements, which will be performed in-house, and an

understanding of the phasing requirements and physical constraints of the work area. In addition, URS's proposed team and specifically, the proposed project manager, have provided engineering services on several recent projects including the Orange Park Acres (OPA) Well No. 1 Wellhead Facilities, Stockdale West Wellhead Equipping and Conveyance Project, and the Portola and Foothill Reservoir RMS Facilities. URS was instrumental in coordinating and obtaining City of Orange approval for the OPA Well No. 1 project and is very familiar with the City of Orange staff, requirements, and expectations associated with work in this part of the City. A copy of the proposal ranking matrix is attached as Exhibit "D".

URS's proposed design fee is \$564,865. The total contract amount, including construction phase services, is \$659,865. A copy of URS's scope of work and fee proposal are attached as Exhibit "E".

Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement in the amount of \$659,865 with URS Corporation since its design approach, schedule, and staff hours are consistent with the project goals.

FISCAL IMPACTS:

The ILP North Conversion, Project 30496 (5407), is included in the FY 2014-15 Capital Budget as a flagged project. Since staff is dividing the project into two separate projects, the existing Project 30496 will be used for the ILP North Reservoir Project and a new project number will be used for the ILP North Pipelines Project. Staff requests the addition of Project 30513 (5823) to the FY 2014-15 Capital Budget for the ILP North Pipelines Project and a budget decrease of (\$1,493,600) for Project 30496 (5407) as shown in the table below.

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
30496 (5407)	\$ 7,602,100	<\$ 1,493,600>	\$ 6,108,500	\$ 0	\$ 1,037,000	\$ 1,037,000
30513 (5823)	\$ 0	\$ 7,494,600	\$ 7,494,600	\$ 0	\$ 905,800	\$ 905,800
Total	\$ 7,602,100	\$ 6,001,000	\$ 13,603,100	\$ 0	\$ 1,942,800	\$ 1,942,800

ENVIRONMENTAL COMPLIANCE:

The ILP North Conversion Project is subject to the California Environmental Quality Act (CEQA). In conformance with the California Code of Regulations Title 14, Chapter 3, Section 15004, the appropriate environmental document will be prepared when "meaningful information" becomes available. It is expected that preliminary analysis will lead to the preparation of a Mitigated Negative Declaration for the project.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on November 18, 2014.

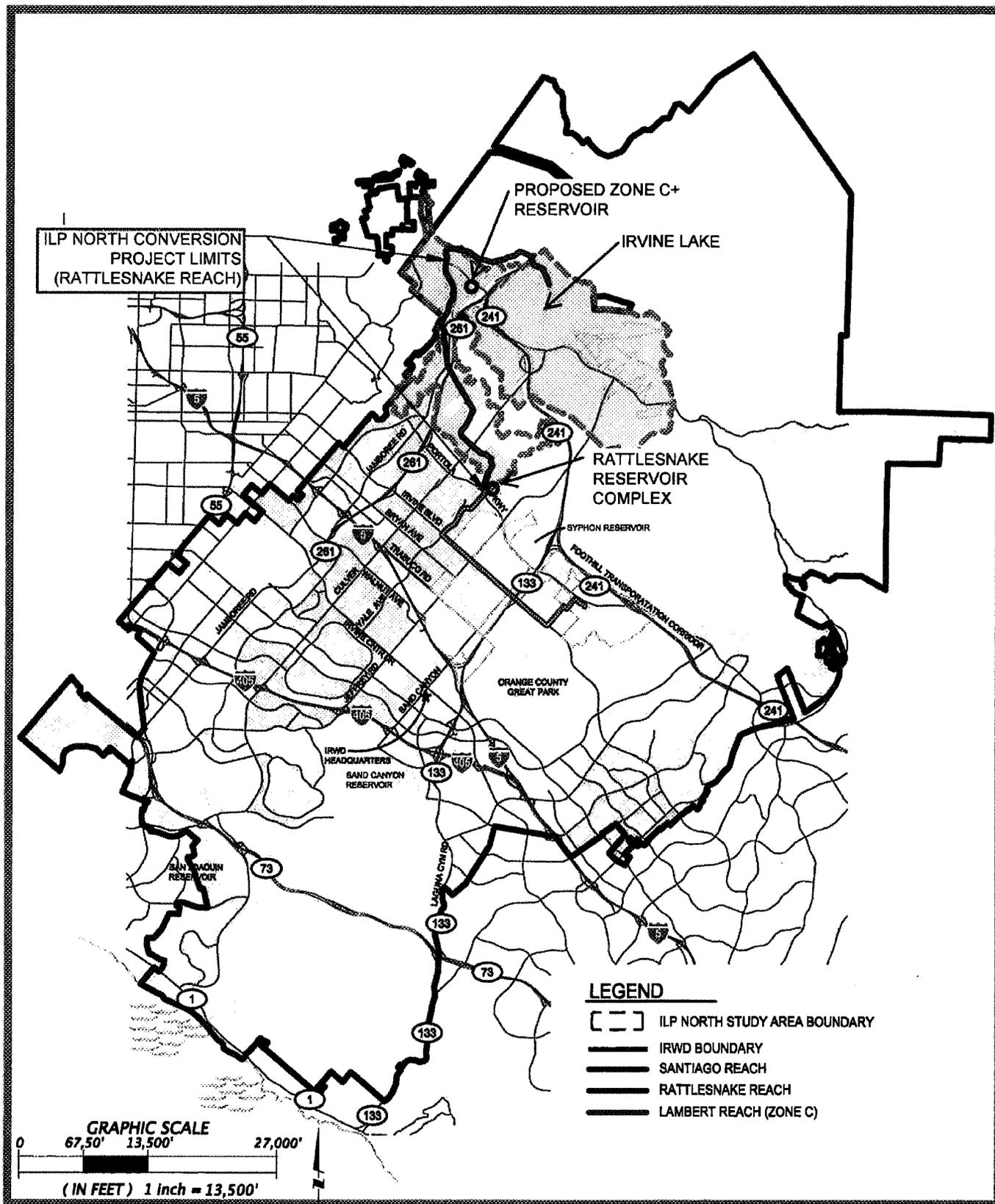
RECOMMENDATION:

THAT THE BOARD APPROVE A BUDGET DECREASE IN THE AMOUNT OF <\$1,493,600> TO THE FY 2014-15 CAPITAL BUDGET FOR PROJECT 30496 (5407); AUTHORIZE THE ADDITION OF PROJECT 30513 (5823), IN THE AMOUNT OF \$7,494,600, TO THE FY 2014-15 CAPITAL BUDGET; APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$1,037,000 FOR PROJECT 30496 (5407); APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$905,800 FOR PROJECT 30513 (5823); AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH KLEINFELDER/SIMON WONG ENGINEERING, IN THE AMOUNT OF \$723,654, FOR ENGINEERING SERVICES FOR THE IRVINE LAKE PIPELINE NORTH CONVERSION RESERVOIR, PROJECT 30496 (5407); AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH URS CORPORATION, IN THE AMOUNT OF \$659,865, FOR ENGINEERING SERVICES FOR THE ILP NORTH CONVERSION PIPELINES, PROJECT 30513 (5823).

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Consultant Selection Matrix for the ILP North Conversion Reservoir Project
- Exhibit "C" – Kleinfelder/Simon Wong Engineering's Scope of Work and Fee Proposal for the ILP North Conversion Reservoir Project
- Exhibit "D" – Consultant Selection Matrix for the ILP North Conversion Pipelines Project
- Exhibit "E" – URS Corporation's Scope of Work and Fee Proposal for the ILP North Conversion Pipelines Project
- Exhibit "F" – Expenditure Authorization for ILP North Conversion Reservoir Project
- Exhibit "G" – Expenditure Authorization for ILP North Conversion Pipelines Project

EXHIBIT "A"



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**ILP NORTH CONVERSION PROJECT
 ZONE C+ RESERVOIR AND OFF-SITE PIPELINES
 LOCATION MAP**

EXHIBIT "B"

CONSULTANT SELECTION MATRIX

ILP North Conversion - Reservoir										
Item	Description	Weights	Black & Veatch		Carollo		HDR		Kleinfelder/Simon Wong	
A TECHNICAL APPROACH										
1	Project Understanding	30%	2		4		3		1	
2	Project Approach	30%	1		3		4		2	
3	Project Team	40%	3		4		2		1	
	<u>Weighted Score</u>		2.1		3.7		2.9		1.3	
	Ranking of Consultants		2		4		3		1	
B SCOPE OF WORK										
TASK			Task Hours	FEE	Task Hours	FEE	Task Hours	FEE	Task Hours	FEE
1	Project Management		440	\$88,600	388	\$79,530	635	\$166,538	228	\$52,368
2	Preliminary Design		1,402	\$296,800	796	\$204,800	1,767	\$368,004	926	\$268,441
3	Final Design		1,816	\$401,400	2,392	\$384,040	3,107	\$532,917	1,720	\$302,902
4	Construction Phase Services		1,162	\$213,700	1,062	\$169,440	2,248	\$347,605	468	\$101,943
	TOTAL ENGINEERING SERVICES FEE		4,820	\$988,600	4,638	\$837,810	7,957	\$1,415,064	3,342	\$723,654
C OTHER										
	Number of Drawings		76		114		108		65	
	Engineering Services Fee per Design Drawing		\$5,282		\$3,369		\$4,934		\$4,660	
Sub Consultants										
	Electrical		In-House		In-House		In-House		Morales & Pham	
	Structural		Beyaz & Patel		In-House/Dudek		In-House		In-House	
	Geotech		Converse		Converse		Niño & Moore		In-House	
	Mechanical		In-House		In-House		In-House		Psomas	
	Survey		Bush & Associates		Borchard Surveying		Borchard Surveying		Bush & Associates	
	Surge		Flow Science		Flow Science		Flow Science		Flow Science	
	Potholing		AK-X		Underground Solutions		SAF-r-Dig		C Below	
	Easements		Paragon Partners		not indicated		not indicated		not indicated	
	Cost/Constructability		not indicated		not indicated		Schuler Engineering		not indicated	
	Exceptions taken to IRWD Std. Contract		None		None		None		None	
	Insurance (Professional & General Liability)		Yes		Yes		Yes		Yes	

EXHIBIT "C"

EXHIBIT "C"

SCOPE OF WORK AND METHODOLOGY

SCOPE OF SERVICES

After carefully reviewing the scope of services as presented in the RFP, we are proposing the following modifications to the sequence of work or work items for a more efficient workflow:

TASK ITEM	CURRENT PLACEMENT IN SCOPE SEQUENCE	PROPOSED MODIFICATION
Topographic Mapping	Task 3, Final Design	Move to Task 2, Preliminary Design: To develop the existing base plan for site planning and achieve a greater accuracy for the preliminary earthwork calculations, KLF SWE proposes to perform this task item in the preliminary design phase.
Utility Research	Task 3, Final Design	Move to Task 2, Preliminary Design: We propose to perform the utility research task during the preliminary design phase and incorporating this data into the existing base plan
Geotechnical Investigation	Task 2, Preliminary Design – Item K	Move to Item B, Site Master Plan: We propose the geotechnical investigation be performed in conjunction with development of site alternatives, as the type of soils that may be encountered and the maximum allowable slope (both temporary and permanent) will affect the alternative options for the possible reservoir locations.
Circulation Optimization Study	Not Currently in Scope	Add to Task 3, Final Design – Item C: Due to the potential inlet/outlet piping alignment constraints, KLF SWE recommends performing a study to optimize the circulation within the reservoir.

For the remainder of this section of our proposal we will address the scope items as presented in the RFP.

Task 1: Project Management

KLF|SWE's Project Manager, Dan Smith, PE will work closely with IRWD to adopt our standard project management tools for cost-tracking, schedule, budget, progress reports, and communication to IRWD's desired format and standards of practice. Dan is a hands-on engineer, manager, and mentor to staff, and will be actively involved in all phases of field investigation, design, schedule for deliverables, internal QA/QC, invoicing, preparation of meeting agendas and minutes, management of subconsultants, meeting contractual obligations, communications, and project closeout.

Once under contract, KLF|SWE will execute the work in accordance with the scope, schedule, and detailed work plan as appropriate. Early in the process we will work directly with IRWD's Project Manager to establish effective management tools like monthly general project management and design team meetings, Microsoft Project scheduling, resource allocation, progress reports, and budget tracking systems (project controls). We will also implement both internal and external quality control and quality assurance programs.

KLF|SWE employs a computerized project accounting system that provides KLF|SWE's Project Manager accurate performance information required to effectively manage the project's scope, budget, and schedule. This system enables continuous forecasting and scheduling of staff resources, and allows for real-time feedback on project financial status for all team members and management. Specific project management activities will include:

A. Preparation of Project Status Reports

Project Manager Dan Smith will provide weekly and monthly status reports to IRWD throughout the project duration. Weekly status reports will include a brief (one or two paragraphs) email summarizing:

- Activities completed the previous week
- Activities planned for the upcoming week
- Critical decisions requiring resolution



SCOPE OF WORK AND METHODOLOGY

Monthly status reports will provide comprehensive details of the overall project progress, including a summary of work completed to-date and a status review of current work relative to the overall project budget and schedule. An updated project schedule will also be included in the monthly status report.

B. Meetings and Workshops

KLF|SWE will organize, attend, and conduct meetings and workshops as required. For all meetings and workshops, KLF|SWE's project team will prepare and submit meeting agendas for IRWD's review and concurrence at least three days prior to the meeting. Following each meeting, KLF|SWE will prepare draft and final minutes for all meetings and workshops. Minutes will be submitted to IRWD within one week of the meeting and/or workshop.

