



**ENGINEERING, OPERATIONS, AND  
WATER RESOURCES  
COMMITTEE MEETING  
OF THE BOARD OF DIRECTORS  
INLAND EMPIRE UTILITIES AGENCY\*  
AGENCY HEADQUARTERS, CHINO, CALIFORNIA**

**WEDNESDAY, SEPTEMBER 13, 2017  
9:45 A.M.**

*Or immediately following the  
Community & Legislative Affairs  
Committee Meeting*

**CALL TO ORDER**

**PUBLIC COMMENT**

Members of the public may address the Board on any item that is within the jurisdiction of the Board; however, no action may be taken on any item not appearing on the agenda unless the action is otherwise authorized by Subdivision (b) of Section 54954.2 of the Government Code. Those persons wishing to address the Board on any matter, whether or not it appears on the agenda, are requested to complete and submit to the Board Secretary a "Request to Speak" form which is available on the table in the Board Room. Comments will be limited to five minutes per speaker. Thank you.

**ADDITIONS TO THE AGENDA**

In accordance with Section 54954.2 of the Government Code (Brown Act), additions to the agenda require two-thirds vote of the legislative body, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the local agency subsequent to the agenda being posted.

**1. ACTION ITEMS**

**A. MINUTES**

The Committee will be asked to approve the Engineering, Operations, and Water Resources Committee meeting minutes from the August 9, 2017 meeting.

**B. IEUA & CBWM MASTER COST SHARING AGREEMENT AND BASIN PLAN AMENDMENT**

Staff recommends that the Committee/Board:

1. Approve the Master Cost Sharing Agreement between IEUA and Chino Basin Watermaster;
2. Approve Task Order No. 1 for the Basin Plan Amendment for a not-to-exceed total project cost of \$723,000, under the Master Cost Sharing Agreement; and
3. Authorize the General Manager to execute the Master Cost Sharing Agreement and Task Order No. 1, subject to non-substantive changes.

**C. SAN SEVAINE BASIN IMPROVEMENTS CONSTRUCTION CONTRACT AWARD**

Staff recommends that the Committee/Board:

1. Award a construction contract for the San Sevaime Basin Improvements, Project No. EN13001, to Gwinco Construction & Engineering, in the amount of \$3,873,029; and
2. Authorize the General Manager to execute the construction contract.

**D. SAN SEVAINE BASIN MONITORING WELLS CONSTRUCTION CONTRACT AWARD**

Staff recommends that the Committee/Board:

1. Award a construction contract for the San Sevaime Basin Monitoring Wells, Project No. EN13001, to Yellow Jacket Drilling in the amount of \$607,470; and
2. Authorize the General Manager to execute the construction contract.

**E. CHINO I DESALTER STRUCTURE COATING CONSTRUCTION CONTRACT AWARD**

Staff recommends that the Committee/Board:

1. Award a construction contract for the CDA Chino I Desalter Structure Coating, Project No. DL37141, to Industrial Coating & Restoration in the amount of \$169,950.16; and
2. Authorize the General Manager to execute the construction contract.

2. INFORMATION ITEM

A. OPERATIONS DIVISION UPDATE (POWERPOINT)

RECEIVE AND FILE INFORMATION ITEM

B. ENGINEERING AND CONSTRUCTION MANAGEMENT PROJECT UPDATES (POWERPOINT)

3. GENERAL MANAGER'S COMMENTS

4. COMMITTEE MEMBER COMMENTS

5. COMMITTEE MEMBER REQUESTED FUTURE AGENDA ITEMS

6. ADJOURN

\*A Municipal Water District

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Board Secretary (909-993-1736), 48 hours prior to the scheduled meeting so that the Agency can make reasonable arrangements.

Proofed by: JH

**DECLARATION OF POSTING**

I, April Woodruff, Board Secretary of the Inland Empire Utilities Agency, A Municipal Water District, hereby certify that a copy of the agenda has been posted by 5:30 p.m. in the foyer at the Agency's main office, 6075 Kimball Ave., Building A, Chino, CA on Thursday, September 7, 2017.

  
\_\_\_\_\_  
April Woodruff

**ACTION  
ITEM  
1A**



## MINUTES

### ENGINEERING, OPERATIONS, AND WATER RESOURCES COMMITTEE MEETING INLAND EMPIRE UTILITIES AGENCY\* AGENCY HEADQUARTERS, CHINO, CA

WEDNESDAY, AUGUST 9, 2017  
9:45 A.M.

#### **COMMITTEE MEMBERS PRESENT**

Michael Camacho, Chair  
Paul Hofer

#### **STAFF PRESENT**

P. Joseph Grindstaff, General Manager  
Chris Berch, Executive Manager of Engineering/AGM  
Kathy Besser, Executive Manager of External Affairs & Policy Development/AGM  
Randy Lee, Executive Manager of Operations/AGM  
Christina Valencia, Executive Manager of Finance & Administration/AGM  
Lucia Diaz, Facilities Program Supervisor  
Warren Green, Manager of Contracts & Procurement  
Nel Groenveld, Manager of Laboratories  
Jason Gu, Grants Officer  
Liz Hurst, Environmental Resources Planner II  
Sylvie Lee, Manager of Planning & Environmental Resources  
Jesse Pompa, Senior Engineer  
Shaun Stone, Manager of Engineering  
Teresa Velarde, Manager of Internal Audit  
April Woodruff, Board Secretary/Office Manager

#### **OTHERS PRESENT**

Jasmin A. Hall, Director

The meeting was called to order at 9:45 a.m. There were no public comments received or additions to the agenda.

#### **ACTION ITEMS**

The Committee:

- ◆ Approved the Engineering, Operations, and Water Resources Committee meeting minutes of July 12, 2017.
- ◆ Recommended that the Board:
  1. Award a design-build contract for the SCADA Enterprise System Migration (RP-4 and RP-5), Project Nos. EN13016.03 and EN13016.04, to CDM Smith for the not-to-exceed amount of \$5,277,527; and

2. Authorize the General Manager to execute the design-build contract subject to not-substantive changes;

as an Action Item on the August 16, 2017, Board meeting agenda.

◆ Recommended that the Board:

1. Approve the Upper Santa Ana River Integrated Model Cost Sharing Letter Agreement for the not-to-exceed amount of \$326,700; and
2. Authorize the General Manager to execute the letter agreement, subject to not-substantive changes;

as a Consent Calendar Item on the August 16, 2017, Board meeting agenda.

◆ Recommended that the Board:

1. Award a construction contract for the Declez Monitoring Well, Project No. EN17067, to Yellow Jacket Drilling, in the amount of \$243,239; and
2. Authorize the General Manager to execute the construction contract;

as a Calendar Consent Item on the August 16, 2017, Board meeting agenda.

◆ Recommended that the Board:

1. Award a service contract for the RP-5 Process Painting, Project No. PA16002, PA17002, and PA18002, to Tony Painting, in the amount of \$293,000; and
2. Authorize the General Manager to execute the service contract;

as a Consent Calendar Item on the August 16, 2017, Board meeting agenda.

### **INFORMATION ITEMS**

The following information items were presented or received and filed by the Committee:

- ◆ 2016 Annual Report of the Prado Basin Habitat Sustainability Committee
- ◆ Laboratory Semi-Annual Update
- ◆ Engineering and Construction Management Project Updates

### **GENERAL MANAGER'S COMMENTS**

General Manager Joe Grindstaff and Executive Manager of Engineering/AGM Chris Berch gave an overview of an infrastructure report from the American Society of Civil Engineers.

### **COMMITTEE MEMBER COMMENTS**

There were no Committee Member comments.

### **COMMITTEE MEMBER REQUESTED FUTURE AGENDA ITEMS**

There were no Committee Member requested future agenda items.

Engineering, Operations, and Water Resources Committee  
August 9, 2017  
Page 3

With no further business, Director Camacho adjourned the meeting at 10:27 a.m.

Respectfully submitted,

April Woodruff  
Board Secretary/Office Manager

\*A Municipal Water District

**APPROVED: SEPTEMBER 13, 2017**

**ACTION  
ITEM  
1B**



**Date:** September 20, 2017

**To:** The Honorable Board of Directors

*Chris Berch for JBr*  
**From:** P. Joseph Grindstaff, General Manager

**Committee:** Engineering, Operations & Water Resources

09/13/17

**Executive Contact:** Chris Berch, Executive Manager of Engineering/AGM

**Subject:** IEUA & CBWM Master Cost Sharing Agreement and Basin Plan Amendment

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**Executive Summary:**

Pursuant to the Peace II Agreement, Optimum Basin Management Program, and Basin Plan, IEUA and Chino Basin Watermaster (CBWM) seek to develop a Master Agreement for joint management and cost sharing of projects in the Chino Basin. Projects may include engineering studies, management plans, modeling, permitting, CEQA, and other joint efforts.

The Master Agreement establishes a framework for both parties' responsibilities on jointly managed projects in terms of cost sharing, project management, indemnity, and other provisions. As task orders are approved by both parties for joint projects, they will detail each party's commitments regarding scope, schedule, budget, financing, environmental, responsibilities, and other pertinent details. The Master Agreement is scheduled for CBWM Board approval in September 2017.

Task Order No. 1 will update the groundwater modeling for the Chino Basin to include future salinity projects, source water forecast, groundwater conditions, and climate impacts. Water quality analysis will be prepared for total dissolved solids and nitrogen concentrations. The effort will support obtaining approval for a Basin Plan Amendment and permit modifications.

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**Staff's Recommendation:**

1. Approve the Master Cost Sharing Agreement between IEUA and Chino Basin Watermaster;
2. Approve Task Order No. 1 for the Basin Plan Amendment for a not-to-exceed total project cost of \$723,000, under the Master Cost Sharing Agreement; and
3. Authorize the General Manager to execute the Master Cost Sharing Agreement and Task Order No. 1, subject to non-substantive changes.

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**Budget Impact** Budgeted (Y/N): Y Amendment (Y/N): N Amount for Requested Approval:

**Account/Project Name:**

Task Order No. 1 will be funded by two projects (WC fund) and spread over FY17/18-FY19/20:  
 - Basin Plan Amendment, Project No. PL18002 (\$550,000) per TYCIP, and  
 - Recycled Water (WC) Planning Documents, Project No. EN16035 (\$2,416,523) per TYCIP

**Fiscal Impact** (explain if not budgeted):

Project cost is within the annual and total project budgets of the Basin Plan Amendment, Project No. PL18002 (\$550,000) and Recycled Water (WC) Planning Documents, Project No. EN16035 (\$2,416,523), and will be spread over FY17/18 - FY19/20 in the WC Fund, per TYCIP.

**Prior Board Action:**

None.

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**Environmental Determination:**

Statutory Exemption

CEQA exempts a variety of projects from compliance with the statute. This project qualifies for a Statutory Exemption as defined in Section 15262 of the State CEQA Guidelines. This effort will result in the development of a Basin Plan Amendment, which will be subject to future environmental evaluation.

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**Business Goal:**

The Master Cost Sharing Agreement and Task Order No. 1 are consistent with IEUA's Business Goal of Water Reliability by maximizing the beneficial reuse of recycled water as a source of groundwater recharge.

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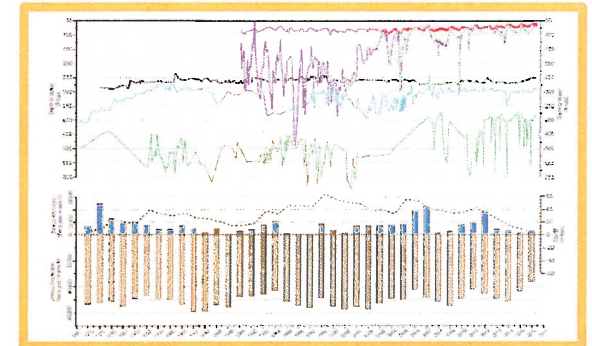
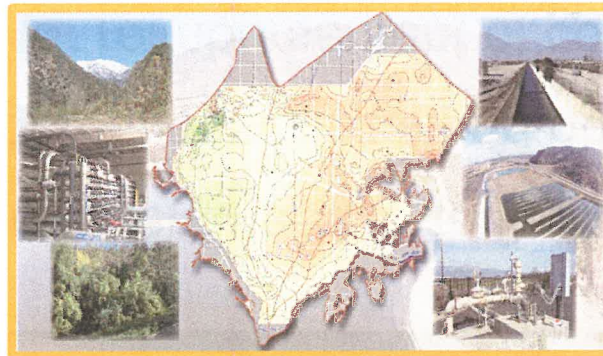
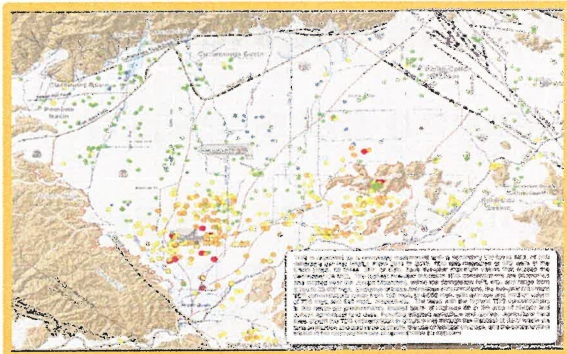
**Attachments:**

Attachment 1 - PowerPoint

Attachment 2 - IEUA & CBWM Master Cost Sharing Agreement

Attachment 3 - Task Order No. 1 - Basin Plan Amendment

# IEUA & CBWM Master Agreement and Basin Plan Amendment



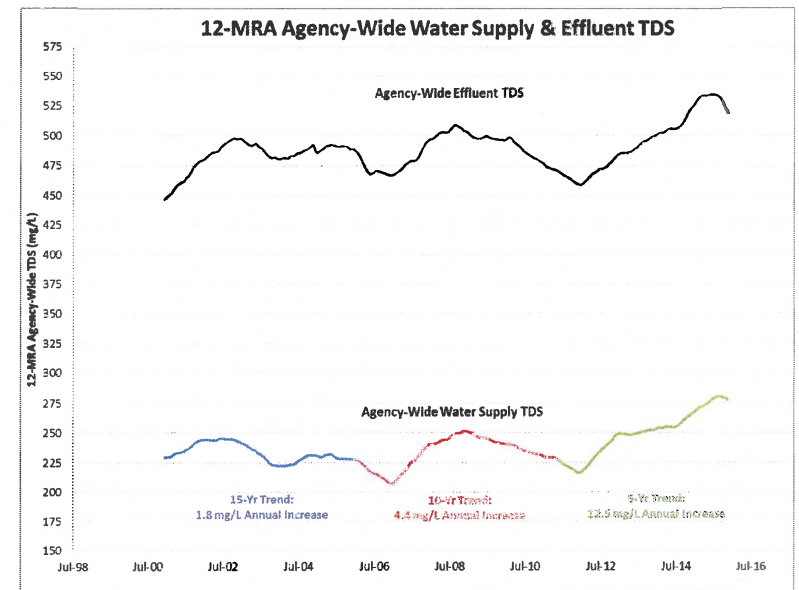
# IEUA and Chino Basin Watermaster Master Agreement

