

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

November 14, 2016

**PLEDGE OF ALLEGIANCE**

**CALL TO ORDER**

5:00 p.m., Board Room, District Office  
15600 Sand Canyon Avenue, Irvine, California

**ROLL CALL**

Directors LaMar, Reinhart, Swan, Withers and President Matheis

**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.

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**COMMUNICATIONS TO THE BOARD**

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1. A. Written:  
B. Oral:

2. ITEMS RECEIVED TOO LATE TO BE AGENDIZED

Recommendation: Determine the need to discuss and/or take immediate action on item(s).

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**CONSENT CALENDAR**

**Resolution No. 2016-25**

**Items 3-10**

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

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

4. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the October 24, 2016 Regular Board Meeting and the October 25, 2016 Adjourned Regular Board Meeting be approved as presented.

**CONSENT CALENDAR – Continued**

**Items 3-10**

5. CHANGES TO GENERAL MANAGER'S COMPENSATION

Recommendation: That the Board approve a 4% increase to the salary of the General Manager and a one-time performance award in the amount of \$4,200, effective October 1, 2016.

6. PLANNING AREA 1 NEIGHBORHOOD 3 CAPITAL FACILITIES

Recommendation: That the Board authorize a budget increase for Project 7012 in the amount of \$526,900, from \$162,800 to \$689,700; authorize a budget increase for Project 7013 in the amount of \$107,800, from \$367,400 to \$475,200; authorize a budget increase for Project 7017 in the amount of \$47,300, from \$203,500 to \$250,800; and authorize the General Manager to accept ICDC's construction contract with Shoffeitt Pipeline, Inc. in the amount of \$907,178.50 for the Neighborhood 3, Capital Domestic and Recycled Water Improvements.

7. PLANNING AREA 1 TOLL BROTHERS CAPITAL FACILITIES

Recommendation: That the Board authorize the General Manager to execute a Reimbursement Agreement with Toll Brothers, Inc. for the construction of IRWD's Neighborhood 1, Capital Recycled Water Improvements; and authorize the General Manager to accept Toll Brothers, Inc.'s construction contract with Paulus Engineering in the amount of \$288,647 for the Neighborhood 1, Capital Recycled Water Improvements, Project 5919.

8. PLANNING AREA 51 HERITAGE FIELDS CAPITAL FACILITIES

Recommendation: That the Board authorize the General Manager to execute a Supplemental Reimbursement Agreement with Heritage Fields for Planning Area 51, GP-1, GP-2 and GP-3 Streets; approve Contract Change Order No. 1 to Projects 6536 and 6538 in the amount of \$107,410.50; and approve Contract Change Orders Nos. 3 and 4 to Project 6018 in the amounts of <\$68,715.00> and \$162,739.00, respectively.

9. PETERS CANYON WASH CHANNEL WATER CAPTURE AND REUSE PIPELINE RETENTION REDUCTION

Recommendation: That the Board authorize the reduction of retention from 5% to 1% of the contract amount for the Peters Canyon Wash Channel Water Capture and Reuse Pipeline, Project 4985.

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**CONSENT CALENDAR – Continued**

**Items 3-10**

10. LAKE FOREST ZONE A RESERVOIR DEMOLITION CONSTRUCTION AWARD

Recommendation: That the Board authorize a budget increase in the amount of \$125,000, from \$160,600 to \$285,600, for project 7094; find that the irregularities in the bid submitted by SoCal Removal on October 27, 2016 did not affect the amount of the bid or afford SoCal Removal a competitive advantage and waive the irregularities; and authorize the General Manager to execute a construction contract with SoCal Removal in the amount of \$123,837.60 for the Lake Forest Zone A Reservoir Demolition, project 7094.

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**ACTION CALENDAR**

11. DYER ROAD WELLFIELD WELL 18 REHABILITATION BUDGET INCREASE AND CONTRACT CHANGE ORDER

Recommendation: That the Board authorize a budget increase in the amount of \$187,000, from \$770,000 to \$957,000; and authorize the General Manager to execute Contract Change Order No. 1 with Best Drilling and Pump, Inc. in the amount of \$323,682 for the Dyer Road Wellfield Well 18 Rehabilitation, Project 4401.

12. MEMBRANE BIOREACTOR LEAPmbr CONVERSION

Recommendation: That the Board authorize the General Manager to execute a contract with General Electric for the implementation of the LEAPmbr conversion technology in the amount of \$380,999; and authorize the addition of the MWRP MBR LEAP Aeration Conversion Capital Project 30418 (4468) to the FY 2016/17 Capital Budget.

13. ANNUAL BOARD OF DIRECTORS' FEES

Recommendation: That the Board either accept or decline the five percent compensation increase for calendar year 2017.

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## **OTHER BUSINESS**

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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.

14. A. General Manager's Report

B. Directors' Comments

C. Adjourn

Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the Irvine Ranch Water District Board of Directors in connection with a matter subject to discussion or consideration at an open meeting of the Board of Directors are available for public inspection in the District's office, 15600 Sand Canyon Avenue, Irvine, California ("District Office"). If such writings are distributed to members of the Board less than 72 hours prior to the meeting, they will be available from the District Secretary of the District Office at the same time as they are distributed to Board Members, except that if such writings are distributed one hour prior to, or during, the meeting, they will be available at the entrance to the Board of Directors Room of the District Office. The Irvine Ranch Water District Board Room is wheelchair accessible. If you require any special disability-related accommodations (e.g., access to an amplified sound system, etc.), please contact the District Secretary at (949) 453-5300 during business hours at least seventy-two (72) hours prior to the scheduled meeting. This agenda can be obtained in alternative format upon written request to the District Secretary at least seventy-two (72) hours prior to the scheduled meeting.

November 14, 2016

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

10/26/16	NCC Executive Committee Meeting
11/3-4/16	California Environmental Dialogue Plenary Meeting
11/08/16	OCBC Election Luncheon Meeting
11/10/16	Meeting with Senator John Moorlach
11/14-16/16	National Water Resources Association Annual Conference, San Diego, CA
11/17-18/16	ACWA Board of Directors Meeting, Sacramento, CA

Mary Aileen Matheis

9/13/16	Women in Water Meeting at Santa Margarita Water District
9/15/16	20 <sup>th</sup> Anniversary of OC Central & Coastal NCCP/HCP Event
11/02/16	MWDOC Board Meeting –MWDOC Susan Hinman Retirement
11/03/16	Shadetree Partnership Board Meeting
11/3-4/16	NWRI Clarke Prize Awards and Conference
11/04/16	AIA California Council Ceremony & Installation of Officers
11/08/16	OCBC Election Luncheon Meeting
11/10/16	South Orange County Watershed Management Area Meeting
11/10/16	Meeting with Senator John Moorlach

Douglas Reinhart

11/02/16	MWDOC Board Meeting
11/03/16	SOCWA Board Meeting

Peer Swan

11/02/16	MWDOC Board Meeting –MWDOC Susan Hinman Retirement
11/3-4/16	NWRI Clarke Prize Awards and Conference

John Withers

10/20/16	Irvine Public Schools Foundation Advisory Board Awards Event
11/02/16	MWDOC Board Meeting –MWDOC Susan Hinman Retirement
11/3-4/16	NWRI Clarke Prize Awards and Conference
11/08/16	OCBC Election Luncheon Meeting

RECOMMENDATION:

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


LIST OF EXHIBITS:

None.

November 14, 2016

Prepared and

Submitted by: L. Bonkowski 

Approved by: P. Cook 

CONSENT CALENDAR

MINUTES OF BOARD MEETING

SUMMARY:

Provided are the minutes of the October 24, 2016 Regular Board Meeting, and October 25, 2016 Adjourned Regular Board Meetings for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE OCTOBER 24, 2016 REGULAR BOARD MEETING AND THE OCTOBER 25, 2016 ADJOURNED REGULAR BOARD MEETINGS BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – October 24, 2016 Minutes

Exhibit "B" – October 25, 2016 Minutes

## EXHIBIT "A"

### MINUTES OF REGULAR MEETING – OCTOBER 24, 2016

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 Matheis on October 24, 2016 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

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

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Finance Clary, Executive Director of Water Policy Weghorst, Executive Director of Operations Sheilds, Director of Treasury and Risk Management Jacobson, Director of Water Resources Sanchez, Director of Public Affairs Beeman, Director of Human Resources Roney, Assistant Director of Recycling Zepeda, Assistant Director of Water Operations Roberts, Assistant Director of Maintenance Drake, Legal Counsel Arneson (via teleconference), Secretary Bonkowski, Government Relations Officer Compton, Principle Engineer Akiyoshi, Mr. Bruce Newell, Mr. Jim Reed, Mr. Keith Neves, and other members of the public and staff.

ORAL AND WRITTEN COMMUNICATIONS: None.

### CONSENT CALENDAR

On MOTION by Reinhart, seconded and unanimously carried, CONSENT CALENDAR ITEMS 3 THROUGH 10 WERE APPROVED AS FOLLOWS:

3. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the September 26, 2016 Regular Board Meeting be approved as presented.

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

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

5. IRVINE RANCH WATER DISTRICT STRATEGIC MEASURES

Recommendation: That the Board receive and file the report.

6. 2016 LEGISLATIVE UPDATE

Recommendation: That the Board receive and file.



CONSENT CALENDAR (CONTINUED)

7. SEPTEMBER 2016 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Monthly Interest Rate Swap Summary for September 2016, and Disclosure Report of Reimbursements to Board members and staff; approve the September 2016 summary of payroll ACH payments in the total amount of \$2,510,825 and approve the September 2016 accounts payable disbursement summary of Warrants 370323 through 371566, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$18,504,296.

8. EAST IRVINE ZONE 1 TO 3 FLOW METER REPLACEMENT FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the East Irvine Zone 1 to 3 Flow Meter Replacement, Project 5519; 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.

9. UCI COOLING TOWER CONVERSION RECYCLED WATER PIPELINE PHASE I CONSTRUCTION AWARD

Recommendation: That the Board authorize the General Manager to execute a construction contract with Paulus Engineering, Inc. in the amount of \$169,500 for the UCI Cooling Tower Conversion Recycled Water Pipeline Phase 1, Project 7102.

10. IRVINE BUSINESS COMPLEX APPURTENANCE RELOCATIONS CONSTRUCTION AWARD

Recommendation: That the Board authorize budget increases in the amount of \$432,300, from \$442,900 to \$875,200, for project 6849 and \$40,600, from \$49,700 to \$90,300, for project 6850; and authorize the General Manager to execute a construction contract with TE Roberts in the amount of \$662,601 for the Irvine Business Complex Appurtenance Relocations, Projects 6849 and 6850.

ACTION CALENDAR

2017-2018 STATE LOBBYING AND ADVOCACY SERVICES

General Manager Cook reported that the District's current 24-month contract with O'Haren Government Relations for state lobbying and consulting services expires on December 31, 2016, and that a new contract would include a \$6,500 monthly retainer plus reimbursable expenses up to \$3,900 per year for a total contract amount not to exceed \$163,800.

Government Relations Officer Compton said that the District continues to be a leader in water resources public policy and governance. Ms. Compton said that during the 2015-2016 legislative session, the District engaged in a number of state policy discussions regarding water infrastructure,

supply reliability and governance, and that many of these discussions are expected to carry over into the 2017-2018 legislative session which is summarized as follows: 1) *Water Conservation, Water Recycling, Water Rights, and Related Legislative Issues*: Preserve and advance IRWD interests in these policy areas; 2) *State Budget*: Minimize the impact of the budget on the District's property tax allocation, reserves and investments interests; 3) *Special District Oversight, Local Government Law, Pension Reform*: Protect IRWD interests in any legislation establishing new requirements or other reform measures impacting special district governance, financing, operations, and contracting; 4) *Bond Funding and Financing*: Ensure IRWD opportunities to compete for bond funds, and protect IRWD flexibility; and 5) *Wetlands Oversight and Policy*: Protect the Natural Treatment System program.

On MOTION by Swan, seconded and unanimously carried, THE BOARD APPROVED A 24-MONTH PROFESSIONAL SERVICES AGREEMENT, FROM JANUARY 1, 2017, THROUGH DECEMBER 31, 2018, WITH O'HAREN GOVERNMENT RELATIONS FOR \$6,500 PER MONTH PLUS REIMBURSABLE DIRECT EXPENSES OF NOT MORE THAN \$3,900 PER YEAR FOR A TOTAL CONTRACT AMOUNT NOT TO EXCEED \$163,800.

#### 2017-2018 FEDERAL LOBBYING AND ADVOCACY SERVICES

The District's current 24-month contract with The Furman Group for federal lobbying and consulting services expires on December 31, 2016. The new contract would include a \$12,500 monthly retainer plus reimbursement of direct expenses. During the 114th congressional session, the District engaged in a number of federal policy discussions regarding water infrastructure, water supply reliability and the Water Resources Development Act (WRDA) and many of these discussions are expected to carry over into the 115th Congress. The services to be provided by The Furman Group would allow the District to maintain continuity in its current federal representation throughout the entire 115<sup>th</sup> Congress. Some of the policy areas expected to be of priority are summarized as follows: 1) *WRDA*: Secure an authorization in the Water Resources Development Act for the Syphon Reservoir Recycled Water Storage Project; 2) *Other Legislation*: Continue to work on Title XVI legislation, seeking clarity on the tax-exempt status of water conservation rebates, passing reservoir reoperation language, and protecting land surrounding the Syphon Reservoir; and 3) *Other Activities*: Assist IRWD on federal regulatory and funding issues beyond those associated with the Syphon Reservoir Recycled Water Storage Project.

On MOTION by Swan, seconded and unanimously carried, THE BOARD APPROVED A SOLE-SOURCE 24-MONTH PROFESSIONAL SERVICES AGREEMENT, FROM JANUARY 1, 2017, THROUGH DECEMBER 31, 2018, WITH THE FURMAN GROUP FOR \$12,500 PER MONTH PLUS REIMBURSABLE DIRECT EXPENSES FOR A TOTAL CONTRACT AMOUNT NOT TO EXCEED \$336,000.

VARIANCE REQUEST FOR BASELINE PROPERTY ASSESSMENT WORK BY DEE JASPAR & ASSOCIATES

General Manager Cook reported that the District has retained Dee Jaspar & Associates, Inc. (DJA) to perform baseline property assessments on parcels being considered for purchase within the Palo Verde Irrigation District (PVID) and that a variance to IRWD's Professional Services Agreement with DJA is necessary to continue performing property assessment work on new PVID properties being considered by the District. Mr. Cook said that the District has submitted non-binding Letters of Intent to purchase three additional properties in the PVID area. He said to be prepared to conduct baseline property assessments on these properties or others, staff recommends that Variance No. 3 to the District's Professional Services Agreement with DJA be approved in the amount of \$145,000.

Director Swan said that this item was reviewed and approved by the Supply Reliability Programs Committee on September 27, 2016. On MOTION by Swan, seconded and unanimously carried, THE BOARD APPROVED VARIANCE NO. 3 TO IRWD'S PROFESSIONAL SERVICES AGREEMENT WITH DEE JASPAR AND ASSOCIATES, INC. IN THE AMOUNT OF \$145,000 FOR BASELINE PROPERTY ASSESSMENT WORK ON PROPERTIES OF INTEREST IN PALO VERDE IRRIGATION DISTRICT.

LAKE FOREST/SERRANO SUMMIT PROPERTY PROPOSED DEVELOPMENT AGREEMENT AMENDMENT

Director of Treasury and Risk Management Jacobson reported that staff is recommending approval of an amendment to the Development Agreement (DA) between the District and the City of Lake Forest (City) to resolve certain development issues related to the City's planned Civic Center site which is a part of the Serrano Summit project.

Mr. Jacobson said that in early October 2016, District consultant Michael Baker International (MBI) submitted the Serrano Summit project final map improvement plans to the City. The improvement plans include required infrastructure (grading, utilities, landscaping, etc.) for the future residential development area, the City's Civic Center site and District operating facilities, including a primary future access road to the new Baker Treatment Plant facility. The proposed modifications to the DA are recommended primarily due to the reduction in net acreage being dedicated to the City (from 9.00 net acres to 7.46 net acres) for its planned Civic Center facilities, as well as clarifications to the DA's Self-help provisions. Proposed modifications to DA terms include the following: 1) A boundary change to the City's current Civic Center site to provide an additional 0.67 net acres (resulting in 8.13 net acres); 2) An adjustment of the nine acre fee credit received by the District from the City per the terms of the DA. The fee credit of \$1,450,000 per acre applies to in-lieu affordable housing fees, in-lieu park fees and future Development Impact fee credits as provided below; and 3) Modification of certain Self-help provisions included in the DA which provide alternatives for the City to proceed with grading and development of its site in the event grading of the residential site is delayed. Based on the current timeline for the two projects, it is likely that the City will proceed prior to residential development.

Director Withers reported that this item was reviewed by the Asset Management Committee on October 17, 2016. On MOTION by Withers, seconded and unanimously carried, THE BOARD APPROVED THE PROPOSED SECOND AMENDED DEVELOPMENT AGREEMENT

BETWEEN THE DISTRICT AND CITY OF LAKE FOREST FOR THE SERRANO SUMMIT PROJECT TO MODIFY THE BOUNDARY OF THE CITY'S CURRENT CIVIC CENTER SITE, ADJUSTED THE RELATED DEVELOPMENT IMPACT FEE CREDIT AND MODIFIED SELF-HELP PROVISIONS SUBJECT TO NON-SUBSTANTIVE CHANGES.

IRWD PARTICIPATION IN A PROPOSED SOUTH BASIN GROUNDWATER CLEANUP PILOT PROJECT

Executive Director of Water Policy Weghorst reported that the Orange County Water District (OCWD) is proposing to implement a Pilot Project that would demonstrate removals of contamination in the shallow aquifer in an area of the Orange County Groundwater Basin (Basin) known as the South Basin which is located near IRWD's Dyer Road Well Field (DRWF) Well No. 3 and Well 52. Mr. Weghorst said that OCWD has been working with the Department of Toxic Substances Control and the Santa Ana Regional Water Quality Control Board to investigate sources of contamination that could be impacting the South Basin. He said that OCWD is currently pursuing grant funding for its South Basin Groundwater Cleanup projects and any necessary Pilot Project. According to OCWD, the geology in the South Basin area calls for smaller localized pumping systems to target areas with high contaminate concentrations. This method will provide for greater mass removal per unit of water extracted due to the concentrated nature of the plumes in the thinly laminated materials of the shallow aquifer. OCWD's proposed program involves seven capture systems in five geographic operable areas. The total estimated capital cost of the seven systems is \$23.6 million, of which OCWD is seeking 50% in Proposition 1 grant funds (\$11.8 million). It is expected that a Pilot Project would be integrated into the overall cleanup projects.

Mr. Weghorst said that staff has prepared draft terms for IRWD's potential financial participation in the South Basin Pilot Project and a summary of the key terms follows: 1) The proposed Pilot Project facilities could include shallow extraction wells, potential pre-treatment facilities and monitoring wells; 2) OCWD expects to receive grant funding for 50% of the design and construction costs for the South Basin Clean Up Projects including any Pilot Project that may be implemented; 3) OCWD and IRWD would each pay 50% of the Pilot Project capital costs not covered by grant funding. IRWD's capital contribution would not exceed \$1.0 million; 4) The term of the agreement would be five years; 5) OCWD would own and operate the facilities; 6) IRWD would contribute up to \$20,000 per year to cover a share of the operations and maintenance costs of the Pilot Project over the term of the agreement; 7) OCWD would be responsible for a Remedial Investigation/Feasibility Study and National Contingency Plan compliance work including regulatory agency oversight; 8) IRWD's participation would be contingent upon regulatory agency approval of the implementation of the Pilot Project; 9) Water produced from the Pilot Project is expected to be diverted to the Orange County Sanitation District through discharges to the sewer system; and 10) OCWD would defend and indemnify IRWD for participation in the Pilot Project.

Director Swan reported that this item was reviewed at the OCWD Ad Hoc Committee meeting on September 28, 2016. Following discussion, on MOTION by Swan, seconded and unanimously carried, THE BOARD AUTHORIZED STAFF AND LEGAL COUNSEL TO WORK WITH OCWD TO PREPARE AN AGREEMENT FOR IRWD'S FINANCIAL PARTICIPATION IN A SOUTH BASIN PILOT PROJECT THAT IS CONSISTENT WITH THE DRAFT TERMS PRESENTED AT THE MEETING AS MAY BE REVISED BASED UPON INPUT RECEIVED FROM THE BOARD.

## STROSCHEIN PROPERTY PURCHASE

General Manager Cook reported that IRWD is pursuing the purchase of property within the Palo Verde Irrigation District (PVID) that will become another element of IRWD's long-term program to increase water supply reliability for its customers during droughts and other potential water supply interruptions. On August 15, 2016, the District executed a Real Property Purchase Agreement (Purchase Agreement) for the Stroschein Property, comprised of approximately 103.6 acres of land within PVID in Riverside County (Property). Water tolls are paid on 91 acres of the Property which are currently enrolled in the existing Palo Verde Land Management, Crop Rotation and Water Supply Program (Fallowing Program).

Executive Director of Water Policy Weghorst reported that in the near term, land purchased by IRWD in the PVID service area would continue to be farmed essentially as it is today as follows: 1) Tenant farm leases, which would generate income for IRWD, would be secured and maintained on the Property and the farming operations would be supervised by District staff and consultants, and 2) As a landowner and therefore a participant in the existing Metropolitan/PVID Fallowing Program, IRWD would receive fallowing payments from Metropolitan. He said that in the long term, IRWD-owned land within PVID would be utilized as follows: 1) The land would continue to be cultivated through tenant farm leases; 2) As a landowner, IRWD could participate in any fallowing and other water conservation programs developed and implemented by Metropolitan and PVID; and 3) IRWD would work with Metropolitan and MWDOC to develop mutually-beneficial programs and agreements through which IRWD would receive increased water supply reliability during periods of drought and supply interruptions in exchange for water conserved on IRWD-owned lands in PVID.

Director of Treasury and Risk Management Jacobson reported that the Purchase Agreement provided for a 60-day due diligence period in which there is an opportunity to conduct any studies, tests and inspections that are deemed necessary prior to the acquisition of the Property. Mr. Jacobson said that the due diligence work completed to date shows the Stroschein Property is currently fallowed; it is generally maintained with no recognized onsite environmental conditions; the property has been farmed for the Sellers by the same contract farmer for approximately 30 years and has been primarily been planted in alfalfa. He said that based on the District's consultant's discussions with the contract farmer, when not fallowed under the Fallowing Program, the Property soils are productive with good alfalfa yields of 7 to 8 cuttings per year. Similar to the other PVID properties, there is a drainage channel and concrete irrigation ditches for providing water onto the Property.