KLF|SWE will plan and conduct a Kick-off Meeting. This meeting will be used to establish lines of communication, introduce the team and key IRWD personnel, and identify points-of-contact. While the RFP did not explicitly request this meeting, KLF|SWE encourages the scheduling of this meeting to outline project goals, delineate project deliverables, and verify the project deliverable schedule for a successful approach to the project.

For the remaining progression of the design, our scope of services assumes the meeting frequency shown below. Design review workshops will be held at every deliverable milestone, and coordination activities with key stakeholders is anticipated as noted in the preliminary meeting schedule listed below.

FREQUENCY	MEETING/WORKSHOP DESCRIPTION
1	Project Kick-off Meeting (Two-hour Meeting)
12	General Project Management and Design Development Meetings (Two-hour Meeting)
8	Site Visits (Two-hour Meeting)
4	Coordination Activities with Jurisdictional Agencies and Project Stakeholders Including, but not limited to: City Of Orange Fire Department and The Irvine Company (Two-hour Meeting)
1	Rattlesnake Complex Background and Improvements Workshop (Three-hour Workshop)
1	Preliminary Design Report (PDR) Workshop (Three-hour Workshop)
1	Present Draft PDR (Two-hour Meeting)
1	Present Draft Geotechnical Report (Two-hour Meeting)
1	Present 60% Design/Discuss IRWD's Comments and Method to Address
1	Present 90% Design/Discuss IRWD's Comments and Method to Address
1	Present 100% Design/Discuss IRWD's Comments and Method to Address

C. Quality Assurance/Quality Control (QA/QC)

KLF|SWE maintains an unyielding commitment to achieving industry-leading performance in quality and offer a proven, comprehensive internal QA/QC program that will be adopted and applied to this project. With the goal to deliver ongoing and consistent quality control throughout all project phases, the Project team will benefit from the **over 65 years of experience** in the waterworks industry of our Quality Peer Reviewers (QPR), Simon Wong, PE, SE and Joe Boyle, PE. A final draft of all deliverables will receive independent technical reviews by our QPRs, and internal review comments will be incorporated into all deliverables prior to submission to IRWD. Project deliverables will meet the standard of care of the profession, the terms of the contract, IRWD's design standards, and any additional conditions set by the Project Manager.



SCOPE OF WORK AND METHODOLOGY

Task 2: Preliminary Design

KLF|SWE will begin the design of this project with a thorough preliminary design phase. The subtasks described below were adopted from IRWD's RFP with additional details added related to KLF|SWE's approach. The results of the preliminary design phase will be documented and compiled into a Preliminary Design Report as described below.

A. Background Information

The KLF|SWE's project team will perform a comprehensive review of existing data as necessary to effectively design the proposed improvements. This task will include a workshop with IRWD personnel to inform and discuss existing facilities and operational challenges at the Rattlesnake Complex (Rattlesnake). Additional items included in this task are:

- Thorough review of record drawings for existing reservoir site (complete civil, mechanical, structural, electrical and controls, and cathodic protection)
- Review of IRWD design standards and reservoir appurtenance preferences
- Review of geotechnical reports for original site
- Itemize IRWD's corrosion protection preferences and design standards
- Determine Supervisory Control and Data Acquisition (SCADA) requirements and locations of spare inlet/outlet terminals from site photos of existing cabinets and panels
- Determine available panel circuit terminals from record drawings, site photos of existing cabinets and panels, and site visits
- Review historical flow data
- Verify pipe sizing/flows
- Review system process
- Review existing CAD files and create CAD file set-up
- Review IRWD standard specifications
- Compile list of information to verify during field survey activities

B. Site Master Plan

KLF|SWE will develop detailed site layouts for the proposed reservoir, including:

- Valve/Meter Vaults
- Air Gap Facilities
- Strainers
- Electrical Transformers/Panels
- Maintenance Access and Roads
- Pipelines/Storm Drains
- Catch Basins
- Ancillary Facilities
- Existing Facilities at the site

The site plans will include the future booster pump station (BPS) and associated facilities, e.g. future surge tank, which will serve the East Orange Area I, Santiago Hills II, and East Orange Lake Village developments.

KLF|SWE's project team will collaborate with IRWD to develop and evaluate at least four site master plan layouts (up to a maximum of six). Per the RFP, it is expected that the future BPS will be located on the reservoir site or nearby. The site master plan alternatives will consider ways to minimize land acquisition and balancing cut and fill. The access road study will include access road alternative analysis, alignment studies, road cross-sections, and drainage crossings.

The activities and results completed under this subtask will be documented in a Site Master Plan Technical Memorandum (TM); which will document alternative proposed site configurations and described site constraints, options, and potential challenges. Each alternative will include exhibits to accompany the written alternative descriptions. The TM will also provide preliminary earthwork

SUBTASK 2.8 DELIVERABLES

1. Draft TM - 10 hard copies, one PDF electronic copy on CD
2. Final TM - 10 hard copies, one PDF electronic copy on CD



SCOPE OF WORK AND METHODOLOGY

calculations related to each alternative. KLF|SWE will provide a draft TM for discussion and review by IRWD. Upon receipt of comments and incorporating information discussed during design development meetings, the Project Team will finalize the TM for resubmission to IRWD.

C. Santiago Hills Reservoir

It is anticipated that a buried cast-in-place DN Tank will be utilized for the reservoir. The concrete tank will be designed for lateral seismic loads and hoop stresses created by static and dynamic water pressure according to the current AWWA D110 Type I design standard.

The preliminary design will evaluate performance and ways to reduce concrete shrinkage and cracking, and will explore proposed reservoir features including overflow provisions, venting, interior column sizing and spacing, subgrade preparation, foundation and footing requirements, pipe penetrations, and an evaluation of the need for a reservoir sub-drain system. Any pipe penetrations will be through the floor except the inlet pipe will be designed to penetrate the roof slab through a chimney style air gap structure.

KLF|SWE's project team will incorporate the tank design into the construction documents and will provide a full design specification for the tank as opposed to a performance specification.

Due to the site constraints for potential inlet/outlet piping configurations, a circulation optimization study will be performed with recommendations on how to optimize the circulation within the reservoir. This will entail creating a CFD model of the reservoir inlet and outlet configurations and run 1-2 scenarios for optimizing the circulation pattern within the reservoir.

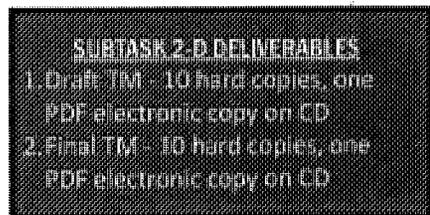
D. Surge Study

The Irvine Lake Pipeline (ILP) North Conversion project will modify the hydraulics of the existing Zone C system, therefore KLF|SWE's preliminary design will include a surge analysis and recommendations to ensure the improvements, and recycled water (RW) components impacted by the improvements, have adequate surge protection. KLF|SWE's project team will develop different scenarios for various segments of the RW system related to the improvements. At a minimum, this subtask includes analysis of the following segments of the RW system:

- Irvine Lake to the Proposed Santiago Hills Zone C+ Reservoir
- Proposed Santiago Hills Zone C+ Reservoir to Rattlesnake Reservoir
- Irvine Lake to the Baker Raw Water Pump Station
- Zone A-C+ BPS to the Proposed Santiago Hills Zone C+ Reservoir

Subconsultant team member **Flow Science, Inc.** (Flow Science) has prepared a surge study for the Baker Raw Water Pump Station in which they evaluated surge protection for the ILP. Their knowledge from this previous modeling assignment will be leveraged to analyze the four scenarios mentioned above.

KLF|SWE will prepare a draft TM documenting the surge analysis and recommendations. The TM will include exhibits that clearly describe each scenario and segment of the system that are evaluated and will document the findings and recommendations for surge protection. Upon receipt of comments and incorporating information discussed during design development meetings, the KLF|SWE will finalize the TM for resubmission to IRWD.



E. Onsite Pipelines for Santiago Hills Reservoir

KLF|SWE will design 42-inch inlet and outlet pipelines for the reservoir and associated piping for the strainers, flow control facility, onsite drainage, and overflow pipelines. The pipelines shall be designed to within 20 feet of the property line. Our team will coordinate the design of the pipelines with the engineer selected for the



pipelines project including, at a minimum: pipeline size, materials of construction, and optimum connection location.

F. Reservoir Influent Flow control and Metering Facility

An influent flow control facility will be required to control and meter flow from Irvine Lake into the proposed Zone C+ reservoir. KLF|SWE will identify and evaluate alternatives for flow control and metering facilities. As part of the evaluation, our team will evaluate the feasibility of modifying the existing ILP flow meter and valving located in Irvine Park to serve the proposed reservoir.

G. Strainer Facility

Due to the use of untreated water (UW) strainer facilities will be required to strain the flow from Irvine Lake prior to its delivery to the proposed Zone C+ reservoir. The existing ILP strainers located at Rattlesnake currently strain UW from the ILP before it is delivered to Zone A and Rattlesnake Park. KLF|SWE will develop design criteria for the strainer facility and evaluate the feasibility of relocating the existing ILP strainers at Rattlesnake to the proposed Zone C+ reservoir site or providing new strainers. Our team will also evaluate strainer backwash handling options including, at a minimum, conveying the backwash water to sewer, to a containment tank, or recycling it back into the RW system. As part of the pipeline improvements project (performed by a different consultant), a new sewer line in Santiago Canyon Road will be constructed to allow for disposal of strainer backwash water, if needed.

H. Air Gap Facility

A new reservoir influent air gap facility will be required to provide a physical break between the UW delivered into the tank and the water stored within the tank. As requested by IRWD, KLF|SWE will develop an air gap structure concealed from view, in lieu of a typical air gap gooseneck type approach into the top of the reservoir. Our team will identify and evaluate various alternatives for accomplishing the air gap and will recommend a preferred alternative.

I. Rattlesnake Complex Modification

Modifications will be required at Rattlesnake in order to integrate the proposed Zone C+ reservoir into the RW system and to convert portions of Zone C to Zone C+. Through this proposal process, KLF|SWE has already worked to become familiar with IRWD's RW system. Utilizing this research coupled with additional information that will be garnered through the workshop with IRWD personnel, KLF|SWE will focus on successful implementation of the project elements at the Rattlesnake into the RW system. As part of the project, the following modifications are anticipated to be required at Rattlesnake:

- *Removal and Potential Relocation of Existing ILP Strainers:* Evaluate installing new strainers or relocating the existing ILP strainers to the proposed Zone C+ reservoir site and design piping modifications for the existing ILP strainer locations at Rattlesnake to accompany the removal of the existing strainers. KLF|SWE will design improvements at Rattlesnake to address the removal of the existing strainers including; but not limited to piping, valving, electrical, and controls modifications. KLF|SWE will develop detailed options for maintaining connections to Zone A and Rattlesnake Park.
- *Pressure Reducing Valve (PRV) Replacement:* KLF|SWE will evaluate the existing PRV that takes flow from the ILP, account for the removal of the downstream strainer facility, and determine if the PRV requires modification.
- *Existing Sleeve Valve Evaluation:* KLF|SWE will evaluate the system hydraulics and determine the best means of controlling flow from the proposed Zone C+ reservoir to Rattlesnake Reservoir. With the proposed Zone C+ reservoir, the hydraulic grade line (HGL) of the system will change from HGL 790 (high water level (HWL) of Irvine Lake) to HGL 700 (HWL of the proposed Zone C+ reservoir). Options may include the need for new facilities and/or modifications to the existing sleeve valve located near the Rattlesnake Pump Station.



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- **Zone A-C BPS Evaluation and Modification:** This subtask will include the following:
 - **Confirmation of Existing Booster Pumps:** KLF|SWE will evaluate the existing and proposed system hydraulics and determine if modifications need to be made to the existing booster pumps. Our team will utilize the PDR for the Zone A-C BPS and the hydraulic model and analysis used during the ILP North Conversion Study to review and validate study findings that the existing Zone A-C booster pumps are capable of serving the proposed Zone C+ reservoir.
 - **Modifications to Pump Station Discharge Piping:** KLF|SWE will identify and evaluate options for modifying the discharge piping from the Zone A-C BPS in order to integrate Zone C+ into the RW system and to allow the pump station to feed both Zone C and the proposed Zone C+ including, but not limited to, adding motor operated valves to the discharge piping and/or adding a PRV to the proposed Zone C+ pipeline to facilitate delivery of flow from Zone C+ to Zone C.
- **Surge Protection Modifications:** A surge anticipator valve is being installed in the piping at Rattlesnake as part of the Baker Raw Water Pump Station (RWPS) project, which is currently under construction. The surge anticipator valve is required to protect the ILP from potential surge events associated with the Baker RWPS. As part of the pipeline project, the ILP will terminate at the Baker RWPS and no longer extend to Rattlesnake, which will effectively isolate the Baker RWPS from its surge protection facilities. KLF|SWE will evaluate the need to modify or remove the surge anticipator valve and implement another form of surge protection for the Baker RWPS as developed under subtask D above.

KLF|SWE will prepare a separate TM to document the existing infrastructure at Rattlesnake and how it operates within the RW system. The TM will include exhibits that clearly describe the engineer's understanding of the system and the recommendations for incorporating the proposed Zone C+ into the RW system. KLF|SWE will provide a draft TM for discussion and review by IRWD. Upon receipt of comments and incorporating information discussed during design development meetings, the KLF|SWE team will finalize the TM for resubmission to IRWD.