- Master Cost Sharing Agreement needed to facilitate joint projects
- Establishes framework of responsibilities and obligations
- Establishes procedures for reimbursement of costs
- Project details will be covered with individual Task Orders
- Projects may include engineering studies, management plans, modeling, permitting, CEQA, and other joint efforts
- Scheduled for CBWM Board approval in September 2017



# Salinity Management

- Maximum Benefit Plan enables use of recycled water (irrigation & GWR)
- Commitment to implement regional programs to manage/reduce TDS
- Region has been working for past 15+ years to meet this commitment
  - Chino Basin Desalters
  - Self-generating water softener use ordinance
  - Brine line discharge requirements
  - Chemical use optimization in the WWTP
  - Securing high quality supplemental water
- Long-term trends show increasing TDS



# Task Order No. 1: Basin Plan Amendment Scope

- Update Chino groundwater basin modeling
- Analyze projects, source water, groundwater, and climate impacts
- Support for Basin Plan Amendment and permit modifications with Regional Water Quality Control Board (RWQCB)

Description	Sub-Total	IEUA Share	CBWM Share
Salinity Modeling, Evaluation, and Basin Plan Amendment	\$408,000	\$204,000	\$204,000
Nitrogen Modeling & Evaluation	\$229,000	\$229,000	TBD
Environmental Evaluation	\$20,000	\$10,000	\$10,000
Contingency	\$66,000	\$44,000	\$22,000
<b>Total</b>	<b>\$723,000</b>	<b>\$487,000</b>	<b>\$236,000</b>

# Task Order No. 1: Basin Plan Amendment Schedule

Description	Schedule
Develop Groundwater Model	May 2018
Groundwater Modeling & Evaluation	February 2019
Basin Plan Amendment Proposal to RWQCB	April 2019
Updated Basin Plan Amendment	August 2019
Environmental Evaluation	November 2019
Final Basin Plan Amendment	December 2019

# Recommendation

- Approve the Master Cost Sharing Agreement between IEUA and Chino Basin Watermaster;
- Approve Task Order No. 1 for the Basin Plan Amendment for a not-to-exceed total project cost of \$723,000, under the Master Cost Sharing Agreement; and
- Authorize the General Manager to execute the Master Cost Sharing Agreement and Task Order No. 1, subject to non-substantive changes.

The Master Cost Sharing Agreement and Task Order No. 1 are consistent with *IEUA's Business Goal of Water Reliability* by maximizing the beneficial reuse of recycled water as a source of groundwater recharge.





**MASTER AGREEMENT BETWEEN CHINO BASIN WATERMASTER AND  
INLAND EMPIRE UTILITIES AGENCY REGARDING THE  
MANAGEMENT OF COLLABORATIVE PROJECTS**

**WHEREAS**, the Inland Empire Utilities Agency (“IEUA”) and the Chino Basin Watermaster (“Watermaster”) (each individually “Party” and collectively “the Parties”) share common goals and objectives regarding the reasonable and beneficial use of water within the Chino Basin;

**WHEREAS**, both Parties share responsibility for meeting certain monitoring and reporting requirements detailed in the Basin Plan Amendment approved by the Santa Ana Regional Water Quality Control Board (“RWQCB”) in 2004 (R8-2004-0001, R8-2012-0002);

**WHEREAS**, both Parties have made commitments to the RWQCB to obtain Maximum Benefit Groundwater Quality Objectives (Quarterly Surface Water and Hydraulic Control monitoring and reporting);

**WHEREAS**, the Parties are co-permittees for the Recycled Water Groundwater Recharge Program and share responsibility for meeting certain monitoring and reporting requirements of the RWQCB, Santa Ana Region Order No. R8-2007-0039 and the Monitoring and Reporting Program No. R8-2007-0039;

**WHEREAS**, the Peace II Agreement, Section 2.2 acknowledges that IEUA has been properly designated as the Lead Agency for the purposes of completing the environmental assessment and review of the “proposed project” as that term is defined in the Peace II Agreement;

**WHEREAS**, the Master Agreement Between Chino Basin Watermaster and Inland Empire Utilities Agency Regarding the Management of Collaborative Recharge Projects, dated July 24, 2014, defines the cost sharing arrangement for Recharge Master Plan Update (RMPU) projects between IEUA and Watermaster. The RMPU projects are not included within the scope of this Master Agreement;

**WHEREAS**, the Parties will separately enter into contracts for services on a project specific basis, as described in written proposals including the nature of the services to be performed, fees and rates to be charged, location, time schedule, financing and any special conditions of performance and other information deemed necessary by the Parties (“Task Orders”); and,

**WHEREAS**, the Parties seek to develop a Master Agreement for joint management, cost sharing and financing for projects in the Basin, and as individual Task Orders are approved by the Parties, such projects will be incorporated as part of the Master Agreement as individual tasks. Projects may include, but are not limited to: CEQA support, engineering studies, management plans, modeling evaluation & analysis, permitting, and other associated tasks.

**ARTICLE 1**

**PROJECT MANAGEMENT**

**1.1 Approval of Task Orders.** Each Task Order shall be approved by Watermaster and IEUA as an individual task in accordance with each Party’s policies and procedures, with a specified “maximum allowable cost” amount for each individual Task Order. The costs to be borne by each Party shall not exceed the “maximum allowable cost” amount specified in each Task Order.

**1.2 Changes in Scope of Task Orders.** Should either Party determine that a change in scope requiring a budget increase of any Task Order is necessary for a project, to be effective, the change in scope must be approved by each Party pursuant to the procedures described in Section 1.1.

**1.3 Amendment to Task Order Budgets.** If any project undertaken pursuant to a Task Order subject to this Agreement will exceed the budget allocated for such Task Order, Watermaster and IEUA shall amend the Task Order authorizing the project. Similarly, if grant funding is obtained for any project undertaken pursuant to a Task Order subject to this Master Agreement, Watermaster and IEUA shall amend the Task Order authorizing the project to reduce the Task Order cost share accordingly. All amendments must be approved by each Party pursuant to the procedures described in Section 1.1. The Parties shall reasonably and diligently process any necessary amendments of the Task Order authorizing the project to prevent unnecessary delays in the projects.

**1.4 Quarterly Progress Reports.** IEUA, pursuant to its policies and procedures, shall provide quarterly progress reports to Watermaster's General Manager by the eighth calendar day of each quarter for each Task Order that is subject to this Master Agreement. Each monthly progress report shall include a summary of the current status of the Task Orders, including reports on cost schedules and any potential for cost overruns, schedule status, and any changes or potential need for changes in the scope of the Task Order.

## ARTICLE 2

### COST SHARING

**2.1 Watermaster Approval.** Under no circumstances shall Watermaster be obliged to enter into any Task Order reimbursement or repayment obligation, absent approval of the Task Order by Watermaster's Board of Directors.

**2.2 Cost Sharing Allocation.** From and after the Effective Date of this Master Agreement, the Parties agree that they shall apportion the costs of each Task Order for projects to be completed under each Task Order, in accordance with the applicable funding allocation, as described in each Task Order.

**2.3 Fiscal-Year Basis Funding.** While each Task Order may include a projected budget for the project over the anticipated lifespan of the project, funding for Task Orders and change orders or amendments under this Master Agreement will be made available on a fiscal-year basis. However, funding may be carried forward to complete projects that span fiscal years in order for payment to be made in a timely manner.

**2.4 Debt Financing.** The Parties may agree to secure debt to finance projects approved under this Master Agreement. IEUA will seek the lowest cost financing, including but not limited to low interest State Revolving Funds loans issued by the State Water Resources Control Board. The Parties acknowledge that changes to the projects and/or project costs may occur from time-to-time. Whenever possible, IEUA will make every effort to modify debt financing accordingly.

**2.5 No Partnership or Joint Venture.** Neither this Master Agreement, nor any Task Order or project hereunder, nor any other conduct engaged in by either Party pursuant to this Master Agreement or any Task Order hereunder shall create any partnership or joint venture between the Parties, or between each Party and any of the other Party's contractors.

**2.6 Project Litigation.** In the event that litigation arises in regard to any project that is the subject of a Task Order, the litigation costs shall be shared between the Parties according to the Parties' cost allocation for the project.

### ARTICLE 3

#### REIMBURSEMENT OF COSTS

**3.1 Reimbursement Schedule.** Reimbursement shall be made as follows: IEUA shall transmit to Watermaster's General Manager a single invoice, with supporting documentation, itemizing Watermaster's share of costs paid by IEUA, or debt financing, in the preceding monthly billing period that are applicable to each Task Order. Invoicing may be one time, quarterly or monthly depending on the scope and specific to each Task Order. Invoices for costs paid by IEUA shall be due and payable in full no later than 30 days from the date of receipt. Watermaster will exercise its best efforts to complete payment within 30 days, recognizing that Watermaster may be subject to a requirement of reimbursement to IEUA for additional expenses, such as loss of interest earnings incurred as a result of a delay in reimbursement. The loss of interest earnings will be calculated by IEUA based on the investment earning rate.

**3.2 Transmittal of Reimbursement Payments.** Remittance for all payments shall identify the applicable IEUA/Watermaster invoice number, and shall be made to the following:

IEUA  
Accounts Receivable  
P.O. Box 9020  
Chino Hills, CA 91709

Chino Basin Watermaster  
Attn: Peter Kavounas  
9641 San Bernardino Road  
Rancho Cucamonga, CA 91730

**3.3 Disputed Invoices.** If Watermaster disputes any portion of an invoice, Watermaster shall furnish prompt notice of the basis for the dispute and shall pay the undisputed portion. The due date for payment of the disputed portion shall be extended 30 days to allow the Parties to resolve the disputed issue.

**3.4 Reimbursement Limitations.** Neither Party shall be obligated to reimburse the other for any administrative time or overhead expenses incurred by the other Party that is unrelated to the Task Orders issued under this Master Agreement. However, each Party is obligated to reimburse the other for capital cost and administrative time and overhead expenses as part of each Party's responsibilities as stated within each Task Order. All legal and technical consultants, contractors, or other personnel retained by either Party for work eligible for reimbursement under this Agreement shall be under contract to or employed by that individual retaining Party alone and shall look solely to that retaining Party for payment. Each Party assumes absolutely no liability or obligation to the other Party's consultants, contractors, or personnel retained outside this Master Agreement and its respective Task Orders.

## ARTICLE 4

### TERM

**4.1 Effective Date.** The effective date of this Master Agreement is September \_\_\_\_, 2017 (“Effective Date”).

**4.2 Termination.** Upon 60-days written notice, this Master Agreement shall be mutually terminable at any time in accordance with each Party’s policies and procedures, within each Party’s sole discretion. Termination shall not relieve the terminating Party from its obligations accruing prior to termination, including the payment of monies due for work performed prior to the date of termination and project settlement costs thereof, shall be paid after receipt of an invoice as provided in Section 3.1 above.

## ARTICLE 5

### INDEMNITY

**5.1 IEUA.** IEUA shall indemnify Watermaster against and hold Watermaster harmless from any and all claims, suits, losses, damages, and liability for damages of every name, kind and description, including attorneys’ fees and other costs of defense incurred, brought for, or on account of, injuries to or death of any person, including, but not limited to, workers, the public, or damage to property, or any economic or consequential losses, which are claimed to or in any way arise out of or are connected with IEUA’s activities pursuant to this Master Agreement, any Task Order thereunder, regardless of the existence or degree of fault or negligence on the part of the Parties, a third-party contractor, the subcontractor(s) and employee(s) of any of these, except for the active negligence or willful misconduct of employees or agents of the Parties, or as expressly prohibited by statute. The provisions of this Section 5.1 will survive termination of this Agreement.

**5.2 Watermaster.** Watermaster shall indemnify IEUA against and hold IEUA harmless from any and all claims, suits, losses, damages, and liability for damages of every name, kind and description, including attorneys’ fees and other costs of defense incurred, brought for, or on account of, injuries to or death of any person, including, but not limited to, workers, the public, or damage to property, or any economic or consequential losses, which are claimed to or in any way arise out of or are connected with Watermaster’s activities pursuant to this Master Agreement, any Task Order thereunder, regardless of the existence or degree of fault or negligence on the part of the Parties, a third-party contractor, the subcontractor(s) and employee(s) of any of these, except for the active negligence or willful misconduct of employees or agents of the Parties, or as expressly prohibited by statute. The provisions of this Section 5.2 will survive termination of this Agreement.

## ARTICLE 6

### GENERAL PROVISIONS

**6.1 Notices.** Any notice under this Agreement shall be deemed sufficient if given by one Party to the other in writing and: delivered in person; transmitted by electronic mail or facsimile (with acknowledgement of receipt provided by the receiving Party); or, by mailing the same by United States mail (postage prepaid, registered or certified, return receipt requested) or by Federal Express or other similar overnight delivery service; to the Party to whom the notice is directed at the address of such Party as follows:

If to Watermaster:

Chino Basin Watermaster  
Attn: Peter Kavounas  
9641 San Bernardino Road  
Rancho Cucamonga, CA 91730

If to IEUA:

Inland Empire Utilities Agency  
Attn: Executive Manager of Engineering/Assistant General Manager  
PO Box 9020  
Chino Hills, CA 9170

Any communication given by mail shall be deemed delivered two (2) business days after such mailing date, and any written communication given by overnight delivery service shall be deemed delivered one (1) business day after the dispatch date. Either Party may change its address by giving the other Party notice of its new address.

**6.2 Assignability.** The Parties may not assign all or any part of this Master Agreement or any Task Order without advance written consent of each Party's Board of Directors.

**6.3 Waiver.** No waiver by any Party of any of the provisions shall be effective unless explicitly stated in writing and executed by the Party so waiving. Except as provided in the preceding sentence, no action taken pursuant to this Master Agreement, including, without limitation, any investigation by or on behalf of any Party, shall be deemed to constitute a waiver by the Party taking such action of compliance with any representations, warranties, covenants, or agreements contained in this Master Agreement and in any documents delivered or to be delivered pursuant to this Master Agreement. The waiver by any Party of a breach of any provision of this Master Agreement shall not operate or be construed as a waiver of any subsequent breach. No waiver of any of the provisions of this Master Agreement shall be deemed, or shall constitute, a waiver of any other provision, whether or not similar, nor shall any waiver constitute a continuing waiver.