Mr. Jacobson said that a summary of the findings of the due diligence work are as follows: 1) The Phase 1 evaluation did not identify any environmental conditions or concerns. There is a residence on the property with transite (asbestos) siding, which, if demolished, would require special handling and management procedures; 2) The soils are clays, silty and sandy clays, silty sands and sandy silts. Hand auger borings were performed excavated to seven feet and no groundwater was encountered in the borings. The Property is included in a Riverside County liquefaction hazard zone which makes it susceptible to liquefaction hazard. The Property is not included in a flood hazard zone but it is mapped as susceptible to subsidence based on Riverside County subsidence maps; 3) An American Land Title Association (ALTA) survey of the Property is being finalized by DJA which will identify and document all easements to the Property. There is no Williamson Act Contract on the Property, and the Property is not located in the boundaries of the Blythe Redevelopment Project Area;

4) The Purchase Agreement provides for the buyer to acquire any oil, gas or mineral rights (“mineral rights”) held by the seller. Based on the mineral rights search and the Preliminary Title Report, the seller owns the mineral rights for the property; 5) Irrigation water is provided to the property by PVID through a series of water transfer canals and ditches along the property perimeter. The Property has a farm compound along the west boundary which includes a residence and two out buildings. The residence, which is temporarily occupied, is described as dilapidated, wood-framed with transite (asbestos) panel siding and a corrugated metal roof on a cement slab. The buildings are wood-constructed with shingle and corrugated metal roofing on cement slabs and appear to contain household items. Domestic water is provided to the residence through the City of Blythe. There is also a small pump house which could potentially contain an old inactive well. If the residence is to be demolished, it will require special handling and management procedures due to the transite (asbestos) exterior siding panels. As a condition of closing, IRWD will require that the tenant be vacated and all property removed that is not fixed to the land in and around the residence and out buildings. The Seller would be required to pay the cost to abandon any inactive wells on the Property. Staff will work with the seller to pursue removal of the residence at the District’s cost prior to close of escrow.

Director Swan reported that this item was discussed the Supply Reliability Programs Committee on August 18, 2016 and commented on items to be paid through the escrow process. On MOTION by Swan, seconded and unanimously carried, THE BOARD FOUND THAT ALL MATTERS CURRENTLY IDENTIFIED WITH REGARD TO THE CONDITION OF TITLE, PHYSICAL CONDITION AND SUITABILITY OF THE PROPERTY FOR THE USES CONTEMPLATED ARE ACCEPTABLE CONTINGENT UPON THE SELLER’S TENANT BEING VACATED FROM THE RESIDENCE AND ALL THE PROPERTY BEING REMOVED THAT IS NOT FIXED TO THE LAND IN AND AROUND THE RESIDENCE AND OUT BUILDINGS, THAT DOCUMENTATION IS PROVIDED VERIFYING THAT THE PROPERTY WILL HAVE 23 REMAINING ACRES ENROLLED IN THE FOLLOWING PROGRAM WITH A MAXIMUM FOLLOWING COMMITMENT OF 23 ACRES, THAT IRWD CAN ASSIGN THE 23 ACRES TO ONE OF ITS EXISTING FOLLOWING PROGRAM AGREEMENTS, IRWD AGREES TO PAY THE SELLER \$20,000 TO REMOVE STRUCTURES; APPROVED THE ADDITION OF PROJECT 11974 (7693) TO THE FY 2016-17 CAPITAL BUDGET IN THE AMOUNT OF \$1,597,000 FOR THE PURCHASE OF THE PROPERTY; FOUND THAT THE PROPERTY ACQUISITION ONLY IS EXEMPT FROM CEQA; APPROVED THE PROJECT AND AUTHORIZED STAFF TO POST AND FILE THE NOTICES OF EXEMPTION IN ORANGE AND RIVERSIDE COUNTIES; AND AUTHORIZED THE GENERAL MANAGER, TREASURER AND EACH OTHER OFFICER OF THE DISTRICT, EACH ACTING SINGLY, TO EXECUTE AND DELIVER ANY AND ALL DOCUMENTS, ASSIGNMENTS, CERTIFICATES, INSTRUCTIONS AND INSTRUMENTS NECESSARY OR PROPER FOR CARRYING OUT AND CLOSING THE REAL ESTATE PURCHASE TRANSACTION FOR THE ACQUISITION OF THE PROPERTY.

#### PROPOSED POLICY PRINCIPLES ON INCREASING WATER LEVELS IN THE ORANGE COUNTY GROUNDWATER BASIN

Executive Director of Water Policy Weghorst reported that staff has prepared a Policy Principles Paper on Increasing Water Levels in the Orange County Groundwater Basin (Basin) and that a draft version of the paper was reviewed with the full Board of Directors on September 12, 2016 where the document was referred to the Orange County Water District (OCWD) Ad Hoc Committee for further

consideration. He said that staff reviewed the draft paper with the Committee on September 28, 2016 where input was provided for revising the document.

Mr. Weghorst said that OCWD has recently been managing the Basin inconsistent with its own Groundwater Management Plan and policies. The Basin is now being operated in a sustained state of overdraft, with numerous negative effects being inflicted on the Basin and on the Producers' ability to extract water from the ground. OCWD has indicated that it may consider taking action in the future to improve overdraft conditions through traditional programs such as direct recharge of untreated water purchased from Metropolitan Water District of Southern California and through an "In-lieu Recharge" program. Staff has prepared a Policy Principles Paper on Increasing Water Levels in the Orange County Groundwater Basin for the purpose of facilitating discussions on the development and implementation of programs and practices through which Orange County Water District (OCWD), in its role as the manager of the Basin, can increase groundwater levels in the Basin.

Director Swan said that this item was reviewed by the OCWD Ad Hoc Committee on September 28, 2016. He then asked staff to modify a few item on the policy principles. General Manager Cook said that staff will make the noted changes and distribute to the Board members prior to Wednesday's OCWD/MWDOC Ad Hoc Committee meeting. On MOTION by Swan, seconded and unanimously carried, **SUBJECT TO NONSUBSTANTIVE CHANGES, THE BOARD APPROVED THE POLICY PRINCIPLES PAPER ON INCREASING WATER LEVELS IN THE ORANGE COUNTY GROUNDWATER BASIN**

#### OTHER BUSINESS

#### GENERAL MANAGER'S REPORT

General Manager Cook thanked both Mr. Kevin Burton and Mr. Paul Weghorst for being Acting General Manager while on vacation.

Mr. Cook reminded the Board of tomorrow's Baker Water Treatment Plant event.

He further said that tomorrow he will a participate in UCI's panel discussion on the future of Southern California Water Supply.

#### DIRECTORS' COMMENTS

Director LaMar reported on his attendance at the Orange County Coastkeeper's Toast the Coast event, an IRWD resident tour, and a South Orange County Agencies' meeting. He said he was not able to attend the South Orange County Economic Coalition Legislators' meet and greet.

Director Withers said that he will be attending a CA LAFCO conference on Wednesday.

Director Swan reported that he and Director Matheis attended a South Orange County Economic Coalition Legislators' meet and greet, an Orange County Coastkeeper's Toast the Coast event, an Orange County Chamber of Commerce meeting, an Orange County Sanitation District State of the District event, a WACO Planning meeting, an Orange County Water District Board meeting, and an OWOW Steering Committee meeting.

Director Reinhart reported that he attended an Orange County Sanitation District State of the District event, a South County Agencies' meeting, and a MWDOC Board meeting. He said he was unable to attend MWDOC's joint meeting.

### DIRECTORS' COMMENTS

Director Matheis reported that she attended a CSDA annual conference in San Diego, an IRWD resident tour, a NWRI/SWCWD/DWR drought vulnerability seminar, and a South Orange County Economic Coalition Legislators' meet and greet.

IRWD's consultant Mr. Jim Reed reported on meetings he attended on behalf of the District. IRWD's consultant Bruce Newell said that he attended Supervisor Spitzer's Town Hall meeting.

### CLOSED SESSION

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

1. CLOSED SESSION: Conference with Real Property Negotiator (Government Code Section 54956.8). Property: Parcels 878-151-003, 878-210-001, 878-270-001, 878-270-002, 878-260-001, 878-260-002, County of Riverside  
Negotiating Parties: Barnes and Berger  
Agency Negotiator: Paul Cook, General Manager  
Purpose of Negotiations: Price and Term of Payment.
2. CLOSED SESSION: Conference with Real Property Negotiator (Government Code Section 54956.8).  
Property: Parcels 815-180-018, 827-120-010, 827-130-005, 827-140-001, 830-050-004, 830-050-008, 830-50-010, 827-040-005, 827-040-004, 827-072-001, 827-072-002, 827-072-003, 827-072-004, 827-072-005, 827-072-010, 827-120-002, 827-120-001, 827-040-006, 827-050-003, 827-050-007, 827-050-005, 827-050-001, 827-020-002, 827-030-003, 827-020-004, 827-020-001, 827-020-018, 827-040-003, 827-050-002, 827-020-003, 815-180-011, 815-180-006, 815-180-003, 827-120-003, 827-120-004, 827-120-005, 827-120-007, 827-120-006, 827-120-008, 827-120-009, 827-120-011, 827-130-012, 827-040-001, 830-030-004, County of Riverside  
Negotiating Parties: Williams  
Agency Negotiator: Paul Cook, General Manager  
Purpose of Negotiations: Price and Term of Payment.
3. CLOSED SESSION: Conference with Labor Negotiator pursuant to Government Code Section 54957.6:  
Agency Designated Representative: President Matheis  
Unrepresented Employee: Paul Cook



OPEN SESSION

Following the Closed Session, the meeting was reconvened with LaMar, Reinhart, Withers, Swan, and Matheis present. President Matheis said there was no action to report.

ADJOURNMENT

There being no further business, President Matheis adjourned the meeting to Tuesday, October 25, 2016 at 10:00 a.m. to the IRWD's Baker Water Treatment Plant, 21082 Wisteria, Lake Forest, CA. She closed the meeting in memory of Joshua Thatcher, Ray Thatcher's son, and extended condolences from the District to his family

APPROVED and SIGNED this 14th day of November, 2016.

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President, IRVINE RANCH WATER DISTRICT

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Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

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Legal Counsel - Bowie, Arneson, Wiles & Giannone

EXHIBIT "B"

MINUTES OF ADJOURNED REGULAR MEETING – OCTOBER 25, 2016

The adjourned regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 10:00 a.m. by President Matheis on October 25, 2016 at the Baker Water Treatment Plant, 21082 Wisteria, Lake Forest, California.

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

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Finance Clary, Executive Director of Water Policy Weghorst, Executive Director of Operations Shields, Director of Treasury and Risk Management Jacobson, Director of Water Resources Sanchez, Director of Public Affairs Beeman, Assistant Director of Water Operations Roberts, Assistant Director of Maintenance Drake, Assistant Director of Recycling Operations Zepeda, Mr. Rich Mori, Mr. Scott Toland, Board and staff representatives from Santa Margarita Water District, El Toro Water District, Moulton Niguel Water District, Trabuco County Water District, and other members of the public and agency staff.

Written and Oral Communications: None.

PRESENTATION – BAKER WATER TREATMENT PLANT WITH PROJECT PARTNERS

President Matheis welcomed the guests and provided a short presentation on water supply reliability. Representatives from Santa Margarita Water District, El Toro Water District, Moulton Niguel Water District, and Trabuco County Water District commented on the project's purpose and success. Following these presentations, a walking tour of the Baker Water Treatment Plant was held.

ADJOURNMENT

Following the tour, President Matheis adjourned the meeting.

APPROVED and SIGNED this 14th day of November, 2016.

\_\_\_\_\_  
President, IRVINE RANCH WATER DISTRICT

\_\_\_\_\_  
Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

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Legal Counsel - Bowie, Arneson,  
Wiles & Giannone

November 14, 2016

Prepared and submitted by: P. Cook



CONSENT CALENDAR

CHANGES TO GENERAL MANAGER'S COMPENSATION

SUMMARY:

The annual performance review of the General Manager was conducted on October 28, 2016. This item presents a recommendation for proposed changes to the annual compensation of the General Manager.

BACKGROUND:

The General Manager's annual performance evaluation was conducted in Closed Session during the October 28, 2016 IRWD Board meeting. After that discussion, IRWD President Matheis and Vice President Reinhart discussed potential changes in compensation with the General Manager. Based on that discussion, the recommendation is to increase the base salary of the General Manager by 4% (from \$270,400 per year to \$281,216 per year) and to provide a one-time performance award to the General Manager in the amount of \$4,200. All other aspects of the General Manager's compensation remain unchanged.

FISCAL IMPACTS:

Funds for the compensation of the General Manager are included in the District's annual Operating Budget.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE BOARD APPROVE A 4% INCREASE TO THE SALARY OF THE GENERAL MANAGER AND A ONE-TIME PERFORMANCE AWARD IN THE AMOUNT OF \$4,200, EFFECTIVE OCTOBER 1, 2016.


LIST OF EXHIBITS:

None.

November 14, 2016

Prepared by: B. Rios/K. Lew

Submitted by: K. Burton <sup>KLB</sup>

Approved by: Paul Cook 

## CONSENT CALENDAR

### PLANNING AREA 1 NEIGHBORHOOD 3 CAPITAL FACILITIES

#### SUMMARY:

Irvine Community Development Company (ICDC) is proceeding with development of Planning Area (PA) 1 (Orchard Hills), Neighborhood 3, which includes the construction of streets, storm drains, domestic water, sewer, and recycled water improvements. Staff recommends that the Board:

- Authorize a budget increase for Project 7012 in the amount of \$526,900, from \$162,800 to \$689,700;
- Authorize a budget increase for Project 7013 in the amount of \$107,800, from \$367,400 to \$475,200;
- Authorize a budget increase for Project 7017 in the amount of \$47,300, from \$203,500 to \$250,800; and
- Authorize the General Manager to accept ICDC's construction contract with Shoffeitt Pipeline, Inc. in the amount of \$907,178.50 for the Neighborhood 3, Capital Domestic and Recycled Water Improvements.

#### BACKGROUND:

ICDC is moving forward with development of Orchard Hills, Neighborhood 3. Neighborhood 3 is bound by Orchard Hills Drive to the southwest, Rattlesnake Reservoir to the east, and National Community Conservation Planning Nature Reserve to the north. The Project Location Map is shown as Exhibit "A". As part of this development, ICDC will construct IRWD's domestic and recycled water capital improvements. The required IRWD capital facilities are documented in the PA 1 and PA 2 Sub-Area Master Plan Addendum Number 2 as prepared by Stantec in April 2016.

The design and construction of the IRWD capital facilities for PA 1 will be performed under the terms of the Master Reimbursement Agreement and Supplemental Reimbursement Agreement between ICDC and IRWD approved by the Board in May 1997 and May 2005, respectively.

#### Neighborhood 3 Domestic and Recycled Water Improvements:

The Neighborhood 3 Domestic and Recycled Water Improvements consist of installing approximately 1,200 feet of six-inch diameter recycled water pipeline within New Point, 2,660 feet of eight-inch diameter recycled water pipeline within Ridge Gate and New Point, 1,620 feet of 10-inch diameter recycled water pipeline parallel to the Baker pipeline from Ridge Gate to New Point, 2,350 feet of 12-inch diameter recycled water pipeline in Ridge Gate from Orchard Hills Drive to just short of the Baker pipeline crossing, and 4,290 feet of 16-inch diameter domestic pipeline within New Point from Orchard Hills Drive to the Baker pipeline. ICDC retained Wilson Mikami to prepare the Neighborhood 3 Domestic and Recycled Water Improvement plans. ICDC received

bids from seven contractors. ICDC recommends awarding the construction contract to the lowest bidder, Shoffeitt Pipeline, Inc., for a bid amount of \$907,178.50 as shown in Exhibit “B”. In addition, ICDC has received consultant proposals for geotechnical observation and testing, surveying, and construction support services. Staff has reviewed the consultant proposals and the construction bids and found the amounts to be acceptable. Proposals for field archeological and paleontological monitoring were not necessary because those costs were included as a part of the previously approved improvements. A summary of the Neighborhood 3 Domestic and Recycled Water Improvement costs is shown below.

Design (Wilson Mikami)	\$ 42,300.00
Construction (Shoffeitt Pipeline, Inc.)	\$ 907,178.50
Geotechnical Services (NMG Geotechnical)	\$ 14,046.00
Construction Engineering (Wilson Mikami)	\$ 25,360.00
Surveying and Staking (Stantec Consulting Services)	\$ 17,602.00
ICDC Administration Fee (1%)	\$ 9,071.79
	<u>\$1,015,558.29</u>

FISCAL IMPACTS:

Projects 7012, 7013 and 7017 are included in the FY 2016-17 Capital Budget and require budget increases as shown in the table below. Expenditure Authorizations are attached as Exhibit “C”.

Project No.	Current Budget	Addition <Reduction>	Total Budget
7012	\$ 162,800	\$ 526,900	\$ 689,700
7013	\$ 367,400	\$ 107,800	\$ 475,200
7017	\$ 203,500	\$ 47,300	\$ 250,800
Total	\$ 733,700	\$ 682,000	\$1,415,700

ENVIRONMENTAL COMPLIANCE:

Construction of capital domestic and recycled water facilities for Orchard Hills, Neighborhood 3 is subject to CEQA. In conformance with the California Code of Regulations Title 14, Chapter 3, Article 7 an Environmental Impact Report was certified by the City of Irvine, the lead agency on June 14, 2005 (SCH# 2004041080).

COMMITTEE STATUS:

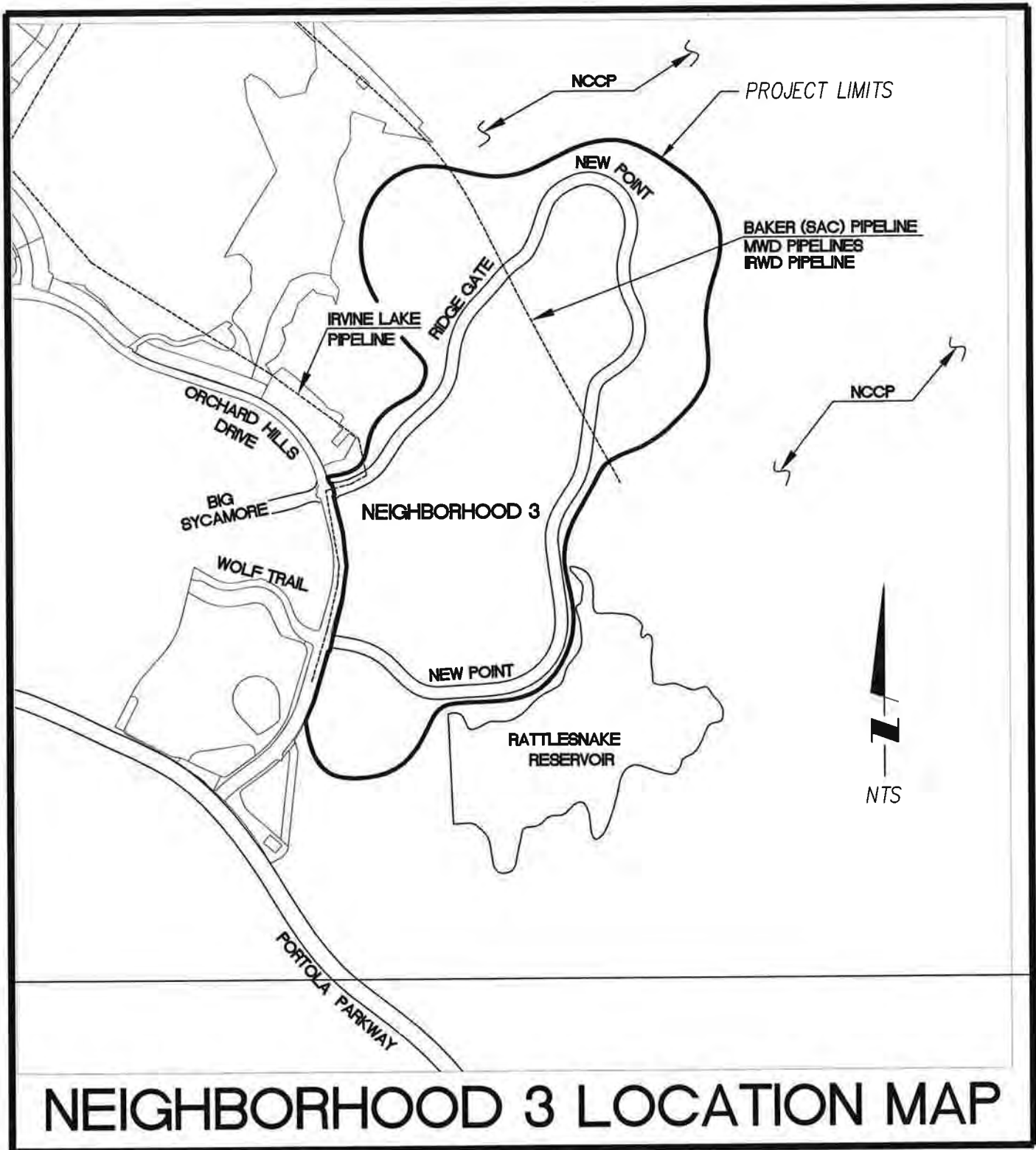
This item was reviewed by the Engineering and Operations Committee on November 10, 2016.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE FOR PROJECT 7012 IN THE AMOUNT OF \$526,900, FROM \$162,800 TO \$689,700; AUTHORIZE A BUDGET INCREASE FOR PROJECT 7013 IN THE AMOUNT OF \$107,800, FROM \$367,400 TO \$475,200; AUTHORIZE A BUDGET INCREASE FOR PROJECT 7017 IN THE AMOUNT OF \$47,300, FROM \$203,500 TO \$250,800; AND AUTHORIZE THE GENERAL MANAGER TO ACCEPT ICDC'S CONSTRUCTION CONTRACT WITH SHOFFEITT PIPELINE, INC. IN THE AMOUNT OF \$907,178.50 FOR THE NEIGHBORHOOD 3, CAPITAL DOMESTIC AND RECYCLED WATER IMPROVEMENTS.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Bid Summary, Neighborhood 3, Domestic and Recycled Water Improvements
- Exhibit "C" – Expenditure Authorizations



# NEIGHBORHOOD 3 LOCATION MAP

## EXHIBIT "A"



# EXHIBIT "B"

# COPY

PRE-BID MEETING DATE: May 18, 2016  
 BID OPENING DATE: 10:00 AM, 5/23/16  
 WITNESSED BY: [Signatures]

Date Conley  
 Mike Hesse  
 Trent Moore  
 View with Bid Mail  
 Mary Oshiro - Cost Mgr

BID SUMMARY  
 OGDARD HILLS (PA-1) 140 SWEET CROWN DRAM AND WATER  
 ASSESSMENT/ESTIMATE/NOV ASSESSMENT DISTRICT IRWD CAPITAL FACILITIES  
 WET UTILITIES - CONTRACT "01" - ALL PREVIOUS BIDDING  
 15,000 LF ON AD SIPS \$11,000 LF OF NON-AD SIPS  
 TASK PCID: LD-0001.SI.3cc01f003

LOW BIDDER: SHOFFERT	2ND BIDDER: PAULIS	3RD BIDDER: BOURDEAU	4TH BIDDER: LEATHERWOOD	5TH BIDDER: E & B	6TH BIDDER: BURT	7TH BIDDER: KEE
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**CHECKLIST**  
 Required items to be included in bid package:

- 1 Signed Addendum Nos 1-6
- 2 Corporate Seal (if applicable)
- 3 Correct Signatures (Page V-3)
- 4 B-3 Total Bid Consistency
- 5 Bid Item Specifications
- 6 Equipment/Material Source Information
- 7 Contractor Rates/Reviewed
- 8 10% Bid Bond
- 9 Continuation Schedule
- 10 Bid Calculations/Checklist
- 11 Contingency Requested

Comments	Comments	Comments	Comments	Comments	Comments	Comments
NOT INCLUDED	NOT INCLUDED	NOT INCLUDED	NOT INCLUDED	NOT INCLUDED	NOT INCLUDED	NOT INCLUDED

ITEM	QTY	UNIT	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
<b>J. GENERAL - IRWD CAPITAL FACILITIES</b>																	
1. MOBILIZATION (NOT TO EXCEED 2% OF CONTRACT PRICE (SECTIONS J-1))	1	LS	\$7,000.00	\$7,000.00	\$70,156.00	\$70,156.00	\$15,000.00	\$15,000.00	\$22,000.00	\$22,000.00	\$22,000.00	\$22,000.00	\$22,000.00	\$22,000.00	\$22,000.00	\$22,000.00	
2. PAYMENT & PERFORMANCE BONDS (SECTION J-1)	1	LS	\$13,750.00	\$13,750.00	\$13,750.00	\$13,750.00	\$13,750.00	\$13,750.00	\$13,750.00	\$13,750.00	\$13,750.00	\$13,750.00	\$13,750.00	\$13,750.00	\$13,750.00	\$13,750.00	
3. DEVELOP CONSTRUCTION WATER (SECTIONS J-4)	1	LS	\$2,700.00	\$2,700.00	\$2,700.00	\$2,700.00	\$2,700.00	\$2,700.00	\$2,700.00	\$2,700.00	\$2,700.00	\$2,700.00	\$2,700.00	\$2,700.00	\$2,700.00	\$2,700.00	
4. TRAFFIC CONTROL (SECTIONS J-4)	1	LS	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	
5. INTERIM EROSION AND SEDIMENT CONTROL; TO BE INSTALLED COMPLETE IN PLACE BY OCTOBER 1ST (SECTIONS J-4)	1	LS	\$5,450.00	\$5,450.00	\$7,218.00	\$7,218.00	\$14,660.00	\$14,660.00	\$5,000.00	\$5,000.00	\$6,500.00	\$6,500.00	\$57,700.00	\$57,700.00	\$20,600.00	\$20,600.00	
6. NET EXPORT/EXCESS SLOP MATERIAL/IMPORT UNCLASSIFIED FILL MATERIAL (SECTIONS J-4)	1	LS	\$31,020.00	\$31,020.00	\$17,432.00	\$17,432.00	\$1,540.00	\$1,540.00	\$13,000.00	\$13,000.00	\$8.00	\$8.00	\$16,600.00	\$16,600.00	\$16,000.00	\$16,000.00	
7. MAINTAIN ACCESS FOR UTILITIES LISTED IN TECHNICAL SPECIFICATIONS (EXHIBIT H-1)	1	LS	\$1,000.00	\$1,000.00	\$3,200.00	\$3,200.00	\$3,200.00	\$3,200.00	\$100.00	\$100.00	\$25,000.00	\$25,000.00	\$1.00	\$1.00	\$5,000.00	\$5,000.00	
8. ALL ELSE REQUIRED AS SHOWN ON THE PLANS AND SPECIFICATIONS, BUT NOT LISTED ON THE SCHEDULE OF VALUES (SECTIONS J-4)	1	LS	\$300.00	\$300.00	\$560.00	\$560.00	\$560.00	\$560.00	\$7,000.00	\$7,000.00	\$1.00	\$1.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	
<b>K. IRWD DOMESTIC WATER CAPITAL FACILITIES</b>																	
9. INSTALL 18" PFC C-MIL, DR-18 DOMESTIC WATER MAIN WITH TRENCH SECTION AND DEEDING PER IRWD STD NO. W-7	4,290	LF	\$73.00	\$313,317.00	\$74.00	\$317,680.00	\$70.00	\$301,400.00	\$78.00	\$334,670.00	\$75.00	\$321,750.00	\$93.00	\$398,970.00	\$70.00	\$301,000.00	
10. INSTALL CL 150 18" R.F.V. (FE X FE) PER IRWD STD NO. W-22	7	EA	\$3,900.00	\$27,300.00	\$3,514.00	\$24,598.00	\$4,000.00	\$28,000.00	\$3,610.00	\$25,270.00	\$4,000.00	\$28,000.00	\$3,200.00	\$22,400.00	\$3,200.00	\$24,800.00	
11. INSTALL 16" D1 BEND & THRUST BLOCK PER IRWD STD NO. W-16	2	EA	\$500.00	\$1,000.00	\$1,070.00	\$2,140.00	\$400.00	\$800.00	\$1,050.00	\$2,100.00	\$1,050.00	\$2,100.00	\$1,000.00	\$2,000.00	\$1,000.00	\$2,000.00	
12. INSTALL 16" D1 Tee (FE X FE X FE) & THRUST BLOCK PER IRWD STD NO. W-16	1	EA	\$950.00	\$950.00	\$1,376.00	\$1,376.00	\$1,070.00	\$1,070.00	\$1,070.00	\$1,070.00	\$1,070.00	\$1,070.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	
13. INSTALL 16" X 18" D1 Tee (FE X FE X FE) & THRUST BLOCK PER IRWD STD NO. W-16	1	EA	\$400.00	\$400.00	\$1,376.00	\$1,376.00	\$970.00	\$970.00	\$1,070.00	\$1,070.00	\$1,070.00	\$1,070.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	
14. INSTALL 16" X 18" D1 Tee (FE X FE X FE) & THRUST BLOCK PER IRWD STD NO. W-16	1	EA	\$950.00	\$950.00	\$1,376.00	\$1,376.00	\$1,070.00	\$1,070.00	\$1,070.00	\$1,070.00	\$1,070.00	\$1,070.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	
15. INSTALL 16" X 18" D1 Reducer (FE X FE) & THRUST BLOCK PER IRWD STD NO. W-16	1	EA	\$450.00	\$450.00	\$850.00	\$850.00	\$600.00	\$600.00	\$770.00	\$770.00	\$770.00	\$770.00	\$700.00	\$700.00	\$700.00	\$700.00	
16. INSTALL BOTTOM DRAIN ASSEMBLY PER IRWD STD NO. W-14	1	EA	\$450.00	\$450.00	\$850.00	\$850.00	\$600.00	\$600.00	\$770.00	\$770.00	\$770.00	\$770.00	\$700.00	\$700.00	\$700.00	\$700.00	
17. INSTALL 2-INCH AIR VAC ASSEMBLY PER IRWD STD NO. W-11	1	EA	\$450.00	\$450.00	\$1,970.00	\$1,970.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	
18. INSTALL 16" D1 FE X PO ADAPTER	3	EA	\$425.00	\$1,275.00	\$1,290.00	\$3,870.00	\$1,000.00	\$3,000.00	\$1,000.00	\$3,000.00	\$1,000.00	\$3,000.00	\$1,000.00	\$3,000.00	\$1,000.00	\$3,000.00	
19. REMOVE EXISTING TEMPORARY FLUSH-OUT ASSEMBLY & JOIN EXISTING STEEL WATER MAIN WITH D.I. FLANGED COUPLING PER IRWD STD NO. W-19	1	EA	\$1,300.00	\$1,300.00	\$5,193.00	\$4,400.00	\$4,400.00	\$4,400.00	\$10,700.00	\$3,800.00	\$3,800.00	\$2,800.00	\$2,800.00	\$2,800.00	\$2,800.00	\$2,800.00	
20. REMOVE PORTION OF EXISTING 16" STEEL WATER MAIN (LIMITS PER PLAN)	3	LF	\$75.00	\$225.00	\$280.00	\$840.00	\$130.00	\$390.00	\$2,780.00	\$3,250.00	\$120.00	\$360.00	\$120.00	\$360.00	\$120.00	\$360.00	
21. REMOVE EXISTING 18" R.F.V. AND DELIVER TO IRWD PER IRWD SPECIFICATIONS	1	EA	\$750.00	\$750.00	\$1,070.00	\$1,070.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	
22. REMOVE EXISTING CATHODIC PROTECTION TEST STATION AND RE-INSTALL AT PROPOSED LOCATION PER PLAN AND IRWD STD NO. CP-1, CP-6 AND CP-7	3	EA	\$576.00	\$1,728.00	\$919.00	\$2,757.00	\$1,000.00	\$3,000.00	\$5,700.00	\$1,900.00	\$5,700.00	\$3,000.00	\$9,000.00	\$2,250.00	\$6,750.00	\$6,800.00	\$20,600.00
23. RELOCATE EXISTING CATHODIC PROTECTION TEST STATION BOX AND CONCRETE PAD PER IRWD STD NO. CP-1	3	EA	\$275.00	\$825.00	\$1,211.00	\$3,633.00	\$1,000.00	\$3,000.00	\$5,700.00	\$1,000.00	\$3,000.00	\$2,200.00	\$6,600.00	\$2,000.00	\$6,000.00	\$2,000.00	\$6,000.00
24. REMOVE AND RELOCATE EXISTING 4" FLUSH-OUT ASSEMBLY PER IRWD STD NO. W-13	1	EA	\$5,500.00	\$5,500.00	\$1,475.00	\$4,400.00	\$4,400.00	\$4,400.00	\$1,475.00	\$4,400.00	\$4,400.00	\$4,400.00	\$4,400.00	\$4,400.00	\$4,400.00	\$4,400.00	
25. REMOVE AND RELOCATE EXISTING GUARD POST PER IRWD STD NO. G-1	1	EA	\$310.00	\$310.00	\$85.00	\$85.00	\$770.00	\$770.00	\$770.00	\$770.00	\$770.00	\$770.00	\$770.00	\$770.00	\$770.00	\$770.00	
26. REMOVE EXISTING D.I. BEND AND THRUST BLOCK & JOIN EXISTING 16" STEEL WATER MAIN	1	EA	\$2,800.00	\$2,800.00	\$447.00	\$447.00	\$5,000.00	\$5,000.00	\$9,300.00	\$6,500.00	\$6,500.00	\$6,700.00	\$6,700.00	\$6,700.00	\$6,700.00	\$6,700.00	
<b>L. IRWD RECYCLED WATER CAPITAL FACILITIES</b>																	
27. INSTALL 8" PVC C-900 (DR-14) PURPLE, RECYCLED WATER MAIN	1,888	LF	\$30.00	\$56,640.00	\$34.00	\$64,208.00	\$27.00	\$51,408.00	\$38.00	\$71,424.00	\$35.00	\$66,240.00	\$37.00	\$69,456.00	\$30.00	\$56,640.00	
28. INSTALL 8" PVC C-900 (DR-14) PURPLE, RECYCLED WATER MAIN	2,660	LF	\$38.00	\$101,080.00	\$39.00	\$103,980.00	\$37.00	\$98,460.00	\$40.00	\$106,800.00	\$37.00	\$98,460.00	\$37.00	\$98,460.00	\$37.00	\$98,460.00	
29. INSTALL 10" PVC C-900 (DR-14) PURPLE, RECYCLED WATER MAIN	1,617	LF	\$48.00	\$77,616.00	\$50.00	\$80,850.00	\$46.00	\$74,442.00	\$54.00	\$87,378.00	\$48.00	\$77,616.00	\$48.00	\$77,616.00	\$48.00	\$77,616.00	
30. INSTALL 12" PVC C-900 (DR-14) PURPLE, RECYCLED WATER MAIN	2,356	LF	\$34.00	\$80,164.00	\$35.00	\$82,460.00	\$32.00	\$75,392.00	\$36.00	\$84,816.00	\$34.00	\$80,164.00	\$34.00	\$80,164.00	\$34.00	\$80,164.00	
31. INSTALL 8" GATE VALVE (FE X FE) PER IRWD STD NO. W-22	6	EA	\$1,900.00	\$11,400.00	\$1,774.00	\$10,644.00	\$1,900.00	\$11,400.00	\$1,900.00	\$11,400.00	\$1,900.00	\$11,400.00	\$1,900.00	\$11,400.00	\$1,900.00	\$11,400.00	
32. INSTALL 8" GATE VALVE (FE X FE) PER IRWD STD NO. W-22	1	EA	\$2,300.00	\$2,300.00	\$3,413.00	\$3,413.00	\$2,300.00	\$2,300.00	\$3,413.00	\$3,413.00	\$3,413.00	\$3,413.00	\$3,413.00	\$3,413.00	\$3,413.00	\$3,413.00	
33. INSTALL 12" B.F.V. (FE X FE) PER IRWD STD NO. W-22	7	EA	\$2,600.00	\$18,200.00	\$2,972.00	\$20,804.00	\$2,600.00	\$18,200.00	\$2,600.00	\$18,200.00	\$2,600.00	\$18,200.00	\$2,600.00	\$18,200.00	\$2,600.00	\$18,200.00	
34. INSTALL 8" X 10" D1 Tee (FE X FE X FE) & THRUST BLOCK PER IRWD STD NO. W-16	2	EA	\$200.00	\$400.00	\$561.00	\$1,122.00	\$400.00	\$800.00	\$561.00	\$1,122.00	\$561.00	\$1,122.00	\$561.00	\$1,122.00	\$561.00	\$1,122.00	
35. INSTALL 8" X 10" D1 Tee (FE X FE X FE) & THRUST BLOCK PER IRWD STD NO. W-16	3	EA	\$490.00	\$1,470.00	\$1,473.00	\$4,419.00	\$1,100.00	\$3,300.00	\$1,495.00	\$4,485.00	\$1,000.00	\$3,000.00	\$4,800.00	\$14,800.00	\$1,400.00	\$4,200.00	
36. INSTALL 16" X 18" D1 Tee (FE X FE X FE) & THRUST BLOCK PER IRWD STD NO. W-16	1	EA	\$80.00	\$80.00	\$26,020.00	\$26,020.00	\$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	\$12,000.00	
37. INSTALL 16" STEEL CASING PER IRWD STD NO. W-21	1	EA	\$20.00	\$20.00	\$24.00	\$24.00	\$24.00	\$24.00	\$24.00	\$24.00	\$24.00	\$24.00	\$24.00	\$24.00	\$24.00	\$24.00	
38. INSTALL 12 INCH TAP ONTO EXISTING 8" STEEL IRWD LAKT PIPELINE PER DETAIL AND IRWD SPECIFICATIONS	1	EA	\$5,000.00	\$5,000.00	\$12,481.00	\$17,481.00	\$14,000.00	\$14,000.00	\$14,000.00	\$14,000.00	\$14,000.00	\$14,000.00	\$14,000.00	\$14,000.00	\$14,000.00	\$14,000.00	
39. INSTALL 12" X 12" D1 Tee (FE X FE X FE) & THRUST BLOCK PER IRWD STD NO. W-16	2	EA	\$593.00	\$1,186.00	\$611.00	\$1,222.00	\$570.00	\$1,140.00	\$620.00	\$1,240.00	\$570.00	\$1,140.00	\$570.00	\$1,140.00	\$570.00	\$1,140.00	
40. INSTALL 8" D1 45° BEND (PO X PO) & THRUST BLOCK PER IRWD STD NO. W-16	1	EA	\$190.00	\$190.00	\$348.00	\$348.00	\$240.00	\$240.00	\$348.00	\$348.00	\$348.00	\$348.00	\$348.00	\$348.00	\$348.00	\$348.00	
41. INSTALL 8" D1 11.25° BEND (PO X PO) & THRUST BLOCK PER IRWD STD NO. W-16	1	EA	\$215.00	\$215.00	\$396.00	\$396.00	\$280.00	\$280.00	\$396.00	\$396.00	\$396.00	\$396.00	\$396.00	\$396.00	\$396.00	\$396.00	
42. INSTALL 10" D1 11.25° BEND (PO X PO) & THRUST BLOCK PER IRWD STD NO. W-16	1	EA	\$271.00	\$271.00	\$484.00	\$484.00	\$350.00	\$350.00	\$484.00	\$484.00	\$484.00	\$484.00	\$484.00	\$484.00	\$484.00	\$484.00	
43. INSTALL 10" D1 22.5° BEND (PO X PO) & THRUST BLOCK PER IRWD STD NO. W-16	1	EA	\$300.00	\$300.00	\$530.00	\$530.00	\$380.00	\$380.00	\$530.00	\$530.00	\$530.00	\$530.00	\$530.00	\$530.00	\$530.00	\$530.00	
44. INSTALL 12" D1 11.25° BEND (PO X PO) & THRUST BLOCK PER IRWD STD NO. W-16	1	EA	\$380.00	\$380.00	\$670.00	\$670.00	\$470.00	\$470.00	\$670.00	\$670.00	\$670.00	\$670.00	\$670.00	\$670.00	\$670.00	\$670.00	
45. INSTALL 12" D1 22.5° BEND (PO X PO) & THRUST BLOCK PER IRWD STD NO. W-16	1	EA	\$420.00	\$420.00	\$750.00	\$750.00	\$530.00	\$530.00	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00	
46. INSTALL 12" D1 45° BEND (PO X PO) & THRUST																	



# EXHIBIT "C"

## IRVINE RANCH WATER DISTRICT Expenditure Authorization

**Project Name:** PA1 NHB3 ORCHARD HILLS 16" DW Z5  
**EPMS Project No:** 11941    **EA No:** 2  
**Oracle Project No:** 7012  
**Project Manager:** LEW, KELLY  
**Project Engineer:** RIOS, BELISARIO  
**Request Date:** October 27, 2016

**ID Split:** Miscellaneous

**Improvement District (ID) Allocations**

ID No.	Allocation %	Source of Funds
150	100.0	BONDS YET TO BE SOLD**
<b>Total</b>	<b>100.0%</b>	

Summary of Direct Cost Authorizations

<b>Previously Approved EA Requests:</b>	\$162,800
<b>This Request:</b>	\$526,900
<b>Total EA Requests:</b>	\$689,700
<b>Previously Approved Budget:</b>	\$162,800
<b>Budget Adjustment Requested this EA:</b>	\$526,900
<b>Updated Budget:</b>	\$689,700
<b>Budget Remaining After This EA</b>	\$0

**Comments:**

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	12,000	8,000	20,000	12,000	8,000	20,000	2/16	9/16
ENGINEERING DESIGN - OUTSIDE	30,000	10,000	40,000	30,000	10,000	40,000	2/16	9/16
DESIGN STAFF FIELD SUPPORT	5,000	5,000	10,000	5,000	5,000	10,000	2/16	9/16
ENGINEERING - CA&I IRWD	15,000	10,000	25,000	15,000	10,000	25,000	10/16	10/17
ENGINEERING - CA&I OUTSIDE	32,000	8,000	40,000	32,000	8,000	40,000	10/16	10/17
CONSTRUCTION FIELD SUPPORT	5,000	5,000	10,000	5,000	5,000	10,000	10/16	10/17
CONSTRUCTION	380,000	100,000	480,000	380,000	100,000	480,000	10/16	10/17
LEGAL	0	2,000	2,000	0	2,000	2,000	2/16	10/17
Contingency - 10.00% Subtotal	\$47,900	\$14,800	\$62,700	\$47,900	\$14,800	\$62,700		
<b>Subtotal (Direct Costs)</b>	<b>\$526,900</b>	<b>\$162,800</b>	<b>\$689,700</b>	<b>\$526,900</b>	<b>\$162,800</b>	<b>\$689,700</b>		
Estimated G/A - 185.00% of direct labor*	\$68,400	\$51,900	\$120,300	\$68,400	\$51,900	\$120,300		
<b>Total</b>	<b>\$595,300</b>	<b>\$214,700</b>	<b>\$810,000</b>	<b>\$595,300</b>	<b>\$214,700</b>	<b>\$810,000</b>		
<b>Direct Labor</b>	<b>\$37,000</b>	<b>\$28,000</b>	<b>\$65,000</b>	<b>\$37,000</b>	<b>\$28,000</b>	<b>\$65,000</b>		

\*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]* KNL 10/27/16

**Department Director:**

*[Signature]* 10/31/16

**Finance:**

**Board/General Manager:**

\*\* IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$827,000. 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 1.15



# IRVINE RANCH WATER DISTRICT

## Expenditure Authorization

**Project Name:** PA1 NHB3 ORCHARD HILLS 6"8" RW ZC+  
**EPMS Project No:** 30587    **EA No:** 2  
**Oracle Project No:** 7017  
**Project Manager:** LEW, KELLY  
**Project Engineer:** RIOS, BELISARIO  
**Request Date:** October 27, 2016

**ID Split:** Miscellaneous

### Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
253	100.0	BONDS YET TO BE SOLD**
<b>Total</b>	<b>100.0%</b>	

### Summary of Direct Cost Authorizations

<b>Previously Approved EA Requests:</b>	\$203,500
<b>This Request:</b>	\$47,300
<b>Total EA Requests:</b>	\$250,800
<b>Previously Approved Budget:</b>	\$203,500
<b>Budget Adjustment Requested this EA:</b>	\$47,300
<b>Updated Budget:</b>	\$250,800
<b>Budget Remaining After This EA</b>	\$0

**Comments:**

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	0	10,000	10,000	0	10,000	10,000	2/16	9/16
ENGINEERING DESIGN - OUTSIDE	3,000	12,000	15,000	3,000	12,000	15,000	2/16	9/16
DESIGN STAFF FIELD SUPPORT	0	7,000	7,000	0	7,000	7,000	2/16	9/16
ENGINEERING - CA&I IRWD	0	12,000	12,000	0	12,000	12,000	10/16	10/17
ENGINEERING - CA&I OUTSIDE	5,000	10,000	15,000	5,000	10,000	15,000	10/16	10/17
CONSTRUCTION FIELD SUPPORT	0	7,000	7,000	0	7,000	7,000	10/16	10/17
CONSTRUCTION	35,000	125,000	160,000	35,000	125,000	160,000	10/16	10/17
LEGAL	0	2,000	2,000	0	2,000	2,000	2/16	10/17
Contingency - 10.00% Subtotal	\$4,300	\$18,500	\$22,800	\$4,300	\$18,500	\$22,800		
<b>Subtotal (Direct Costs)</b>	<b>\$47,300</b>	<b>\$203,500</b>	<b>\$250,800</b>	<b>\$47,300</b>	<b>\$203,500</b>	<b>\$250,800</b>		
Estimated G/A - 185.00% of direct labor*	\$0	\$66,700	\$66,700	\$0	\$66,700	\$66,700		
<b>Total</b>	<b>\$47,300</b>	<b>\$270,200</b>	<b>\$317,500</b>	<b>\$47,300</b>	<b>\$270,200</b>	<b>\$317,500</b>		
Direct Labor	\$0	\$36,000	\$36,000	\$0	\$36,000	\$36,000		

\*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:** Beliz KNL 10/27/16  
**Department Director:** Ricci F. Bunker 10/31/16  
**Finance:** \_\_\_\_\_  
**Board/General Manager:** \_\_\_\_\_

\*\* IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$324,000. 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 1.150-7

November 14, 2016

Prepared by: B. Rios/K. Lew

Submitted by: K. Burton (KLB)

Approved by: Paul Cook 

## CONSENT CALENDAR

### PLANNING AREA 1 TOLL BROTHERS CAPITAL FACILITIES

#### SUMMARY:

Toll Brothers, Inc. is proceeding with development of Planning Area (PA) 1 (Orchard Hills), Neighborhood 1, which includes the construction of streets, storm drains, domestic water, sewer, and recycled water improvements. Staff recommends that the Board:

- Authorize the General Manager to execute a Reimbursement Agreement with Toll Brothers for the construction of IRWD's Neighborhood 1, Capital Recycled Water Improvements, and
- Authorize the General Manager to accept Toll Brothers' construction contract with Paulus Engineering in the amount of \$288,647 for the Neighborhood 1, Capital Recycled Water Improvements.