SUBTASK 2.1 DELIVERABLES
1. Draft TM - 10 hard copies, one PDF electronic copy on CD
2. Final TM - 10 hard copies, one PDF electronic copy on CD

J. **Removal of Orchard Hills Strainer facility**

IRWD operates an existing strainer facility located in Orchard Hills between the proposed Zone C+ reservoir and the Rattlesnake Reservoir. With the addition of straining facilities at the proposed Zone C+ reservoir site, this existing strainer facility will no longer be required. KLF|SWE's design will include a demolition plan that identifies and itemizes the equipment that can be removed at this facility and improvements that will be needed to maintain service.

K. **Geotechnical Investigation**

KLF|SWE will conduct a geotechnical investigation to characterize the conditions at the proposed reservoir site and for any identified improvements at Rattlesnake. The geotechnical investigation will include the following activities:

- Perform a geotechnical reconnaissance to observe site conditions and to locate exploratory borings.
- Conduct two soil borings to elevation 662 to observe, test, and classify soils; and monitor groundwater through fill and surficial soils using a hollow stem auger. Drilling into more competent formational materials will utilize rock coring to achieve the desired depth. Approximately 65 feet of rock coring is anticipated. Drilling mud and cuttings from the borings will be drummed and disposed of at a non-hazardous waste landfill.
- Collect soil samples for testing as needed based on Engineer's professional judgment.
- Plot the location of all soil borings on a map and attach the map to the Geotechnical Report. Include complete logs of the soil profiles in the report.



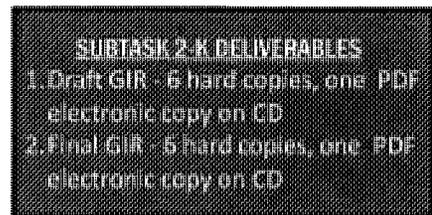
SCOPE OF WORK AND METHODOLOGY

- Conduct laboratory tests of selected samples to evaluate moisture content, density, gradation, Atterberg limits, consolidation, shear resistance, expansion, R-value, corrosivity, and/or other criteria as recommended by the geotechnical engineer or requested by the structural engineer for the structural design.
- Prepare a geotechnical report presenting findings, conclusions, and recommendations for the design and construction of the proposed facilities. The report shall include, at a minimum:
 - Groundwater Presence and Levels
 - Construction Dewatering Requirements
 - Pipe Bedding Requirements
 - Trench Shoring Requirements
 - Settlement Potential
 - Excavatibility of Soils
 - Location of Rock
 - Backfill Suitability
 - Backfill Compaction
 - Slope Stability of Excavated Materials

The report will describe KLF|SWE's observations and specific concerns regarding construction methods and the integrity of pipelines, pavements, and structures and will include recommendations regarding the design of facilities. Recommendations will include:

- Active, At-rest, Passive and Dynamic Earth Pressures
- Foundation Type
- Allowable Bearing Pressure
- Coefficient of Friction Between the Foundation and Soils/Subgrade
- Foundation Design Data
- Settlement Potential
- Pipe Bedding
- Maximum Cut Slope Requirements
- Structural Needs
- Groundwater Dewatering Well(s) Design Criteria
- Other Standard Design Criteria

The Report will also consider the existing Santiago Hills Zone 5 reservoir and the proposed excavation next to the existing reservoir, and if necessary recommend options for protecting the existing reservoir in place during construction. KLF|SWE will provide a draft Geotechnical Investigation Report (GIR) for discussion and review by IRWD. Upon receipt of comments and incorporating information discussed during design development meetings, our team will finalize the GIR for resubmission to IRWD.



L. Grading Plan

KLF|SWE will develop grading concepts for the reservoir site, access road, and pipelines, incorporating any geotechnical issues and minimizing environmental and aesthetic impacts. The grading plan will utilize findings in the GIR and shall focus on the balance of cut and fill for the reservoir site.

M. Electrical and Controls

KLF|SWE will develop electrical and controls design requirements associated with the proposed reservoir and Rattlesnake improvements. The preliminary design will include an evaluation of the existing power and controls systems to determine if they are suitable for continued use with the proposed facilities. KLF|SWE's project team will also identify specific improvements or modifications required to the overall power and control systems.



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N. Permitting

KLF|SWE will identify all required permits and controlling agencies including required fees and anticipated permit processing times. The following permits are anticipated, at a minimum:

- *Fire Master Plan:* The Santiago Hills Zone 5 Reservoir is equipped with a Reservoir Management System (RMS) that utilizes liquid sodium hypochlorite and aqueous ammonia. The City of Orange Fire Department previously reviewed and issued a Fire Master Plan for the facility. As noted in the RFP, IRWD anticipates updating the Fire Master Plan to account for the new improvements including modifications to the site access. KLF|SWE will review and update the existing Fire Master Plan and secure the approval of the City of Orange Fire Department. The approval of an Updated Fire Master Plan may require that a turn-around be provided for Fire Department vehicles. An area over the proposed reservoir may be provided for this turning movement; however, the design of the reservoir would have to consider live loading from H²O vehicles to accommodate a turn-around.
- *Construction General Permit:* As noted in the RFP, IRWD anticipates that the project will require a Storm Water Pollution Prevention Program (SWPPP). KLF|SWE will determine the risk level for the project and prepare the SWPPP accordingly. It is expected that the required monitoring and reporting will be assigned to the Contractor as part of the construction contract.

O. Easements and Land Acquisition Support

KLF|SWE will review and identify all required land acquisition limits, permanent easements, rights of entry, and/or construction easements and coordinate with affected parties. Our team will assist IRWD in acquiring easements and entry permits from TIC for utilities and the proposed Zone C+ reservoir including the preparation of exhibits or providing project information. As part of the preliminary design, KLF|SWE will identify where new easements are required. This proposal includes \$10,000 in the budget for land acquisition support. This proposal also includes associated fees for six plats and legal descriptions, which may need to be prepared to secure easements.

P. CEQA Documentation

As noted in the RFP, IRWD will hire a CEQA consultant separate from this contract to prepare required CEQA documentation for this project and the offsite pipeline improvements. IRWD anticipates the preparation of a Mitigated Negative Declaration (MND). KLF|SWE will review portions of the environmental document, prepare exhibits, attend meetings, and/or provide project specific information as needed. This proposal includes a budget of \$12,000 for supporting IRWD and the CEQA consultant through the CEQA documentation process.

Q. Project Schedule

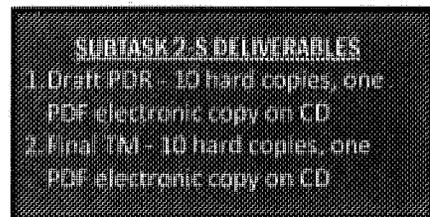
KLF|SWE will develop a project schedule in Microsoft Project including detailed schedules for both design and construction activities. The schedule will incorporate critical factors affecting the project schedule including implementation, permitting, and coordination activities to ensure that the project is completed in accordance with the proposed schedule.

R. Opinion of Probable Construction Cost

KLF|SWE will develop a detailed and itemized opinion of probable construction cost (OPCC) for the proposed facilities for submittal with the preliminary design. The OPCC will include items to match the proposed bid form.

S. Preliminary Design Report (PDR)

KLF|SWE will compile the results of the preliminary design task into a PDR. The PDR will summarize the results of the subtasks identified above along with additional design criteria identified by the engineer during the preliminary design. The geotechnical report will be provided separate from the PDR. KLF|SWE will provide a draft TM for discussion and review by IRWD. Upon receipt of comments and incorporating information discussed during design development meetings, KLF|SWE will finalize the TM for resubmission to IRWD with or before the 60 percent design.



Task 3: Final Design

A. Design Coordination

KLF|SWE will coordinate design efforts with IRWD's selected design engineer for the proposed pipelines for connection of the Zone C+ Reservoir at the reservoir site, surge analysis and facilities, and other items as identified by IRWD. For the purpose of this proposal, a total of three coordination meetings, of two hours each, are included, independent from the meetings specified under Task 1 above.

B. Project Manual

KLF|SWE will prepare a Project Manual in IRWD's standard format. The Project Team will update the front-end document as appropriate, and will examine IRWD's standard documents to determine if additional supplemental general/special provisions are necessary to comply with IRWD's general provisions and front-end requirements. The Project Manual will describe the allowable shutdown durations and sequencing associated with connections and tie-ins to existing IRWD facilities. The Project Team will update the Project Manual to include IRWD General Technical Specifications, including modifications, and other project specific technical specifications.

C. Construction Plans

KLF|SWE will update the Preliminary Design plans and prepare detailed construction drawings incorporating comments provided by the District. The Construction Plans will be prepared in the latest version of AutoCAD and using NCS V4.0 layering standards, on 22-inch x 34-inch sheets utilizing IRWD's standard border template. Construction plans shall be prepared using the NAVD 88 and NAD 83 survey standards. The Construction Plans will include labeling of the proposed pipeline sizes and materials, and will identify known subsurface utilities by both station and elevation. The design plans will include the existing ground elevation, environmentally sensitive areas, existing and proposed easements, proposed reservoir footprint based on updated physical survey and utility plotting. Existing IRWD utilities will be identified on the plan view by as-built plan set number with the pipeline material and IRWD pressure zone labeled. Borings will be labeled on the plan and profiles, with references to the boring logs to be included in the Project Manual. Construction notes will be used on all construction drawings (no callouts). The index map shall include sheet legend, final alignment, valve locations, surrounding streets, and significant project site locations.

For the purposes of this proposal, it is assumed that 65 sheets will be necessary, as detailed below.

- | | |
|--|---|
| • G-1 Cover Sheet | • C-15 Reservoir Subdrain Plan |
| • G-2 Sheet Index, Legend and Vicinity Map | • D-1 Demolition Plan for Orchard Hills Strainer |
| • G-3 General Notes, Abbreviations, Symbols and Project Key Plan/Index | • EC-1 Erosion control Plan for Construction Grading |
| • G-4 Construction Phasing | • EC-2 Erosion Control Plan for Precise Grading |
| • C-1 Pipeline Notes | • M-1 Mechanical – Strainer Facility |
| • C-2 Pipeline Plan and Profile I | • M-2 Mechanical – Flow Control and Metering Facility Modifications |
| • C-3 Pipeline Plan and Profile II | • M-3 Mechanical Details I |
| • C-4 Civil/Site Notes | • M-4 Mechanical Details II |
| • C-5 Site Layout Plan | • M-5 Mechanical Details III |
| • C-6 Excavation Grading Plan | • M-6 Rattlesnake Strainer Modifications |
| • C-7 Grading Plan | • M-7 Rattlesnake Sleeve Valve Modifications |
| • C-8 Civil Details I | • M-8 Rattlesnake PRV Modifications |
| • C-9 Civil Details II | • M-9 Zone A-C BPS/Surge Protection Modifications I |
| • C-10 Rattlesnake Complex Site Plan | |
| • C-11 Civil Details III | |
| • C-12 Civil Details IV | |
| • C-13 Inlet/Outlet Vault Details | |
| • C-14 Overflow/Drain/Site Drainage Plan and Profile | |



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- M-10 Zone A-C BPS/Surge Protection Modifications II
- CP-1 Cathodic Protection Plan and Notes
- CP-2 Cathodic Protection Details I
- CP-3 Cathodic Protection Details II
- S-1 Structural Notes
- S-2 Structural Foundation Plan
- S-3 Structural Roof Framing Plan
- S-4 Structural Reservoir Section
- S-5 Structural Stair Sections and Details
- S-6 Structural Typical Details
- S-7 Structural Wall and Wall Footing Details
- S-8 Structural Roof Reinforcing Details
- S-9 Structural Details I
- S-10 Structural Details II
- S-11 Structural Details III
- S-12 Structural Roof Slab Reinforcing
- S-13 Structural Sump Plan And Sections
- S-14 Structural Valve Vault Plan and Sections
- E-1 Standard Symbols and Abbreviations
- E-2 Electrical Site Plan - Rattlesnake Complex
- E-3 Electrical Site Plan - Santiago Hills Zone C+ Reservoir
- E-4 Rattlesnake Complex PRV Power and Signal Plan
- E-5 Rattlesnake Complex MOV Power and Signal Plan
- E-6 Rattlesnake Complex Demolition Plan
- E-7 Santiago Hills Zone C+ Reservoir Inlet Power and Signal Plan
- E-8 Santiago Hills Zone C+ Reservoir Strainer Power
- E-9 Santiago Hills Zone C+ Reservoir Outlet Power and Signal Plan
- E-10 Santiago Hills Zone C+ Reservoir Metering Structure Power and Signal Plan
- E-11 Conduit Schedule - Rattlesnake Complex
- E-12 Conduit Schedule - Santiago Hills Zone C+ Reservoir
- E-13 Electrical Details
- I-1 P&ID Standard Symbols and Abbreviations
- I-2 P&ID Rattlesnake Complex
- I-3 P&ID Santiago Hills Zone C+ Reservoir

Final design calculations shall be submitted at the 100% completion level. The team's QA/QC engineer will perform a Quality Peer Review prior to submitting each design submittal to the District.