**6.4 Headings.** The section headings contained in this Master Agreement are for convenience and reference only and shall not affect the meaning or interpretation of this Master Agreement.

**6.5 Severability.** If any term, provision, covenant or condition of this Master Agreement shall be or become illegal, null, void or unenforceable, the remaining provisions of this Master Agreement shall remain in full force and effect, and shall not be affected, impaired or invalidated. The term, provision, covenant or condition that is so invalidated, voided or held to be unenforceable, shall be modified or changed by the Parties to the extent possible to carry out the intentions and directives set forth in this Master Agreement.

**6.6 Governing Law.** This Agreement shall be governed by, and interpreted in accordance with, the laws of the State of California. This Agreement shall be specifically enforceable in the Court maintaining jurisdiction over the case Chino Basin Municipal Water District v. City of Chino, San Bernardino Superior Court Case No. RCV 51010.

**6.7 Parties in Interest.** Nothing in this Master Agreement, whether expressed or implied, is intended to confer any rights or remedies under or by reason of this Master Agreement on any persons

other than the Parties to it and their respective successors and assigns, nor is anything in this Master Agreement intended to relieve or discharge the obligation or liability of any third persons to any Party to this Master Agreement, nor shall any provision give any third persons any right of subrogation or action against any party to this Master Agreement.

**6.8 Attorney Fees.** In any dispute under this Master Agreement between the Parties, each Party shall bear its own legal costs and expenses.

**6.9 Good Faith.** The Parties agree to exercise their best efforts and utmost good faith to effectuate all the terms and conditions of this Master Agreement and to execute such further instruments or documents as are necessary or appropriate to effectuate all of the terms and conditions of this Master Agreement.

**6.10 Construction.** The provisions of this Master Agreement should be liberally construed to effectuate its purposes. The language of all parts of this Master Agreement shall be construed simply according to its plain meaning and shall not be construed for or against either Party, as each Party has participated in the drafting of this document and had the opportunity to have their counsel review it. Whenever the context and construction so requires, all words used in the singular shall be deemed to be used in the plural, all masculine shall include the feminine and neuter, and vice versa.

**6.11 Entire Agreement.** This Master Agreement contains, the entire understanding and agreement of the Parties, and supersedes all prior agreements and understandings, oral and written, between the Parties concerning the subject matter of this Master Agreement. There have been no binding promises, representations, agreements, warranties or undertakings by any of the Parties, either oral or written, of any character or nature, except as stated in this Master Agreement. This Agreement may be altered, amended or modified only by an instrument in writing, executed by the Parties to this Master Agreement and by no other means. Each Party waives its future right to claim, contest or assert that this Master Agreement was modified, canceled, superseded or changed by any oral agreement, course of conduct, waiver or estoppels.

**6.12 Counterparts.** This Master Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, but all of which shall constitute one and the same instrument.

**IN WITNESS WHEREOF,** the Parties have executed this Agreement on the day and year and at the place first written above.

Inland Empire Utilities Agency

Chino Basin Watermaster

\_\_\_\_\_  
P. Joseph Grindstaff  
General Manager

\_\_\_\_\_  
Peter Kavounas  
General Manager

**MASTER AGREEMENT BETWEEN  
CHINO BASIN WATERMASTER AND INLAND EMPIRE UTILITIES AGENCY  
REGARDING THE MANAGEMENT OF COLLABORATIVE PROJECTS**

**TASK ORDER NO. 1  
BASIN PLAN AMENDMENT**

This Task Order is made and entered into as of the \_\_\_\_ day of September, 2017 by and between the Chino Basin Watermaster, hereinafter referred to as “Watermaster,” and the Inland Empire Utilities Agency, hereinafter referred to as “IEUA” (each a “Party” and collectively, the “Parties”).

In consideration of the mutual promises, covenants, and conditions as addressed in the Master Agreement dated September \_\_\_\_, 2017 and as specifically hereinafter set forth, the Parties do hereby agree as follows:

1. **PURPOSE**

The purpose of this Task Order is to govern the development of an amendment to the current Basin Plan for the Chino Groundwater Basin (“Basin”) in coordination with the Santa Ana Regional Water Quality Control Board (“Regional Board”). This effort will include support for updating the Recycled Water Discharge and Reuse Permit, Groundwater Recharge Permit, and Maximum Benefit Salinity Management Plan for the Basin, with regards to the total dissolved solids (“TDS”) limit.

The IEUA owns and operates four treatment facilities that treat wastewater to tertiary standards for recharge in the Basin for groundwater supply augmentation, direct reuse for irrigation or discharge to streams and channels that are tributary to the Prado Basin Reservoir on the Santa Ana River. These actions are regulated under two permits held with the Regional Board. Regional Board Order R8-2007-00392 (as amended by R8-2009-00573) regulates the recharge of recycled water for indirect potable reuse, and is a joint permit held by the IEUA and Watermaster. And Regional Board Order R8-2015-0036 (NPDES No. CA 8000409) regulates the discharge and direct reuse of recycled water. Additionally, the reuse of recycled water is regulated by the Basin Plan as part of the IEUA and Watermaster maximum benefit commitments for the Basin and is impacted by both the TDS and nitrogen (“N”) limits.

2. **SCOPE**

To obtain approval from the Regional Board for permit and Basin Plan modifications, the IEUA and Watermaster must perform a detailed evaluation of the TDS concentration impacts to Basin groundwater. Such an evaluation is referred to by the Regional Board as an Antidegradation Analysis. The objective of the analysis is to compare the relative water quality and economic impacts of the existing and proposed regulatory compliance

strategies.

The scope of work encompassed by this Task Order is attached hereto as **Exhibit A** as well as any environmental review that is necessary to complete the projects contemplated by the Task Order.

The following is a projected schedule and budget for the project:

Description	Start	Finish	Projected Cost
Salinity Basin Plan Amendment	09/28/17	12/31/19	\$408,000
Nitrogen Modeling & Evaluation*	09/28/17	12/31/19	\$229,000
Environmental Review	08/01/18	12/31/19	\$20,000
Contingency			\$66,000
		<b>Total</b>	<b>\$723,000</b>

\*Budget associated with the nitrogen effort will initially be carried by IEUA to initiate this effort. This item will continue to be considered to determine the appropriate cost share.

3. IEUA RESPONSIBILITIES

IEUA agrees to provide project management and contract administration services that include, but are not limited to:

- Engagement and management of consulting services as needed;
- Coordination and communication with the Regional Board;
- Payment of consultant invoices

IEUA will supply all personnel and equipment required to perform the assigned services.

4. WATERMASTER RESPONSIBILITIES

Watermaster agrees that it and its employees and consultants will cooperate with IEUA and the project consultants in the performance of services under this Task Order and will provide any necessary documentation and information in Watermaster's possession.

5. BUDGET AND COST ALLOCATION

Unless the scope of work is changed and an increase is authorized by the Parties, the total projected cost for the activities to be undertaken pursuant to this Task Order is seven hundred twenty-three thousand dollars (\$723,000) ("Budget"). The Parties agree that the Budget is shared as shown in the table below. The Budget shown below is shared equally, except for the portion specific to nitrogen and the associated portion of contingency. IEUA will initially carry the Budget for the nitrogen portion of the scope of work. The potential cost share for the nitrogen portion of the Budget will be further considered as the effort is initiated and potential impacts, benefits and responsibilities are investigated by the



Parties. The cost share and associated budgets for the nitrogen effort will be determined by the budgeting cycle for Fiscal Year 2018/19. The Parties shall budget, pursuant to their own budget mechanism, such that each is able to expend the amounts shown in the Fiscal Years shown in the table below, or as amended to this Task Order.

Description	Fiscal Year 2017/18	Fiscal Year 2018/19	Fiscal Year 2019/2020	Total
Salinity Basin Plan Amendment	\$241,000	\$110,000	\$57,000	\$408,000
Nitrogen Modeling & Evaluation	\$156,000	\$70,000	\$3,000	\$229,000
Environmental	\$0	\$10,000	\$10,000	\$20,000
Contingency	\$40,000	\$19,000	\$7,000	\$66,000
<b>Total</b>	<b>\$437,000</b>	<b>\$209,000</b>	<b>\$77,000</b>	<b>\$723,000</b>

Entity	Fiscal Year 2017/18	Fiscal Year* 2018/19	Fiscal Year* 2019/2020	Total
Watermaster	\$134,000	\$66,000	\$36,000	\$236,000
IEUA	\$303,000	\$143,000	\$41,000	\$487,000
<b>Total</b>	<b>\$437,000</b>	<b>\$209,000</b>	<b>\$77,000</b>	<b>\$723,000</b>

\*Budget associated with the nitrogen effort will initially be carried by IEUA to initiate the Scope of Work. This item will continue to be considered to determine the appropriate cost share.

6. TOTAL BUDGETED COST

The Parties agree to pay their respective portion of the total costs. The Parties shall not be required to pay more than \$723,000 ("Total Budgeted Cost").

7. MAXIMUM COSTS TO WATERMASTER

The costs to be required of Watermaster under this Agreement shall not exceed its share of the Total Budgeted Cost, as shown in Section 5 above, or \$236,000.

8. MAXIMUM COSTS TO IEUA

The costs to be required of IEUA under this Agreement shall not exceed its share of the Total Budgeted Cost, as shown in Section 5 above, or \$487,000.

9. TERM

Work to be undertaken pursuant to this Task Order shall be initiated upon the Effective Date, as described in Section 11, below. The terms of this Task Order shall remain effective until IEUA's receipt of Watermaster's share of costs expended pursuant to the Budget shown above, so that IEUA may close out the activities.

10. REIMBURSEMENT

Watermaster's reimbursement of IEUA for work performed under this Task Order shall be as provided in Article 3 of the September 2017 Master Agreement.

11. EFFECTIVE DATE

This Task Order No. 1 will become effective upon execution by both Parties.

IN WITNESS WHEREOF, the Parties have executed this Agreement on the day and year and at the place first above written.

CHINO BASIN WATERMASTER

By \_\_\_\_\_  
PETER KAVOUNAS  
General Manager

INLAND EMPIRE UTILITIES AGENCY

By \_\_\_\_\_  
P. JOSEPH GRINDSTAFF  
General Manager



March 6, 2017  
Revised June 26, 2017

Inland Empire Utilities Agency  
Attn: Sylvie Lee  
PO Box 9020  
Chino Hills, CA 91709

Chino Basin Watermaster  
Attn: Peter Kavounas  
9641 San Bernardino Road  
Rancho Cucamonga, CA 91730

**Subject: *Scope of Work and Cost Estimate to Support the Update of the IEUA's Recycled Water Permits and the Maximum Benefit Salinity Management Plan for the Chino Basin***

Dear Ms. Lee and Mr. Kavounas,

Pursuant to your request, WEI has prepared this proposal to support the update of the (1) Inland Empire Utilities Agency's (IEUA) recycled water discharge and reuse permit, (2) the joint IEUA and Watermaster groundwater recharge permit and (3) the joint IEUA and Watermaster Maximum Benefit Salinity Management Plan for the Chino Basin (e.g. the maximum benefit commitments) contained in the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan). This proposal provides a brief overview of the regulatory framework and project objectives, and details the scope of work, fee estimate, schedule, and key staff resources assigned to the project.

### **Background and Project Objectives**

The IEUA owns and operates four treatment facilities that treat wastewater to tertiary standards prior to being recharged in the Chino Basin to support groundwater supply augmentation, directly reused for irrigation or discharged to streams and channels that are tributary to the Prado Basin Reservoir on the Santa Ana River. The discharge, reuse, and recharge of recycled water by the IEUA are regulated under two permits held with the Santa Ana Regional Water Quality Control Board (Regional Board). Regional Board Order R8-2015-0036 (NPDES No. CA 8000409)<sup>1</sup> regulates the discharge and direct reuse of recycled water. Order R8-2007-0039<sup>2</sup> (as amended by R8-2009-0057<sup>3</sup>) regulates the recharge of recycled water for indirect potable reuse, and is a joint permit held by the IEUA and Watermaster. Additionally,

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<sup>1</sup> Order No. R8-2015-0036 and NPDES No. CA 8000409 - WASTE DISCHARGE REQUIREMENTS AND MASTER RECLAMATION PERMIT FOR INLAND EMPIRE UTILITIES AGENCY REGIONAL WATER RECYCLING FACILITIES – SURFACE WATER DISCHARGES AND RECYCLED WATER USE.

<sup>2</sup> Order No. R8-2007-0039 – Water Recycling Requirements for Inland Empire Utilities Agency and Chino Basin Watermaster – Chino Basin Recycled Water Groundwater Recharge Program – Phase I and Phase II Projects in San Bernardino County

<sup>3</sup> Order No. R8-2009-0057 Amending Order No. R8-2007-0039, Water Recycling Requirements for Inland Empire Utilities Agency and Chino Basin Watermaster – Chino Basin Recycled Water Groundwater Recharge Program – Phase I and Phase II Projects in San Bernardino County

the reuse of recycled water is regulated by the Basin Plan as part of the maximum benefit commitments for the Chino Basin<sup>4</sup>.

The permits specify limitations for total dissolved solids (TDS) and nitrogen concentrations, along with limitations for many other chemical constituents. The TDS limitation of recycled water is characterized as follows in these permits:

“The 12-month flow weighted running average TDS constituent concentration and mass emission rates shall not exceed 550 mg/L ... This limitation may be met on an agency-wide basis using flow weighted averages of the discharges from the Discharger’s RP-1, RP-4, RP-5, and CCWRF...”

The Basin Plan, specifically maximum benefit commitment number 9, specifies that:

“Within 60 days after the IEUA 12-month running average effluent concentration (measured as an average for all IEUA wastewater treatment facilities) for TDS exceeds 545 mg/L for 3 consecutive months, or the 12-month running average total inorganic nitrogen (TIN) concentration (measured as an average for all IEUA wastewater treatment facilities) exceeds 8 mg/L in any month, the IEUA shall submit to the Regional Board a plan and time schedule for implementation of measures to insure that the 12-month running average agency wastewater effluent quality does not exceed 550 mg/L and 8 mg/L for TDS and TIN, respectively. The Plan and schedule are to be implemented upon Regional Board approval.”

In 2015, the 12-month running average TDS concentration in recycled water produced by the IEUA approached the 545 mg/L metric that would require the IEUA and Watermaster to submit a plan and schedule to manage recycled water TDS concentrations. Research performed by the IEUA found that the primary driver for the increasing TDS concentration in its recycled water was an increase in the TDS concentration of the water supplies used by its member agencies. The increase may also be, in part, due to an increase of the TDS waste increment resulting from indoor water conservation.