#### BACKGROUND:

Toll Brothers is moving forward with development of Orchard Hills, Neighborhood 1. Neighborhood 1 is bound by State Route 241 to the northeast, Portola Parkway to the south, and State Route 261 to the west. The Project Location Map is shown as Exhibit "A". As part of this development, Toll Brothers will construct IRWD's recycled water capital improvements. The required IRWD capital facilities are documented in the PA 1 and PA 2 Sub-Area Master Plan (SAMP) Addendum Number 2 as prepared by Stantec in April 2016.

The design of the IRWD facilities was performed under the terms of the Master Reimbursement Agreement and Supplemental Reimbursement Agreement between Irvine Community Development Company (ICDC) and IRWD approved by the Board in May 1997 and May 2005, respectively.

The construction of the IRWD facilities will be performed under the terms of a Reimbursement Agreement between Toll Brothers and IRWD. The Reimbursement Agreement, attached as Exhibit "B", has been reviewed by IRWD's legal counsel.

#### Neighborhood 1 Recycled Water Improvements:

The Neighborhood 1 Recycled Water Improvements consist of installing approximately 5,800 feet of six-inch diameter recycled water pipeline within Woody Knoll and Leafy Pass and 300 feet of 16-inch diameter recycled water pipeline from the Irvine Lake Pipeline turnout to Woody Knoll. ICDC retained Wilson Mikami to prepare the Neighborhood 1 Recycled Water Improvement plans. Subsequently, ICDC sold its ownership of the development to Toll Brothers. Toll Brothers received bids from three contractors. Toll Brothers recommends awarding the construction contract to the lowest bidder, Paulus Engineering, for a bid amount of \$288,647 as shown in Exhibit "C". In addition, Toll Brothers has received consultant proposals for geotechnical

observation and testing, surveying, and construction support services. Staff has reviewed the consultant proposals and the construction bids and found the amounts to be acceptable. Proposals for design, field archeological and paleontological monitoring were not necessary because those costs were included as a part of the previously approved backbone improvements. A summary of the Neighborhood 1 Recycled Water Improvement costs is shown below.

Design (Hunsaker)	\$ 39,500
Construction (Paulus Engineering)	\$288,647.00
Geotechnical Services (NMG Geotechnical)	\$ 17,255.00
Construction Engineering/Surveying (Wilson Mikami)	\$ 24,400.00
Public Administration Fee (Moote Companies, 1%)	<u>\$ 2,886.47</u>
	\$372,688.47

FISCAL IMPACTS:

Project 5919 is included in the FY 2016-17 Capital Budget. The existing budget is sufficient to fund the construction.

ENVIRONMENTAL COMPLIANCE:

Construction of capital recycled water facilities for Orchard Hills, Neighborhood 1 is subject to CEQA. In conformance with the California Code of Regulations Title 14, Chapter 3, Article 7 an Environmental Impact Report was certified by the City of Irvine, the lead agency on June 14, 2005 (SCH# 2004041080).

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on November 10, 2016.

RECOMMENDATION:

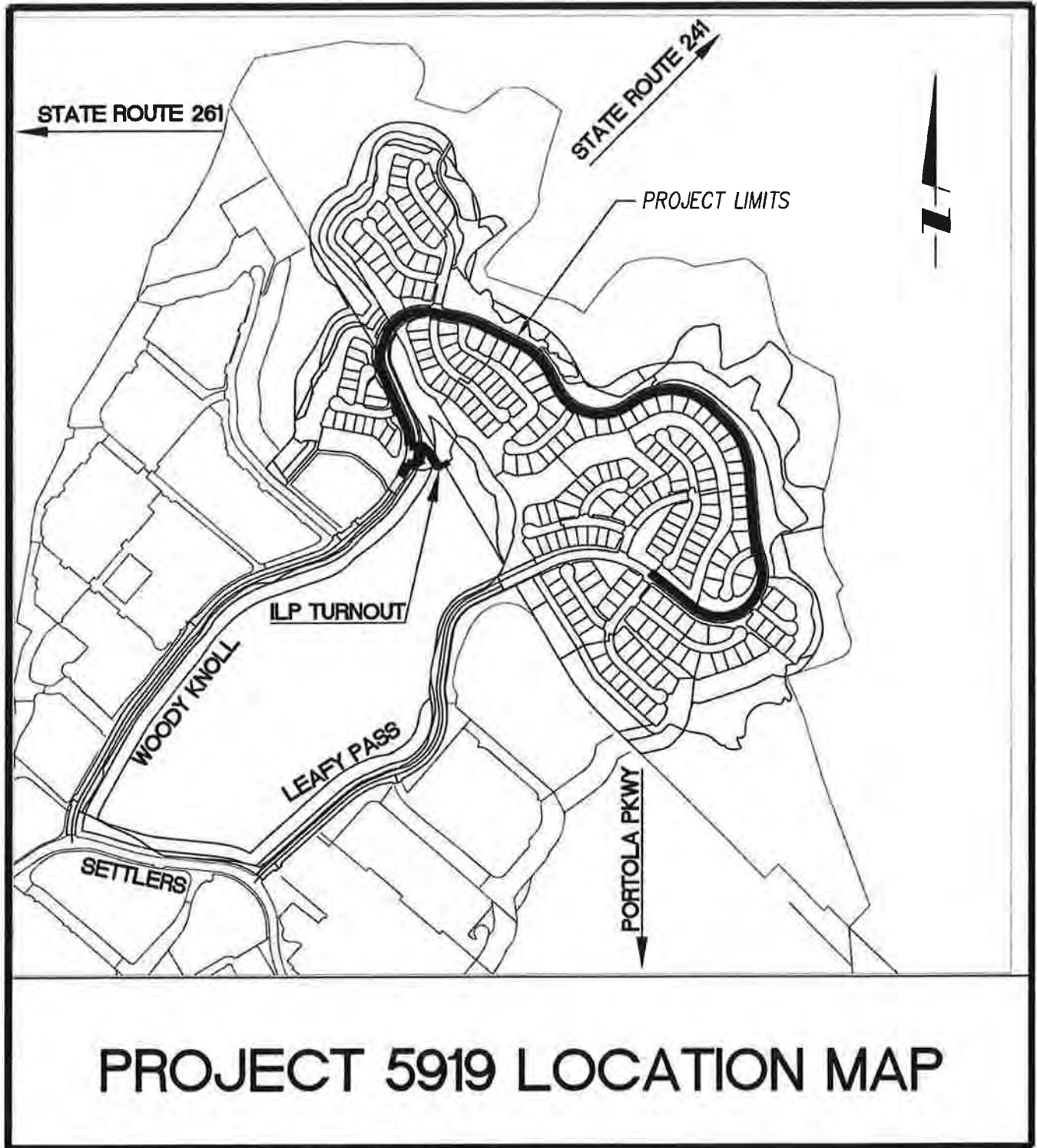
THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A REIMBURSEMENT AGREEMENT WITH TOLL BROTHERS, INC. FOR THE CONSTRUCTION OF IRWD'S NEIGHBORHOOD 1, CAPITAL RECYCLED WATER IMPROVEMENTS; AND AUTHORIZE THE GENERAL MANAGER TO ACCEPT TOLL BROTHERS, INC.'S CONSTRUCTION CONTRACT WITH PAULUS ENGINEERING IN THE AMOUNT OF \$288,647 FOR THE NEIGHBORHOOD 1, CAPITAL RECYCLED WATER IMPROVEMENTS, PROJECT 5919.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Reimbursement Agreement between IRWD and Toll Brothers for the Construction of Capital Facilities in Planning Area 1
- Exhibit "C" – Bid Summary, Neighborhood 1, Recycled Water Improvements



# EXHIBIT "A"



## PROJECT 5919 LOCATION MAP

# EXHIBIT "A"



# EXHIBIT "B"

REIMBURSEMENT AGREEMENT BETWEEN  
IRVINE RANCH WATER DISTRICT  
AND TOLL BROTHERS  
FOR  
CONSTRUCTION OF CAPITAL FACILITIES IN PLANNING AREA 1

This Agreement is made and entered into as of this \_\_\_\_ day of \_\_\_\_\_, 2016, by and between IRVINE RANCH WATER DISTRICT, a California water district formed and existing pursuant to the California Water District Law of the State of California, hereinafter referred to as "DISTRICT," and TOLL BROTHERS hereinafter referred to as "BUILDER."

W I T N E S S E T H:

WHEREAS, BUILDER proposes to construct street and utility improvements within Planning Area 1, Neighborhood 1 located north of Portola Parkway, south of State Route 241 and east of State Route 261, within the jurisdictional boundaries of DISTRICT and the City of Irvine; and

WHEREAS, prior to or in conjunction with BUILDER's construction of the Project, IRWD desires to construct, within or adjacent to the street improvements that comprise the Project, the following capital facilities and appurtenances thereto: approximately 283 LF of 16-inch recycled water pipeline and 5,800 LF of 6-inch recycled water pipeline as depicted on Exhibit "A" attached hereto incorporated by reference herein (hereinafter referred to as the "IRWD FACILITIES"); and

WHEREAS, the parties have determined that it would be more expedient for BUILDER to construct the IRWD FACILITIES rather than for DISTRICT to do so; and

WHEREAS, DISTRICT is amenable to the construction of the IRWD FACILITIES by BUILDER, at the cost of BUILDER, which cost is to be reimbursed by DISTRICT; and

WHEREAS, except as otherwise provided herein, upon the completion of the IRWD FACILITIES, the IRWD FACILITIES shall become the property of DISTRICT in accordance with the terms and conditions hereinafter set forth.

NOW, THEREFORE, the parties hereto, in consideration of the mutual promises and covenants hereinafter set forth, do agree as follows:

SECTION 1. IRWD FACILITIES. In conjunction with the Project, BUILDER agrees to initiate and diligently pursue to completion the construction of the IRWD FACILITIES.

SECTION 2. PLANS. BUILDER agrees that the IRWD FACILITIES shall be completed pursuant to approved project plans and specifications (the "Plans and Specifications"); which have been prepared and approved by DISTRICT under a separate reimbursement agreement with a different developer and supplied by DISTRICT for use by BUILDER under this agreement.

SECTION 3. BIDDING AND AWARD. The parties agree that the construction of the IRWD FACILITIES shall be included in BUILDER's contract(s) awarded for the Project and that the IRWD FACILITIES shall be bid as a separate item or items that can be deleted. During the bidding process, BUILDER shall deliver to IRWD one (1) complete set of the bid documents that include the IRWD FACILITIES, including all related addenda concurrently with the distribution thereof to prospective bidders. Upon opening of bids by BUILDER, BUILDER will submit the bids or a spread sheet summary of the bids to DISTRICT. DISTRICT will have a period of ten (10) calendar days from its receipt of the bid results for review and approval of the IRWD FACILITIES bid item(s) submitted by the bidder identified to DISTRICT by BUILDER as BUILDER's proposed successful bidder. BUILDER agrees that bids received for the construction of the IRWD FACILITIES bid item(s) shall be subject to the approval of DISTRICT prior to award of the Project construction contract(s) that include the IRWD FACILITIES; and further agrees that in the event DISTRICT does not approve such bids, either party may terminate this Agreement upon twenty-four (24) hours' prior written notice, in which event BUILDER shall have no further obligation to construct the IRWD FACILITIES, and DISTRICT may elect to install the IRWD FACILITIES with its own contractor. If DISTRICT approves of the IRWD FACILITIES bid item(s) of BUILDER's successful bidder, BUILDER agrees to cause the IRWD FACILITIES to be constructed as part of the contract awarded to such bidder. The total estimated construction cost for the IRWD FACILITIES is \$400,000 provided, however, the amount to be reimbursed by DISTRICT shall be based on the actual costs of

construction. Upon award of the construction contract, BUILDER shall provide DISTRICT with one (1) original copy of the fully executed contract documents and one (1) copy of the bid package relating to the IRWD FACILITIES received from the successful bidder.

**SECTION 4. DESIGN REVISIONS AND CHANGE ORDERS.** BUILDER agrees that if, during design or construction, BUILDER requests or initiates any revision to the Plans and Specifications that would increase the cost of the IRWD FACILITIES, such additional costs shall be borne by BUILDER, and shall not be reimbursed by DISTRICT, except for such revision(s) and cost(s) that are determined necessary to construct IRWD FACILITIES in accordance with the Construction Manual and could not reasonably have been foreseen at the time bids were received. The cost of any such necessary and unforeseeable revisions, and the cost of any revisions requested or initiated by DISTRICT shall be reimbursed by DISTRICT as provided herein.

BUILDER shall promptly furnish DISTRICT with copies of any proposed change orders to the Project contract within five (5) working days of initiation of changed conditions to such contract, which change orders shall be subject to DISTRICT approval if and to the extent any of the IRWD FACILITIES are affected thereby. DISTRICT will review and respond to proposed change orders affecting the IRWD FACILITIES within five (5) working days of receipt by DISTRICT.

**SECTION 5. REIMBURSEMENT.** DISTRICT agrees to reimburse BUILDER for the following costs (collectively, the "Costs"): (1) the actual costs of construction, permits, bonds, and legal fees (excluding the costs of preparation of this Agreement) incurred by BUILDER for the construction of the IRWD FACILITIES, plus (2) an administration fee which shall be equal to one percent (1%) of the actual cost of construction (costs paid directly to BUILDER's contractor for construction, only, excluding any cost for design, surveying, geotechnical or other work) of the IRWD FACILITIES and which shall be deemed to cover all costs of project administration, including, but not limited to, accounting, inspection, surveying, compaction testing, geotechnical services and engineering. BUILDER shall keep a separate accounting of all Costs incurred by BUILDER in relation to the IRWD FACILITIES.

Within thirty (30) days following receipt from BUILDER of each invoice for DISTRICT's portion of a construction progress payment, accompanied by supporting documentation as may be necessary to show the amounts which represent Costs of IRWD FACILITIES, DISTRICT shall deposit with BUILDER the amount of such invoice. Within

sixty (60) days of DISTRICT's acceptance of the IRWD FACILITIES as provided in Section 8, a final accounting of the Costs shall be made by BUILDER and submitted to DISTRICT along with an invoice for the Costs and any supporting documentation necessary to show the amounts which represent Costs of IRWD FACILITIES. Amounts paid pursuant to progress payment invoices shall be subject to adjustment in the final accounting. Within thirty (30) days of said final accounting, DISTRICT agrees to pay to BUILDER the total amount of the Costs less previous progress payments made DISTRICT. If the total of the previously paid progress payments exceeds the Costs, BUILDER shall refund the difference to IRWD within thirty (30) days of BUILDER's submittal of the final accounting.

SECTION 6. LAWS, ORDINANCES, RULES AND REGULATIONS. BUILDER shall require in its contract for the construction of the IRWD FACILITIES that its contractor be fully informed of and comply with all laws, ordinances, rules and regulations, including, but not limited to, all applicable requirements of the California Labor Code, prevailing wage laws, the Construction Manual, and the Rules and Regulations of DISTRICT, in connection with the construction of the IRWD FACILITIES.

SECTION 7. INSPECTION. DISTRICT shall have sole and absolute discretion as to all aspects of design and construction of the IRWD FACILITIES, and DISTRICT shall be entitled to inspect the construction of IRWD FACILITIES as it deems necessary to assure compliance with the Plans and Specifications, including shop drawing review and material inspection thereof. DISTRICT shall have access to all phases of the Project work to be performed by BUILDER for the purpose of such inspection; provided, however, all questions regarding the work being performed will be directed to BUILDER's resident engineer. DISTRICT will promptly notify BUILDER of any portion of the work on the IRWD FACILITIES which appears not to conform to the Plans and Specifications. The determination of DISTRICT as to conformity of the IRWD FACILITIES with the Plans and Specifications shall be made in DISTRICT's sole and absolute discretion. DISTRICT agrees not to unreasonably withhold its approval as to such conformity of the IRWD FACILITIES with the Plans and Specifications. BUILDER shall require its contractor to construct the IRWD FACILITIES so that the IRWD FACILITIES conform to the Plans and Specifications. BUILDER agrees to assume full responsibility for certifying or obtaining certification of the compaction of backfill material over the IRWD FACILITIES.

SECTION 8. ACCEPTANCE. DISTRICT agrees to accept the IRWD FACILITIES when the IRWD FACILITIES have been completed by BUILDER in accordance with all

requirements of the Plans and Specifications, including any change orders approved by DISTRICT as provided in Section 3 hereof. At the time of completion and acceptance of the IRWD FACILITIES, BUILDER agrees to furnish DISTRICT with one (1) copy of the contractor's redlined set of "record" drawings (showing all revisions, manufacturer and type of valves, pipe and fittings as required by DISTRICT) and one (1) copy of the compaction reports and certificate, survey notes and cut sheets.

**SECTION 9. OWNERSHIP.** It is mutually agreed between the parties hereto that notwithstanding the fact that BUILDER shall accomplish the construction of the IRWD FACILITIES subject to reimbursement, the IRWD FACILITIES to be completed hereunder, together with the necessary franchises, licenses, easements, rights-of-way, and other privileges, shall at all times be subject to the applicable rates, rules and regulations of DISTRICT, as modified or amended from time to time. BUILDER hereby disclaims any interest in the IRWD FACILITIES and does hereby transfer and assign to DISTRICT any and all right, title, and interest it may have in the IRWD FACILITIES. BUILDER shall be responsible for operation and maintenance of the IRWD FACILITIES until acceptance by the DISTRICT. DISTRICT shall own, operate and maintain the IRWD FACILITIES following acceptance thereof.

**SECTION 10. GUARANTEES.** BUILDER will, pursuant to the requirement(s) of the Plans and Specifications, cause its contractor(s) for the IRWD FACILITIES to guarantee the IRWD FACILITIES against defects in workmanship and materials for a period of one (1) year from the date of acceptance by BUILDER, which acceptance shall be given only after acceptance by DISTRICT as provided in Section 8. It is further agreed that BUILDER shall cause the IRWD FACILITIES to be brought or restored to full compliance with the requirements of the Plans and Specifications, including any test requirements, for any portions of the IRWD FACILITIES which during said one (1) year period are found not to be in conformance with the provisions of the Plans and Specifications. This guarantee is in addition to any and all other warranties, express or implied, from BUILDER's contractors or material manufacturers, with respect to the IRWD FACILITIES. The guarantee and obligations under this section shall in no way be relieved by DISTRICT's inspection and/or acceptance of the IRWD FACILITIES. This section sets forth the entire guarantee and warranty of BUILDER with respect to the IRWD FACILITIES. The express or implied warranties of other persons with respect to IRWD FACILITIES shall in no way be limited by the guarantee and warranty of BUILDER contained in this section. If requested by DISTRICT, BUILDER agrees to assign to DISTRICT the contractor's guarantee and/or any other guarantees or warranties relating to the IRWD FACILITIES.

**SECTION 11. INDEMNIFICATION.** BUILDER shall indemnify, defend and hold DISTRICT, its officers, agents, employees, and engineers harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen during construction of the IRWD FACILITIES as a result of any work or action performed by BUILDER or on behalf of BUILDER, save and except to the extent such expense, liability or claim is proximately caused in whole or in part by any act, omission, or negligence of DISTRICT, its officers, agents, employees or engineers or by any act or omission for which DISTRICT, its officers, agents, employees or engineers are liable without fault.

DISTRICT shall indemnify, defend and hold BUILDER, its officers, agents, and employees, harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen either (i) as a result of any acts performed by DISTRICT, its officers, agents, or employees, with respect to the IRWD FACILITIES construction; or (ii) following DISTRICT acceptance of the IRWD FACILITIES, with respect to maintenance and operation of the IRWD FACILITIES, save and except to the extent such expense, liability or claim is proximately caused in whole or in part by any negligence of BUILDER, its officers, agents, employees or engineers, or by any act or omission for which BUILDER, its officers, agents, employees or engineers are liable without fault.

**SECTION 12. INSURANCE AND BONDING.** BUILDER shall cause its contractor(s) to provide performance and payment bonds for the construction of the Project including the IRWD FACILITIES and to obtain insurance coverage sufficiently broad to insure the matters set forth in this Agreement and to include DISTRICT, its officers, agents, employees and engineers, as additional insureds on all insurance policies that BUILDER requires its contractor(s) to provide. As evidence of such insurance coverage, BUILDER shall, prior to commencement of construction of the IRWD FACILITIES, provide DISTRICT with certificates of insurance and insurance endorsements from BUILDER's contractor(s) in a form acceptable to DISTRICT.

**SECTION 13. TERMINATION.** DISTRICT shall have the right to terminate this Agreement at any time, subject to the provisions of this section, by providing five (5) business days' prior written notice to BUILDER, except as noted in Section 3. If at the request or direction of a party other than BUILDER, the construction of the IRWD FACILITIES is not accomplished or completed, DISTRICT shall remain obligated for the actual amount of the Costs incurred by BUILDER to the date of termination.

If BUILDER's Project is canceled or modified so as to eliminate the necessity of the construction of the IRWD FACILITIES, BUILDER shall have the right to terminate this Agreement and thereby terminate its obligation to construct the IRWD FACILITIES, by providing five (5) business days' prior written notice to DISTRICT. In such case, DISTRICT will not be obligated for any design or any other Costs incurred by BUILDER. If IRWD elects to construct the IRWD FACILITIES, DISTRICT may, but shall not be obligated to, use the design or other work acquired by the District under separate agreement and supplied for use as the Plans and Specifications under this Agreement.

SECTION 14. NOTICE. Any notice or other written instrument required or permitted by this Agreement to be given to either party shall be deemed received when personally served or twenty-four (24) hours after being deposited in the U.S. Mail, postage prepaid, registered or certified and addressed as follows:

DISTRICT: Irvine Ranch Water District  
15600 Sand Canyon Avenue  
P.O. Box 57000  
Irvine, CA 92619-7000  
Attn: General Manager

BUILDER: Toll Brothers  
725 W. Town and Country Road, Suite 200  
Orange, CA 92868  
Attn: Peter Kim

SECTION 15. SUCCESSORS AND ASSIGNS; INTEGRATION; AMENDMENT.

This Agreement shall be binding upon and inure to the benefit of the successor and assigns of BUILDER and DISTRICT. This Agreement constitutes the entire Agreement between BUILDER and DISTRICT and supersedes all prior understandings and agreements between the parties with respect to the subjects hereof. This Agreement may be modified only in writing signed by both parties hereto.