D. Utility Research

In addition to the various record drawings provided with the RFP, KLF|SWE shall review the existing information from utility companies and identify the location of existing underground utilities and/or other physical features in the immediate vicinity of the proposed facilities and appurtenances. Information on utilities including material, size, horizontal, and vertical locations shall be identified. The Engineer shall include budget to pothole eight existing utilities. We have performed a design lookup for the site using our Digalert account and have learned that the following utility companies have facilities in the close proximity of the Santiago Hills Site:

- ATT – Distribution
- Southern California Gas Company – Transmission
- T-Mobile
- Southern California Edison – Distribution
- Cox Communications
- Southern California Gas Company – Distribution
- Irvine Ranch Water District

The design lookup for Rattlesnake includes the following additional agencies to those listed above:

- City of Irvine
- The Irvine Company

E. Electrical/Instrumentation

KLF|SWE will prepare an operational scheme including process and instrumentation diagrams (P&IDs), single line diagrams, PLC loop drawings, control equipment list, and method of integrating the proposed facilities into IRWD's existing SCADA system. Prior to this process, KLF|SWE will meet with IRWD electrical/automation staff in order to incorporate their standard operations, PLC, SCADA, and equipment tagging requirements into the



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design. The Engineer shall develop and provide the operational scheme and functional descriptions (in plain English) for IRWD review and approval. See listing of Electrical and Instrumentation plans above.

F. Topographic Mapping

The Engineer shall conduct appropriate surveying for the proposed facilities including, but not limited, to the following:

- Establish survey ground control for aerial mapping using NAD83 coordinates and NAVD88 county benchmark elevations
- Field locate and add obscured surface features

The Engineer shall establish horizontal and vertical control and shall provide topographic maps to be used in the construction drawings for the proposed facilities and to facilitate preparation of detailed plans. An electronic copy of the topographic maps shall be provided to IRWD. The majority of this item will be performed during the Preliminary Design phase of the project, topographic field checks and verification of specific features will be performed during final design.

G. Project Schedule

KLF|SWE's Project Manager, Dan Smith, will maintain and consistently update the project schedule developed during the preliminary design phase. A copy of the schedule will accompany the monthly progress reports as described in Task 1.

H. Liquidated Damages Spreadsheet

KLF|SWE will calculate the liquidated damages value for the construction project, should the contract time be exceeded. IRWD's standard liquidated damages form will be utilized.

I. Opinion of Probable construction Costs (OPCC)

Through the advancement of the 60-, 90- and 100-percent design, the team will update the OPCC developed during the preliminary design phase for review by IRWD. The respective OPCC will accompany the appropriate Final Design deliverable described in Item J below.

J. Final Design Deliverables

The Final Design deliverables, in addition to the meetings to present each of these submittals, will include:

- **60% Submittal:** Design drawings will include civil/site design, demolition, mechanical, structural, electrical, and P&ID plans. Horizontal pipeline alignments and preliminary profiles will demonstrate the proposed pipeline design, as well as mapping of existing utilities.
- **90% submittal:** Show concepts of each component of the design such as civil, structural, mechanical, electrical and instrumentation. Show plan, profile, connections, and location of appurtenances. Pipeline plan and profile drawings shall be developed to a high level of detail. Provide all sections of the Project Manual.
- **100% Submittal:** 10 copies of the 100 percent submittal, one CD containing AutoCAD files for the entire plan set, and one CD containing a single PDF file of the entire project plan set. Include complete plans and specifications and a notebook with the design calculations (including, but not limited to: mechanical, civil, structural, electrical, and pipe thickness). One final set of stamped and signed reproducible plans on mylar and original signed Project Manual for IRWD's signatures. The Engineer shall attend the meeting for IRWD's signatures to explain the project and to answer questions.

60% DELIVERABLES

1. 60% Design Plans - 10 hard copies, one PDF electronic copy on CD
2. Project Manual - one hard copy

90% DELIVERABLES

1. 90% Design Plans - 10 hard copies, one PDF electronic copy on CD
2. Project Manual - one hard copy

100% DELIVERABLES

1. 100% Design Plans - 10 hard copies, all CAD files for entire plan set, one PDF electronic copy on CD
2. Project Manual - one hard copy
3. Design Calculation Notebook - one hard copy



K. Addenda Preparation and Pre-bid Meeting

During the bidding period, the Engineer shall assist with providing information and clarification of bid documents to prospective bidders and prepare up to three addenda. The Engineer shall assist in conducting one pre-bid meeting, including a site visit with potential bidding contractors.

Task 4: Construction Phase Services

A. Project Meetings

KLF|SWE will schedule and conduct a total of 14 project progress meetings during the construction period, and will prepare meeting minutes. Each meeting is assumed to be two hours in duration. One of the Project Meetings will be a Pre-Construction Meeting with the Contractor to set expectations for construction, communicate design intent, and establish a strong working relationship.

B. Contractor's Request for Information (RFI)

KLF|SWE will review and respond to the Contractor's RFI, up to a maximum of 70 RFIs

C. Minor Plan Revisions

Depending on field conditions, the Project Team is prepared to perform minor plan revisions during construction. This task includes a maximum of 80 hours of staff time for minor plan revisions to the construction drawings, as needed.

D. Site Visits

KLF|SWE will perform up to eight visits to the site to observe the progress and quality of the executed work of the Contractor. Site visits will be scheduled to coincide with project meetings to maximize team efficiencies.

Optional (not included in fee): KLF|SWE will conduct up to two additional site visits of two hours each during the construction period for the purpose of creating a final "punch list" for the Contractor and to confirm that the "punch list" is complete. Upon completion of the final punch list, the Notice of Completion can be filed.

E. Shop Drawing Reviews

KLF|SWE will provide an initial review of up to 120 shop drawing submittals. It is anticipated that a second review will be performed for 60 shop drawings to verify comments from the initial submittal are addressed. Approximately two hours per initial shop drawing review, and one hour for subsequent reviews is included.

F. Record Drawings

KLF|SWE will prepare record drawings on 24-inch by 36-inch mylars at the completion of construction using IRWD-approved Contractor's and IRWD Inspector's redlines. Final record drawing mylars, reissued signed mylars (as needed), AutoCAD electronic files, and a single color PDF of the final as-built mylars will be submitted to IRWD on CD at the completion of construction.



EXHIBIT "D"

CONSULTANT SELECTION MATRIX

ILP North Conversion Pipelines Project												
Item	Description	Weights	Hunsaker		VA Consulting		Tetra Tech		Dudek		URS	
A	TECHNICAL APPROACH											
1	Project Understanding	30%	2		5		3		4		1	
2	Project Approach	30%	2		5		4		3		1	
3	Project Team	40%	3		5		2		4		1	
	Weighted Score (Technical Approach)		2.4		5.0		2.9		3.7		1.0	
	Ranking of Consultants		2		5		3		4		1	
B	SCOPE OF WORK											
TASK			Task Hours	FEE	Task Hours	FEE	Task Hours	FEE	Task Hours	FEE	Task Hours	FEE
1	Project Management		156	\$23,960	156	\$25,436	184	\$41,900	216	\$43,400	218	\$39,450
2	Basis of Design Memorandum		301	\$42,458	170	\$22,238	298	\$46,600	390	\$63,490	313	\$39,105
3	Final Design											
	Tasks 3.A through 3.P (Excluding Task 3.C)		2,156	\$421,315	890	\$192,411	1,146	\$307,200	3,042	\$411,600	2,675	\$450,870
	Task 3.C Traffic Control		40	\$34,073	72	\$8,184	148	\$68,500	680	\$84,420	314	\$35,440
4	Construction Phase Services		368	\$53,076	475	\$68,401	700	\$115,800	554	\$92,060	636	\$95,000
	TOTAL ENGINEERING SERVICES FEE		3,021	\$674,882	1,763	\$316,670	2,476	\$580,000	4,882	\$694,970	4,156	\$659,865
C	OTHER											
	Number of Design Drawings		37		35		40		35		40	
	Engineering Services Fee per Design Drawing		\$11,387		\$5,497		\$7,680		\$11,760		\$11,272	
	Number of Traffic Control Drawings		19		6		35		45		18	
	Engineering Services Fee per Traffic Control Drawing		\$1,793		\$1,364		\$1,957		\$1,876		\$1,969	
	Sub Consultants											
	Geotech		GMU Geotechnical		Converse Consultants		Leighton Consulting		Converse Consultants		In-house	
	Survey		In-house		In-house		Coast Surveying		Guida Surveying		Stantec	
	Potholing		Boudreau Pipeline		Moran Utility		C-Below		Underground Solutions		C-Below	
	Traffic Control		TJW Engineering		In-house		PMK		Traffic Control Eng.		In-house	
	Exceptions taken to IRWD Std. Contract		Yes - Section XI		None		None		None		None	
	Insurance (Professional & General Liability)		Yes		Yes		Yes		Yes		Yes	



1.3 SCOPE OF WORK

Task 1: Project Management

URS will conduct effective project management that adheres to the scope, schedule, and budget; provide efficient and frequent communication with IRWD and other project stakeholders; and implement the URS Quality Management System in order to provide effective quality assurance/quality control. The scope of services for Project Management includes the following items:

- A. Preparation of Project Status Reports – URS will prepare weekly and monthly project status reports for IRWD’s management team. The weekly status reports will consist of a brief (one to two paragraphs) email summarizing work activities completed the previous week along with activities planned for the upcoming week. Monthly status reports will provide more detail and will summarize work for the previous and upcoming month. The monthly reports will include an updated project schedule (Microsoft Project Gantt chart) and a summary of budget expenditures to date per task and budget remaining. In addition to the status reports, URS’ management team will maintain strong lines of communication with IRWD via email and telephone. URS will copy IRWD staff on all emails to and from agencies and other project stakeholders.
- B. Meetings and Workshops – URS will schedule and lead meeting with IRWD’s team to ensure that all design, operational and maintenance issues are being addressed. URS will provide agendas of upcoming project coordination meetings five working days in advance of the meeting and prepare meeting minutes and action items within five working days subsequent to the meetings. These efforts are intended to ensure that all technical issues are being addressed and that the project remains on schedule. For the purposes of budgeting, the following meetings are anticipated for the project:

Meeting/Workshop	Description
General project management and design development meetings	Six (6) two-hour meetings
Site visits during design development	Four (4) two-hour meetings
Coordination activities with agencies and project stakeholders including , but not limited to: City of Orange, City of Orange, MWD, and SCE	Eight (8) two-hour meetings
Draft Basis of Design Review Workshop	One (1) two-hour workshop
Present the 60% design and discuss IRWD’s comments and outstanding item resolution	One (1) three-hour workshop
Present the 90% design and discuss IRWD’s comments	One (1) two-hour workshop
Present the 100% design and discuss IRWD’s comments	One (1) two-hour workshop

- C. Quality Assurance/Quality Control – URS will implement our Quality Management System (QMS) throughout the project to ensure consistent quality control for all project phases. The QMS system is based on the ISO 9001 standard and is required on all of our projects. Per this system, each project deliverable will undergo an independent technical review and a detail checking review, and construction documents will undergo a constructability review. The independent technical review will be provided by a technical expert in the related field, who has not been involved in preparation of the deliverable. The detail checking review focuses on a review of grammar, spelling, notes, construction call-outs, construction coordinates, plans and specification coordination, and discipline coordination.





URS will provide IRWD with review comment disposition forms, redlines, redline back-checks, and QMS forms upon request.

Task 2: Basis of Design

URS will prepare a Basis of Design Memorandum (BOD) for all proposed facilities in order to confirm the findings and design criteria provided in the ILP-North Conversion Study (Study). URS will review the Study, confirm pipeline alignments, and establish and confirm design criteria for the project. URS will specifically address the following items within the BOD:

1. **Santiago Hills Zone C+ Reservoir Inlet and Outlet Pipelines Alignment Analyses** - URS will evaluate and recommend the optimum pipeline alignments and connection locations for the Santiago Hills Zone C+ Reservoir Inlet and outlet pipelines. The BOD will include preliminary piping/road/easement cross sections, underground utility locations and potential interferences, traffic control considerations, constructability issues, pipe materials (although already identified as welded steel concrete mortar lined), pipe size and wall thickness, construction of special crossings, locations for main line valves, blow-offs, air releases, cathodic protection facilities, easement and right-of-way needs and costs for acquiring easements and right-of-way for the proposed pipelines. Based on URS' preliminary utility and alignment research, we have developed a potential inlet and outlet pipeline alignment as shown on Figure 1 through 3.
2. **Existing Sewer Capacity** - URS will develop a sanitary sewer hydraulic model to accommodate the proposed strainer backwash discharges and future development within the project sphere of influence. The existing sewer capacity analysis will also include future develop discharges from Santiago Hills II, East Orange Area I and East Orange Lake Village along with analyzing current discharge flow from tributary areas along Jamboree from the Jamboree/Chapman intersection to Canyon View Drive. The sanitary sewer discharges will be provided by the District based on previously develop specific area master plans. Upon the completion of the hydraulic modeling, URS will prepare horizontal and vertical pipeline alignments to be implemented for final design.
3. **Sewer Pipeline Alignment** - Based on results of Task 2B, URS will prepare preliminary plan and profiles for the sanitary sewer facilities evaluating potential utility conflicts, establishing minimum horizontal/vertical clearance requirements, recommendations for materials, location of future connections and manholes locations. Estimated costs of construction will be prepared as part of this effort to be used for budgetary purposes. Based on existing utility information, URS has included a preliminary alignment of the proposed sanitary sewer facilities to serve as a starting point for design, see Figures 1 through 3.
4. **Recycled Water Pipeline Alignments (Santiago Canyon Road / Jamboree Road)** - URS will evaluate and recommend the optimum pipeline alignments and proposed connection locations for the 20" and 10" recycled water lines anticipated to serve the Irvine Regional Park and Holy Sepulcher Cemetery. URS will prepare a hydraulic analysis for the proposed recycled water lines based on the hydraulic modeling results provided by the on-site facilities design team to evaluate final materials and sizing criteria. Based on URS' preliminary research of the recycled water line alignments see Figures 1 through 3, it appears that there are minimal conflicts with the exception of the existing transmission pipelines. URS will work with the District Staff to develop a final solution for the connection to the Holy Sepulcher Cemetery irrigation District and further investigate alternative connection locations that eliminate recycled water pipelines within the Santiago Canyon Road rights of way. URS is also making



a preliminary recommendation to use PVC for the 10" portions of the project in an effort to reduce the overall costs of the project.