Although the 12-month running average TDS concentration declined from the 2015 peak before the three-consecutive-month trigger, it was an important indicator that the TDS concentration of recycled water is likely to approach or exceed the discharge limitation and trigger the planning for recycled water quality improvements during the next prolonged dry period, or even sooner. Given the potential cost of implementing recycled water quality improvements for what might only be short-term exceedances of the 12-months running average limitation, the IEUA and Watermaster are interested in modifying the recycled water permits and the Basin Plan to allow for a longer-term averaging period for TDS concentrations.

To obtain approval from the Regional Board for these permit and Basin Plan modifications, the IEUA and Watermaster must perform a detailed evaluation of the TDS concentration impacts to Chino Basin groundwater. Such an evaluation is termed by the Regional Board as an Antidegradation Analysis. The objective of the analysis is to compare the relative water quality and economic impacts of the existing and proposed regulatory compliance strategies. The IEUA and Watermaster last performed an

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<sup>4</sup> See Table 5-8a and pages 5-49 in the Basin Plan located here:

[http://www.waterboards.ca.gov/rwqcb8/water\\_issues/programs/basin\\_plan/docs/2016/Chapter\\_5\\_February\\_2016.pdf](http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/docs/2016/Chapter_5_February_2016.pdf)

antidegradation analysis in June 2009, to support R8-2009-057, which amended R8-2007-039 to change the recycled water contribution averaging period from a 60-month to a 120-month period.

The IEUA has already engaged with Regional Board staff to discuss the requested modifications to the TDS concentration limitations contained in the recycled water permits and the Basin Plan. The Regional Board is supportive of the concept and has indicated that the IEUA and Watermaster should proceed with the required demonstrations.

On May 30, 2017 Watermaster, IEUA and WEI met to discuss adding the analysis of nitrate concentrations in the Chino Basin to the salinity management scope of work. The rationales for adding nitrate to the scope of work include: (1) as a condition of updating the IEUA permits and the Basin Plan, the Regional Board has requested that Watermaster and the IEUA commit to developing TDS and nitrate concentration projections for the Chino Basin every six years, similar to the requirements of the Cooperative Agreement and (2) the IEUA has indicated interest in addressing recycled water compliance for the groundwater recharge program as it relates to nitrate impacts at specific recharge sites and on a basin-scale to support their planning efforts. The TDS and nitrate (TDS/N) concentration projections can either be performed concurrently or the nitrate concentration projections can be performed in the year following the completion of the TDS projections. Performing the TDS/N concentration projections concurrently will reduce the overall cost of the work, provide more timely information for IEUA's recycled water planning activities related to nitrate compliance, and ensure that all recommended changes to the IEUA permits and Basin Plan based on the results of the work can be made all at once.

The objectives of the following scope of work to support the permit and Basin Plan modifications are: to develop and use updated modeling tools to evaluate the TDS/N concentrations of the Chino Basin, to define planning scenarios and perform an antidegradation analysis, to use the results to develop a regulatory compliance strategy that includes a longer-term average period for recycled water TDS concentrations, to develop a regulatory compliance strategy for nitrate, to support the negotiation of a final compliance strategies with the Regional Board, and to provide required assistance to the Regional Board to prepare a Basin Plan amendment. IEUA and Watermaster can also use the TDS/N projections to develop an understanding of how current and planned basin management activities will impact TDS and nitrate concentrations in the Basin, to plan for future water supply and wastewater treatment plant improvements, and to periodically inform the Regional Board of projected changes in TDS and nitrate concentrations and efforts to manage them.

## Scope of Work

The scope of work to support the update of the IEUA NPDES Permit and the Maximum Benefit Salinity Management Plan for the Chino Basin is broken down into nine tasks, as follows. The tasks and subtasks are also listed in the attached Table 1, which details the labor effort, in person-days, required to perform each subtask.

### Task 1 Develop Planning Data

The objective of this task is to collect, process, and analyze the planning data required to prepare a range of plausible water management scenarios for the Chino Basin that can be evaluated to assess their relative impacts to TDS/N concentrations in the basin. This data includes agency water supply sources, the associated TDS/N concentrations of each supply source, and their supply plans based on wet, dry, and normal conditions. The data will be collected from IEUA staff and Watermaster databases and compiled into tables and charts that characterize the individual and collective water supply plans and the range of existing and potential future TDS/N concentrations for each supply source. The planning data will be verified with the Chino Basin water supply agencies to ensure accuracy. The planning data,

once verified, will be documented in a task memorandum and submitted to the IEUA and Watermaster. The subtasks are:

- 1.1. Collect Water Supply, TDS/N, and Waste Increment Data from IEUA, and Others as Necessary
- 1.2. Develop Water Supply Plans for Dry, Wet and Other Conditions and Confirm Accuracy with Agencies
- 1.3. Estimate TDS/N Concentrations in Local Supplies
- 1.4. Estimate the TDS/N Concentrations for SWP Water Based on Historical TDS/N and associated SWP Allocations and Most Recent SWP Delivery Reliability Report
- 1.5. Evaluate TDS/N Waste Increment and Develop Future Projection of It
- 1.6. Collect, Compile and Validate Projected Surface Water Discharge and TDS/N data for Discharges in the Model Domain (Riverside Narrows, Temescal Wash, other SAR Tributaries, POTWs, and Recharge) for the Planning Period
- 1.7. Document Planning Data in a Tech Memo

### Task 2 Develop Planning Scenarios

The objectives of this task are to clearly articulate the TDS/N management challenge; describe the factors that can impact the TDS/N concentration in the water supply, groundwater, and wastewater; and develop a range of plausible water management planning scenarios based on historical hydrologic conditions. A total of four scenarios will be developed (baseline and three planning variants) and a series of performance metrics will be defined to evaluate the scenarios. The work performed for this task will be documented in a task memorandum and submitted to the IEUA and Watermaster. The subtasks are:

- 2.1. Articulate the TDS/N Management Challenge and the Drivers of TDS/N Concentration Changes Over Time
- 2.2. Develop Four Plausible Planning Scenarios Based on Historical Dry Periods that Can Be Identified in Local Data and in the Planning Hydrology in the SWP Delivery Reliability Report
- 2.3. Develop Performance Metrics for Scenario Evaluation
- 2.4. Document Planning Scenarios in a Tech Memo

### Task 3 Develop Solute Transport Model Based on the 2017 Chino Basin Watermaster Model and Evaluate Baseline Planning Scenario

The objective of this task is to develop a water quality modeling projection tool that will enable the development of TDS/N concentrations projections for the Chino Basin and to apply the tool to develop a TDS/N concentration projection for the baseline planning scenario. WEI proposes to develop an MT3D-based numerical solute transport model<sup>5</sup> that is based on the 2017 Chino Basin Watermaster Model (this is the latest version). WEI proposes to build this model for forward projections only and defer a formal calibration of it to a later time. A properly constructed uncalibrated TDS/N model can be used to test the impacts of different TDS/N management strategies on the relative rate of future TDS/N concentration changes. For example, an uncalibrated model can be used to reasonably compare the rate of TDS/N concentration degradation in the basin from a range of permit discharge limitations, as proposed in this scope of work.

This task will produce TDS/N concentration projections for the baseline scenario, which will be summarized in tabular and graphical formats for review and discussion with the IEUA and Watermaster.

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<sup>5</sup> Zheng, C. 1990. MT3D, A Modular Three-Dimensional Transport Model for Simulation of Advection, Dispersion and Chemical Reactions of Contaminants in Groundwater Systems, Report to the U.S. Environmental Protection Agency Robert S. Kerr Environmental Research Laboratory, Ada, Oklahoma.

After review, all the work performed for this task will be documented in a task memorandum and submitted to the IEUA and Watermaster. The following are the subtasks. Table 1 provides a breakdown of each step within these subtasks.

- 3.1. Develop 2017 Initial Conditions in the Saturated and Vadose Zones
- 3.2. Develop TDS/N Concentrations for Each Recharge and Discharge Component for the Planning Period
- 3.3. Run Baseline Scenario Simulations and Sensitivity Analysis
- 3.4. Document Evaluation Tool in a Tech Memo

This task could be expanded to include calibration of the model, but at substantially more cost. A calibrated model would improve confidence in the result and could then be used for more precise planning of future facilities required for salinity management.

#### Task 4 Evaluate Planning Scenarios

The objectives of this task are to use the water quality model developed in Task 3 to evaluate the planning scenarios defined in Task 2. This task will produce a series of projected TDS/N concentration time-histories for the Chino Basin groundwater management zones for the Chino Basin that can be compared to the results of the baseline scenario evaluated Task 3.<sup>6</sup> And, this information will be used to support the antidegradation analysis required by the Regional Board. If during Tasks 2 or 3, it is identified that no regulatory compliance strategies need to be modified for nitrate compliance, then no planning scenarios will need to be developed for nitrate.

This task will be performed in a step-wise process as the results of each planning scenario will inform how the subsequent scenario is run and evaluated. The process will be to run one planning scenario, summarize the results in charts and tables, evaluate it based on the performance metrics defined in Task 2, and review it with the IEUA and Watermaster. Based on the review of the results, the next planning scenario will be modified as appropriate and simulated. The work performed in this task will be documented in a task memorandum and submitted to the IEUA and Watermaster. The subtasks are:

- 4.1. Simulate First Planning Scenario with the Transport Model
- 4.2. Summarize Results of the Scenario Based on Performance Metrics
- 4.3. Review Scenario Results with IEUA/Watermaster Staff
- 4.4. Repeat Tasks 4.1 Through 4.3 for Remaining Planning Scenarios
- 4.5. Document Evaluation of Planning Scenarios in a Tech Memo

#### Task 5 Develop Salinity Management Proposal

The objective of this task is to prepare and document a salinity management proposal to the Regional Board that will enable the IEUA to modify its TDS discharge limitation to include a long-term averaging period and any necessary modifications to the nitrate management plan based on the results of the work performed in Tasks 3 and 4. The proposal will describe the salinity management challenges, the antidegradation analysis to characterize the TDS/N concentration projections for a series of planning

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<sup>6</sup> Other interesting issues could be explored since the water quality model will produce estimates of groundwater flow and associated TDS concentrations at the model cell level and surface water discharge and its associated TDS concentrations at discrete points in the Santa Ana River and its lowland tributaries. For example, how does a change in the TDS concentration averaging period affect the TDS concentration in the rising groundwater to the Santa Ana River and the Santa Ana River discharge at Prado dam?

scenarios, the recommended TDS discharge limitation, and any revisions to the maximum-benefit salinity management program (e.g. the maximum benefit commitments).

A draft proposal will be prepared and submitted to the IEUA and Watermaster for review and comment. An updated draft will be prepared based on comments received for submittal to the Regional Board. The subtasks are:

- 5.1. Develop Draft Salinity Management Proposal and Update Maximum Benefit Commitments
- 5.2. Review Draft Proposal with IEUA/Watermaster Staff
- 5.3. Finalize Proposal for Formal Submittal to Regional Board

#### Task 6 Provide Support to IEUA/ Watermaster in Communicating the Salinity Management Proposal to Their Stakeholders

The objectives of this task are to prepare a summary presentation to document the salinity management proposal and attend meetings to assist IEUA and Watermaster Staff in communicating the proposal to their stakeholders. This could include Watermaster process meetings, IEUA Board meetings, and Basin Monitoring Program Task Force Meetings. The subtasks are:

- 6.1. Summarize Salinity Management Proposal in a Microsoft PowerPoint Presentation
- 6.2. Attend up to Four Meetings to Present the Proposal to Stakeholders

#### Task 7 Provide Technical Support to IEUA/ Watermaster in Negotiating the Salinity Management Proposal with the Regional Board

The objective of this task is to attend meetings with the Regional Board to present the Salinity Management Proposal, and its associated technical demonstrations, in support of the IEUA's permit negotiation process. Based on experience, we estimate that up to four meetings may be necessary to complete the negotiation. Based on input from the Regional Board, the Salinity Management Proposal will need to be updated to address their comments and concerns. Performing such updates is included as part of this task. Once a final strategy is agreed upon between the IEUA, Watermaster and the Regional Board, the Salinity Management Proposal will be finalized. The subtasks are:

- 7.1. Attend up to Four Meetings with Regional Board Staff
- 7.2. Prepare Updates to the Salinity Management Proposal Based on Regional Board Feedback
- 7.3. Finalize Salinity Management Proposal

#### Task 8 Support Development of a Basin Plan Amendment to Formalize the Salinity Management Proposal

The objective of this task is to support the Regional Board staff's efforts to prepare a Basin Plan amendment to incorporate any updates to the Maximum Benefit Salinity Management Plan. This work includes performing the Substitute Environmental Document (SED), writing a staff report, preparing the amendment language, documenting the administrative record, and other miscellaneous support tasks. WEI will work with Tom Dodson and Associates to prepare the SED checklist in support of the amendment. The subtasks are:

- 8.1. Prepare SED Checklist
- 8.2. Prepare Staff Report and Other Supporting Documentation for the Basin Plan Amendment at the Request of Regional Board Staff



### Task 9 Meetings and Project Management

The objective of this task is to perform project management functions, including participating in bi-weekly conference calls on project status with the IEUA and Watermaster, maintaining a project ftp site, scheduling staff resources, managing the project schedule and budget, and working with the IEUA and Watermaster staff to resolve any challenges that arise.

### Fee Estimate and Schedule

Table 1 is a detailed work breakdown structure (WBS) and fee estimate to perform the scope of work described herein. The WBS shows the labor and other direct charges at the task and subtask level. The total estimated cost to perform the work is \$636,624 based on the rate schedule contained in the 2016 Contract between Watermaster and WEI. Based on the labor effort and the time required for reviewing work products and negotiating with the Regional Board, it is estimated that the project duration will be about 24 months.

If during Tasks 2 or 3, it is identified that no changes to permitting or compliance strategies for nitrogen are necessary, then the only nitrate concentration projection required for the scope of work will be the baseline projection. In this case, the total cost of performing Task 4 would be reduced by about \$58,000, thus reducing the total cost to about \$578,635. This would also reduce the project schedule by about three months.

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WEI is ready to begin work immediately and we would be pleased to work through and fine-tune the scope, schedule and deliverables of the project with you at your earliest convenience. Please call me at 949.600.7527 if you have any questions regarding this proposal. We look forward to working with you on this important and timely project.