SECTION 16. LEGAL FEES. In the event of any declaratory or other legal or equitable action instituted between BUILDER and DISTRICT in connection with this Agreement, the prevailing party shall be entitled to recover from the losing party all of its costs and expenses, including court costs and reasonable attorneys' fees.

SECTION 17. DEEMED APPROVAL. Any approval required to be given by either party pursuant to this Agreement shall be deemed given if no response to the party's request for such approval is received by the requesting party within fifteen (15) days following the written request for such approval.

SECTION 18. SEVERABILITY. If any term, provision, covenant or condition of this Agreement is held to be invalid, void or other unenforceable, to any extent, by any court of competent jurisdiction, the remainder of this Agreement shall not be affected thereby, and each term provision, covenant or condition of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

SECTION 19. APPLICABLE LAW. This Agreement shall be construed and enforced in accordance with the laws of the State of California.

SECTION 20. WAIVER. The waiver of any provision of this Agreement by either party shall not be deemed to be a waiver of any other provision or of any preceding or subsequent breach hereunder.



IN WITNESS WHEREOF, the parties to the Agreement have executed this Agreement on the date herein above written.

IRVINE RANCH WATER DISTRICT

By \_\_\_\_\_  
Paul Cook, General Manager

Dated \_\_\_\_\_

ATTEST:

By \_\_\_\_\_  
Secretary/Assistant Secretary

Dated \_\_\_\_\_

APPROVED AS TO FORM:

By \_\_\_\_\_  
Legal Counsel, IRWD

Dated \_\_\_\_\_

BUILDER:

By \_\_\_\_\_  
Title: \_\_\_\_\_

Dated \_\_\_\_\_

ATTEST:

By \_\_\_\_\_  
Title: \_\_\_\_\_

Dated \_\_\_\_\_

APPROVED AS TO FORM:

By \_\_\_\_\_  
Attorney for BUILDER

Dated \_\_\_\_\_

# EXHIBIT "C"

## Bid Tabulations



Owner: TOLL BROTHERS

Project: ORCHARD HILLS PLANNING AREA 1 RECYCLED WATER TRACT 17746 IRWD CODE 6303

Bid Date: 12/16/2015

ITEM NO.	DESCRIPTION	UNIT MEAS	QUAN	Paulus Engineering Attn: Jason Paulus Tel: 714.632.3975		L&S Construction Attn: Elton Welham Tel: 714.526.3232		Leatherwood Construction Attn: Bobby Kawai Tel: 714.593.6575		Moote Estimate Attn: Tel:	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
1											
1	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1	10,000.00	10,000.00	3,000.00	3,000.00	7,400.00	7,400.00	9,200.00	9,200.00
2	2nd Mobilization	LS	1	4,000.00	4,000.00	3,000.00	3,000.00	5,000.00	5,000.00	5,000.00	5,000.00
3	Performance, Labor and Payment Bond, Complete	LS	1	3,600.00	3,600.00	5,250.00	5,250.00	6,000.00	6,000.00	7,000.00	7,000.00
4	Join existing 16" Steel pipe per IRWD Std. W-20, Complete	LS	1	5,000.00	5,000.00	7,000.00	7,000.00	13,800.00	13,800.00	3,000.00	3,000.00
5	Furnish and Install 16" AWWA C1 200 CML&C Steel Pipe and fittings w/trenching and bedding per IRWD Std. W-17 and pipe joints per IRWD Std. W-20 and as shown on the plans, Complete	LF	231	100.00	23,100.00	180.00	41,580.00	220.00	50,820.00	280.00	64,680.00
6	Furnish and Install 6" PVC Purple Pipe, C-900, DR 14, w/trenching and bedding per IRWD Std. W-17 and all fittings, appurtenances and thrust blocks per IRWD Std. W-16 and W-19 and as shown on the plans, Complete	LF	5,740	29.00	166,460.00	26.50	152,110.00	35.00	200,900.00	50.00	287,000.00
7	Remove and dispose of existing 16" Recycled Water Main as shown on plan sheet 5 of 11	LS	1	6,500.00	6,500.00	12,500.00	12,500.00	8,800.00	8,800.00	6,000.00	6,000.00
8	Furnish and Install 2-Wire Cathodic Test Station per IRWD Std. CP-1, CP-4, CP-6 & CP-7	EA	2	720.00	1,440.00	1,800.00	3,600.00	1,500.00	3,000.00	2,800.00	5,600.00
9	Furnish and Install 1" Air Vac Assembly per IRWD Std. W-11	EA	2	3,800.00	7,600.00	3,200.00	6,400.00	3,200.00	6,400.00	3,800.00	7,600.00
10	Furnish and Install 2" Air Vac Assembly per IRWD Std. W-11	EA	1	4,600.00	4,600.00	4,200.00	4,200.00	4,200.00	4,200.00	5,600.00	5,600.00
11	Remove existing 16" Butterfly Valves and deliver to IRWD	EA	3	534.00	1,602.00	800.00	2,400.00	850.00	2,550.00	250.00	750.00
12	Remove and dispose of existing 2" Air Vac Assembly as shown on plan sheet 5 of 11	EA	1	855.00	855.00	550.00	550.00	1,400.00	1,400.00	500.00	500.00
13	Remove and dispose of existing Flush-out Assembly as shown on plan sheet 5 of 11	EA	1	820.00	820.00	550.00	550.00	1,400.00	1,400.00	500.00	500.00
14	Remove and dispose of existing CP Test Station as shown on plan sheet 5 of 11	EA	1	210.00	210.00	550.00	550.00	1,400.00	1,400.00	500.00	500.00
15	ILP Connection per plan and details as shown on plan sheet 11 of 11	EA	1	9,400.00	9,400.00	8,500.00	8,500.00	9,100.00	9,100.00		0.00
16	Furnish and Install 6" RW Gate Valve, FExFE, including valve box per IRWD Std. W-22	EA	14	1,300.00	18,200.00	1,225.00	17,150.00	1,500.00	21,000.00	1,700.00	23,800.00
17	Remove existing 4" Cap and join existing 4" Drain Line	EA	1	2,300.00	2,300.00	1,995.00	1,995.00	950.00	950.00	400.00	400.00
18	Furnish and Install 4" PVC Drain Line	LF	10	26.00	260.00	180.00	1,800.00	80.00	800.00	40.00	400.00
19	Furnish and Install 4" AC/8" AB Construction Utility Trench Repair (Alt. A) per City of Irvine Std. 223	SF	750	10.00	7,500.00	24.00	18,000.00	12.00	9,000.00		0.00
20	Raise Valve Can to Grade	EA	17	275.00	4,675.00	400.00	6,800.00	385.00	6,545.00	400.00	6,800.00
21	Raise Valve Can to Final Grade	EA	17	325.00	5,525.00	400.00	6,800.00	385.00	6,545.00	400.00	6,800.00
22	Chlorinate and test pipeline	LS	1	5,000.00	5,000.00	4,400.00	4,400.00	6,000.00	6,000.00	1,300.00	1,300.00
<b>SUB-TOTAL, IMPROVEMENTS</b>					<b>\$288,647.00</b>		<b>\$308,135.00</b>		<b>\$373,010.00</b>		<b>\$442,430.00</b>

<b>Paulus Engineering</b> Attn: Jason Paulus Tel: 714.632.3975		<b>L&amp;S Construction</b> Attn: Elton Welham Tel: 714.528.3232		<b>Leatherwood Construction</b> Attn: Bobby Kawai Tel: 714.593.6575		<b>Moote Estimate</b> Attn: Tel:	
1		1		1		1	
PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
3,000.00	3,000.00	500.00	500.00	1,700.00	1,700.00	2,000.00	2,000.00
2,000.00	2,000.00	500.00	500.00	500.00	500.00	1,000.00	1,000.00
1,000.00	1,000.00	1,360.00	1,360.00	1,550.00	1,550.00	1,500.00	1,500.00
33.00	11,550.00	26.00	9,100.00	90.00	31,500.00	43.00	15,050.00
1,080.00	7,560.00	1,550.00	10,850.00	1,050.00	7,350.00	1,700.00	11,900.00
2,000.00	22,000.00	3,100.00	34,100.00	2,400.00	26,400.00	3,800.00	41,800.00
868.00	6,944.00	2,000.00	16,000.00	1,050.00	8,400.00	1,700.00	13,600.00
375.00	5,625.00	400.00	6,000.00	385.00	5,775.00	400.00	6,000.00
325.00	4,875.00	400.00	6,000.00	385.00	5,775.00	400.00	6,000.00
2,000.00	2,000.00	2,165.00	2,165.00	800.00	800.00	1,300.00	1,300.00
=====		=====		=====		=====	
<b>\$66,554.00</b>		<b>\$86,575.00</b>		<b>\$89,750.00</b>		<b>\$100,150.00</b>	

ITEM NO.	B. RECYCLED WATER NON-CAPITAL IMPROVEMENTS - IRWD CODE 6303	UNIT MEAS	QUAN
23	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1
24	2nd Mobilization	LS	1
25	Performance, Labor and Payment Bond, Complete	LS	1
26	Furnish and Install 4" PVC Purple Pipe, C-900, DR 14, w/trenching and bedding per IRWD Std. W-17 and all fittings, appurtenances and thrust blocks per IRWD Std. W-16 and W-19 and as shown on the plans	LF	350
27	Furnish and Install 4" RW Gate Valve, FExFE, including valve box per IRWD Std. W-22	EA	7
28	Furnish and Install 2" Copper Service and Meter Box for 2" Meter per IRWD Std. W-2	EA	11
29	Furnish and Install Temporary Flush-out Assembly per IRWD Std. W-12	EA	8
30	Raise Valve Can to Grade	EA	15
31	Raise Valve Can to Final Grade	EA	15
32	Chlorinate and test pipeline	LS	1

SUB-TOTAL, IMPROVEMENTS.....


<u>Paulus Engineering</u> Attn: Jason Paulus Tel: 714.632.3975		<u>L&amp;S Construction</u> Attn: Elton Welham Tel: 714.528.3232		<u>Leatherwood Construction</u> Attn: Bobby Kawai Tel: 714.593.6575		<u>Moote Estimate</u> Attn: Tel:			
1		1		1		1			
PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT		
2,000.00	2,000.00	900.00	900.00	600.00	600.00	700.00	700.00		
1,500.00	1,500.00	900.00	900.00	500.00	500.00	700.00	700.00		
400.00	400.00	240.00	240.00	425.00	425.00	300.00	300.00		
91.00	17,563.00	70.00	13,510.00	110.00	21,230.00	80.00	15,440.00		
1,260.00	6,300.00	1,100.00	5,500.00	1,350.00	6,750.00	1,300.00	6,500.00		
2,000.00	2,000.00	2,165.00	2,165.00	800.00	800.00	1,200.00	1,200.00		
<b>SUB-TOTAL, IMPROVEMENTS.....</b>		<b>\$29,763.00</b>		<b>\$23,215.00</b>		<b>\$30,305.00</b>		<b>\$24,840.00</b>	

ITEM NO.	C. NON-IRWD PRIVATE RECYCLED WATER IMPROVEMENTS	UNIT MEAS	QUAN
33.	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1
34.	2nd Mobilization	LS	1
35.	Performance, Labor and Payment Bond, Complete	LS	1
36.	Furnish and Install 6" PVC Purple Pipe, C-900, DR 14, w/trenching and bedding per IRWD Std. W-17 and all fittings, appurtenances and thrust blocks per IRWD Std. W-16 and W-19 and as shown on the plans	LF	193
37.	Furnish and Install Slope Anchors per IRWD Std. G-10	EA	5
38.	Chlorinate and test pipeline	LS	1

November 14, 2016

Prepared by: C. Kessler/K. Lew

Submitted by: K. Burton *(KLB)*

Approved by: Paul Cook 

## CONSENT CALENDAR

### PLANNING AREA 51 HERITAGE FIELDS CAPITAL FACILITIES

#### SUMMARY:

Heritage Fields El Toro, LLC (Heritage Fields) is proceeding with development of Planning Area (PA) 51, GP-1, GP-2 and GP-4 Streets and Irvine Boulevard which includes the construction of streets, storm drains, domestic water, sewer, and recycled water improvements. Staff recommends that the Board:

- Authorize the General Manager to execute a Supplemental Reimbursement Agreement (SRA) with Heritage Fields for the construction of IRWD's capital domestic water, sewer and recycled water facilities within GP-1, GP-2 and GP-4 Streets;
- Approve Contract Change Order (CCO) No. 1 to Projects 6536 and 6538 in the amount of \$107,411; and
- Approve CCO Nos. 3 and 4 to Project 6018 in the amounts of <\$68,715> and \$162,739, respectively.

#### BACKGROUND:

Heritage Fields is proceeding with development of the GP-1, GP-2 and GP-4 Streets within PA 51. The project location map is shown as Exhibit "A". As part of this development, Heritage Fields will design and construct IRWD's domestic water, sewer, and recycled water capital improvements. The required IRWD capital facilities are documented in the PA 51 Sub-Area Master Plan (SAMP) Update as prepared by Stantec in September 2016.

The design and construction of the IRWD facilities will be performed under the terms of the Master Reimbursement Agreement between Heritage Fields and IRWD that was approved by the Board in August 2012 and as further defined in this SRA. The SRA, which covers all of the capital facilities within GP-1, GP-2 and GP-4 Streets, is attached as Exhibit "B" and has been reviewed by IRWD's legal counsel.

#### PA 51 Sub-Area Master Plan Update:

Stantec prepared an update to the 2011 PA 51 SAMP which analyzes domestic water, sewer and recycled water demands based on the most current planning information. Calculations from the hydraulic model have identified several deficiencies in proposed pipelines as shown in Exhibit "A". Staff is processing several CCOs as a means to expedite the construction process to meet the surrounding development schedules. The cost of each the following CCOs utilizes unit pricing that is consistent with unit pricing in the original bids where the contractor was awarded the project based on lowest bid.

*GP-2 CCO No. 1*, as shown in Exhibit “C”, includes the deduction of approximately 2,730 feet of 10-inch recycled water pipeline and the addition of approximately 2,400 feet of 12-inch recycled water pipeline and six butterfly valves. CCO No. 1, in the amount of \$107,411, is for the equipment, material, and labor to perform the aforementioned modifications.

*Irvine Boulevard Phase 2 CCO Nos. 3 and 4*, as shown in Exhibit “D”, includes the deduction of approximately 110 feet of 6-inch recycled water pipeline, reduction of 80 feet of 10-inch pipeline, addition of approximately 160 feet of 8-inch recycled water pipeline and the addition of approximately 160 feet of 16-inch recycled water pipeline. CCO No. 1, in the amount of \$107,411, is for the equipment, material, and labor to perform the aforementioned modifications.

FISCAL IMPACTS:

Projects 6536, 6538, and 6018 are included in the FY 2016-17 Capital Budget and have adequate budget.

ENVIRONMENTAL COMPLIANCE:

Construction of capital domestic water, sewer, and recycled water facilities for the Great Park Development is subject to CEQA. In conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, an Environmental Impact Report was certified by the City of Irvine, the lead agency on April 4, 2012 (SCH# 2002101020).

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on November 10, 2016.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A SUPPLEMENTAL REIMBURSEMENT AGREEMENT WITH HERITAGE FIELDS FOR PLANNING AREA 51, GP-1, GP-2 AND GP-3 STREETS; APPROVE CONTRACT CHANGE ORDER NO. 1 TO PROJECTS 6536 AND 6538 IN THE AMOUNT OF \$107,410.50; AND APPROVE CONTRACT CHANGE ORDERS NOS. 3 AND 4 TO PROJECT 6018 IN THE AMOUNTS OF <\$68,715.00> AND \$162,739.00, RESPECTIVELY.

- Exhibit “A” – Location Map
- Exhibit “B” – Supplemental Reimbursement Agreement
- Exhibit “C” – Contract Change Order No. 1
- Exhibit “D” – Contract Change Orders Nos. 3 and 4



# EXHIBIT "A"

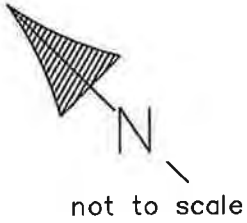
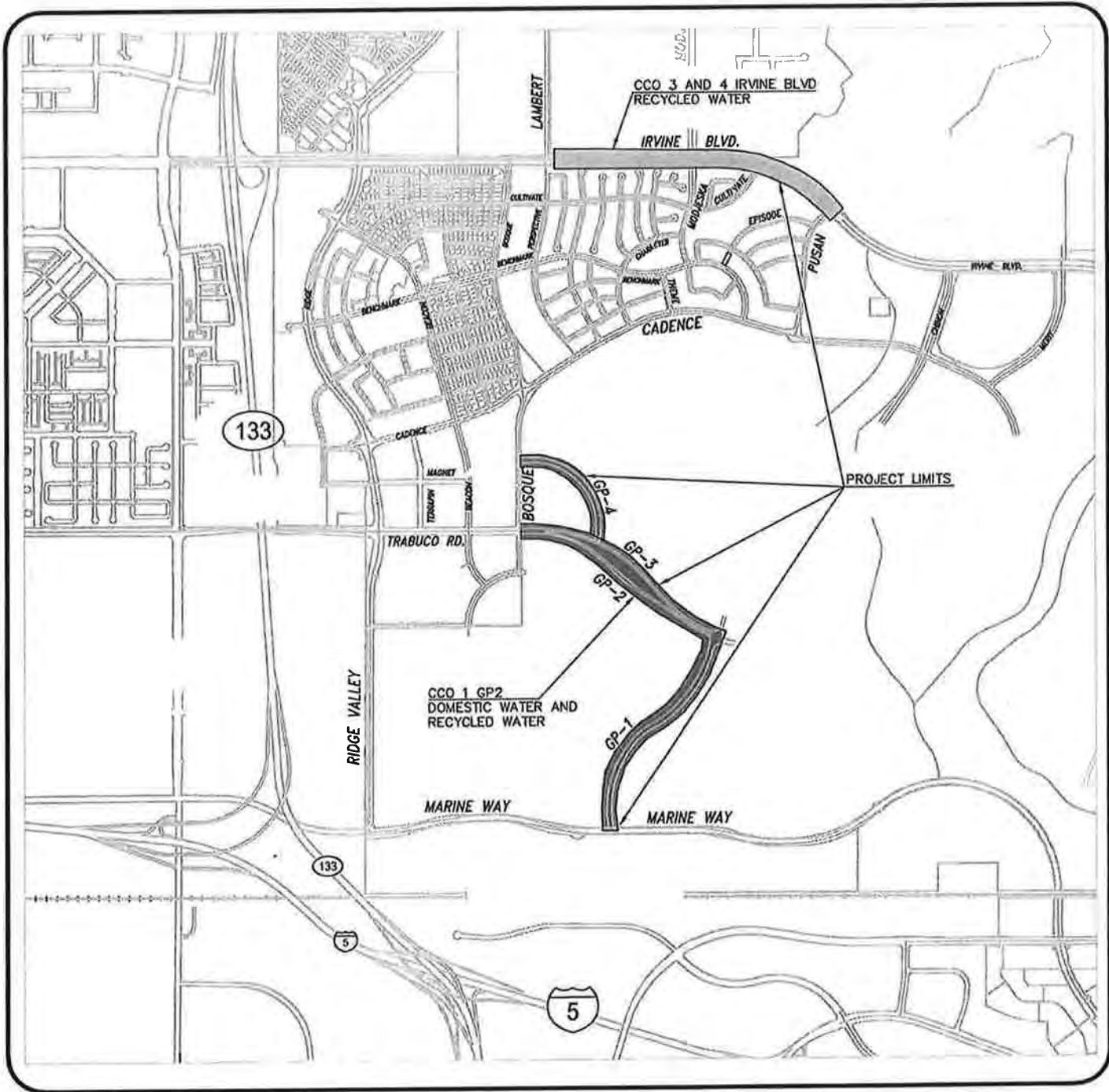


EXHIBIT "A"  
LOCATION MAP

# EXHIBIT "B"

EXHIBIT "A"  
to Reimbursement Agreement

SUPPLEMENTAL REIMBURSEMENT AGREEMENT  
BY AND BETWEEN  
IRVINE RANCH WATER DISTRICT  
AND  
HERITAGE FIELDS EL TORO, LLC

This SUPPLEMENTAL REIMBURSEMENT AGREEMENT ("Agreement") is entered into as of this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by and between Irvine Ranch Water District, a California water district formed and existing pursuant to the California Water District Law of the State of California ("IRWD"), and Heritage Fields El Toro, LLC, a Delaware limited liability company ("COMPANY"). All capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Reimbursement Agreement.

WHEREAS, IRWD and COMPANY have previously entered into that certain Reimbursement Agreement dated \_\_\_\_\_ ("Reimbursement Agreement") respecting construction of Capital Facilities; and

WHEREAS, said Reimbursement Agreement made reference to the fact that certain supplemental agreements would be entered into by the parties regarding construction of Capital Facilities and reimbursement therefor consistent with the provisions of said Reimbursement Agreement; and

WHEREAS, the parties now wish to enter this Agreement regarding the construction of Capital Facilities described below, subject to all of the terms of the Reimbursement Agreement, except as provided herein.

NOW, THEREFORE, the parties agree, in consideration of the mutual promises and covenants hereinafter set forth, do agree as follows:

1. Except as provided herein, the parties hereby incorporate by reference all of the terms and conditions of the Reimbursement Agreement into this Agreement.
2. The name of the Project to which this Agreement pertains is: Planning Area 51, GP Streets Domestic Water, Sanitary Sewer and Recycled Water Capital Facilities.

The Project is depicted on Exhibit "1" attached to this Agreement.

3. The Capital Facilities to be constructed pursuant to this Agreement are as follows: Approximately 6,500 lineal feet of 12-inch domestic water pipeline, 3,000 lineal feet of 15-inch sewer pipeline, 3,500 lineal feet of 18-inch sewer pipeline, 5,500 lineal feet of 10-inch recycled water pipeline, and 6,700 lineal feet of 12-inch recycled water pipeline within GP-1, GP-2 and GP-4 Streets as shown in Exhibit "1".



4. The total costs for the Capital Facilities shall include, but not limited to, the actual costs for construction, surveying, compaction testing, permits, construction bonds, legal fees and an administration fee equal to one percent (1%) of the actual cost of construction (all such actual costs are collectively referred to as the "Costs"). The estimated amount of the Costs is \$3,200,000.

5. The following special terms apply to the construction of the Capital Facilities under this Agreement and supersede the provisions of the original Reimbursement Agreement referenced above: None.

6. In accordance with Section 10 of the Reimbursement Agreement, COMPANY is executing concurrently herewith an Assignment Agreement in the form of Exhibit 2, to be effective upon the Effective Date specified in the Assignment Agreement.

IN WITNESS WHEREOF, the parties have entered this Agreement as of the date set forth above.