5. Basis of Design Memorandum: URS will prepare a summary Basis of Design Memorandum for the Offsite Pipeline Improvements that will summarize the above individual task results and incorporate the following information:
 - a. Existing Data Collection, Utility Research & Review – URS will perform an existing utility search for underground utilities within the project area. The initial utility search will be completed using Underground Services Alert (USA) and As-built searches through the City of Orange and County of Orange. URS has performed an initial search of utilities as part of the due diligence efforts in the preparation of this Scope of Services. All affected utilities will be field marked and reviewed by the design team. Utility notifications will be prepared and sent to utility providers within the project area to obtain as-builts, atlas mapping and existing easement documentation.
 - b. Analysis of Pipeline Alignment – As discussed above, URS will prepare alternative alignment studies for each segment of pipeline being proposed to a maximum of three alternatives. The final pipeline alignments will be based on minimizing utility conflicts, maintaining traffic access during construction, future maintenance requirements, overall constructability and costs. It is anticipated that the Offsite Pipeline Design Team will be required to coordinate with the Onsite Improvement Design Team continuously throughout the design process.
 - c. Design Criteria Development – In general, all design criteria will be based on Irvine Ranch Water District – Procedural Guidelines and Construction Manual. In areas where special considerations are required, such as the Orange County Parks property and areas where the City of Orange may require additional criteria, URS will evaluate the most stringent and/or applicable design criteria for future use. Design criteria findings will be documented and incorporated into the Basis of Design Memorandum for record keeping requirements and future reference.
 - d. Initial Geotechnical Considerations – URS will obtain available geotechnical reports associated with the original construction of the Baker Raw Water Pump Station, Jamboree Road (circa 1988), Development Tract 12417, and Santiago Hills Reservoir for review of the existing conditions. Based on URS' review of the available documents, a final recommendation as to the final engineering geotechnical study will be provided. URS has included a full geotechnical investigation as required by the District in the Final Engineering Phase of work. If necessary, URS will provide refinements to the original scope of geotechnical services to either exclude unwarranted geotechnical explorations or refine the locations of geotechnical borings.
 - e. Identification of Proposed Pothole Locations – Upon the completion and approval of the proposed pipeline alignments, URS will prepare a utility investigation pothole location exhibit. For the purposes of this proposal, URS has included a minimum of 20 potholes for budgetary purposes. Adjustments to the actual required number of potholes will be refined as part of the Basis of Design Memorandum phase of the project.
 - f. Survey Requirements for Final Design – URS and our teaming partner, Stantec, will review the final limits of the project construction and provide for a refined limit of surveying services. Currently, URS/Stantec have provided for a full design survey inclusive of existing rights of way along the proposed pipeline alignment, surface features, dipping of existing manholes and depth measurements to "top of nut" for existing water valves of existing utilities. Upon approval of the



final alignments of the proposed pipelines, URS/Stantec may revise the limits of survey to only facilities deemed required for final design.

- g. Constructability, Construction Phasing, Critical Physical Crossings, Infrastructure Impediments and Traffic Control Constraints – Through our Quality Assurance programming and Technical Advisors, URS will complete a complete constructability review of the project specifically through areas where there are potential infrastructure conflicts. Upon the completion of the constructability review, URS will document potential conflicts and general construction phasing requirements of the project to be included in the Basis of Design Memorandum.
- h. Allowable Shutdown Periods and Shutdown Sequencing Requirements – URS will work with the District staff and obtain information regarding allowable shutdown periods and procedures for the Allen-McColloch Pipeline and the ILP. All shutdown and sequencing requirements will be documented including points of contacts, when shutdowns are available and required construction coordination efforts.
- i. Requirements for Special Design Consideration – URS will coordinate through MWDOC and MWD of Southern California to identify any special construction requirements for crossing the Allen McColloch Pipeline and with the City of Orange regarding required property access during construction. It is anticipated that construction will be required to be staged through the Chapman/Jamboree intersection as to maintain traffic flow into and away from the Santiago Canyon College and the surrounding commercial center. All special requirements will be documented and presented in the Basis of Design Memorandum.
- j. Review of Required Permits – URS will prepare a review of all required permits for the Construction of the Offsite Pipelines. Currently it is anticipated that only an encroachment permit from the City of Orange and Orange County Parks is required for construction within the public rights of way. It is also anticipated that emergency services (Fire/Police) may require a review of the traffic control to ensure adequate access through the Jamboree/Chapman intersection since it is deemed a critical ingress/egress point to Santiago Canyon.
- k. List of Drawings and Outlined Specifications – URS will prepare a complete listing of drawings and special provisions required for final design and preparation of the construction documents.
- l. Opinion of Probable Construction Costs – URS will prepare a preliminary Opinion of Probable Construction Costs for all elements of the project.
- m. Project Schedule Update – URS will prepare an updated project schedule identifying all design activities, review periods and critical elements of the projects. In addition, URS will prepare a preliminary construction schedule for project planning purposes.

Basis of Design Memorandum – Proposed Outline (Table of Contents):

Offsite Pipelines for the Irvine Lake Pipeline North Conversion Project
Preliminary Design Report
(Proposed Table of Contents)

Section	
0.0	EXECUTIVE SUMMARY
1.0	INTRODUCTION





- 1.1 Project Background
- 1.2 Project Purposes
- 2.0 UTILITIES INVESTIGATION
 - 2.1 Introduction
 - 2.2 Identification of Existing Utility Providers
 - 2.3 Existing Utilities As-Builts
 - 2.4 Preliminary Utility Base Mapping
- 3.0 PROPOSED PIPELINE IMPROVEMENTS AND PRELIMINARY ALIGNMENTS
 - 3.1 Aerial Photo Base Mapping
 - 3.2 Preliminary Pipeline Alignments
 - 3.3 Identification of Potential Utility Conflicts
 - 3.4 Identification of Utility Easements
 - 3.5 Identification of Temporary Construction Easements
 - 3.6 Identification of Pothole Requirements
 - 3.7 Special Considerations for Construction
 - 3.8 Feeder Shut-down Requirements and Windows
 - 3.9 Identification of Potential Physical Impediments
 - 3.10 Inter-agency Coordination Efforts
- 4.0 SEWER CAPACITY ANALYSIS
 - 4.1 Introduction
 - 4.2 Existing Information Review and Establishment of Design Discharges
 - 4.3 Hydraulic Modeling and Sizing Criteria
 - 4.4 Preliminary Sewer Analysis Results and Recommendations
- 5.0 INITIAL GEOTECHNICAL CONSIDERATIONS
 - 5.1 Introduction
 - 5.2 Review of Existing Geotechnical Information
 - 5.3 Development of Dewater Requirements
 - 5.4 Develop Final Geotechnical Scope of Services
 - 5.5 Geotechnical Investigation (Early Start)
 - 5.6 Geotechnical Testing and Recommendations
- 6.0 SURVEY REQUIREMENTS
 - 6.1 Introduction
 - 6.2 Develop Final Survey Boundaries
 - 6.3 Field Surveying and Mapping (Early Start)
 - 6.4 Develop Project Base Mapping
- 7.0 CONSTRUCTION ISSUES, PERMITS, SCHEDULES AND CONSTRUCTION DOCUMENTATION
 - 7.1 Introduction
 - 7.2 List of Permits and Requirements
 - 7.3 CEQA Support Documentation
 - 7.4 Material Deliveries and Associated Lead Times
 - 7.5 Recommendations for Construction Phasing and Schedule
 - 7.6 Drawing List
 - 7.7 Specifications List Project Manual Outline
 - 7.8 Opinion of Probable Construction Costs

Deliverables – URS will provide ten (10) copies of Draft and Final BOD validation memorandum to the District for comment, review, and approval. All submittals will include both an MS Word and PDF copy of project documentation ready for reproduction purposes.



Task 3: Final Design

Final design will be completed in accordance with IRWD’s Design Process Manual. URS will address the following items in final design:

1. Project Manual – URS will prepare the Project Manual for the project in standard IRWD format and complete IRWD templates for the bidding and contract requirements section of the manual. URS will use the latest version of IRWD’s Project Manual for the front-end documents related to bidding, agreements, general provisions, and special provisions. The special provisions will be tailored for the project. The Project Manual will reference the applicable sections of IRWD’s General Technical Specifications, modify these sections as needed, and provide new technical sections as needed for the project. The Project Manual will also include an Appendix with District holidays, District Alternating Friday Closure Schedule, standard construction forms, permit documents, NPDES documents, Project Sign figure, and various other forms for construction.

We will provide an original set of bidding documents in 8-½ inch x 11-inch format. Computer files of the Project Manual will be submitted to IRWD in the latest version of Microsoft Word on one CD and as a single PDF file on a second CD. URS has copies of example Project Manuals from IRWD that will be used for reference.

2. Construction Plans – URS will prepare detailed construction drawings in AutoCAD 2014 using NCS V4.0 layering standards. Construction plans will be prepared on IRWD standard 24-inch x 36-inch sheet with IRWD title block. Pipeline plan and profile sheets will be prepared of two-strip (e.g. profile over plan view) at a scale of 1”=40’ horizontal and 1”=4’ vertical. This will include general plans, civil plans, mechanical plans, and associated details. The horizontal and vertical control will be established with NAD83 and NAVD88 survey standards, respectively. The following table presents our proposed listing of the potential construction drawings.

**ILP CONVERSION PROJECT
Construction Drawing List**

Sheet No.	Drawing No.	Sheet Title
1	G-1	Title Sheet
2	G-2	Location Map, Vicinity Map, and Drawing Index
3	G-3	General Notes, Symbols, Agency Index & Abbreviations
4	G-4	Construction Staging Plan and Survey Data
5	C-1	Construction Phasing Plan
6	C-2	Sheet Index Maps
7	C-3	Santiago Hills Zone C+ Reservoir 42" Inlet Pipeline – Plan & Profile - 1
8	C-4	Santiago Hills Zone C+ Reservoir 42" Inlet Pipeline – Plan & Profile - 2
9	C-5	Santiago Hills Zone C+ Reservoir 42" Inlet Pipeline – Plan & Profile - 3
10	C-6	Santiago Hills Zone C+ Reservoir 42" Inlet Pipeline – Plan & Profile - 4
11	C-7	Santiago Hills Zone C+ Reservoir 42" Outlet Pipeline – Plan & Profile - 1
12	C-8	Santiago Hills Zone C+ Reservoir 42" Outlet Pipeline – Plan & Profile - 2
13	C-9	Santiago Hills Zone C+ Reservoir 42" Outlet Pipeline – Plan & Profile - 3



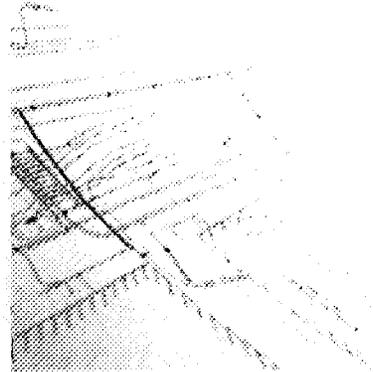
Sheet No.	Drawing No.	Sheet Title
14	C-10	Santiago Hills Zone C+ Reservoir 42" Outlet Pipeline – Plan & Profile - 4
15	C-11	Santiago Hills Zone C+ Reservoir 42" Outlet Pipeline – Plan & Profile - 5
16	C-12	Santiago Hills Zone C+ Reservoir 42" Outlet Pipeline – Plan & Profile - 6
17	C-13	Santiago Hills Zone C+ Reservoir 42" Outlet Pipeline – Plan & Profile - 7
18	C-14	Santiago Hills Zone C+ Reservoir 42" Outlet Pipeline – Plan & Profile - 8
19	C-15	Santiago Hills Zone C+ Reservoir 42" Outlet Pipeline – Plan & Profile - 9
20	C-16	Santiago Canyon Road 20" RW Pipeline – Plan & Profile - 1
21	C-17	Santiago Canyon Road 20" RW Pipeline – Plan & Profile - 2
22	C-18	Santiago Canyon Road 10" RW Pipeline – Plan & Profile - 1
23	C-19	Santiago Canyon Road 10" RW Pipeline – Plan & Profile - 2
24	C-20	Santiago Canyon Road 10" RW Pipeline – Plan & Profile - 3
25	C-21	Santiago Canyon Road 10" RW Pipeline – Plan & Profile - 4
26	C-22	Santiago Canyon Road 10" RW Pipeline – Plan & Profile - 5
27	C-23	Santiago Canyon Road 10" RW Pipeline – Plan & Profile - 6
28	C-23	Santiago Canyon Road 10" RW Pipeline – Plan & Profile - 7
29	C-24	Santiago Canyon Road 10" RW Pipeline – Plan & Profile - 8
30	C-25	Santiago Hills Zone C+ 10" Sanitary Sewer Pipeline – Plan & Profile - 1
31	C-26	Santiago Hills Zone C+ 10" Sanitary Sewer Pipeline – Plan & Profile - 2
32	C-27	Santiago Hills Zone C+ 10" Sanitary Sewer Pipeline – Plan & Profile - 3
33	C-28	Santiago Hills Zone C+ 10" Sanitary Sewer Pipeline – Plan & Profile - 4
34	C-29	Santiago Hills Zone C+ 10" Sanitary Sewer Pipeline – Plan & Profile - 5
35	C-30	Santiago Hills Zone C+ 10" Sanitary Sewer Pipeline – Plan & Profile - 6
36	D-1	Connection Details - 1
37	D-2	Connection Details - 2
38	D-3	Pipeline Details - 1
39	D-4	Pipeline Details - 2
40	D-5	Miscellaneous Details - 1
41	TC-1	Traffic Control for Santiago Hills Reservoir Inlet/Outlet Pipelines - 1
42	TC-2	Traffic Control for Santiago Hills Reservoir Inlet/Outlet Pipelines - 2
43	TC-3	Traffic Control for Santiago Hills Reservoir Inlet/Outlet Pipelines - 3
44	TC-4	Traffic Control for Santiago Hills Reservoir Inlet/Outlet Pipelines - 4
45	TC-5	Traffic Control for Santiago Hills Reservoir Inlet/Outlet Pipelines - 5
46	TC-6	Traffic Control for Santiago Hills Reservoir Inlet/Outlet Pipelines - 6
47	TC-7	Traffic Control for Santiago Hills Reservoir Inlet/Outlet Pipelines - 7
48	TC-8	Traffic Control for Santiago Canyon Road RW Pipelines - 1
49	TC-9	Traffic Control for Santiago Canyon Road RW Pipelines - 2
50	TC-10	Traffic Control for Santiago Canyon Road RW Pipelines - 3
51	TC-11	Traffic Control for Santiago Canyon Road RW Pipelines - 4