Very truly yours,

### Wildermuth Environmental, Inc.



Samantha Adams  
Vice President, Principal Scientist



Mark Wildermuth, PE  
President, Principal Engineer

**Enclosures:** Table 1

**cc:**

Joshua Aguilar and Bonita Fan/IEUA  
Edgar Tellez Foster/Watermaster

**Table 1**  
**Work Breakdown Structure and Line-Item Cost Estimate**  
**to Support the Update of the IEUA's Recycled Water Permits and the Maximum Benefit Salinity Management Plan for the Chino Basin**

Description	Labor (person days)										Other Direct Costs					Total Project Costs								
	Staff								Task Repetition Multiplier	Total Labor		Travel	Printing	CEQA Consultant	Total ODCs		Sub-Task	Task						
	Principal Engineer III	Principal Scientist I	Principal GW Modeler	Principal SW Modeler	Senior Scientist II	Staff Scientist/Engineer II	Tech Editor/Admin	Person Days		Cost					Sub-Task	Task			Sub-Task	Task				
										Sub-Task	Task													
<b>Task 1 - Develop Planning Data</b>																		<b>\$60,722</b>		<b>\$0</b>		<b>\$60,722</b>		
1.1 Collect Water Supply, TDS/N, and Waste Increment Data from IEUA, and Others as Necessary	0.3	0.8			1.3			1	2	\$3,748										\$0		\$3,748		
1.2 Develop Water Supply Plans for Dry, Wet and Other Conditions and Confirm Accuracy with Agencies		1.0			5.0			1	6	\$9,256										\$0		\$9,256		
1.3 Estimate the TDS/N Concentrations for SWP Water Based on Historical TDS/N and Associated SWP Allocations and Most Recent SWP Delivery Reliability Report	0.8	0.3			1.0			1	2	\$3,462										\$0		\$3,462		
1.4 Estimate TDS/N Concentrations in Local Supplies		1.0			2.0	4.0		1	7	\$9,616										\$0		\$9,616		
1.5 Evaluate TDS Waste Increment of Recycled Water and Develop Future Projection of It	0.5	1.0			2.0			1	4	\$5,828										\$0		\$5,828		
1.6 Collect, Compile and Validate Projected Surface Water Discharge and TDS/N data for Discharges in the Model Domain (Riverside Narrows, Temescal Wash, other SAR Tributaries, POTWs, and Recharge) for the Planning Period	1.0	3.5		3.0		6.0		1	14	\$21,288										\$0		\$21,288		
1.7 Document Planning Data in a Tech Memo	0.5	1.3			2.5		0.5	1	5	\$7,524										\$0		\$7,524		
<b>Task 2 Develop Planning Scenarios</b>																						<b>\$16,818</b>	<b>\$0</b>	<b>\$16,818</b>
2.1 Articulate the TDS/N Management Challenge and the Drivers of TDS/N Concentration Changes Over Time	1.0	2.5			1.0	0.5		1	5	\$8,744										\$0		\$8,744		
2.2 Develop Four Plausible Planning Scenarios Based on Historical Dry Periods that Can Be Identified in Local Data and in the Planning Hydrology in the SWP Delivery Reliability Report	0.5	0.5						1	1	\$1,940										\$0		\$1,940		
2.3 Develop Performance Metrics for Scenario Evaluation	0.3							1	0.3	\$506										\$0		\$506		
2.4 Document Planning Scenarios in a Tech Memo	0.5	1.5			0.5	0.5	0.5	1	4	\$5,628										\$0		\$5,628		
<b>Task 3 Develop Solute Transport Model Based on the 2017 Chino Basin Watermaster Model and Evaluate Baseline Planning Scenario</b>																						<b>\$303,441</b>	<b>\$744</b>	<b>\$304,185</b>
3.1 Develop 2017 Initial Conditions in the Saturated and Vadose Zones																								
3.1.1 Assemble well construction, groundwater level and TDS/N data for wells in model domain		0.3	2.0			2.0		1	4	\$6,576										\$0		\$6,576		
3.1.2 Construct groundwater level and TDS/N maps for each model layer		1.0	1.5			15.0		1	18	\$22,640										\$0		\$22,640		
3.1.3 Rasterize groundwater level and TDS/N concentration by model layer	0.5	0.5	3.0					1	4	\$7,508										\$0		\$7,508		
3.1.4 Develop model input files for initial groundwater level and TDS/N			1.0					1	1	\$1,856										\$0		\$1,856		
3.1.5 Collect and compile volumes of water served by water agencies and their associated TDS/N time histories for 1986 through 2016	0.5	1.0		4.0		15.0		1	21	\$28,292										\$0		\$28,292		
3.1.6 Develop TDS/N loads from fertilizer application and dairies waste disposal	5.0	1.0						1	6	\$11,976										\$0		\$11,976		
3.1.7 Develop R4 input files and test				4.0				1	4	\$7,424										\$0		\$7,424		
3.1.8 Develop DIPAW and associated TDS/N concentrations for 1986 through 2016	0.5	1.0		10.0				1	12	\$21,428										\$0		\$21,428		
3.1.9 Develop model input files for DIPAW	1.0		3.0					1	4	\$7,592										\$0		\$7,592		

**Table 1**  
**Work Breakdown Structure and Line-Item Cost Estimate**  
**to Support the Update of the IEUA's Recycled Water Permits and the Maximum Benefit Salinity Management Plan for the Chino Basin**

Description	Labor (person days)										Other Direct Costs					Total Project Costs				
	Staff								Task Repetition Multiplier	Total Labor		Travel	Printing	CEQA Consultant	Total ODCs		Sub-Task	Task		
	Principal Engineer III	Principal Scientist I	Principal GW Modeler	Principal SW Modeler	Senior Scientist II	Staff Scientist/Engineer II	Tech Editor/Admin	Person Days		Cost					Sub-Task	Task			Sub-Task	Task
										Sub-Task	Task									
3.2 Develop TDS/N Concentrations for Each Recharge and Discharge Component for the Planning Period																				
3.2.1 Develop R4 input files for planning period and test				7.5				1	8	\$13,920					\$0		\$13,920			
3.2.2 Develop DIPAW and associated TDS/N concentrations for planning period				3.0				1	3	\$5,568					\$0		\$5,568			
3.2.3 Develop storm, imported and recycled water recharge flows and associated TDS/N concentrations	0.1	0.5						1	4	\$4,781					\$0		\$4,781			
3.2.4 Develop time histories of flow and associated TDS/N concentrations for subsurface boundary inflows		0.5	1.0					1	2	\$2,784					\$0		\$2,784			
3.2.5 Develop model input files for recharge and discharge components				3.0				1	3	\$5,568					\$0		\$5,568			
3.2.6 Summarize initial conditions and projected hydrologic components and associated TDS/N concentrations for the planning period	1.5	3.0						1	12	\$17,604					\$0		\$17,604			
3.2.7 Review 3.2.6 with IEUA and Watermaster	0.5	0.5	0.5					1	2	\$2,868	\$61				\$61		\$2,929			
3.2.8 Review 3.2.6 with IEUA, Watermaster, and the Regional Board	0.5	0.5	0.5					1	2	\$2,868	\$61				\$61		\$2,929			
3.3 Run Baseline Scenario Simulations and Sensitivity Analysis																				
3.3.1 Run the flow and water quality models for the baseline scenario	2.0	1.0	10.0					1	19	\$31,664					\$0		\$31,664			
3.3.2 Run sensitivity analysis to identify most sensitive parameters and assumptions	3.0	1.0	10.0					1	14	\$26,488					\$0		\$26,488			
3.3.3 Summarize model results for the baseline scenario in tables and charts	3.0	1.0	5.0					1	19	\$29,208					\$0		\$29,208			
3.2.4 Review 3.3.3 with IEUA and Watermaster	0.5	0.5	0.5					1	2	\$2,868	\$61				\$61		\$2,929			
3.2.5 Review 3.3.3 with IEUA, Watermaster, and the Regional Board	0.5	0.5	0.5					1	2	\$2,868	\$61				\$61		\$2,929			
3.4 Document Evaluation Tool in a Tech Memo	3.0	4.0	4.0	2.0		10.0	2.5	1	26	\$39,092		\$500			\$500		\$39,592			
<b>Task 4 Evaluate Planning Scenarios (Antidegradation Analysis)</b>																	<b>\$139,556</b>	<b>\$683</b>	<b>\$140,239</b>	
4.1 Simulate First Planning Scenario with the Transport Model																				
4.1.1 Update baseline scenario to incorporate features of the planning scenario	0.3	0.3	2.0	2.0				1	5	\$8,394					\$0		\$8,394			
4.1.2 Run scenario			4.0	1.0				1	5	\$9,280					\$0		\$9,280			
4.1.3 Review results	0.8	0.5	1.3	0.5		3.0		1	6	\$9,294					\$0		\$9,294			
4.2 Summarize Results of the Scenario Based on Performance Metrics	0.3	0.8	1.0	0.5		3.5		1	6	\$8,882					\$0		\$8,882			
4.3 Review Scenario with IEUA/Watermaster Staff	0.5	0.5	0.5					1	2	\$2,868	\$61				\$61		\$2,929			
4.4 Repeat Tasks 4.1 Through 4.3 for Remaining Two Planning Scenarios	1.8	2.0	8.8	4.0		6.0		2	45	\$76,236	\$122				\$122		\$76,358			
4.5 Document Evaluation of Planning Scenarios in a Tech Memo	3.0	4.0	2.0	1.0		4.0	0.8	1	15	\$24,602		\$500			\$500		\$25,102			
<b>Task 5 Develop Salinity Management Proposal</b>																	<b>\$17,123</b>	<b>\$61</b>	<b>\$17,184</b>	
5.1 Develop Draft Salinity Management Proposal and Update Maximum Benefit Commitments	1.5	3.0			2.0	1.0	0.5	1	8	\$13,256					\$0		\$13,256			
5.2 Review Draft Proposal with IEUA/Watermaster Staff	0.5	0.5						1	1	\$1,940	\$61				\$61		\$2,001			
5.3 Finalize Proposal for Formal Submittal to Regional Board	0.3	0.5			0.3		0.1	1	1	\$1,927					\$0		\$1,927			

**Table 1**  
**Work Breakdown Structure and Line-Item Cost Estimate**  
**to Support the Update of the IEUA's Recycled Water Permits and the Maximum Benefit Salinity Management Plan for the Chino Basin**

Description	Labor (person days)										Other Direct Costs					Total Project Costs			
	Staff								Task Repetition Multiplier	Person Days	Total Labor		Travel	Printing	CEQA Consultant	Total ODCs		Sub-Task	Task
	Principal Engineer III	Principal Scientist I	Principal GW Modeler	Principal SW Modeler	Senior Scientist II	Staff Scientist/Engineer II	Tech Editor/Admin	Cost			Sub-Task	Task				Sub-Task	Task		
<b>Task 6 Provide Support to IEUA/ Watermaster in Communicating the Salinity Management Proposal to Their Stakeholders</b>											<b>\$8,576</b>					<b>\$244</b>		<b>\$8,820</b>	
6.1 Summarize Salinity Management Proposal in a Microsoft PowerPoint Presentation		0.5							1	1	\$1,528					\$0		\$1,528	
6.2 Attend up to Four Meetings to Present the Proposal to Stakeholders		0.8							4	4	\$7,048		\$244		\$244		\$7,292		
<b>Task 7 Provide Technical Support to IEUA/ Watermaster in Negotiating the Salinity Management Proposal with the Regional Board</b>											<b>\$28,622</b>				<b>\$220</b>		<b>\$28,842</b>		
7.1 Attend up to Four Meetings with Regional Board Staff	0.3	1.0							4	5	\$9,448		\$220		\$220		\$9,668		
7.2 Prepare Updates to the Salinity Management Proposal Based on Regional Board Feedback	1.0	3.0	3.0		1.0	1.0	1.0		1	10	\$16,824				\$0		\$16,824		
7.3 Finalize Salinity Management Proposal	0.3	0.5			0.3	0.3	0.3		1	2	\$2,350				\$0		\$2,350		
<b>Task 8 Support Development of a Basin Plan Amendment to Formalize the Salinity Management Proposal</b>											<b>\$16,800</b>				<b>\$5,000</b>		<b>\$21,800</b>		
8.1 Prepare SED Checklist		1.0							1	1	\$1,856			\$5,000	\$5,000		\$6,856		
8.2 Prepare Staff Report and Other Supporting Documentation for the Basin Plan Amendment at the Request of Regional Board Staff	0.5	5.0			2.0	1.0	0.5		1	9	\$14,944				\$0		\$14,944		
<b>Task 9 Project Management</b>											<b>\$38,016</b>				<b>\$0</b>		<b>\$38,016</b>		
9.1 Biweekly Conference Calls with IEUA/Watermaster	0.13	0.13							48	12	\$23,280				\$0		\$23,280		
9.2 Maintain Project ftp Site							0.13		24	3	\$3,600				\$0		\$3,600		
9.3 Monthly Project Management Activities		0.3							24	6	\$11,136				\$0		\$11,136		
<b>Total Tasks 1 through 9</b>	<b>47</b>	<b>74</b>	<b>77</b>	<b>47</b>	<b>22</b>	<b>109</b>	<b>7</b>			<b>381</b>	<b>\$629,674</b>	<b>\$629,674</b>	<b>\$950</b>	<b>\$1,000</b>	<b>\$5,000</b>	<b>\$6,950</b>	<b>\$6,950</b>	<b>\$636,624</b>	

Notes:

**ACTION  
ITEM  
1C**

**Date:** September 20, 2017

**To:** The Honorable Board of Directors

*Chris Berch for JG*  
**From:** P. Joseph Grindstaff, General Manager

**Committee:** Engineering, Operations & Water Resources

09/13/17

Finance & Administration

09/13/17

**Executive Contact:** Chris Berch, Executive Manager of Engineering/AGM

**Subject:** San Sevaine Basin Improvements Construction Contract Award

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**Executive Summary:**

The San Sevaine Basin Improvements, Project No. EN13001, part of the Recharge Master Plan Update Projects, will construct a pump station at the southern area of San Sevaine Basin 5 and install piping towards Basins 1, 2, and 3. This will allow captured stormwater to be moved to a more efficient basins for recharge. The project will also increase recycled water use for groundwater recharge during the dry seasons. This project will benefit the region's groundwater system by providing approximately an additional 600 acre-feet of storm water and 4,100 acre-feet of recycled water. The improvements are within San Bernardino County Flood Control District's property. Due to the recycled water component, this project is 50-percent cost shared with Chino Basin Watermaster. Additionally, \$1,125,000 of the total project is funded by grants from California Department of Water Resources and United States Department of the Interior's Bureau of Reclamation.

On February 6, 2017, IEUA pre-qualified 17 general contractors to bid on the project. On March 16, 2017, IEUA released an invitation for bids to the eligible contractors through PlanetBids. On July 13, 2017, seven bids were received. Gwinco Construction & Engineering was deemed the lowest responsive bidder with a bid price of \$3,873,029.

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**Staff's Recommendation:**

1. Award a construction contract for the San Sevaine Basin Improvements, Project No. EN13001, to Gwinco Construction & Engineering, in the amount of \$ 3,873,029; and
2. Authorize the General Manager to execute the construction contract.