IRVINE RANCH WATER DISTRICT

By: \_\_\_\_\_  
General Manager

[SIGNATURES CONTINUED]

HERITAGE FIELDS EL TORO, LLC,  
a Delaware limited liability company

By: Heritage Fields El Toro Sole Member LLC,  
a Delaware limited liability company  
Its: Sole Member

By: Heritage Fields LLC,  
a Delaware limited liability company  
Its: Sole Member

By: Lennar Heritage Fields, LLC,  
a California limited liability company  
Its: Administrative Member

By: Lennar Homes of California, Inc.,  
a California corporation  
Its: Sole Member

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Title: \_\_\_\_\_

EXHIBIT "1"  
to  
Supplemental Reimbursement Agreement

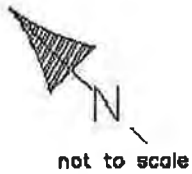
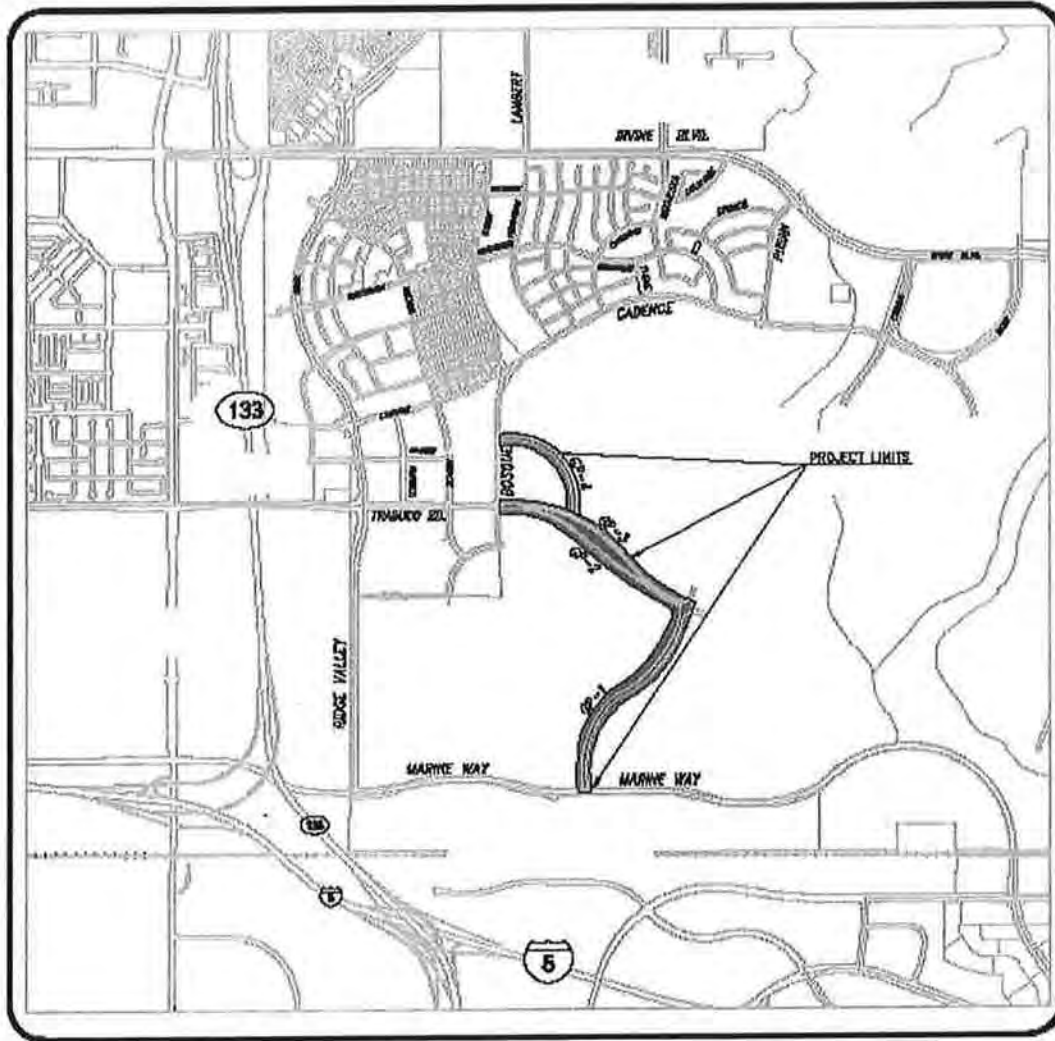


EXHIBIT "1"  
LOCATION MAP

EXHIBIT "2"  
to  
Supplemental Reimbursement Agreement

Assignment Agreement

This Assignment Agreement is made as of \_\_\_\_\_, 20\_\_, by and between HERITAGE FIELDS EL TORO, LLC, a Delaware limited liability company ("Assignor"), to IRVINE RANCH WATER DISTRICT, a California water district formed and existing pursuant to the California Water District Law of the State of California ("Assignee") based upon the following recitals:

A. Assignor has previously (or will, prior to the Effective Date hereof, have) entered into that certain Construction Contract to the Project and Capital Facilities identified in Schedule A hereto (the "Construction Contract").

B. Assignee desires to acquire (I) Assignor's right, title and interest in and to the Capital Facilities constructed under the Construction Contract, and (II) the warranty rights of Assignor as to the Capital Facilities under the Construction Contract, and Assignor desires to assign such rights to Assignee.

NOW, THEREFORE, in consideration of the foregoing, the covenants and agreements contained herein and other valuable consideration, receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. ASSIGNMENT. Effective upon the date specified in Section 2 hereof (the "Effective Date"), Assignor assigns and transfers to Assignee all of Assignor's right, title, claim and interest in and to (a) the Capital Facilities constructed pursuant to the Construction Contract, and (b) the warranties and guarantees of contractor as to the Capital Facilities constructed pursuant to the Construction Contract. This Assignment is made by Assignor pursuant to the provisions of Section 10, entitled "Assignment of Interest", contained in that certain Reimbursement Agreement between Assignor and Assignee dated as of \_\_\_\_\_.

2. EFFECTIVE DATE. The Effective Date shall be the date of the filing of the Notice of Completion for the Construction Contract unless a different date is inserted in the following space: \_\_\_\_\_.

3. TRANSFER OF DOCUMENTATION. On or prior to the Effective Date, Assignor shall provide Assignee with a copy of the Construction Contract.

IN WITNESS WHEREOF, Assignor has executed this Assignment Agreement as of the date first above written.

ASSIGNOR:

HERITAGE FIELDS EL TORO, LLC,  
a Delaware limited liability company

By: Heritage Fields El Toro Sole Member LLC,  
a Delaware limited liability company  
Its: Sole Member

By: Heritage Fields LLC,  
a Delaware limited liability company  
Its: Sole Member

By: Lennar Heritage Fields, LLC,  
a California limited liability company  
Its: Administrative Member

By: Lennar Homes of California, Inc.,  
a California corporation  
Its: Sole Member

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Title: \_\_\_\_\_

Schedule A  
to  
Assignment Agreement

This Schedule A to Assignment Agreement relates to the assignment of certain matters pursuant to the Supplemental Reimbursement Agreement between Assignor and Assignee dated \_\_\_\_\_ ("Supplemental Reimbursement Agreement").

Planning Area 51, GP Streets Domestic Water, Sanitary Sewer and Recycled Water Capital Facilities:

\_\_\_\_\_  
\_\_\_\_\_  
Approximately 6,500 lineal feet of 12-inch domestic water pipeline, 3,000 lineal feet of 15-inch sewer pipeline, 3,500 lineal feet of 18-inch sewer pipeline, 5,500 lineal feet of 10-inch recycled water pipeline, and 6,700 lineal feet of 12-inch recycled water pipeline within GP-1, GP-2 and GP-4 Streets as shown in Exhibit "1":

\_\_\_\_\_  
\_\_\_\_\_  
Contractor's Name: \_\_\_\_\_

License No.: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Contact Person: \_\_\_\_\_

# EXHIBIT "C"

CHANGE NO.: 1  
DATE: 08/04/2016

## POTENTIAL CHANGE OF WORK ACKNOWLEDGEMENT & VALUE (FOR IRWD CAPITAL IMPROVEMENTS)

The purpose of this form is to acknowledge a change in work for the intent of reimbursement of costs. Upon acceptance a change order will be issued.

Contract No.: 20051508 Owner: Heritage Fields El Toro, LLC  
Sewer  Contractor: L&S Construction, Inc.  
Domestic Water   
Reclaim Water  Design Engineer: Hunsaker & Associates  
Other  IRWD Mgr: Kelly Lew

Project Description: GP-2, IRWD Code No. 6518 Recycled, Domestic & Sewer Water Capital Facilities

### PART A - POTENTIAL CHANGE OF WORK:

Plan Revision Required:  YES  NO Estimated Cost: \$107,410.50

Change Initiated By: \_\_\_\_\_

Work Description:  
Delta 0 plan change from bid set to permitted set. Replacement of the 10" PVC recycled water pipe with a 12" PVC recycled water pipe due to SAMP update.

- Submitted by: [Signature]  
Owner Representative / Date
- In IRWD's opinion the aforementioned work does  qualify as a potential change in work; does not
- IRWD comments (required if representative does not concur with the potential change):
- Reviewed by: Christina Venz 10/28/16 KAL  
IRWD Representative / Date
- Received and Recorded by: \_\_\_\_\_  
Owner Representative / Date

### PART B - CHANGE OF WORK VALUE: \$ 107,410.50

- Detailed Backup Attached
- Submitted by: [Signature] 8/11/16  
Owner Representative / Date
  - Recommended by: \_\_\_\_\_  
IRWD Representative / Date

# EXHIBIT "D"

CHANGE NO.: 3  
DATE: 3/7/2016

## POTENTIAL CHANGE OF WORK ACKNOWLEDGEMENT & VALUE (FOR IRWD CAPITAL IMPROVEMENTS)

The purpose of this form is to acknowledge a change in work for the intent of reimbursement of costs. Upon acceptance a change order will be issued.

Contract No.: 20051507 Owner: Heritage Fields El Toro, LLC  
Sewer  Contractor: Leatherwood Construction, Inc.  
Domestic Water   
Reclaim Water  Design Engineer: Hunsaker & Associates  
Other  IRWD Mgr. Kelly Lew

Project Description: Irvine Boulevard Phase 2 IRWD Capital Recycled, Domestic & Sewer Facilities

### PART A - POTENTIAL CHANGE OF WORK:

Plan Revision Required:  YES  NO Estimated Cost: (\$68,715.00)

Change Initiated By: \_\_\_\_\_

#### Work Description:

Plan revisions to Code 6352 deducted quantities to the originally contracted Recycled Water (line items 17-19, 22-25, 40 & 41)

1. Submitted by: [Signature] 6/18/16  
Owner Representative / Date

2a. In IRWD's opinion the aforementioned work **does**  **does not**   
qualify as a potential change in work.

2b. IRWD comments (required if representative does not concur with the potential change):

2c. Reviewed by: [Signature] 10/28/16 KNL  
IRWD Representative / Date

3. Received and Recorded by: \_\_\_\_\_  
Owner Representative / Date

### PART B - CHANGE OF WORK VALUE:

\$ (\$68,715.00)

Detailed Backup Attached

1. Submitted by: [Signature] 6/17/16  
Owner Representative / Date

2. Recommended by: \_\_\_\_\_  
IRWD Representative / Date



CHANGE NO.: 4  
DATE: 3/7/2016

**POTENTIAL CHANGE OF WORK ACKNOWLEDGEMENT & VALUE  
(FOR IRWD CAPITAL IMPROVEMENTS)**

The purpose of this form is to acknowledge a change in work for the intent of reimbursement of costs. Upon acceptance a change order will be issued.

Contract No.: 20051507 Owner: Heritage Fields El Toro, LLC  
Sewer  Contractor: Leatherwood Construction, Inc.  
Domestic Water   
Reclaim Water  Design Engineer: Hunsaker & Associates  
Other  IRWD Mgr. Kelly Lew

Project Description: Irvine Boulevard Phase 2 IRWD Capital Recycled, Domestic & Sewer Facilities

**PART A - POTENTIAL CHANGE OF WORK:**

Plan Revision Required:  YES  NO Estimated Cost: \$162,739.00

Change Initiated By: \_\_\_\_\_

Work Description:  
Plan revisions to Code 6352 added quantities to the Recycled Water

- Submitted by: [Signature] 6/13/16  
Owner Representative / Date
- In IRWD's opinion the aforementioned work does  does not   
qualify as a potential change in work.
- IRWD comments (required if representative does not concur with the potential change):
- Reviewed by: [Signature] 10/28/16 KNL  
IRWD Representative / Date
- Received and Recorded by: \_\_\_\_\_  
Owner Representative / Date

**PART B - CHANGE OF WORK VALUE:** \$ \$162,739.00

Detailed Backup Attached  [Signature]

- Submitted by: [Signature] 6/13/16  
Owner Representative / Date
- Recommended by: \_\_\_\_\_  
IRWD Representative / Date

November 14, 2016

Prepared by: J. McGehee/R. Mori

Submitted by: K. Burton *(KLB)*

Approved by: Paul Cook *(Signature)*

## CONSENT CALENDAR

### PETERS CANYON WASH CHANNEL WATER CAPTURE AND REUSE PIPELINE RETENTION REDUCTION

#### SUMMARY:

The Peters Canyon Wash Channel Water Capture and Reuse Pipeline project is about 99% complete. The project will divert nuisance surface and perched groundwater flows with high concentrations of selenium and nitrates from selected tributaries to Peters Canyon Wash Channel and deliver them in a pressure pipeline to the Main Street sewer that discharges to the Orange County Sanitation District (OCSD) for treatment and reuse. The project will discharge to OCSD under the terms of OCSD's Dry Weather Urban Runoff Discharge Program (Resolution No. OCSD 13-09). Staff recommends that the Board authorize reduction of retention from 5% to 1% of the contract amount for the Peters Canyon Wash Channel Water Capture and Reuse Pipeline.

#### BACKGROUND:

The City of Irvine, City of Tustin, Orange County Flood Control District (OCFCD), County of Orange (County) and California Department of Transportation (Caltrans) are all "Funding Parties" that have agreed to pay the capital costs to design and construct the project. While IRWD is not contributing to the capital cost of the project, staff is responsible for managing the design and construction phases and for operation and maintenance costs of the constructed project up to a maximum of \$60,000 per year. By participating in the project, IRWD will receive "Nitrogen and Selenium Credits" expected to be generated by the project that can be used throughout the San Diego Creek watershed including the San Joaquin Marsh. Caltrans currently discharges shallow groundwater from its SR-261 dewatering operations at the Caltrans Ground Water Treatment Facility (GWTF) to IRWD's Harvard Avenue Trunk Sewer (HATS). This project will also connect to the GWTF, which will allow delivery of the Caltrans' dewatering flows to OCSD through the project pipeline.

#### Construction Contract Retention Reduction:

E.J. Meyer Company has completed construction of all base contract work including punch list items, final cleanup, record drawings, and operations and maintenance manuals. The remaining activities to be completed are change order work including installation of new inlet grates within the Valencia and Edinger storm drains, installation of revised water quality sampling assemblies, and additional work within the Caltrans GWTF. These additional work items have been delayed due to circumstances beyond E.J. Meyer Company's control and are scheduled to be completed by the end of the year. With all of the base contract work complete, E.J. Meyer Company requested that the retention be reduced from 5% of the contract amount to 1% of the contract amount. Staff recommends approval of the retention reduction as the 1% retention provides adequate funding to cover the remaining change order work elements.

FISCAL IMPACTS:

Project 4985 is included in the FY 2016-17 Capital Budget. The existing budget is sufficient to fund the recommendations presented herein.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA) and in conformance with California Code of Regulations Title 14, Chapter 3, Article 6, a Notice of Intent to adopt a Mitigated Negative Declaration was filed with the County of Orange on January 15, 2015. Pursuant to State Guideline § 15073, the IS/MND was made available for public review for a period of 30 days from January 15, 2015 through February 13, 2015. The IS/MND was adopted by IRWD Board of Directors at its April 27, 2015 meeting. A Notice of Determination was filed with the Orange County Clerk/Recorder and the CA State Clearinghouse on April 28, 2015.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on November 10, 2016.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE REDUCTION OF RETENTION FROM 5% TO 1% OF THE CONTRACT AMOUNT FOR THE PETERS CANYON WASH CHANNEL WATER CAPTURE AND REUSE PIPELINE, PROJECT 4985.

LIST OF EXHIBITS:

None.

November 14, 2016

Prepared by: T. Bonkowski/M. Cortez

Submitted by: K. Burton

Approved by: Paul Cook 

## CONSENT CALENDAR

### LAKE FOREST ZONE A RESERVOIR DEMOLITION CONSTRUCTION AWARD

#### SUMMARY:

The Lake Forest Zone A Reservoir Demolition project will demolish one of two existing two-million-gallon welded steel reservoirs and its associated piping and appurtenances adjacent to the Baker Water Treatment Plant. Staff recommends that the Board:

- Authorize a budget increase in the amount of \$125,000, from \$160,600 to \$285,600;
- Find that the irregularities in the bid submitted by SoCal Removal on October 27, 2016 did not affect the amount of the bid or afford SoCal Removal a competitive advantage and waive the irregularities; and
- Authorize the General Manager to execute a construction contract with SoCal Removal in the amount of \$123,837.60 for the Lake Forest Zone A Reservoir Demolition.

#### BACKGROUND:

There are two two-million-gallon steel Zone A reservoirs adjacent to the Baker Water Treatment Plant. As part of the Serrano Summit Development in Lake Forest, this project will demolish the older, westernmost above-grade recycled water reservoir to make room for a storm water detention basin. The scope of work includes the removal of the tank and foundation, asphalt paving, storage areas for gravel and fill material, miscellaneous at-grade piping, and a segment of the existing asbestos cement pipeline connecting the two steel tanks. At completion, the area will be finish graded.

#### Construction Award:

The project was advertised to a select list of nine contractors on October 11, 2016. The bid opening was held on October 27, 2016, with one bid received from SoCal Removal making SoCal Removal the apparent low bidder with a bid amount of \$123,837.60. The engineer's estimate was \$197,000.

Staff reviewed SoCal Removal's bid and identified three irregularities. First, SoCal Removal does not possess a Class A license as specified in the project manual. Instead, SoCal Removal possesses a Class B (general building) and Class C21 (building demolition) license. Second, SoCal Removal provided a total lump sum bid and did not include the individual costs for base bid items of work as reflected on the bid form. Third, SoCal Removal did not reflect the License or Department of Industrial Relation registration numbers for its subcontractors. SoCal Removal provided this information at staff's request. Staff conferred with legal counsel and legal counsel concurred that there is a sufficient basis for a factual finding by the Board that the irregularities in SoCal Removal's bid are inconsequential and did not affect the bid amount or give the bidder a competitive advantage over other bidders since there were none. Staff recommends waiving the bid irregularities and awarding the construction contract to SoCal Removal in the amount of

\$123,837.60. This will be SoCal Removal's first project with the District. The Bid Summary is attached as Exhibit "A".

FISCAL IMPACTS:

Project 7094 is included in the FY 2016-17 Capital Budget. Staff requests a budget increase in the amount of \$125,000 to fund construction of the project as shown in the table below:

Project No.	Current Budget	Addition <Reduction>	Total Budget
7094	\$160,600	\$125,000	\$285,600

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 26, 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 on March 15, 2012, and March 12, 2013, respectively.

COMMITTEE STATUS:

Construction awards are not routinely taken to Committee prior to submittal to the Board.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE IN THE AMOUNT OF \$125,000, FROM \$160,600 TO \$285,600, FOR PROJECT 7094; FIND THAT THE IRREGULARITIES IN THE BID SUBMITTED BY SOCAL REMOVAL ON OCTOBER 27, 2016 DID NOT AFFECT THE AMOUNT OF THE BID OR AFFORD SOCAL REMOVAL A COMPETITIVE ADVANTAGE AND WAIVE THE IRREGULARITIES; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH SOCAL REMOVAL IN THE AMOUNT OF \$123,837.60 FOR THE LAKE FOREST ZONE A RESERVOIR DEMOLITION, PROJECT 7094.

LIST OF EXHIBITS:

Exhibit "A" – Bid Summary

## EXHIBIT "A"

Bid Opening: Thursday, October 27, 2016 at 2 PM

Entered By: Natalie Castaneda

IRWD BID SUMMARY  
 Lake Forest Zone A Reservoir Demolition  
 PR 7094, Code 6853

						1	
						<b>Engineer's Estimate</b>	
						<b>Andre Abajian c/o So. Cal Removal</b>	
						15801 Rockfield Blvd., Ste G Irvine, CA 92618	
Item No.	Description	Qty.	Unit	Unit Price	Total Bid Amount	Unit Price	Total Bid Amount
1	Mobilization and Demobilization	1	LS	\$14,000.00	\$14,000.00		
2	Miscellaneous Site and Structural Demolition	1	LS	\$149,000.00	\$149,000.00		
3	Earthwork and Grading	1	LS	\$30,000.00	\$30,000.00		
4	Trench Safety Measures	1	LS	\$2,000.00	\$2,000.00		
5	Final Record Drawing	1	LS	\$1,000.00	\$1,000.00		
<b>TOTAL AMOUNT OF BID</b>					<b>\$196,000.00</b>	Lump Sum	<b>\$123,831.60</b>
						<b>Manufactures:</b>	
						N/A	
						<b>Subcontractors:</b>	
						Jonathan Jackson (486266): Abatement	
						Ecology Transportation Recycling Service: Hauling & Recycling	

November 14, 2016

Prepared by: C. Spangenberg/M. Cortez

Submitted by: K. Burton

Approved by: Paul Cook 

## ACTION CALENDAR

### DYER ROAD WELLFIELD WELL 18 REHABILITATION BUDGET INCREASE AND CONTRACT CHANGE ORDER

#### SUMMARY:

The Dyer Road Wellfield (DRWF) Well 18 Rehabilitation Project will rehabilitate the well to remove chemical and biological material from the well's wire wrapped perforations and restore its production capacity. Staff recommends that the Board:

- Increase the budget for Project 4401 in the amount of \$187,000, from \$770,000 to \$957,000, and
- Authorize the General Manager to execute Contract Change Order No. 1 with Best Drilling and Pump, Inc. in the amount of \$323,682 for the Dyer Road Wellfield Well 18 Rehabilitation.

#### BACKGROUND:

In July 2016, Best Drilling and Pump, Inc. (Best) was awarded the construction contract for the DRWF Well 18 Rehabilitation Project to remove chemical and biological material from the well's wire wrapped perforations and to restore its production capacity. A location map of Well 18 is attached as Exhibit "A". Best began rehabilitation activities in September 2016, and completed brushing, bailing and initial chemical development of the well in October 2016.

#### Contract Change Order (CCO) No. 1:

After completing the brushing and bailing and the initial chemical development, a video inspection of the well identified a large hole in the wire-wrapped portion of the casing at a depth of 805 feet below ground surface. The District's consultant, Richard C. Slade and Associates (RCS), reviewed the inspection video and also noted that the mild steel wire wrapped perforations were completely sealed with biological and inorganic material with extensive corrosion. The entire well is constructed of mild steel that becomes brittle with age, losing its structural integrity. Mild steel has a life expectancy of 20 years. Since Well 18 is 33 years old, completing the extensive chemical and mechanical development included in the current scope of work would greatly increase the risk of losing the well due to potential failure of the mild steel casing. Based on the recommendations of RCS and Best, installation of a stainless steel liner instead of performing the remaining chemical and mechanical development work would complete the remaining rehabilitation of Well 18 and increase the physical integrity and useful life of the well. Installation of the stainless steel liner over the entire length of the well casing is significantly less costly than drilling a replacement well and will extend the life of the well beyond 20 additional years.