Sheet No.	Drawing No.	Sheet Title
52	TC-12	Traffic Control for Santiago Canyon Road RW Pipelines - 5
53	TC--13	Traffic Control for Santiago Hills Sanitary Sewer Pipelines - 1
54	TC-14	Traffic Control for Santiago Hills Sanitary Sewer Pipelines - 2
55	TC-15	Traffic Control for Santiago Hills Sanitary Sewer Pipelines - 3
56	TC-16	Traffic Control Details - 1
57	TC-17	Traffic Control Details - 2
58	TC-18	Traffic Control Details - 3

3. **Traffic Control Plans** – URS will prepare detailed traffic control plans for all proposed pipelines and facilities. The traffic control plans will be prepared in accordance with, and approved by, the appropriate agency (e.g. City of Orange, County of Orange, and/or other). The traffic control plans will be included in the set of construction plans and will take construction phasing into consideration. The traffic control plans will be prepared at 1"=40' scale with two plan view panels per sheet. URS will work closely with all project stakeholders when preparing the traffic control plans in order to develop plans that meets their access needs. URS provided similar traffic control plans for IRWD's Bayview Sewage Lift Station Improvements Project (IRWD Project No. 20530) and for the County of Orange's Crawford Canyon Road and Drainage Realignment Project.

4. **Utility Research** – During the preliminary design phase, we will collect utility as-built drawings from IRWD, the City of Orange, MWD, County of Orange, SC Edison, the Gas Company, telecom companies, and other agencies and private parties in order to create a utility base map for final design. We will also perform a web search of USA Digalert's online database to locate all of the utilities in the project vicinity and then contact each utility owner to request a copy of their available as-built drawings. We have included budget in our fee estimate for purchasing utility as-built plans. The as-builts will be used to create an AutoCAD utility map for the project. We will field walk the proposed pipeline alignments after the base map has been created in order to field verify utility locations and surficial appurtenances (i.e. O/H utilities, valve cans, manholes).



For budgeting purposes, URS has budgeted for twenty (20) utility potholes. URS will subcontract with C Below to perform utility potholing. C Below specializes in obtaining accurate subsurface utility information using Ground Penetrating Radar to locate buried lines and a non-destructive, minimally invasive, vacuum process, which exposes the utility for visual verification, identification, inspection, measurements and vertical and horizontal location of the utility. C Below will prepare detailed CAD drawings and color photo logs of each pothole location. URS will obtain encroachment permits from the Cities and County for the potholing fieldwork.

5. **Aerial Survey and Topographic Mapping** - Current aerial topography and existing planimetrics data will be obtained for the Santiago Canyon Road and Jamboree Road alignments. The photography will be flown for use at a scale of 1" = 40', with contours compiled at 1-foot intervals. Spot elevations





and existing site features identifiable from photography will also be compiled. In an effort to provide sufficient coverage for design, the aerial limits will extend to extend approximately 50-feet beyond the public right-of-way of Santiago Canyon Road and Jamboree Road. This line item includes the field work to set horizontal and vertical control required for the aerial effort, which will be based on Orange County NAD83 horizontal control, and NAVD88 vertical control present in the area. Deliverables will include a digital CAD file containing the resulting data along with a color digital ortho-photo prepared from the photography. The ortho-photo will be a rectified image so as to match the compiled topography as closely as possible, providing the capability to prepare accurate, color exhibits of the property on subsequent efforts.

- Supplemental Topography - As a supplement to the aerial effort, conventional ground survey will be used to locate significant features not reflected by aerial photography, and obtain additional detail in key areas. Visible indications of surface utilities will be located, as will rim elevations for drainage structures present. The supplemental data will be used in conjunction with the aerial mapping to create a single topographic map that will be used as the basis for design
 - Sewer Manhole Details, and Water Valve Locations - Invert elevations will be obtained for sewer manholes present in the alignment. In addition, the top of valves nuts will be observed for water valves present in the alignment, if accessible. Based on preliminary investigation, this effort may include up to 40 sewer manholes, and 50 water valves. It is anticipated that the manholes and valve covers will be accessible and that the measurements can be safely obtained with minimal traffic control. Stantec will work with IRWD and the City to ensure that traffic control requirements are met prior to initiating this effort.
 - Existing Right-Of-Way Base Map - Research, analysis, and mapping will be performed to retrace the centerline and right-of-way of Santiago Canyon Road and Jamboree Road within the project area. The result will be a Right-of-Way Base Map illustrating existing centerline and right of way conditions. Existing centerline monuments combined with available agency research and assessor parcel mapping will be used to prepare the Base Map. This will not be a full and complete boundary survey of the right-of-way and adjacent land parcels. Monuments located will be limited to those along the street centerline.
6. Geotechnical Investigation – URS will conduct a geotechnical investigation to support the design and construction of the proposed pipeline facilities. The Santa Ana URS office has provided geotechnical engineering services to the District on several recent infrastructure projects and is currently providing dam monitoring support for the District's five dams. We anticipate that the geotechnical investigation will be conducted during the preliminary design phase so that trenching recommendations and pipeline alignments can be provided within the BOD. In accordance with the RFP, the following tasks, at a minimum, will be conducted by URS for the geotechnical investigation:
- Perform a geotechnical reconnaissance to observe site conditions and to locate exploratory borings. URS pipeline design team will accompany the geotechnical staff to provide insight on proposed project facilities and pipeline alignments to optimize soil boring locations.
 - Conduct soil borings necessary to observe, test and classify soils, and monitor groundwater. The number, location, and depth of borings will be adequate to characterize the soils to at least five feet below any proposed structure or pipeline invert. For budgeting purposes, URS has assumed at least two soil borings at the crossing of the AMP and one soil boring for every 1,500-foot



interval along each of the proposed pipeline alignments. We anticipate the need for approximately fifteen soil borings to a depth of fifteen feet for proposed pipelines.

- Collect soil samples for testing as needed based on URS' professional judgment.
- Plot the location of all soil borings on a map and attach the map to the Geotechnical Report. Include complete logs of the soil profiles in the report.
- Conduct laboratory tests of selected samples to evaluate moisture content, density, gradation, Atterberg limits, consolidation, shear resistance, expansion, R-value, corrosivity, and/or other criteria as recommended by the geotechnical engineer. The soil corrosivity values will be used to determine the type of cathodic protection for the project (i.e. impressed current, sacrificial anodes, test stations).
- Prepare a geotechnical report presenting findings, conclusions, and recommendations for the design and construction of the proposed facilities. The report will include, at a minimum:
 1. Groundwater presence and levels (determined by two monitoring wells);
 2. Construction dewatering requirements;
 3. Pipe bedding requirements;
 4. Trench shoring requirements;
 5. Settlement potential;
 6. Excavatability of soils;
 7. Location of rock;
 8. Backfill suitability; and
 9. Backfill compaction.
- The geotechnical report will emphasize specific concerns regarding construction methods and the integrity of pipelines, pavements, and structures. The report will provide recommendations regarding the design of facilities. At a minimum, recommendations will include:
 1. Active, at-rest, passive and dynamic earth pressures;
 2. Foundation type;
 3. Allowable bearing pressure;
 4. Coefficient of friction between the foundation and soils/subgrade;
 5. Foundation design data;
 6. Settlement potential;
 7. Pipe bedding;
 8. Maximum cut slope requirements;
 9. Structural needs;
 10. Groundwater dewatering well(s) design criteria, and/or
 11. Other standard design criteria.

URS will provide six (6) copies of the draft Geotechnical Investigation Report (GIR) for IRWD review. Upon resolution and incorporation of review comments, six (6) copies of final GIR and one (1) electronic copy in PDF (single file) on CD will be submitted.

7. Easements - Up to five (5) sets of legal descriptions and exhibits will be prepared for the locations where additional right-of-way will be dedicated to accommodate street modifications or for Temporary Construction Easements (TCE) in the same vicinity. Preliminary Title Reports will be



required for any properties affected by the above dedications, prior to the preparation of the documents. Costs to obtain said reports are not included in this scope of services.

8. Surge Analysis – URS will provide pipeline alignments (AutoCAD or PDF format), profiles, pipe materials, pipe sizes, line valve locations, air/vacuum relief valve locations, and other pertinent information to IRWD's surge analysis consultant as requested. We will incorporate recommendations from the final surge analysis into the final design plans and specifications as instructed by IRWD.
9. Design Coordination – URS will coordinate our design and construction efforts with IRWD's selected engineer for the proposed Zone C+ Reservoir. Coordination efforts may include, but will not be limited to, pipeline points of connection, surge analysis and required surge mitigation facilities, construction phasing, staging areas, site access, and other items identified by IRWD. URS will also coordinate our design efforts with other project stakeholders, including the City of Orange, County of Orange, Orange County Parks, Metropolitan Water District, and Holy Sepulcher Cemetery.
10. CEQA Documentation – URS has included a budget of \$8,000 for supporting IRWD and their CEQA consultant through the CEQA documentation process, as stipulated in the RFP. URS' CEQA support may include review of the environmental document, preparation of exhibits, attendance at meetings, and sharing of project-related information.
11. Permits – URS will make applications and secure all permits with controlling agencies. URS will prepare and process the permit applications, including exhibits required by the issuing agency, and shall furnish the required number of copies of all plans and exhibits. IRWD staff will sign all applications as required by the owner. We understand that IRWD will reimburse the engineer for actual permit fees without surcharge. We have included a \$15,000 permit allowance within our budget as stipulated in the RFP. The known permits discussed in the RFP include the following:
 - Orange County Parks - URS will coordinate with the OC Parks to secure the required encroachment permits for the construction of the proposed pipeline facilities.
 - City of Orange – URS will coordinate with the City of Orange to secure the required encroachment permits for the construction of the proposed pipeline facilities.
 - NPDES Permit – Per the RFP, a Storm Water Pollution Prevention Plan (SWPPP) is expected for this project. URS will perform a Risk Level assessment in accordance with the Construction General Permit and provide the Risk Level for inclusion in the Contract Documents. We have assumed that the SWPPP document will be prepared by the contractor. URS has Qualified SWPPP Developers (QSD) in our local Santa Ana, CA office that can provide the Risk Level determination.
12. Project Schedule – URS will submit monthly project schedule updates and with each final design submittal, including a detailed construction schedule. The project schedule will reflect coordination items, submittal milestones, critical path items, IRWD review times, shop drawing approvals, manufacturing, delivery, seasonal weather impacts, and affected construction projects. URS will prepare the schedule in Microsoft Project format.
13. Opinion of Probable Construction Cost – URS will provide IRWD with an engineer's estimate of probable construction costs for the 60%, 90% 100% and final submittals. URS will incorporate and address comments from IRWD related to the cost estimate. Construction costs will be determined from a variety of resources, including: vendor quotes, RS Means Costworks software, Caltrans Cost



Data Books, recent IRWD construction bids, and bids from other local pipeline projects that URS has recently designed.