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**Budget Impact** *Budgeted (Y/N): Y* *Amendment (Y/N): N* *Amount for Requested Approval:*

*Account/Project Name:*

EN13001/San Sevaine Basin Improvements

*Fiscal Impact (explain if not budgeted):*

N/A

**Prior Board Action:**

On January 20, 2016, the Board of Directors adopted the California Environmental Quality Act (CEQA) Initial Study/Mitigated Negative Declaration and Mitigation, Monitoring, and Reporting Program.

On May 20, 2015, the Board of Directors approved the consulting engineering services contract award to Dudek.

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**Environmental Determination:**

Negative Declaration

IEUA processed a Mitigated Negative Declaration for this project. A copy of the Notice of Determination is attached.

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**Business Goal:**

The San Sevaine Basin Improvements Project is consistent with the IEUA's Business Goal of Water Reliability specifically the Groundwater Recharge objective that IEUA will maximize groundwater recharge projects in the region through strategic, cost-effective partnerships, and development.

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**Attachments:**

Attachment 1 - Background

Attachment 2 - PowerPoint

Attachment 3 - Construction Contract

Attachment 4 - Negative Declaration

## Background

Subject: San Sevaine Basin Improvements Construction Contract Award

In 2013, IEUA and Chino Basin Watermaster (Watermaster) approved a series of proposed recharge enhancement projects under the Recharge Master Plan Update (RMPU). The San Sevaine Basin Improvements project is a part of the RMPU. This project captures and recharges an additional 600 acre-feet of storm water and 4,100 acre-feet of recycled water for region's groundwater system. The San Sevaine project is 50-percent cost shared between Watermaster and IEUA. The improvements propose to install a pump station at the southern area of the Basin 5 and install piping to Basins 1, 2, and 3. The project will allow for the transfer of captured stormwater at Basin 5 to more efficient recharge basins and increase recycled water use for groundwater recharge during the dry seasons. The project will also allow for better management against midge fly nuisance by minimizing water levels at Basin 5 and effectively transferring the water to higher performing recharge basins. Dudek, the engineering consultant, prepared the construction plans and will provide engineering services during construction.

On February 6, 2017, IEUA pre-qualified 17 general contractors to bid on the project. On March 16, 2017, IEUA released an invitation for bids to the eligible contractors through PlanetBids. On July 13, 2017, the following seven bids were received:

Bidder's Name	Total Price
Gwinco Construction & Engineering, Inc.	\$ 3,873,029
Ferreira DBA Ferreira Coastal Construction Co.	\$ 4,232,282
H & H General Contractors, Inc.	\$ 4,269,200
Canyon Springs Enterprise DBA RSH Construction	\$ 4,528,356
Norstar Plumbing and Engineering, Inc.	\$ 4,979,000
Environment Construction, Inc.	\$ 5,318,848
CDM Constructors, Inc.	\$ 6,176,663
<b>Engineer's Estimate</b>	<b>\$4,265,000</b>

Gwinco Construction & Engineering, Inc. was the lowest responsible and responsive bidder with a bid price of \$3,873,029. Gwinco was pre-qualified by presenting the required experience on performing similar projects with other utilities and cities and showing good workmanship and responsiveness.



The following table is the anticipated project cost:

Description	Estimated Cost
<b>Design Services</b>	<b>\$752,179</b>
Preliminary Design Contract (actual cost)	\$256,000
Design Contract (actual cost)	\$320,028
IEUA Design Services (actual cost)	\$176,151
<b>Construction Services</b>	<b>\$425,800</b>
Design Consultant Construction Services (actual cost)	\$38,800
IEUA Construction Services	\$387,000
<b>Construction</b>	<b>\$4,260,029</b>
Construction Contract (actual cost)	\$3,873,029
Contingency (~10%)	\$ 387,000
<b>Total Project Cost:</b>	<b>\$5,438,008</b>
<b>Basin Monitoring Wells (Separate Action)</b>	<b>\$856,992</b>
<b>Total Project Budget</b>	<b>\$6,460,000</b>
<b>Remaining Budget</b>	<b>\$165,000</b>

The total project budget also supports the Monitoring Well project which will be awarded and constructed separately.

The following is the project schedule:

Project Milestone	Date
Construction Contract Award	September 2017
Construction Completion	September 2018

Fiscal Impact:

If approved, the construction contract for the San Sevaine Basin Improvements, Project No. EN13001, in the amount of \$ 3,873,029, will be within the total project budget of \$ 6,460,000, in the Recycled Water (WC) Fund.

This project is 50-percent cost shared with Chino Basin Watermaster as stipulated within Task Order Agreement No. 8 of the Master Agreement of 2014 between IEUA and Watermaster.

Additionally, \$1,125,000 of the total project budget is funded by grants (from California Department of Water Resources, Santa Ana Watershed Project Authority, and the United States Department of Interior's Bureau of Reclamation) and the remaining by low interest loans from the Clean Water State Revolving Funds.

# San Sevaine Basin Improvements Construction Contract Award Project No. EN13001



# Project Location



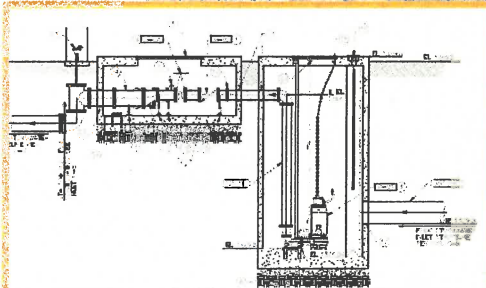
# Project Scope

## Basin Improvements:

- Pump Basin 5 water to upper Basins
  - Install pump station in Basin 5
  - Build conveyance piping to upper basins
- Connect to RW source
  - Uses new piping to recharge upper basins

## Project Benefits:

- Increase storm water recharge to approx. 600 acre-feet per year
- Increase recycled water recharge 4,100 acre-feet per year
- Increase operational flexibility for midge fly control



# Contractor Selection

- Pre-qualified 17 general contractors on February 6, 2017
- Bids received on July 13, 2017:

Bidder's Name	Total
Gwinco Construction & Engineering, Inc.	\$ 3,873,029
Ferreira DBA Ferreira Coastal Construction Co	\$ 4,232,282
H & H General Contractors, Inc.	\$ 4,269,200
Canyon Springs Enterprise DBA RSH Construction	\$ 4,528,356
Norstar Plumbing and Engineering, Inc	\$ 4,979,000
Environment Construction, Inc.	\$ 5,318,848
CDM Constructors, Inc.	\$ 6,176,663
<b>Engineer's Estimate</b>	<b>\$4,265,000</b>

# Project Budget and Schedule

Description	Estimated Cost	Project Milestone	Date
<b>Design Services</b>	<b>\$752,179</b>	Construction Contract Award	September 2017
Preliminary Design Contract (actual cost)	\$256,000	Construction Completion	September 2018
Design Contract (actual cost)	\$320,028		
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<b>Construction Services</b>	<b>\$425,800</b>		
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<b>Construction</b>	<b>\$4,260,029</b>		
Construction Contract	\$3,873,029		
Contingency (10%)	\$387,000		
<b>Total Project Cost</b>	<b>\$5,438,008</b>		
<b>Basin Monitoring Wells</b>	<b>\$856,992</b>		
<b>Total Project Budget</b>	<b>\$6,460,000</b>		
<b>Remaining Budget</b>	<b>\$165,000</b>		

The monitoring wells project to be awarded and constructed separately

# Recommendation

- Authorize the construction contract for the San Sevaine Basin Improvements, Project No. EN13001, to Gwinco Construction & Engineering, in the amount of \$ 3,873,029; and
- Authorize the General Manager to execute the construction contract.

The San Sevaine Basin Improvements Project is consistent with the *IEUA's Business Goal of Water Reliability* specifically the Groundwater Recharge objective that IEUA will maximize groundwater recharge projects in the region through strategic, cost-effective partnerships, and development.

**SAN SEVAINE BASIN IMPROVEMENTS CONTRACT**

THIS CONTRACT, made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between Gwinco Construction and Engineering, Inc., hereinafter referred to as "Contractor," and The Inland Empire Utilities Agency, a Municipal Water District, located in San Bernardino County, California, hereinafter referred to as "Agency".

**WITNESSETH:**

That for and in consideration of the promises and agreements hereinafter made and exchanged, the Agency and the Contractor agree as follows:

1. Contractor agrees to perform and complete in a workmanlike manner, all work required under the bidding schedule of said Agency's specifications entitled SPECIFICATIONS FOR San Sevaire Basin Improvements Project No. EN13001, in accordance with the specifications and drawings, and to furnish at their own expense, all labor, materials, equipment, tools, and services necessary, except such materials, equipment, and services as may be stipulated in said specifications to be furnished by said Agency, and to do everything required by this Contract and the said specifications and drawings.
2. For furnishing all said labor, materials, equipment, tools, and services, furnishing and removing all plant, temporary structures, tools and equipment, and doing everything required by this Contract and said specifications and drawings; also for all loss and damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen difficulties which may arise during the prosecution of the work until its acceptance by said Agency, and for all risks of every description connected with the work; also for all expenses resulting from the suspension or discontinuance of work, except as in the said specifications are expressly stipulated to be borne by said Agency; and for completing the work in accordance with the requirements of said specifications and drawings, said Agency will pay and said Contractor shall receive, in full compensation therefore, the price(s) set forth in this Contract.
3. That the Agency will pay the Contractor progress payments and the final payment, in accordance with the provisions of the contract documents, with warrants drawn on the appropriate fund or funds as required, at the prices bid in the Bidding and Contract Requirements, Section C - Bid Forms and accepted by the Agency, and set forth in this below.

Total Bid Price \$ 3,873,029 Dollars

Total Bid Price \$ Three million eight hundred seventy-three thousand twenty-nine Dollars

If this is not a lump sum bid and the contract price is dependent upon the quantities constructed, the Agency will pay and said Contractor shall receive, in full compensation for the work the prices named in the Bidding and Contract Requirements, Section C - Bid



Forms.

4. The Agency hereby employs the Contractor to perform the work according to the terms of this Contract for the above-mentioned price(s), and agrees to pay the same at the time, in the manner, and upon the conditions stipulated in the said specifications; and the said parties for themselves, their heirs, executors, administrators, successors, and assigns, do hereby agree to the full performance of the covenants herein contained.
5. The Notice Inviting Bids, Instructions to Bidders, Bid Forms, Information Required of Bidder, Performance Bond, Payment Bond, Contractors License Declaration, Specifications, Drawings, all General Conditions and all Special Conditions, and all addenda issued by the Agency with respect to the foregoing prior to the opening of bids, are hereby incorporated in and made part of this Contract, as if fully set forth.
6. The Contractor agrees to commence work under this Contract on or before the date to be specified in a written "Notice to Proceed" and to complete said work to the satisfaction of the Agency **Three hundred sixty-five (365) calendar days** after award of the Contract. All work shall be completed before final payment is made.
7. Time is of the essence on this Contract.
8. Contractor agrees that in case the work is not completed before or upon the expiration of the contract time, damage will be sustained by the Agency, and that it is and will be impracticable to determine the actual damage which the Agency will sustain in the event and by reason of such delay, and it is therefore agreed that the Contractor shall pay to the Agency the amount of **Four thousand dollars (\$4,000)** for each day of delay, which shall be the period between the expiration of the contract time and the date of final acceptance by the Agency, as liquidated damages and not as a penalty. It is further agreed that the amount stipulated for liquidated damages per day of delay is a reasonable estimate of the damages that would be sustained by the Agency, and the Contractor agrees to pay such liquidated damages as herein provided. In case the liquidated damages are not paid, the Contractor agrees that the Agency may deduct the amount thereof from any money due or that may become due to the Contractor by progress payments or otherwise under the Contract, or if said amount is not sufficient, recover the total amount.

In addition to the liquidated damages, which may be imposed if the Contractor fails to complete the work within the time agreed upon, the Agency may also deduct from any sums due or to become due the Contractor, liquidated damages in accordance with the Bidding and Contract Requirements, Section B - Instruction to Bidders, Part 5.0 "Liquidated Damages", for any violation of the General Conditions, Section D - Contractor's Responsibilities, Part 8, "Law and Regulations"; Bidding and Contract Requirements Contract Section D – Contract and Relevant Documents, Part 1.0, Paragraphs 9 through 11; General Conditions, Section D – Contractor's Responsibilities, Part 4.0, "Labor, Materials and Equipment"; General Conditions Section D – Contractor's Responsibilities, Part 12.0, "Safety and Protection" or General Conditions Section H – Legal Responsibilities, Part 8.0, "Disturbance of the Peace". That the Contractor will pay, and will require subcontractors to pay, employees on the work a salary or wage at least equal to the prevailing salary or wage established for such work as set forth in the wage determinations and wage standards applicable to this work, contained in or referenced in the contract documents.

9. That, in accordance with Section 1775 of the California Labor Code, Contractor shall forfeit to the Agency, as a penalty, not more than Fifty (\$50.00) Dollars for each day, or portion thereof, for each worker paid, either by the Contractor or any subcontractor, less than the prevailing rates as determined by the Director of the California Department of Industrial Relations for the work.
10. That, except as provided in Section 1815 of the California Labor Code, in the performance of the work not more than eight (8) hours shall constitute a day's work, and not more than forty (40) hours shall constitute a week's work; that the Contractor shall not require more than eight (8) hours of labor in a day nor more than forty hours of labor in a week from any person employed by the Contractor or any subcontractor; that the Contractor shall conform to Division 2, Part 7, Chapter 1, Article 3 (Section 1810, et seq.) of the California Labor Code; and that the Contractor shall forfeit to the Agency, as a penalty, the sum of Twenty-Five (\$25.00) Dollars for each worker employed in the execution of the work by Contractor or any subcontractor for each day during which any worker is required or permitted to labor more than eight (8) hours in violation of said Article 3.
11. That the Contractor shall carry Workers' Compensation Insurance and require all subcontractors to carry Workers' Compensation Insurance as required by the California Labor Code.
12. That the Contractor shall have furnished, prior to execution of the Contract, two bonds approved by the Agency, one in the amount of one hundred (100) percent of the contract price, to guarantee the faithful performance of the work, and one in the amount of one hundred (100) percent of the contract price to guarantee payment of all claims for labor and materials furnished.
13. The Contractor hereby agrees to protect, defend, indemnify and hold the Agency and its employees, agents, officers, directors, servants and volunteers free and harmless from any and all liability, claims, judgments, costs and demands, including demands arising from injuries or death of persons (including employees of the Agency and the Contractor) and damage to property, arising directly or indirectly out of the obligation herein undertaken or out of the operations conducted by the Contractor, its employees agents, representatives or subcontractors under or in connection with this Contract.