Best submitted a proposal in the amount of \$335,855 for the installation of the well liner and associated gravel pack. Staff reviewed the cost and determined it to be reasonable, with a unit



cost of \$308 per foot of liner compared to \$295 per foot of liner for Well 3. Staff recommends approval of CCO No. 1, attached as Exhibit "B", in the amount of \$323,682 with Best. CCO No. 1 includes a credit amount of <\$12,173> for field inspection services provided by RCS during the successful retrieval of the lost tool and brush down well. The well liner has a delivery time of two weeks, and installation will take approximately three weeks. Once the well liner is installed, staff anticipates that the remainder of the well rehabilitation activities will be completed by January 2017.

FISCAL IMPACTS:

Project 4401 is included in the FY 2016-17 Capital Budget. Staff requests a budget increase to fund the construction of the well liner as shown in the table below:

Project No.	Current Budget	Addition <Reduction>	Total Budget
4401	\$770,000	\$187,000	\$957,000

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 Orange County Clerk/Recorder on April 13, 2016.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on November 10, 2016.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE IN THE AMOUNT OF \$187,000, FROM \$770,000 TO \$957,000; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE CONTRACT CHANGE ORDER NO. 1 WITH BEST DRILLING AND PUMP, INC. IN THE AMOUNT OF \$323,682 FOR THE DYER ROAD WELLFIELD WELL 18 REHABILITATION, PROJECT 4401.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Contract Change Order No. 1



EXHIBIT "A"



**RICHARD C. SLADE & ASSOCIATES LLC**  
CONSULTING GROUNDWATER GEOLOGISTS  
14051 Burbank Blvd., Suite 300  
Sherman Oaks, CA 91401  
Southern California: (818) 506-0418  
Northern California: (707) 963-3914

**FIGURE 1**  
**WELL LOCATION MAP**  
**DYER ROAD WELLFIELD WELL NO. 18**  
Job No. 382-OGE16-DRW18 April 2016

# EXHIBIT "B"

CONT

R



## Irvine Ranch Water District

15600 Sand Canyon Avenue  
P.O. Box 57000  
Irvine, CA 92619-7000  
(949) 453-5300

C.O. No. One

Final

Project No. 4401

Dyer Road Wellfield Well No. 18 Rehabilitation

Date: 11/3/2016

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
1. No cost time extension for retrieval of lost tool and brush down well.	\$ -	\$ -	36
2. Credit to Irvine Ranch Water District for Richard C. Slade field inspection during retrieval of lost tool and brush down well (see invoice 3606 attached)	\$ -	\$ 12,173.00	
3. Furnish and install 18" x 12" 304L Stainless Steel Liner as per (attached Proposal Dated 11/1/16)	\$ 335,855.00	\$ -	35
NOTE: The Contract Completion date is revised to January 25, 2017 with this change order.			
<b>TOTAL</b>	<b>\$ 335,855.00</b>	<b>\$ 12,173.00</b>	<b>71</b>

DAYS ±

1. NET AMOUNT THIS CHANGE ORDER	= \$	323,682.00	71
2. ORIGINAL CONTRACT AMOUNT	= \$	345,520.00	120
3. TOTAL PREVIOUS CHANGE ORDER(S)	= \$	-	0
4. TOTAL BEFORE THIS CHANGE ORDER (2+ 3)	= \$	345,520.00	120
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4)	= \$	669,202.00	191

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

Three Hundred Twenty Three Thousand Six Hundred Eighty Two and 0/100

----- Dollars

11/2/2016

Best Drilling and Pump, Inc.


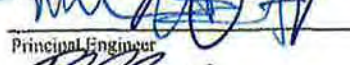
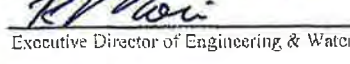
Chris B

Date

Contractor

By:

Chris Brown

SIGNATURE	DATE	APPROVAL LEVEL REQUIRED
 IRWD (Engineer/Consulting Engineer)	<u>11/3/16</u> Date	Department Director Approval Required <input type="checkbox"/>
 Principal Engineer	<u>11/3/16</u> Date	Executive Director Approval Required <input type="checkbox"/>
 Executive Director of Engineering & Water Quality	<u>11/03/16</u> Date	General Manager Approval Required <input type="checkbox"/>
General Manager	Date	Board Approval Required <input checked="" type="checkbox"/>
		Purchase Order No. 531854

NOTE: The documents supporting this Change Order, including any drawings and estimates of cost, if required are attached hereto and made

CHANGES: All workmanship and materials called for by this Change 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 Change Order. The time for completing the contract will not be extended unless expressly provided for in this Change Order.



**Quotation Form**

**Customer:** IRWD  
 15600 Sand Canyon ave.  
 Irvine, CA 92618

**Proposal #:** 20887  
**Contact:** Chris Brown

**Date:** 11/1/2016

**Well or Description of Work:** Furnish and Install 18" x 12" 304L Stainless Steel Liner insider Dyer Wellfield Well 18.

**Terms:** Net 30

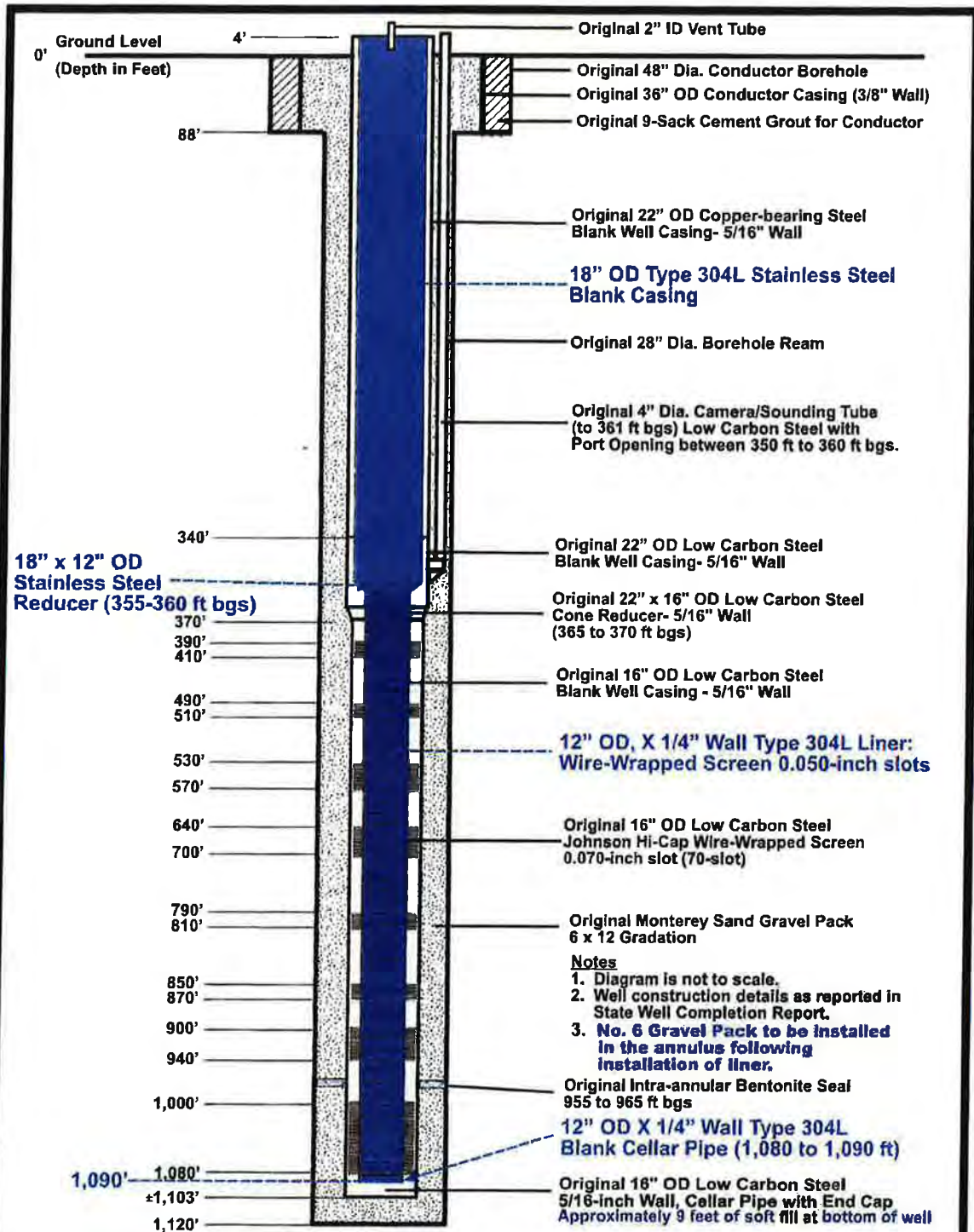
Quantity	Description	Price	Unit	Total
1	Mob and Demob to Install Liner	\$ 7,500.00	LS	\$7,500.00
1	360' 18" OD 304L SS Blank Casing A778 5/16" wall	\$142,260.00	LS	\$142,260.00
1	18" x 12-3/4" x 3/8" wall 304L SS Reducer (5 ft)	\$6,850.00	EA	\$6,850.00
1	720' 12-3/4" OD 304L SS .050 Wire Wrap Screen 165 x 250 Wire, 250 Rod-60 ct., 189PSI Collapse 30,900 Lbs Safe Hang Wt.	\$103,850.00	LS	\$103,850.00
1	10' 12-3/4" OD x 1/4" A778 304L SS Blank	\$3,400.00	EA	\$3,400.00
1	21 yards #6 Gravel Pack	\$11,445.00	LS	\$11,445.00
1	Perform Caliper and Gyro of Well prior to installation of New Liner	\$4,800.00	LS	\$4,800.00
1	Labor to Install Liner and gravel pack between existing casing and new liner	\$55,750.00	LS	\$55,750.00
	Delivery of Material is 10-14 days ARO FOB: Los Angeles, CA			
	<b>TOTAL</b>			<b>\$335,855.00</b>

If above referenced quote meets your approval, please sign below and return.

**Authorized Signature:** \_\_\_\_\_ **Title:** \_\_\_\_\_

**Date:** \_\_\_\_\_ **Purchase Order No:** \_\_\_\_\_





Not to Scale

**RCS** RICHARD C. SLADE & ASSOCIATES LLC  
 CONSULTING GROUNDWATER GEOLOGISTS  
 14051 Burbank Blvd., Suite 300  
 Sherman Oaks, CA 91401  
 Southern California: (818) 506-0418  
 Northern California: (707) 963-3914

**FIGURE 2**  
**AS-BUILT WELL & PROPOSED**  
**CASING LINER DIAGRAM**  
**IRWD DRWF WELL NO. 18**  
 Job No. 382-OGE16-18      October 2016



**Richard C. Slade & Associates LLC**  
 Consulting Groundwater Geologists  
 14051 Burbank Blvd. Suite 300  
 Sherman Oaks, CA 91401

**Invoice**

Date	Invoice #
10/17/2016	3606

Billing period September 1 - 30, 2016

**Bill To**

Irvine Ranch Water District  
 apinvoices@irwd.com

**Client Information**

Contract #	PO 529557 PR 4401
Contact Person	Carl Spangenberg
Project Title	Tasks 1-3, DRWF Well 18

**Terms**

Due on receipt

Contract Amount	Previously Billed Amount	Job #
\$58,600.00	\$19,300.50	382-OGE16-18

**Groundwater Services**


Description	Hrs/Qty	Rate	Amount
Principal Groundwater Geologist	1	275.00	275.00
Field Work/Geologic Logging	125	99.00	12,375.00
Senior Groundwater Geologist	3	194.00	582.00
Staff Groundwater Geologist	4	156.00	624.00
Miscellaneous Direct Costs (mileage, phone & fax, repro, etc)		503.00	503.00
<i>Item 2</i> Site visits to observe: fishing for lost tool downwell (at request of IRWD - out of contract hours, enumerated below). Field Geologist: 108 hours at \$99.00/hr = \$10,692.00 Principal Geologist: 1 hour at \$275/hr = \$275.00 Senior Geologist: 3 hours at \$194/hr = \$582.00 Staff Geologist: 4 hours at \$156/hr = \$624.00 <b>Total = \$12,173.00</b>			
Site visits to observe: brushing of casing of Well No. 18; and video survey (17 in-contract hours).			
<b>Total</b>			\$14,359.00

**NOTE: WE'VE MOVED! Please reference INVOICE NUMBER on all checks and make payable to: Richard C. Slade & Associates LLC, 14051 Burbank Blvd., Suite 300, Sherman Oaks, CA 91401**

Phone # (818) 506-0418

AccountsReivable@rcslade.com

Tax ID #: 95-4711388

November 14, 2016  
Prepared by: J. Lam/J. Zepeda  
Submitted by: P. Shields  
Approved by: Paul Cook 

## ACTION CALENDAR

### MEMBRANE BIOREACTOR LEAPmbr CONVERSION

#### SUMMARY:

As part of the Michelson Water Recycling Plant (MWRP) Phase II Expansion Project, a Membrane Bioreactor (MBR) system was installed and fully commissioned in 2014. General Electric (GE), the MBR system manufacturer, has developed an upgrade that enhances the energy efficiency of the system. This enhancement, known as the LEAPmbr, maintains the same treatment capacity and effluent quality while significantly reducing energy usage. The conversion to LEAPmbr requires the installation of air scouring retrofit kits and modification of the control system software. The existing membrane warranty period will be extended by GE for two years. Southern California Edison (SCE) is providing a financial incentive for this project of up to \$112,000. The incentive is available only if the project is completed within 12 months of SCE's approval which was granted in September 2016. Staff recommends that the Board authorize the General Manager to execute a contract with GE in the amount of \$380,999 for the implementation of the LEAPmbr conversion technology.

#### BACKGROUND:

As part of the MWRP Phase II Expansion Project, a 10.6 million gallons per day (MGD) MBR system was installed and placed online in 2014. The MBR process achieves a liquid/solids separation through submerged membranes that have a nominal pore size of 0.04 microns. These membranes, which are housed in 56 cassettes, are cleaned through air scouring at frequent intervals in order to maintain their integrity and performance. The proposed LEAPmbr conversion project will physically modify air scour system components and the control system strategy which will reduce the amount of air use in the scouring process by approximately 30%. The scouring process is energy intensive and therefore the conversion will result in significant cost savings to the District.

#### *Project Description:*

GE's scope for this project includes the supply and installation of 56 LEAPmbr retrofit kits for each of the cassettes currently in service. Additionally, GE will also be responsible for control programming adjustments required for the new technology, project management, and appropriate documentation updates. The conversion achieved through the retrofit installation will create larger air bubbles in the air scour process which increases shear force along the membrane surface, thereby reducing fouling and lengthening cleaning intervals with significantly reduced air requirements. The modified aeration technology also eliminates the need for high-frequency cycling of the aeration cyclic valves which currently cycle open and closed every 10 to 30 seconds. The reduced valve cycling will prolong the life of the 16 cyclic valves and also reduce maintenance cost. Energy savings will be achieved from a lower air demand from the air scour system. GE will extend the warranty period of the membranes by two additional years. The proposed terms and conditions for the conversion by GE is attached as Exhibit "A".

*Energy Savings Incentives:*

SCE is offering an incentive payment through its Customized Solution Retrocommissioning Program that can be applied to this project. SCE conducted a baseline energy consumption data capture over a three-week period. The one-time performance incentive payment is based on the energy savings between the baseline energy consumptions of the MBR air scour blowers as it exists currently and the post conversion of the system. Staff submitted an application for participation in the program and received approval in September 2016 for incentive funding of up to \$112,000. The project must be completed within 12 months of SCE's approval in order to receive the incentive payment. The estimated return on investment period is four years assuming the maximum SCE incentive payment amount is received.

*Projected Project Schedule:*

SCE baseline energy consumption data capture (3 weeks)	Complete
Procure LEAPmbr conversion kits (20 weeks)	November 2016
Installation of the LEAPmbr	May 2017
Testing and training	May 2017
SCE post retrofit energy consumption data capture (3 weeks)	June 2017

FISCAL IMPACTS:

The MWRP MBR LEAP Aeration Conversion Project, 30418 (4468) is included in the FY 2017/18 Long Term Capital Program. It is necessary to include it in the FY 2016/17 Capital Budget in the amount of \$380,999 to complete the project within the schedule constraints required to receive SCE's incentive payment.

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 10, 2016.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONTRACT WITH GENERAL ELECTRIC FOR THE IMPLEMENTATION OF THE LEAPMBR CONVERSION TECHNOLOGY IN THE AMOUNT OF \$380,999, AND AUTHORIZE THE ADDITION OF THE MWRP MBR LEAP AERATION CONVERSION CAPITAL PROJECT 30418 (4468) TO THE FY 2016/17 CAPITAL BUDGET.

LIST OF EXHIBITS:

Exhibit "A" – GE Water and Process Technologies LEAPmbr Aeration Retrofit Upgrade



# EXHIBIT "A"

GE  
Water & Process Technologies



Proposal for

## Irvine Ranch Water District, CA

LEAPmbr Aeration Retrofit Upgrade

Submitted to:

**Irvine Ranch Water District**

3512 Michelson Drive,  
Irvine, California 92612

**October 13, 2016**

**Project Number : U-500272**

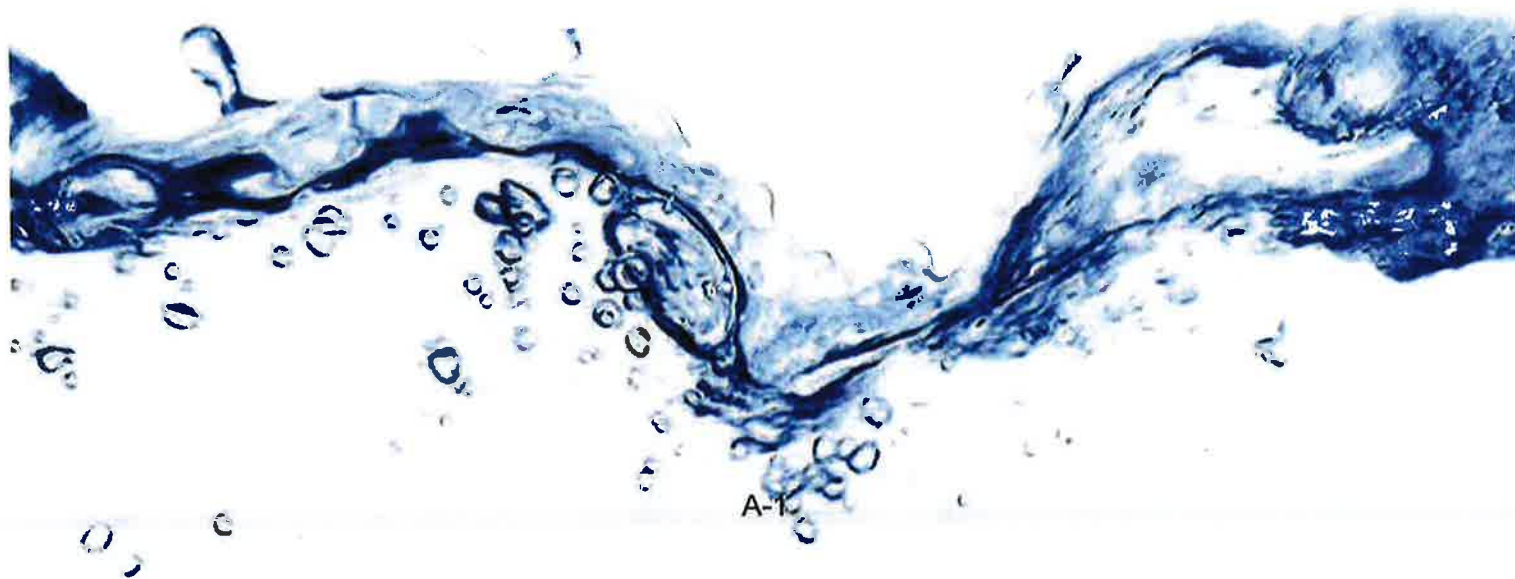
**ZENON Environmental Corporation**  
d/b/a **GE Water & Process Technologies**

Jason Diamond, Regional Lifecycle Manager  
Tel: (905) 465-3030 Ext 3273  
Cell: (905) 399-7055  
Email: [Jason.Diamond@ge.com](mailto:Jason.Diamond@ge.com)

Local Representation By:

**The Coombs-Hopkins Company**

Richard J. Eismin  
Tel: : 760-931-0555  
Email: [Rick@coombshopkins.com](mailto:Rick@coombshopkins.com)



A-1





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# 1 Introduction

This firm proposal is for the upgrade of the existing cassettes on site to the new LEAPmbr aeration technology at the Michelson Water Recycling Plant for the Irvine Ranch Water District.

# 2 ZeeWeed Matrix

## Michelson Water Recycling Plant

Parameter	Qty
Average Daily Flow - MGD at min. 20°C	10.9
Peak Daily Flow - MGD	11.5
Type of ZeeWeed Membrane	500d
Module Surface Area - ft <sup>2</sup>	340
Total Number of Cassettes Spaces per Train	8
Number of Trains	8
Total Number of Cassette Frames	56
Total Number of Cassettes Fully Populated	40
Number of Modules per full cassette	48
Total Number of Cassettes Partially Populated	16
Number of Modules per Partially Populated cassette	34
Total Number of Modules	2,464
Total Plant Surface Area	837,760
Net Flux, gfd, at ADF	13

Flows greater than stated above must be equalized prior to membrane treatment.

Annual average, max month, and max week net flux values are based on a not-to-exceed ZeeWeed tank MLSS concentration of 10 g/L.



## 3 LEAPmbr Retrofit

### 3.1 Features

LEAPmbr aeration technology is GE's latest technology advancement for wastewater treatment, addressing our customers' key challenges and providing the low energy and advanced performance solution demanded by the global wastewater treatment and reuse market. This advanced aeration technology is intended to be the primary product for all future ZeeWeed MBR applications, and in order to service the existing wastewater customers GE can provide LEAPmbr retrofit kits for upgrading current 48M module cassettes to take advantage of this new technology. See Attachment A for details.

LEAPmbr aeration technology operates at two discrete airflows, LEAP-LO and LEAP-HI, based on the plant operating conditions. Under average daily flow (ADF) conditions, where most plants operate the majority of the time, the membrane cassettes will operate under the LEAP-LO airflow condition. Under flow conditions greater than ADF, where the membranes are operated at a higher flux, the airflow rate increases to the LEAP-HI condition. The modulation between LO and HI airflow conditions is managed automatically via the PLC, by simply turning blowers on or off. Air is delivered on a continuous basis, which eliminates the need for high frequency cycling of cyclic aeration valves.