14. Liquidated Damages Spreadsheet – URS will assist in calculating liquidated damages for the project, which would take effect if the Contractor exceeds the contract time. URS will fill out IRWD's standard liquidated damage calculation form. URS has completed this form for IRWD on numerous projects.
15. Final Design Deliverables – URS will provide final design deliverables pursuant to IRWD's Design Process Manual. Hard copies of construction plans will be reproduced in either full-size (24"x26") bond format or tabloid (11"x17") bond format, per IRWD preference. The Project Manual will be reproduced in double-sided letter-size format with color paper per IRWD standards. The submittals will be provided as described below.
 - URS will submit ten (10) hard copies and one (1) electronic file in PDF format of the first (60%) submittal. Plans for the first submittal will include a draft set of drawings for the entire project. Pipeline alignments, preliminary profiles, existing utilities, street/pipe sections, and details will be provided in detail for of each component of the design such as civil, mechanical, structural, and traffic control components. The first submittal will include all sections of the Project Manual with technical specifications and an engineer's estimate of probable construction cost. The General Provisions will not be included in the Project Manual for this submittal.
 - URS will submit ten (10) hard copies and one (1) CD containing AutoCAD files of the entire plan set for the second (90%) submittal. Plans for the second submittal will show pipeline plans, profiles, connections, cathodic protection, traffic control, and appurtenant details. URS will incorporate IRWD staff comments on the 60% submittal. URS will update the Project Manual and engineer's estimate of probable construction cost for this submittal. All sections of the Project Manual, except for the appendices, will be provided for this submittal.
 - URS will submit ten (10) hard copies, one (CD) with AutoCAD files for the entire plans set, and one (1) CD with a single full-scale PDF file of the construction plans for the third (100%) submittal. This submittal will include the complete plan set and specifications and a notebook with the design calculations (including mechanical, civil, structural, pipe thickness and restraint). URS will incorporate IRWD staff comments on the 90% submittal, as well as comments received at the 90% plan review meeting. URS will update the Project Manual and engineer's estimate of probable construction cost for this submittal.
 - URS will submit stamped and signed reproducible plans (mylars) of the final construction plans and original signed Project Manual for IRWD signatures. URS will attend IRWD's meeting for signatures to explain the project and answer questions. A final engineer's estimate of probable construction cost will be submitted with the final plans and Project Manual.
16. Addenda Preparation and Pre-Bid Meeting - During the bidding period, URS will provide bidding support and assistance as it pertains to the contract documents and construction drawings. For budgetary purposes, we have assumed a number of hours in our fee estimate to answer questions from prospective bidding contractors, and assist IRWD in providing information and clarification of the bid documents. URS will consult with IRWD to address concerns or answer their questions in support of administering the bid process. URS has budgeted for up to three (3) addenda to the construction plans and/or Project Manual for prospective bidders, if requested by IRWD. Addenda preparation will include:



- Plan Revisions – URS has budgeted twenty (20) hours of staff time for plans revisions.
- Specification Revisions - URS has budgeted fifteen (15) hours of staff time for revisions to the Project Manual.
- Bidder Questions - URS has budgeted fifteen (15) hours of staff time to address and respond to bidder questions.
- Pre-Bid Meeting – URS will prepare for and conduct one (1) two-hour pre-bid meeting along with a site visit with potential bidders, if required. URS will prepare the meeting agenda, exhibits, sign-in sheet, and minutes for the pre-bid meeting.

Task 4: Construction Phase Services

URS will provide construction phase services for the project. URS is currently providing construction support services for the Orange Park Acres Well No. 1 Wellhead Facilities and Syphon Reservoir Interim Facilities and are very familiar with the District's construction phase procedures. We understand that being responsive, organized, and detail-oriented during the construction phase will help the District keep the project on schedule and avoid contract change orders from the Contractor. URS' anticipated level of service during the construction phase is detailed below:

Project Meetings – URS will attend/conduct thirty (30) progress meetings of two hours each during the course of the project construction and provide agendas and meeting minutes within five (5) working days of the meeting.

1. Contractor's Request for Information (RFI) – URS will respond to sixty (60) Requests for Information. URS will maintain a log of RFIs using IRWD standard submittal log. URS will return responses to IRWD within seven calendar days or earlier per the contract requirements.
2. Minor Plan Revisions – URS has budgeted eighty (80) hours of staff time for minor plan revisions to the construction drawings.
3. Site Visits – URS has budgeted for fifteen (15) site visits of two hours each during construction.
4. Shop Drawing Reviews – URS has budgeted for the review of eighty (80) shop drawing submittals and/or resubmittals. Submittals will be reviewed for completeness and conformity with the contract documents. URS will provide comments on the IRWD shop drawing transmittal form and/or the submittal electronically using Adobe PDF Professional. URS will maintain a log of submittals using IRWD standard submittal log. URS will return comments to IRWD within fourteen calendar days or earlier per the contract requirements.
5. Record Drawings – URS will prepare record drawings on 24-inch by 36-inch mylars at construction completion, using the Contractor's and IRWD Inspector's red lines. URS will prepare final record drawings mylars, reissued signed mylars (as needed), AutoCAD electronic files on CD, and one color PDF file of the entire construction plan set on CD and deliver the record drawing package to IRWD.

Table 1 - Budget Proposal
Irvine Ranch Water District
Engineering Services for the Offsite Pipelines for the ILP North Conversion Project
October 8, 2014

Task No.	Task Description	URS Labor Hours								Subcontract Labor Hours			TOTAL HOURS	TOTAL LABOR	Pothole Subcontractor Below	Aerial Survey Subcontractor FO Long	Geotechnical Boring Subcontractor ZR Drilling, Inc.	Direct Costs / Materials ¹	TOTAL
		Principal-In-Charge	Project Manager	Principal Engineer / Technical Advisor / Designer	Senior Engineer	Project Engineer / Project Geologist	Staff Engineer / Staff Geologist	Senior CAD Designer	Admin / Permit Coord. / Repro / Word Processing	Survey Manager	Field Survey Crew Member	Survey Technician							
		Richard Hart, PE	Joseph Long, PE	Tim Vels, PE / Joe Lopez, PE / Douglas Smith, PE / Mike Smith, PE, GE	Richard Bell, PE / Matt Cant, PE, TE / Clark Greer, PE	Bryan Paine, PE / Tasha Stone, PE / Joseph Zhou, PE / Kenneth Yarns, PE	Ruthann Chase, PE, QSD / Dylan LaPrade, QSD, Mark Ko, PE	Ryan Allen / Jonathan LaPrade	Rita Kamala / Sharon Hark	Roy Mauer, PLS	Staff Surveyor	Staff Technician							
\$250	\$100	\$200	\$185	\$145	\$110	\$85	\$55	\$168	\$120	\$114									
TASK 1: Project Management																			
A.	Preparation of Project Status Report		40											41	\$8,200			\$8,200	
B.	Meetings and Workshops (72 Meetings)		66			33	33							149	\$29,800			\$29,800	
C.	Quality Assurance/Quality Control		2	8	20									24	\$4,800			\$4,800	
	SUBTOTAL TASK 1		2	114	20	33	33							218	\$39,200			\$39,200	
TASK 2: Basis of Design Memorandum (BOD)																			
A.	San Diego HRA, Zone C+ Reservoir Inlet and Outlet Pipelines		4	1	4	4	10	40						43	\$7,110			\$7,110	
B.	Palmdale Sewer Capacity		4	1	4	12	6	40						37	\$3,190			\$3,190	
C.	Sewer Pipeline		4	1	2	5	4	24						41	\$5,815			\$5,815	
D.	San Diego Canyon Road Recycled Water Pipeline		6	1	5	8	16	40						26	\$8,645			\$8,645	
E.	Basis of Design Memorandum		2	12	4	10	24	24	20	5				101	\$18,695		\$500	\$19,195	
	SUBTOTAL TASK 2		2	30	8	25	58	64	124	5				313	\$38,605		\$500	\$39,105	
TASK 3: Final Design																			
A.	Project Manual		24	20	40	20				24				148	\$29,600			\$29,600	
B.	Construction Drawings (40 Sheets)		89	40	160	240	286	491						1269	\$181,245			\$181,245	
C.	Traffic Control Plans (18 Sheets)		4	15	26		108	144						314	\$35,440			\$35,440	
D.	Utility Research (20 Utility Potholes)		0			15	60	16						200	\$20,560	\$16,100		\$11,000	
E.	Aerial Survey and Topographic Mapping		4					4		4	32	180	60	291	\$35,216		\$10,500	\$45,716	
F.	Geotechnical Investigation			26	8	80	100	26	24					261	\$33,030		\$18,100	\$51,130	
G.	Utilities (15 Encounters)		4			4			4	15				42	\$11,624			\$11,624	
H.	Survey Adjusts		2			4		4					64	\$1,320			\$1,320		
I.	Design Coordination (3 Meetings)		9			8								18	\$3,105		\$30	\$3,135	
J.	CEQA Documentation		2			8		8						18	\$2,240		\$40	\$2,280	
K.	Permits		4		4	4	12	8	8					46	\$4,640		\$15,000	\$19,640	
L.	Project Schedule		4			15								20	\$3,120			\$3,120	
M.	Options of Probable Construction Cost		4	2	8	12	20	12						38	\$7,640			\$7,640	
N.	Unsubstantiated Spreadsheets		2			4								6	\$680			\$680	
O.	Final Design Deliverables																		
	1.) 60% Submittal		4	4	2	4	8	8	2					32	\$1,240		\$1,000	\$2,240	
	2.) 90% Submittal		4	4	2	4	8	8	2					32	\$1,000		\$1,000	\$2,000	
	3.) 100% Submittal		4	4	2	4	8	8	2					32	\$1,000		\$1,000	\$2,000	
	4.) Final Submittal		4	4	2	4	8	8	2					32	\$1,240		\$500	\$1,740	
P.	Address Preparation and Pre-Bid Meeting (2 Address)																		
	1.) Plan Revisions		2	2		2	2	12						20	\$2,200		\$100	\$2,300	
	2.) Specification Revisions		1	2		4	4							15	\$2,180		\$50	\$2,230	
	3.) Bidder Questions		2	2		4	4							15	\$2,395			\$2,395	
	4.) Pre-Bid Meeting (1 Month)		4			4				2				10	\$1,510		\$10	\$1,520	
	SUBTOTAL TASK 3		2	178	128	272	508	640	811	100	48	180	124	2,989	\$374,915	\$16,190	\$10,500	\$466,330	
TASK 4: Construction Phase Services																			
1.	Project Meetings (30 Meetings)		60	12	15	30	4							125	\$23,405		\$500	\$23,905	
2.	Contractor's Request for Information (60 RFIs)		16	8	8	12	24	24	8					120	\$16,120			\$16,120	
3.	Minor Plan Revisions (80 Hours)		8	4	8		20	40						80	\$8,480			\$8,480	
4.	Site Visit (15 Site Visits)		26		10	30	10							76	\$12,360		\$150	\$12,510	
5.	Shop Drawing Reviews (80 Submittals and/or Resubmittals)		40	12	20	60	60			4				190	\$28,680		\$25	\$28,705	
6.	Pressure Record Drawings		2	2		4				2				40	\$4,800		\$500	\$5,300	
	SUBTOTAL TASK 4		151	38	61	156	122	94	14					636	\$94,025		\$975	\$95,000	
TOTAL (TASKS 1-4)			6	421	194	381	792	828	1,028	138	48	180	124	4,166	\$546,778	\$16,190	\$16,500	\$646,873	

Notes & Assumptions:
1) Direct Costs / Materials include costs such as mileage to meetings/site, courier fees, soil borings, soil lab testing, permit fee reimbursement, utility as-built purchase fees, and document reproduction costs.

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

EXHIBIT "F"

Project Name: ILP NORTH CONVERSION - RESERVOIR
EPMS Project No: 30496 **EA No:** 1
Oracle Project No: 5407
Project Manager: MORI, RICHARD
Project Engineer: MOEDER, JACOB
Request Date: November 13, 2014

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
210	.3	REPLACEMENT FUND**
212	40.1	BONDS YET TO BE SOLD**
213	.1	BONDS YET TO BE SOLD**
230	16.8	BONDS YET TO BE SOLD**
235	.1	REPLACEMENT FUND**
240	.3	BONDS YET TO BE SOLD**
252	2.0	BONDS YET TO BE SOLD**
253	40.3	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$1,037,000
Total EA Requests:	\$1,037,000
Previously Approved Budget:	\$7,602,100
Budget Adjustment Requested this EA:	(\$1,493,600)
Updated Budget:	\$6,108,500
Budget Remaining After This EA	\$5,071,500

Comments: The splits are based the spreadsheet titled "ILP-North Conversion Custom ID Split".
 ↑
 on

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING IRWD	25,000	0	25,000	(25,000)	50,000	25,000	3/14	12/14
ENGINEERING - PLANNING OUTSIDE	50,000	0	50,000	(100,000)	150,000	50,000	3/14	12/14
ENGINEERING DESIGN - IRWD	100,000	0	100,000	50,000	50,000	100,000	1/15	12/15
ENGINEERING DESIGN - OUTSIDE	750,000	0	750,000	50,000	700,000	750,000	6/15	12/15
ENGINEERING - CA&I IRWD	0	0	0	30,000	50,000	80,000	1/16	7/17
ENGINEERING - CA&I OUTSIDE	0	0	0	50,000	200,000	250,000	1/16	7/17
CONSTRUCTION	0	0	0	(1,500,000)	6,000,000	4,500,000	1/16	7/17
LEGAL	5,000	0	5,000	0	5,000	5,000	3/14	7/17
ENGINEERING ENVIRONMENTAL-OUTS	57,500	0	57,500	22,500	35,000	57,500	1/15	7/17
Contingency - 5.00% Subtotal	\$49,500	\$0	\$49,500	(\$71,100)	\$362,100	\$291,000		
Subtotal (Direct Costs)	\$1,037,000	\$0	\$1,037,000	(\$1,493,600)	\$7,602,100	\$6,108,500		
Estimated G/A - 185.00% of direct labor*	\$231,300	\$0	\$231,300	\$101,800	\$277,500	\$379,300		
Total	\$1,268,300	\$0	\$1,268,300	(\$1,391,800)	\$7,879,600	\$6,487,800		
Direct Labor	\$125,000	\$0	\$125,000	\$55,000	\$150,000	\$205,000		

*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:

[Signature]

11/13/14

Department Director:

[Signature]

11/13/14

Finance:

[Signature]

11/14/14

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 \$6,618,000. 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

EXHIBIT "G"