The Contractor further agrees to investigate, handle, respond to, provide defense for and defend any such claims, demands or suit at the sole expense of the Contractor.

IN WITNESS, WHEREOF, The Contractor and the General Manager of Inland Empire Utilities Agency\*, thereunto duly authorized, have caused the names of said parties to be affixed hereto, each in duplicate, the day and year first above written.

Inland Empire Utilities Agency, \*  
Contractor San Bernardino County, California.

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

Gwinco Construction & Engineering, Inc.

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

\*Municipal Water District



State of California - Department of Fish and Wildlife  
**2016 ENVIRONMENTAL FILING FEE CASH RECEIPT**  
 DFW 753.5a (Rev. 12/15/15) Previously DFG 753.5a

RECEIPT NUMBER:  
 36 — 01212016 — 29  
 STATE CLEARINGHOUSE NUMBER (If applicable)  
 2015101054

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

LEAD AGENCY Inland Empire Utilities Agency	LEAD AGENCY EMAIL N/A	DATE 01/21/2016
COUNTY/STATE AGENCY OF FILING San Bernardino	DOCUMENT NUMBER N/A	

PROJECT TITLE  
 San Sevaine Basin Development Project

PROJECT APPLICANT NAME Inland Empire Utilities Agency	PROJECT APPLICANT EMAIL N/A	PHONE NUMBER (909) 993-1913
PROJECT APPLICANT ADDRESS 6075 Kimball Ave	CITY Chino	STATE CA
		ZIP CODE 91708

PROJECT APPLICANT (Check appropriate box)  
 Local Public Agency   
 School District   
 Other Special District   
 State Agency   
 Private Entity

CHECK APPLICABLE FEES:

- Environmental Impact Report (EIR) \$3,070.00 \$ 0.00
- Mitigated/Negative Declaration (MND)(ND) \$2,210.25 \$ 2,210.25
- Certified Regulatory Program document (CRP) \$1,043.75 \$ 0.00
- Exempt from fee
  - Notice of Exemption (attach)
  - CDFW No Effect Determination (attach)
- Fee previously paid (attach previously issued cash receipt copy)
- Water Right Application or Petition Fee (State Water Resources Control Board only) \$850.00 \$ 0.00
- County documentary handling fee \$ 50.00
- Other \$

PAYMENT METHOD: #9382  
 Cash   
 Credit   
 Check   
 Other   
**TOTAL RECEIVED \$ 2,260.25**

SIGNATURE: Melissa Crowell AGENCY OF FILING PRINTED NAME AND TITLE: Melissa Crowell, Deputy Clerk

## NOTICE OF DETERMINATION

**To:** Office of Planning and Research  
1400 Tenth Street, Room 121  
Sacramento, CA 95814

**From:** Inland Empire Utilities Agency  
6075 Kimball Avenue  
Chino, CA 91708

and

San Bernardino County  
Clerk of the Board of Supervisors  
385 N. Arrowhead Avenue, 2<sup>nd</sup> Floor  
San Bernardino, CA 92415

Subject: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

### SAN SEVAINE BASIN DEVELOPMENT PROJECT

Project Title

<u>SCH #2015101054</u>	<u>Joel Ignacio, P.E.</u>	<u>(909) 993-1913</u>
State Clearinghouse Number	Lead Agency Contact Person	Area Code/Telephone/Extension

#### **Project Location:**

The proposed project is located in the City of Rancho Cucamonga, San Bernardino County, California. The proposed project sites are existing, south of Wilson Avenue; west of Interstate 15; and northwest of the Interstate 210 and Interstate 15 interchange. The project is located within Section 26 and 27, Township 1 North, Range 6 West, San Bernardino Baseline and Meridian, as depicted on the USGS - Devore Quadrangle, 7.5 Minute Series topographic map.

#### **Project Description:**

The Inland Empire Utilities Agency (IEUA) and the Chino Basin Watermaster (CBWM) are proposing the San Sevaime Basin Improvements Project (proposed project). The objective of this project is to increase the amount of recycled water (RW) and stormwater recharged into the Chino Groundwater Basin, specifically at the San Sevaime Basins located immediately north and west of the Interstate 210 and Interstate 15 interchange in the City of Rancho Cucamonga, San Bernardino County.

The existing San Sevaime Basins (Basins) consist of five individual basins covering approximately 130 acres. The Basins consist of five, soft-bottomed basins along San Sevaime Creek. Each basin has inlet and outlet structures that allow the capture and recharge of various types of water sources. The primary mode of conveyance between Basins is surface transfer, which restricts the operational flexibility of the system. These Basins are dual-use facilities which serve flood control and groundwater recharge functions. Currently, a total of 500 acre-feet per year (AFY) of RW and 300 AFY of stormwater (on average) is infiltrated into the groundwater basins at this location. The recommended Basins improvements will allow up to an estimated 8,100 AFY of additional RW, and up to an additional 2,700 AF of stormwater to be recharged at this location.

The Basins are owned by the San Bernardino County Flood Control District (SBCFCD). They were originally constructed for flood control mitigation to attenuate peak storm flows, but are now operated as multipurpose basins under a Four Party Agreement between SBCFCD, IEUA, CBWM, and the Chino Basin Water Conservation District (CBWCD) (stakeholders). The stakeholders previously invested in improvements of the Basins to allow them to be used for groundwater recharge. They were modified to allow the capture and recharge of stormwater and supplemental water (supplemental water consists of imported water and recycled water) in a conjunctive use program.

#### **DATE FILED & POSTED**

Posted On: 1/21/16

Removed On: 3/4/16

Receipt No: 36-01212016-029

**Notice of Determination**  
**Page 2 of 2**

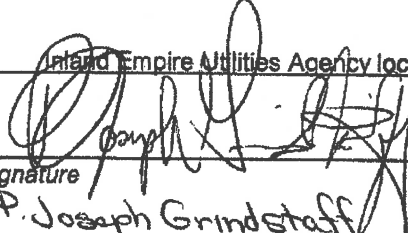
This is to advise that the Inland Empire Utilities Agency has approved the above described

Lead Agency  Responsible Agency

project on Jan. 20, 2016 and has made the following determination regarding the project:  
(Date)

1. The project [ will  will not] have a significant effect on the environment.
2.  An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.  
 A Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [ were  were not] made a condition of the approval of the project and a Mitigation Monitoring and Reporting Plan was adopted.
4. A Statement of Overriding Considerations [ was  was not] adopted for this project.

This is to certify that the Mitigated Negative Declaration/Initial Study and record of project approval is available to the general public at:

Inland Empire Utilities Agency located at 6075 Kimball Avenue, Chino, CA 91708  
\_\_\_\_\_  
  
Signature P. Joseph Grindstaff General Manager 1/20/16  
Title Date

## MITIGATED NEGATIVE DECLARATION

**Lead Agency:** Inland Empire Utilities Agency  
6075 Kimball Avenue  
Chino, CA 91708

**Contact:** Joel Ignacio, P.E.  
**Phone:** (909) 993-1913  
**Email:** jignacio@ieua.org

**Project Title:** SAN SEVAINE BASIN DEVELOPMENT PROJECT

**State Clearinghouse Number:** SCH#2015101054

**Project Location:** The proposed project is located in the City of Rancho Cucamonga, San Bernardino County, California. The proposed project sites are existing, south of Wilson Avenue; west of Interstate 15; and northwest of the Interstate 210 and Interstate 15 interchange. The project is located within Section 26 and 27, Township 1 North, Range 6 West, San Bernardino Baseline and Meridian, as depicted on the USGS – Devore Quadrangle, 7.5 Minute Series topographic map.

**Project Description:** The Inland Empire Utilities Agency (IEUA) and the Chino Basin Watermaster (CBWM) are proposing the San Sevaive Basin Improvements Project (proposed project). The objective of this project is to increase the amount of recycled water (RW) and stormwater recharged into the Chino Groundwater Basin, specifically at the San Sevaive Basins located immediately north and west of the Interstate 210 and Interstate 15 interchange in the City of Rancho Cucamonga, San Bernardino County.

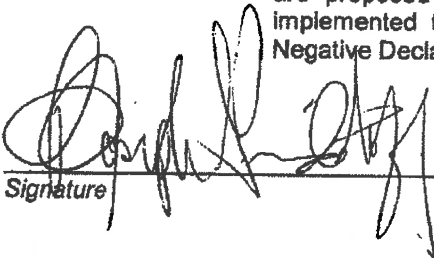
The existing San Sevaive Basins (Basins) consist of five individual basins covering approximately 130 acres. The Basins consist of five, soft-bottomed basins along San Sevaive Creek. Each basin has inlet and outlet structures that allow the capture and recharge of various types of water sources. The primary mode of conveyance between Basins is surface transfer, which restricts the operational flexibility of the system. These Basins are dual-use facilities which serve flood control and groundwater recharge functions. Currently, a total of 500 acre-feet per year (AFY) of RW and 300 AFY of stormwater (on average) is infiltrated into the groundwater basins at this location. The recommended Basins improvements will allow up to an estimated 8,100 AFY of additional RW, and up to an additional 2,700 AF of stormwater to be recharged at this location.

**Finding:** Inland Empire Utilities Agency's (IEUA) decision to implement this proposed project is a discretionary decision or "project" that requires evaluation under the California Environmental Quality Act (CEQA). Based on the information in the project Initial Study, LACSD has made a *preliminary* determination that a Mitigated Negative Declaration will be the appropriate environmental determination for this project to comply with CEQA.

**Initial Study:** Copies of the Mitigated Negative Declaration/Initial Study are available for public review at the Copies of the Mitigated Negative Declaration/Initial Study are available for review at the IEUA's office located at 6075 Kimball Avenue, Chino, CA 91708. The proposed Mitigated Negative Declaration was available for public review and comment from October 16, 2015 to November 16, 2015.

**Mitigated Negative Declaration**  
**Page 2 of 2**

**Mitigation Measures:** All mitigation measures identified in the Initial Study are summarized on pages 53-55 and are proposed for adoption as conditions of the project. These measures will be implemented through a mitigation monitoring and reporting program if the Mitigated Negative Declaration is adopted.

  
Signature

General Manager  
Title

1/20/16  
Date



**ACTION  
ITEM  
1D**

**Date:** September 20, 2017

**To:** The Honorable Board of Directors

**Committee:** Engineering, Operations & Water Resources

*Chris Berch for JM*  
**From:** P. Joseph Grindstaff, General Manager

09/13/17

**Executive Contact:** Chris Berch, Executive Manager of Engineering/AGM

**Subject:** San Sevaine Basin Monitoring Wells Construction Contract Award

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**Executive Summary:**

The San Sevaine Basin Monitoring Wells is a project component to the San Sevaine Basin Improvements Project which is a part of the enhancement improvements under the Recharge Master Plan Update (RMPU). The overall basin improvements will provide an additional 600 acre-feet of storm water and 4,100 acre-feet of recycled water to the region's groundwater system. This project component will support the basin improvements project by providing the required regulatory wells to monitor and report the groundwater quality at near-by drinking wells. The new monitoring wells will be installed downgradient of the improvements within the San Bernardino County Flood Control District and Rancho Cucamonga properties. Since this is an RMPU project, 50-percent of the cost is shared with Chino Basin Watermaster. The project will also share a portion for available grant funds from California Department of Water Resources and United States Department of the Interior's Bureau of Reclamation.

On April 12, 2017, IEUA posted an invitation for bids on PlanetBids to drilling contractors. On June 1, 2017, IEUA received two bids. Yellow Jacket Drilling was determined the lowest responsive and responsible bidder in the amount of \$607,470.

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**Staff's Recommendation:**

1. Award a construction contract for the San Sevaine Basin Monitoring Wells, Project No. EN13001, to Yellow Jacket Drilling in the amount of \$607,470; and
2. Authorize the General Manager to execute the construction contract.

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**Budget Impact** Budgeted (Y/N): Y Amendment (Y/N): N Amount for Requested Approval:

Account/Project Name:

EN13001/San Sevaine Basin Improvements

*Fiscal Impact (explain if not budgeted):*

N/A

**Prior Board Action:**

On May 20, 2015, the Board of Directors approved the consulting engineering services contract to Dudek.

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**Environmental Determination:**

Categorical Exemption

CEQA identifies certain categories of projects as exempt from more detailed environmental review because these categories have been deemed to have no potential for significant impact on the environment. This project qualifies for a Categorical Exemption Class 6 as defined in Section 15306 of the State CEQA Guidelines.

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**Business Goal:**

The San Sevaine Basin Monitoring Wells Project is consistent with the IEUA's Business Goal of Water Reliability specifically the Groundwater Recharge objective that IEUA will maximize groundwater recharge projects in the region through strategic, cost-effective partnerships, and development.

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**Attachments:**

Attachment 1 - Background

Attachment 2 - PowerPoint

Attachment 3 - Construction Contract

## Background

Subject: San Sevaine Basin Monitoring Wells Construction Contract Award

The San Sevaine Basin Monitoring Wells is a project component to the San Sevaine Basin Improvements Project which is a part of the enhancement improvements under the Recharge Master Plan Update. The overall basin improvements will provide approximately an additional volume of 600 acre-feet of storm water and 4,100 acre-feet of recycled water to the region's groundwater system. This project component will support the main project by providing the required regulatory wells to monitor and report the groundwater quality. The new monitoring wells will be installed within San Bernardino County Flood Control District and Rancho Cucamonga properties. The wells will be constructed at depths of 420 to 520 feet. Dudek prepared the construction plans and will provide engineering support during construction.

On April 12, 2017, IEUA posted an invitation for bids on PlanetBids. On June 1, 2017, the following bids were received:

Bidder's Name	Total Price
Yellow Jacket Drilling	\$ 607,470
Cascade Drilling	\$ 609,200
<b>Engineer's Estimate</b>	<b>\$600,000</b>

Yellow Jacket Drilling was the lowest responsive and responsible bidder with a bid price of \$607,470. Yellow Jacket has performed similar projects with other utilities and cities with good workmanship and responsiveness. The following table is the anticipated project cost:

Description	Estimated Cost
<b>Design Services</b>	<b>\$82,522</b>
Design Contract (actual cost)	\$62,522
IEUA Design Services	\$20,000
<b>Construction Services</b>	<b>\$106,000</b>
Design Consultant Construction Services	\$45,000
IEUA Construction Services	\$61,000
<b>Construction</b>	<b>\$668,470</b>
Construction Contract	\$607,470
Contingency (~10%)	\$61,000
<b>Total Project Cost</b>	<b>\$856,992</b>
<b>Basin Improvements (Separate Action)</b>	<b>\$5,438,008</b>
<b>Total Project Budget</b>	<b>\$6,460,000</b>
<b>Remaining Budget</b>	<b>\$165,000</b>

The total project budget supports both the basin improvement and monitoring wells. The monitoring wells construction is awarded separately from the basin improvements construction to seek more competitive bids from specialized drilling contractors.