### 3.2 Advantages

The LEAPmbr aeration technology offers significant advantages, including:

- ❑ Larger air bubble size which increases shear along membrane surface, reducing fouling and thus lengthening cleaning intervals.
- ❑ Continuous air flow at significantly lower flow rates.
- ❑ Simplified aeration system controls.
- ❑ Energy consumption savings related to reduced membrane blower load.
- ❑ Savings related to the elimination of maintenance costs for high-frequency cyclic aeration valves.
- ❑ Maximized efficiency and increased production capabilities of the ZW500d 370 ft<sup>2</sup> membrane module. This advantage will be available for the Michelson Water Recycling Plant during future membrane replacements of 340 ft<sup>2</sup> modules with 370 ft<sup>2</sup> modules. This change will allow for 8.8% fewer membrane modules to maintain current production flows. With a cassette reduction this can deliver further energy savings.



Additional information regarding GE's LEAPmbr technology can be found in Attachment A.



### 3.3 Operational Savings

The following details our estimates with respect to projected energy savings.

#### 3.3.1 Energy Savings

Currently, each membrane blower is operating at a higher air flow than will be required for LEAPmbr aeration. The table shown below summarizes the current and proposed LEAPmbr aeration requirements and provides an estimate of the projected power consumption savings.

As part of the LEAPmbr upgrade at the IRWD facility, GE has calculated the following anticipated savings due to lower energy consumption of the membrane scour blowers for operation with all 8 trains at the plant annual average design flow (ADF) of 10.9 MGD. As part of this offering, GE will incorporate programming to allow operation in a new ECO-mode, increasing the ability of the membrane trains to operate under LEAP-lo airflow conditions to treat the plant 10.9 MGD ADF capacity with seven trains. This modification will prevent the need for operation of a second membrane air scour blower under normal operating conditions, increasing the overall energy savings realized by IRWD through this upgrade.

#### Sequential Aeration

Power Cost per kWhr				\$0.100						
Item	Equipment	No. Units Installed	No. Units Operating	Operating Capacity (per unit)	Operating TDH or Discharge Pressure	Operating Power Draw for Each Unit	Hours of Operation per Day	Power Consumed per Day	Power Consumed per Annum	Power Cost per Annum
1	Membrane Aeration Blowers at 10M0 during recovery clean (7 trains running)	3	2	6,621 scfm	4.80 psi	178.00kW	36 hrs/train/year (equivalent to 0.8 hrs/day)	NA	102,528 kWhr	\$ 10,253
2	Membrane Aeration Blowers at 10M0 during maintenance clean (7 trains running)	3	2	6,621 scfm	4.80 psi	178.00kW	1.50 hr	534 kWhr	194,910 kWhr	\$ 19,491
3	Membrane Aeration Blowers at 10-30 when 8 trains are running	3	1	7,452 scfm	4.80 psi	203.00kW	21.70 hr	4,405 kWhr	1,607,862 kWhr	\$ 160,786
<b>Total</b>									<b>1,805,300 kWhr</b>	<b>\$ 180,530</b>

#### LEAP Aeration

Item	Equipment	No. Units Installed	No. Units Operating	Operating Capacity (per unit)	Operating TDH or Discharge Pressure	Average Operating Power Draw for Each Unit	Hours of Operation per Day	Power Consumed per Day	Power Consumed per Annum	Power Cost per Annum
1	Membrane Aeration Blowers at LEAP LO during recover clean (7 trains running)	3	1	4,569 scfm	4.80 psi	133.00kW	36 hrs/train/year (equivalent to 0.8 hrs/day)	NA	38,304 kWhr	\$ 3,830
2	Membrane Aeration Blowers at LEAP HI for Aerator Flushing	3	1	5,244 scfm	4.80 psi	150.00kW	0.50 hr	76 kWhr	27,375 kWhr	\$ 2,738
3	Membrane Aeration Blowers at LEAP LO during maintenance clean (7 trains are running)	3	1	4,569 scfm	4.80 psi	133.00kW	1.50 hr	200 kWhr	72,819 kWhr	\$ 7,282
4	Membrane Aeration Blowers at LEAP LO when 8 trains are running	3	1	5,244 scfm	4.80 psi	150.00kW	21.20 hr	3,180 kWhr	1,160,700 kWhr	\$ 116,070
<b>Total</b>									<b>1,298,197 kWhr</b>	<b>\$ 129,920</b>
<b>Savings</b>									<b>606,103 kWhr</b>	<b>\$ 60,610</b>
<b>% savings</b>										<b>32%</b>



Notes:

1. Calculations are based on producing 10-10.9 MGD throughout the monitored test period.
2. Power draws for 4,589 and 6,521 scfm are estimated based on linear interpolation of the displayed power consumption at the Turblex PLCs during plant operation at various operating points.
3. GE anticipates that, as part of the upgrade and utilizing the new ECO-mode, LEAP-lo will be further utilized when 7 trains are in operation up to the plant 10.9 MGD flow.
4. It is GE's understanding that the plant currently performs 2 x hypo and 1 x citric clean per year with overnight soaks for each clean, and the plant runs at 10/10 aeration during this period. The anticipated average train downtime for recovery cleans is estimated at 12 hours, and the new ECO-mode for these periods will also reduce the aeration requirement to LEAP-LO for these periods.
5. GE will work with IRWD to develop an alternative aerator flush using the train isolation valves to aerate membrane trains in sequence. This will be done on an experimental basis and if desired result is not obtained, standard aerator flushing procedure requiring higher aeration rate will be adopted.

The LEAPmbr aeration retrofit will achieve an estimated 30% reduction in membrane blower power consumption when all cassettes have been upgraded. The reduced demand on the blowers will be accomplished by adjusting the required air flow set point in the GE PLC. Minimum flow parameters on the membrane blowers necessitates that at least 3 trains must be in production for LEAPmbr trains to operate at LEAP-LO.

The result is a projected annual savings of **606,103 kwh**, or about **USD\$60,610** at 10.0 cents/kwh. These calculations are based on the plant running with all trains in service at or slightly below ADF for 24 hours per day.

### 3.4 Additional Savings

Other factors that may benefit the facility from retrofitting the cassettes with the LEAPmbr aeration system that are less quantifiable but worth noting, are:

- The second set of aeration headers will not be used after converting to LEAPmbr aeration and can be removed or abandoned in place.
- The compressors will cycle less because the compressed air demand will be significantly lower with the cyclic valves no longer required to cycle every 10 to 30 seconds. GE has estimated a 70% reduction in compressed air energy consumption and compressor run-times due to reduced compressor operation.
- Labor reduction:
  - Fewer man-hours spent on blower & compressor maintenance due to reduced run-times.
  - Elimination of man-hours spent on cyclic valve maintenance.
- Maintenance cost reduction:
  - No cyclic valve maintenance parts or replacements required: estimated at \$1,000 per year per valve.
  - Lower parts burn on the blowers & compressors due to reduced run-time.





## 4 Scope of Supply by GE

### 4.1 LEAP Retrofit Kit

Supply 56 LEAPmbr retrofit kits for each of the 48M cassettes already on site. For each cassette the LEAPmbr AT (aeration technology) components include: 26 LEAPmbr AT devices, 13 LEAPmbr AT retrofit saddles, 2 adaptor strips, and all necessary hardware and fasteners.

The Turblex blowers already installed on site will not need to be modified to accommodate this LEAPmbr upgrade. A new setpoint for air flow rate will simply be entered into the PLC.



### 4.2 Controls

Provide system controls programming adjustments as required for the new LEAPmbr technology.

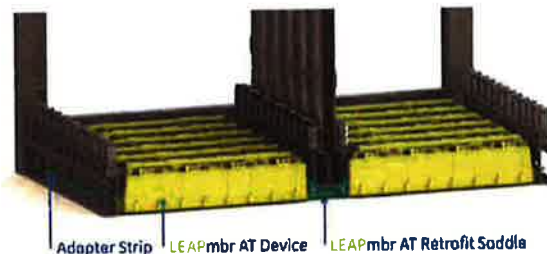
### 4.3 Project Management

Provide planning and off-site assistance during the upgrade project.

### 4.4 Documentation

GE will provide updates to the following:

- GE Operation & Maintenance Manual
- GE Equipment General Arrangement
- P&ID's
- Layout Drawings



### 4.5 Installation

GE will provide one (1) Field service Representative (FSR) on site for 20 days (up to 10-hr work days) to assist and supervise the installation of the LEAPmbr devices on the cassettes prior to installation in the membrane tanks. This schedule is expected to be sufficient for the plant upgrade with the utilization of 2 IRWD staff members.

GE FSR will supervise IRWD staff during the installation and inspect all IRWD's workmanship prior to putting the cassette back in the membrane tank.



## 4.6 Delivery

- ❑ **CIP** - Delivery will be both by standard ocean/ground and air freight on the basis of CIP Michelson Water Recycling Plant, Irvine, CA; Incoterms® 2010. CIP = Carriage & Insurance Paid. Partial shipments will be acceptable unless otherwise specified.
- ❑ **Origin** - Delivery of LEAPmbr retrofit kits originates from the GE Water & Process Technologies, ZENON Membrane Products (ZEM), Bláthy Ottó u 4, Oroszlány, 2840 Hungary facility, and Midland, Ontario, Canada.
- ❑ **Title & Risk** - Title and risk of loss or damage to LEAPmbr retrofit kits and crating shall pass upon delivery.
- ❑ **MPF** - Merchandise Processing Fee is a fee assessed for formal custom entries based on 0.21% of the invoice value, with a minimum of USD \$25 per formal entry and a maximum of USD \$485.
- ❑ **Availability** - Delivery of LEAPmbr aeration technology is currently 20 weeks after receipt of order. Definitive availability will not be confirmed until an Approved Change Order is received from IRWD.

---

## 5 Buyer Scope of Supply

### 5.1 Installation Preparation

- ❑ Receive, off-load, handle and provide storage of the equipment and materials required for Seller to perform the duties outlined in the Seller's Scope of Supply.
- ❑ The LEAPmbr retrofit kits must be stored in a sheltered area, protected from freezing, direct sunlight or extreme heat, and sealed as shipped until ready for use. The 56 LEAPmbr retrofit kits will arrive at site on approximately 25 skids that can be stacked 2 high. Each skid is 42"L x 42"W x 35"H. Please account for an estimated 5 additional pallets for other miscellaneous parts and pieces required for the retrofit work.
- ❑ Provide all access structures (such as scaffolding) and mechanical lifting equipment including cranes, forklifts and scissor lifts.
- ❑ Assure availability of a copy of the Operating Manual, all Process and Instrumentation Drawings, and all Electrical Drawings on site and accessible for reference.
- ❑ Maintain adequate insurance coverage for the risks of fire, theft, vandalism, floods and personal injury to authorized or unauthorized visitors.
- ❑ Provide labour and coordination of man-power for the installation of the LEAPmbr devices and installation of the cassettes into the membrane tanks

### 5.2 Installation

- ❑ IRWD will afford Seller's personnel free access and egress of the facility for all authorized work. IRWD will provide workshop facilities with standard workshop tools and equipment, as is reasonably appropriate, that are necessary to meet the repair and maintenance requirements of the system.

# GE

## Water & Process Technologies



- ❑ IRWD to provide two personnel to assist in completion of the LEAPmbr retrofit kit installation throughout the duration of the upgrade. The provision of more than two personnel will be at the discretion of IRWD for training purposes or to reduce the project schedule. It is anticipated that the same two IRWD staff members assigned will be utilized for the entire project duration to meet the expected project schedule.
- ❑ Provide adequate illumination and emergency lighting for all areas in which the Seller will be executing the scope of supply. Provide all site utilities such as raw water, instrument quality air, potable water and power required for operation of the proposed equipment included in this scope of supply. Supply telephone/fax/modem access while Seller's staff members are on-site.
- ❑ Confirm slack adjustment.
- ❑ Dispose of all retired cassette components.
- ❑ Dispose of shipping & packaging materials unless specifically requested not to by GE.
- ❑ At the end of the visit, prior to departure of the GE Service Representatives, IRWD will sign a Work Order that describes the hours on site and the Technical Advisory Services provided.





## 6 Commercial

### 6.1 Pricing Table

Pricing for the proposed equipment and services, as outlined in Section 4, is summarized in the table below. All pricing is based on the scope of supply that is detailed in this proposal. No sales, consumer use or other similar taxes are included in the pricing below.

<b>Price: Upgrade of Cassettes at the Michelson Water Recycling Plant to LEAPmbr Aeration Technology</b>	
Materials & Shipping	\$ 310,744 USD
Off-site & On-site Support and Warranty	\$ 45,396 USD
CA state sales tax – 8% on Materials & Shipping	\$ 24,859 USD
<b>Total</b>	<b>\$ 380,999 USD</b>

### 6.2 Equipment Shipment and Delivery

Equipment shipment is estimated at 20 weeks after order acceptance. The delivery schedule is presented based on current workload backlogs, production capacity and shipping times.

### 6.3 Pricing Notes

- All prices quoted are in **USD**.
- Prices quoted are valid through to November 30, 2016.
- The equipment delivery date, start date, and date of commencement of operations are as outlined above.
- Commercial Terms and Conditions shall be in accordance with the terms and conditions as per the capital sale of Michelson Water Recycling Plant for Project Nos. 20214 & 30214.

### 6.4 Membrane Warranty Extension

As part of GE's offer to IRWD, included with this offer is an extension of Irvine Ranch's existing membrane warranty. The duration will increase from 1 year of Full Replacement + 6 years of Pro-rated Replacement to 1 year of Full Replacement + 8 years of Pro-rated Replacement. Terms and conditions of the existing warranty remain in effect – this offer extends the years of pro-rated coverage only.

## 7 Warranty – LEAPmbr Components

Seller warrants that the LEAPmbr retrofit aerator assemblies included with this offer shall be delivered free from defects in material, workmanship and title. Seller's warranty does not cover the results of improper handling, storage, operation or maintenance of the Equipment



by Buyer or third parties, repairs or alterations made by Buyer without Seller's written consent, influent water which does not comply with agreed parameters, or fair wear and tear.

Unless otherwise expressly provided in this Agreement, the warranty on the LEAPmbr retrofit components included with this offer is the earlier of, thirty-nine (39) months from delivery or shipment to storage, or thirty-six (36) months from start-up/first use. This offer is extended to IRWD, increased as part of this proposal, from the standard LEAPmbr aeration component warranty of fifteen (15) months from delivery or shipment to storage, or twelve (12) months from start-up/first use.

Any claim for breach of these warranties must be promptly notified in writing, and Buyer shall make the defective item available to the Seller, or the claim will be void. Seller's sole responsibility and Buyer's exclusive remedy arising out of or relating to the Equipment or Services or any breach of these warranties is limited to repair at Seller's facility or (at Seller's option) replace at Seller's facility the defective item of Equipment. In performance of its obligations hereunder, Seller will not control the actual operation of either Buyer's systems or the Equipment at the Buyer's site.

Warranty repair, replacement or re-performance by Seller shall not extend or renew the applicable warranty period.

The warranties and remedies are conditioned upon (a) proper unloading, handling, storage, installation, use, operation, and maintenance of the Equipment and Buyer's facility and all related system in accordance with Seller's instructions and, in the absence, generally accepted industry practice, (b) Buyer keeping accurate and complete records of operation and maintenance during the warranty period and providing Seller access to those records, and (c) modification or repair of Equipment or Services only as authorized by Seller in writing. Failure to meet any such conditions renders the warranty null and void.

The Buyer will be entitled to assign to a subsequent owner of the Equipment the warranties of the Seller under this Agreement, provided that a prior written notification is sent to the Seller and the assignment agreement contains terms and conditions which provide the Seller with the protections of the warranties and limitations on liability contained in the Agreement. Subject to Buyer's compliance with the foregoing requirement, such warranty rights are expressly assignable by the Buyer to a subsequent owner of the Equipment. Except as provided herein, Buyer is not entitled to extend or transfer this warranty to any other party. The warranties and remedies set forth in this article are in lieu of and exclude all other warranties and remedies, statutory, express or implied, including any warranty of merchantability or of fitness for a particular purpose.



## 8 Signed Agreement

By virtue of having issued this proposal GE hereby signals their intent to enter into an agreement with IRWD. IRWD acknowledges that they have read and understood this Agreement and agree to be bound by the terms and conditions specified in it.

Offered by Legal Entity: ZENON Environmental Corporation,  
also known as GE or Seller

Accepted by Legal Entity: Irvine Ranch Water District, Inc.  
also known as IRWD or Buyer

Authorized  
Signature By: \_\_\_\_\_

Title: \_\_\_\_\_

Signature \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

x

Purchase Order No: \_\_\_\_\_

Upon acceptance of this proposal, please forward the following either

• by email with .pdf attachments or • by postal mail or • by fax.

- 1) this signature page completed
- 2) a hard copy of your purchase order, and
- 3) any required tax exemption certificates

[Service.POCentral@ge.com](mailto:Service.POCentral@ge.com)

or

to: GE Water & Process Technologies  
Attention: Contracts Administrator  
or  
Fax No.: 905 469 2243

This agreement comes into force when GE has issued a formal acceptance of IRWD's Purchase order or formal acceptance of this IRWD signed agreement.



## Attachment A - LEAPmbr Fact Sheet

GE Power & Water  
Water & Process Technologies



**Taking ZeeWeed MBR technology to the next level.**

Upgrade your existing ZeeWeed 500d MBR system to LEAPmbr and take advantage of this state of the art technology.



GE imagination at work



LEAPmbr is a simple, reliable and efficient membrane bioreactor system offering you:

**Increased Productivity**



Boost your productivity 15% with our latest ZeoWeed 5000 membrane.

**Smaller Footprint**



Make better use of space with a flexible design that gives you more flow capacity in your existing footprint.

**Simplified Design**



Simplify your design by reducing membrane cleaning equipment and controls, and eliminating air cycling valves, resulting in simplified maintenance.

**Optimized Tank Design**

**Increased ZeoWeed Redundancy**

**Energy Savings**



Reduce your operating costs with a 20% energy savings.

**Guaranteed Reliability**



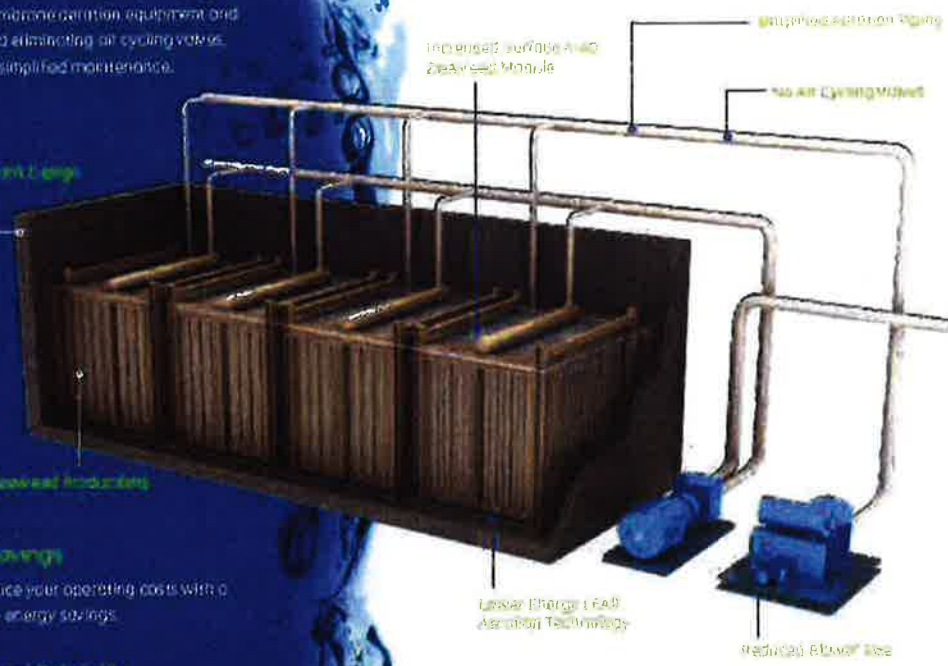
Have the confidence of the strongest, most reliable membrane in the industry.

\* Contact your Regional Sales or Regional Lifecycle Manager for more information on LEAPmbr and to discuss your upgrade options.

**LEAPmbr**  
simple • reliable • efficient

**What is LEAPmbr?**

Our new level of ZeoWeed MBR technology leverages over 25 years of proven MBR experience. GE's LEAPmbr delivers the most advanced ZeoWeed MBR solution to date to address our customer's challenges of productivity, footprint, simplicity, reliability and energy savings. At its core, LEAPmbr uses the industry's most trusted brand, the ZeoWeed 500 membrane, while incorporating significant innovations that take MBR to the next level.



Contact us  
3239 Dundas Street West  
Oshawa, ON, L8H 4B2 Canada  
Tel: +1 905 466 3830

Global Headquarters  
4536 Sunarten Road  
Troy, PA 19063, USA


[www.ge.com/water/leapmbr](http://www.ge.com/water/leapmbr)

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November 14, 2016  
Prepared and  
Submitted by: N. Savedra  
Approved by: Paul Cook 

**ACTION CALENDAR**

**ANNUAL BOARD OF DIRECTORS' FEES**

**SUMMARY:**

The Finance and Personnel Committee annually reviews the Board of Directors' compensation and recommends to the Board to either accept or deny a fee increase for the new calendar year. Pursuant to the District's Ordinance No. 1989-1 and enacted under Section 20202 et seq. of the California Water Code, the Board's meeting compensation increases on January 1 of each year; however, said increase may not exceed an amount equal to five percent, and no compensation for more than a total of 10 days in any calendar month.

**BACKGROUND:**

The last Board of Directors' compensation increase was effective in January 2016. The current compensation for the Board of Directors is \$260 per meeting, not to exceed 10 meetings per month. In accordance with Section 20202 et seq. of the California Water Code, the Board's meeting compensation increases on January 1 of each year by five percent. If the Board accepts the increase, the resulting per meeting fee will be \$273 (rounded to the nearest dollar). Provided as Exhibit "A" is a survey of the Director Fees for other local water districts.

**FISCAL IMPACTS:**

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

**ENVIRONMENTAL COMPLIANCE:**

Not applicable.

**COMMITTEE STATUS:**

This item was reviewed by the Finance and Personnel Committee on November 1, 2016.

**RECOMMENDATION:**

**THAT THE BOARD EITHER ACCEPT OR DECLINE THE FIVE PERCENT COMPENSATION INCREASE FOR CALENDAR YEAR 2017.**

**LIST OF EXHIBITS:**

Exhibit "A" – Survey of Director Fees

**EXHIBIT "A"**

**BOARD OF DIRECTORS PER DIEM SURVEY  
(as of October 31, 2016)**

<b>AGENCY</b>	<b>PER DIEM MEETING</b>	<b>EFFECTIVE DATE</b>	<b>MAXIMUM MEETINGS PER MONTH</b>
El Toro Water District	\$198.00	December 2007	10
Irvine Ranch Water District	\$260.00	January 2016	10
Mesa Water District	\$240.00	April 2015	10
Moulton Niguel Water District	\$220.00	September 2016	10
Municipal Water of Orange County	\$269.38	January 2016	10
Orange County Water District	\$250.00	September 2015	10
Santa Margarita Water District	\$210.00	February 2009	10
South Coast Water District	\$190.00	January 2006	10
Yorba Linda Water District	\$150.00	January 2003	10