Project Name: ILP NORTH CONVERSION PIPELINES
EPMS Project No: 30513 **EA No:** 1
Oracle Project No: 5823
Project Manager: MORI, RICHARD
Project Engineer: MCGEHEE, JOSEPH
Request Date: November 13, 2014

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
210	2.1	REPLACEMENT FUND**
212	2.5	BONDS YET TO BE SOLD**
213	1.0	BONDS YET TO BE SOLD**
230	46.2	BONDS YET TO BE SOLD**
235	.3	BONDS YET TO BE SOLD**
240	1.8	BONDS YET TO BE SOLD**
252	5.6	BONDS YET TO BE SOLD**
253	40.5	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$905,800
Total EA Requests:	\$905,800
Previously Approved Budget:	\$0
Budget Adjustment Requested this EA:	\$7,494,600
Updated Budget:	\$7,494,600
Budget Remaining After This EA	\$6,588,800

Comments: CUSTOM ID SPLITS GENERATED ACCORDING TO SPREADSHEET TITLED "ILP-North Conversion Custom ID Split"
 LOCATED IN S:\PLANNING\ILP Conversion Projects\ILP-North

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING IRWD	25,000	0	25,000	25,000	0	25,000	10/14	1/16
ENGINEERING - PLANNING OUTSIDE	50,000	0	50,000	50,000	0	50,000	10/14	1/16
ENGINEERING DESIGN - IRWD	100,000	0	100,000	100,000	0	100,000	10/14	1/16
ENGINEERING DESIGN - OUTSIDE	600,000	0	600,000	600,000	0	600,000	10/14	1/16
DESIGN STAFF FIELD SUPPORT	25,000	0	25,000	25,000	0	25,000	10/14	1/16
ENGINEERING - CA&I IRWD	0	0	0	150,000	0	150,000	1/16	6/17
ENGINEERING - CA&I OUTSIDE	0	0	0	100,000	0	100,000	1/16	6/17
CONSTRUCTION FIELD SUPPORT	0	0	0	25,000	0	25,000	1/16	6/17
CONSTRUCTION	0	0	0	6,000,000	0	6,000,000	1/16	6/17
LEGAL	5,000	0	5,000	5,000	0	5,000	10/14	6/17
ENGINEERING ENVIRONMENTAL-OUTS	57,500	0	57,500	57,500	0	57,500	10/14	1/16
Contingency - 5.00% Subtotal	\$43,300	\$0	\$43,300	\$357,100	\$0	\$357,100		
Subtotal (Direct Costs)	\$905,800	\$0	\$905,800	\$7,494,600	\$0	\$7,494,600		
Estimated G/A - 185.00% of direct labor*	\$277,600	\$0	\$277,600	\$601,400	\$0	\$601,400		
Total	\$1,183,400	\$0	\$1,183,400	\$8,096,000	\$0	\$8,096,000		
Direct Labor	\$150,000	\$0	\$150,000	\$325,000	\$0	\$325,000		

*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: JCM [Signature] 11/13/14
Department Director: [Signature] 11/13/14
Finance: [Signature] 11/14/14
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 \$8,258,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.**

DS
November 24, 2014

Prepared by: J. Moeder/R. Mori

Submitted by: K. Burton *K.B.*

Approved by: Paul Cook *P. Cook*

ACTION CALENDAR

RATTLESNAKE RESERVOIR CHLORINE GAS SYSTEM REMOVAL CONSTRUCTION AWARD

SUMMARY:

Non-potable water is disinfected at the Rattlesnake Chlorination Facility to control biological growth in the recycled water distribution system and to control odors downstream of the Zone A North tank. The Rattlesnake Chlorination Facility currently uses chlorine gas, which is labor intensive and requires additional safety measures when compared to the use of liquid sodium hypochlorite. The Rattlesnake Reservoir Chlorine Gas Removal Project will replace the chlorine gas system and related appurtenances with sodium hypochlorite storage and feed facilities. Bids were received from four contractors for construction of the project. Staff recommends that the Board:

- Authorize a budget increase in the amount of \$724,500, from \$1,706,400 to \$2,430,900, for Project 30435; and
- Authorize the General Manager to execute a construction contract with Schuler Engineering Corporation in the amount of \$1,725,900 for the Rattlesnake Reservoir Chlorine Gas System Removal Project.

BACKGROUND:

This project will convert the Rattlesnake Reservoir chlorine gas facility to a liquid sodium hypochlorite facility. The project, which Carollo Engineers designed, includes the installation of a temporary sodium hypochlorite storage and feed system, removal of the existing chlorine gas system and related appurtenances, and installation of permanent sodium hypochlorite storage and feed facilities.

The project was advertised October 20, 2014, to a select list of nine contractors including ARB, Inc., Clarke Contracting, Gateway Pacific Contractors, Olsson Construction, Pacific Hydrotech, Pascal & Ludwig Constructors, Schuler Engineering, SS Mechanical, and W.M. Lyles. The bid opening was held November 18, 2014, with bids received from ARB, Inc., Pacific Hydrotech, Schuler Engineering, and SS Mechanical. Schuler Engineering is the apparent low bidder with a bid amount of \$1,725,900.

Staff reviewed Schuler Engineering's bid and has determined that it is responsive. The engineer's estimate, prepared by Carollo Engineers, was \$1,852,000. The low bid was about 4 percent less than the engineer's estimate. Staff recommends awarding the construction contract to Schuler Engineering Corporation in the amount of \$1,725,900. The Bid Summary is attached as Exhibit "A".

FISCAL IMPACTS:

Project 30435 (4959) is included in the FY 2014-15 Capital Budget. Staff requests a budget increase to fund construction and construction phase engineering services as shown in the table below.

Project No.	Current Budget	Addition <Reduction>	Total Budget
30435 (4959)	\$1,706,400	\$724,500	\$2,430,900

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 which provides exemption for minor alterations of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. A Notice of Exemption for the project was filed with the County of Orange on January 15, 2014.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE IN THE AMOUNT OF \$724,500, FROM \$1,706,400 TO \$2,430,900, FOR PROJECT 30435 (4959), AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH SCHULER ENGINEERING CORPORATION IN THE AMOUNT OF \$1,725,900 FOR THE RATTLESNAKE RESERVOIR CHLORINE GAS SYSTEM REMOVAL, PROJECT 30435 (4959).

LIST OF EXHIBITS:

Exhibit "A" – Bid Summary

EXHIBIT "A"

Bid Opening: Tuesday, November 18, 2014 @ 2:00 p.m.

Irvine Ranch Water District Bid Summary For
Rattlesnake Reservoir Chlorine Gas System Removal
PR 30435 (4959) - Code 6243

Entered By: J.K. Irely

Item No.	Description	Qty	Unit	Engineer's Estimate		1 Schuler Engineering Corona, CA		2 Pacific Hydrotech Perris, CA		3 S.S. Mechanical Corp. Huntington Beach, CA		4 ARB, Inc. Lake Forest, CA	
				Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount
1	Mobilization/Demobilization	1	LS	\$150,000.00	\$150,000.00	\$52,000.00	\$52,000.00	\$54,000.00	\$54,000.00	\$65,000.00	\$65,000.00	\$55,000.00	\$55,000.00
2	Procurement and Installation of Temporary Chemical Storage and Pumping System	1	LS	\$60,000.00	\$60,000.00	\$90,000.00	\$90,000.00	\$100,000.00	\$100,000.00	\$85,000.00	\$85,000.00	\$79,200.00	\$79,200.00
3	Maintenance and Rental of the Temporary Chemical Storage and Pumping System	24	Weeks	\$5,300.00	\$127,200.00	\$1,000.00	\$24,000.00	\$2,300.00	\$55,200.00	\$2,208.33	\$52,999.92	\$1,800.00	\$43,200.00
4	Removal of Temporary Chemical Storage and Pumping System at end of Operating Period	1	LS	\$11,000.00	\$11,000.00	\$8,000.00	\$8,000.00	\$7,500.00	\$7,500.00	\$7,000.00	\$7,000.00	\$11,500.00	\$11,500.00
5	Provide all Work as shown in the Contract Documents excluding Bid Items 1, 2, 3, 5, 6, 7, 8, 9, and 10	1	LS	\$1,335,900.00	\$1,335,900.00	\$1,390,000.00	\$1,390,000.00	\$1,403,000.00	\$1,403,000.00	\$1,618,100.00	\$1,618,100.00	\$1,897,000.00	\$1,897,000.00
6	Procurement of Chemical Metering Pumps through Pulsafeeder Firm Fixed-Price Proposal	1	LS	\$78,339.00	\$78,339.00	\$78,339.40	\$78,339.40	\$78,339.40	\$78,339.40	\$78,339.40	\$78,339.40	\$78,339.40	\$78,339.40
7	Programming and Integration according to Vertech Firm Fixed Price Proposal	1	LS	\$47,561.00	\$47,561.00	\$47,560.79	\$47,560.79	\$47,560.79	\$47,560.79	\$47,560.79	\$47,560.79	\$47,560.79	\$47,560.79
8	Trench Safety Measures	1	LS	\$10,000.00	\$10,000.00	\$4,000.00	\$4,000.00	\$800.00	\$800.00	\$1,000.00	\$1,000.00	\$12,200.00	\$12,200.00
9	Startup Testing	1	LS	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
10	Operation & Maintenance Manuals	1	LS	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
11	Final Record Drawings	1	LS	\$12,000.00	\$12,000.00	\$12,000.00	\$12,000.00	\$12,000.00	\$12,000.00	\$12,000.00	\$12,000.00	\$12,000.00	\$12,000.00
	Subtotal				\$1,852,000.00		\$1,725,900.19		\$1,778,400.19		\$1,987,000.11		\$2,256,000.19
A-1	Provide PLC Cabinet from the temporary chemical storage and feed system to the District at project completion				\$0.00		\$5,000.00		\$47,800.00		\$50,000.00		\$34,000.00
	Sub-Total, Bid Items 1 thru 11 + A1				\$1,852,000.00		\$1,730,900.19		\$1,826,200.19		\$2,037,000.11		\$2,290,000.19
	Adjustment (+ or -)				\$0.00		-\$5,000.00		\$0.00		-\$81,000.00		\$0.00
	Total Amount of Bid				\$1,852,000.00		\$1,725,900.19		\$1,826,200.19		\$1,956,000.11		\$2,290,000.19
							Item Delivery Dates:		Item Delivery Dates:		Item Delivery Dates:		Item Delivery Dates:
	*The bid from Schuler Engineering contained a math error in the sub-totals and in the total bid amount resulting in a corrected total bid amount of \$1,725,900.19.						Temporary Chemical Storage and Feed System: 56 days		Temporary Chemical Storage and Feed System: 56 days		Temporary Chemical Storage and Feed System: 105 days		Temporary Chemical Storage and Feed System: 35 days
							Chemical Storage Tanks: 120 days		Chemical Storage Tanks: 98 days		Chemical Storage Tanks: 166 days		Chemical Storage Tanks: 91-98 days
							Chemical Metering Pumps: 112 days		Chemical Metering Pumps: 112 days		Chemical Metering Pumps: 140 days		Chemical Metering Pumps: 84-112 days
							Chemical Transfer Pump: 56 days		Chemical Transfer Pump: 42 days		Chemical Transfer Pump: 120 days		Chemical Transfer Pump: 42 days
	**The bid from S.S. Mechanical contained a math error in the sub-totals and in the total bid amount resulting in a corrected total bid amount of \$1,956,000.11.						Chemical Flow Meter: 42 days		Chemical Flow Meter: 42 days		Chemical Flow Meter: 120 days		Chemical Flow Meter: 77 days
							Manufacturers:		Manufacturers:		Manufacturers:		Manufacturers:
							Temporary Chemical Storage and Feed System: Superior Water Tech		Temporary Chemical Storage and Feed System: Superior Water Tech		Temporary Chemical Storage and Feed System: Superior Water Tech		Temporary Chemical Storage and Feed System: Superior Water Tech
							Chemical Storage Tanks: Daniels Mechanical		Chemical Storage Tanks: Edwards Fiberglass		Chemical Storage Tanks: Edwards		Chemical Storage Tanks: Xerxes Corp
							Chemical Metering Pumps: Crowley/Pulsafeeder		Chemical Metering Pumps: Pulsafeeder		Chemical Metering Pumps: Crowley/Pulsafeeder		Chemical Metering Pumps: Pulsafeeder
							Chemical Transfer Pump: Ansimag		Chemical Transfer Pump: Ansimag		Chemical Transfer Pump: Innomag		Chemical Transfer Pump: Ansimag
							Chemical Flow Meter: Endress & Hauser/Coriolis		Chemical Flow Meter: Endress & Hauser		Chemical Flow Meter: E&H Coriolis		Chemical Flow Meter: Enders-Hauser
							Subcontractors:		Subcontractors:		Subcontractors:		Subcontractors:
							Alcorn Fence: Fencing Gate Operator		National Coating: Coatings		Alcorn Fence: Fence		Vertech: Programming & Integration
							Harris Rebar: Rebar		Harris Rebar: Rebar		Harris Rebar: Rebar		Industrial Electrical: Electrical
							Regan Paving: Paving		Hardy & Harper: AC Paving		National Coating: Coating		LNA Concrete Structures: Concrete/Masonry
							Concrete Coring: Demo		Maddox Electric: Electrical		Leed Electric: Electrical		Handy & Harper: Asphalt
							Parada Painting: Painting & Coating		Alcorn Fence: Fence		Hardy & Harper: Paving		Alcorn Fence Company: Fence/Gate
							GJR Electric: Electrician						Superior Water Tech: Temp Chemical System