The following is the project schedule:

<b>Project Milestone</b>	<b>Date</b>
Construction Contract Award	September 2017
Construction Completion	March 2018

Fiscal Impact:

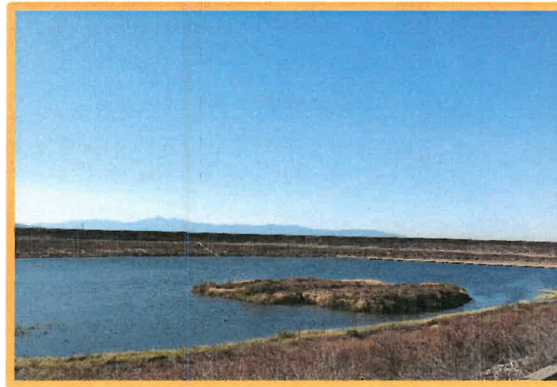
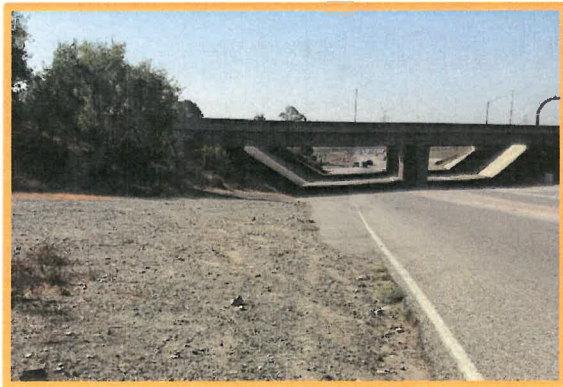
If approved, the construction contract for the San Sevaine Basin Monitoring Wells, Project No. EN13001, in the amount of \$607,470, will be within the total project budget of \$6,460,000 in the Recycled Water (WC) Fund.

This project is 50-percent cost shared with Chino Basin Watermaster as stipulated within Task Order Agreement No. 8 of the Master Agreement of 2014 between IEUA and Watermaster.

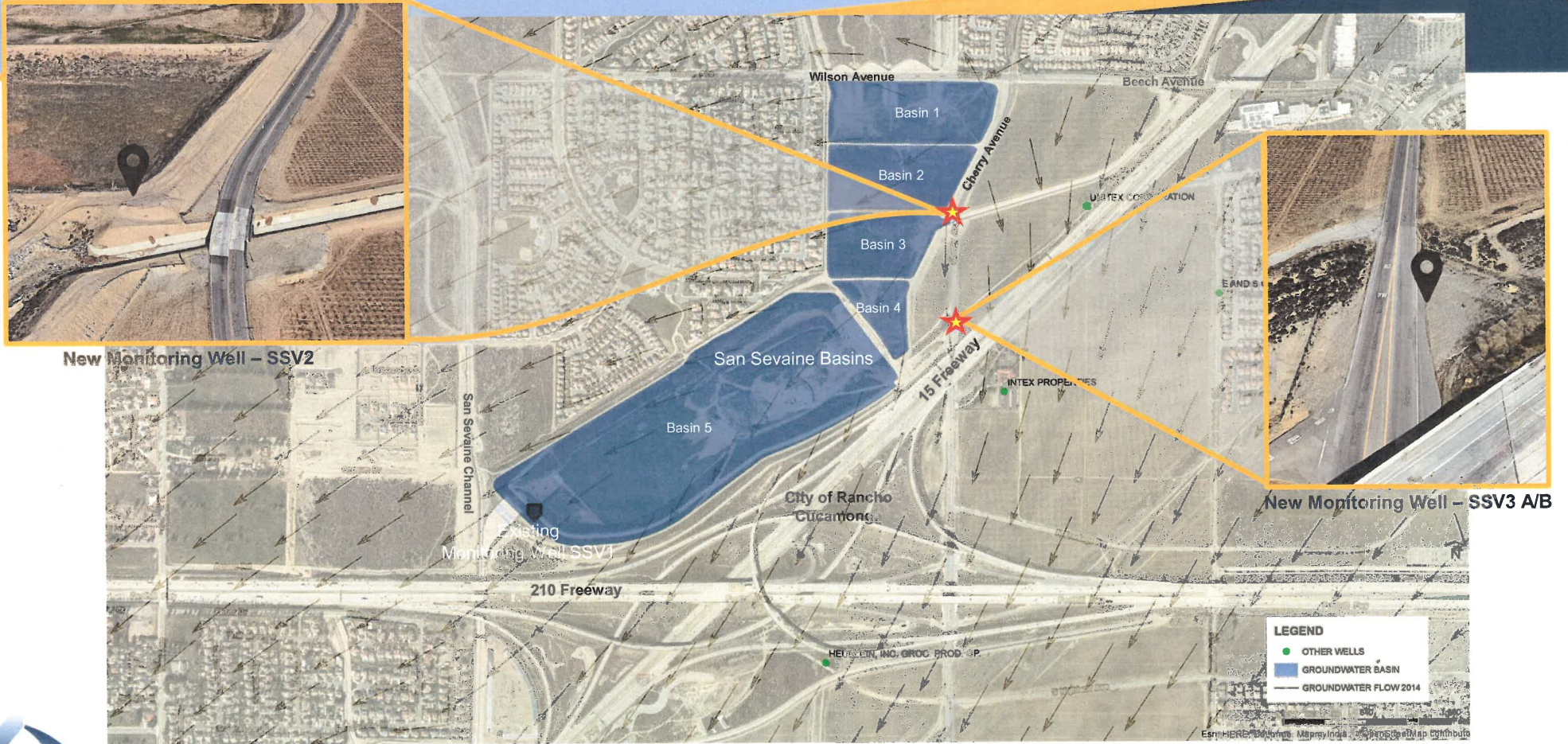
Additionally, the project is funded by the following:

- \$750,000 grant from the California Department of Water Resources and Santa Ana Watershed Project Authority through the Proposition 84 Integrated Regional Water Management Program
- \$375,000 grant from the United States Department of the Interior's Bureau of Reclamation through the Water Use Efficiency Program.
- Low interest loans from the Clean Water State Revolving Funds.

# San Sevaine Basin Monitoring Wells Construction Contract Award Project No. EN13001



# Project Location



# Project Background

- Monitoring wells are a regulatory component to the Basin Improvements Project
  - Recharge Master Plan Update Projects
- Project Benefits – Basin Improvements
  - 600 acre-feet of storm water
  - 4,100 acre-feet of recycled water
- Monitor water quality at nearby drinking wells
  - A requirement due to recharge of recycled water

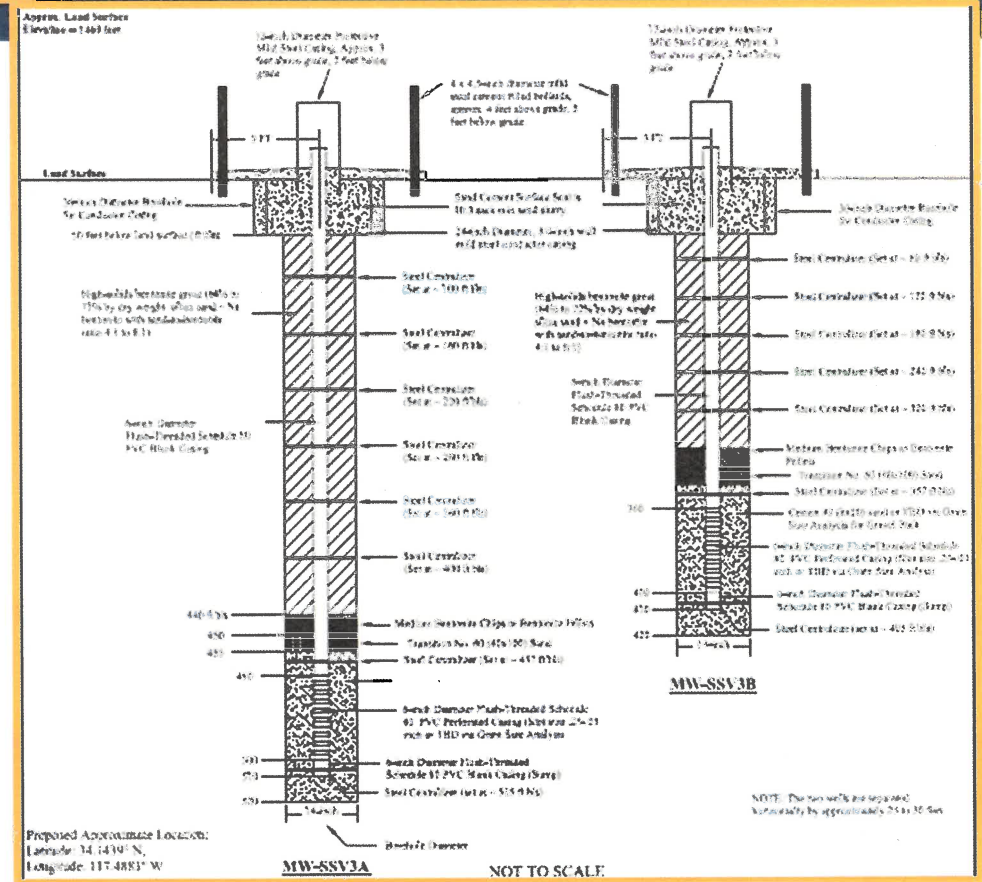


Past Construction of a Monitoring Well for San Sevaine Basin  
South End of Basin 5



# Project Scope

- Construction of Monitoring Wells
  - Downgradient of the San Sevaine Basin
  - An individual well located at Basins 2 and 3
  - Clustered wells off Cherry Avenue



Adjacent Monitoring Wells (Clustered) – SSV3 A/B

# Contractor Selection

- Bids received on July 11, 2017:

Bidder's Name	Total
Yellow Jacket Drilling	\$607,470
Cascade Drilling	\$609,200
Engineer's Estimate	\$600,000

# Project Budget and Schedule

Description	Estimated Cost	Project Milestone	Date
<b>Design Services</b>	<b>\$82,522</b>	Construction Contract Award	September 2017
Design Contract (actual cost)	\$62,522	Construction Completion	March 2018
IEUA Design Services	\$20,000		
<b>Construction Services</b>	<b>\$106,000</b>		
Design Consultant Construction Services	\$45,000		
IEUA Construction Services	\$61,000		
<b>Construction</b>	<b>\$668,470</b>		
Construction Contract	\$607,470		
Contingency (10%)	\$61,000		
<b>Total Project Cost</b>	<b>\$856,992</b>		
<b>Basin Improvements</b>	<b>\$5,438,008</b>		
<b>Total Project Budget</b>	<b>\$6,460,000</b>		
<b>Remaining Budget</b>	<b>\$165,000</b>		

The basin improvements to be awarded and constructed separately

# Recommendation

- Award a construction contract for the San Sevaine Basin Monitoring Wells, Project No. EN13001, to Yellow Jacket Drilling, in the amount of \$607,470; and
- Authorize the General Manager to execute the construction contract.

The San Sevaine Monitoring Wells Project is consistent with the **IEUA's Business Goal of Water Reliability** specifically the Groundwater Recharge objective that IEUA will maximize groundwater recharge projects in the region through strategic, cost-effective partnerships, and development.

## SAN SEVAINE MONITORING WELLS CONTRACT

THIS CONTRACT, made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between, Yellow Jacket Drilling, hereinafter referred to as "Contractor," and The Inland Empire Utilities Agency, a Municipal Water District, located in San Bernardino County, California, hereinafter referred to as "Agency".

### WITNESSETH:

That for and in consideration of the promises and agreements hereinafter made and exchanged, the Agency and the Contractor agree as follows:

1. Contractor agrees to perform and complete in a workmanlike manner, all work required under the bidding schedule of said Agency's specifications entitled SPECIFICATIONS FOR San Sevaire Basin - Monitoring Wells Project No. EN13001, in accordance with the specifications and drawings, and to furnish at their own expense, all labor, materials, equipment, tools, and services necessary, except such materials, equipment, and services as may be stipulated in said specifications to be furnished by said Agency, and to do everything required by this Contract and the said specifications and drawings.
2. For furnishing all said labor, materials, equipment, tools, and services, furnishing and removing all plant, temporary structures, tools and equipment, and doing everything required by this Contract and said specifications and drawings; also for all loss and damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen difficulties which may arise during the prosecution of the work until its acceptance by said Agency, and for all risks of every description connected with the work; also for all expenses resulting from the suspension or discontinuance of work, except as in the said specifications are expressly stipulated to be borne by said Agency; and for completing the work in accordance with the requirements of said specifications and drawings, said Agency will pay and said Contractor shall receive, in full compensation therefore, the price(s) set forth in this Contract.
3. That the Agency will pay the Contractor progress payments and the final payment, in accordance with the provisions of the contract documents, with warrants drawn on the appropriate fund or funds as required, at the prices bid in the Bidding and Contract Requirements, Section C - Bid Forms and accepted by the Agency, and set forth in this below.

Total Bid Price \$ 607,470 \_\_\_\_\_ Dollars

Total Bid Price \$ Six hundred seven thousand, four hundred seventy Dollars

If this is not a lump sum bid and the contract price is dependent upon the quantities constructed, the Agency will pay and said Contractor shall receive, in full compensation

for the work the prices named in the Bidding and Contract Requirements, Section C - Bid Forms.

4. The Agency hereby employs the Contractor to perform the work according to the terms of this Contract for the above-mentioned price(s), and agrees to pay the same at the time, in the manner, and upon the conditions stipulated in the said specifications; and the said parties for themselves, their heirs, executors, administrators, successors, and assigns, do hereby agree to the full performance of the covenants herein contained.
5. The Notice Inviting Bids, Instructions to Bidders, Bid Forms, Information Required of Bidder, Performance Bond, Payment Bond, Contractors License Declaration, Specifications, Drawings, all General Conditions and all Special Conditions, and all addenda issued by the Agency with respect to the foregoing prior to the opening of bids, are hereby incorporated in and made part of this Contract, as if fully set forth.
6. The Contractor agrees to commence work under this Contract on or before the date to be specified in a written "Notice To Proceed" and to complete said work to the satisfaction of the Agency one hundred and eighty (180) calendar days after award of the Contract. All work shall be completed before final payment is made.
7. Time is of the essence on this Contract.
8. Contractor agrees that in case the work is not completed before or upon the expiration of the contract time, damage will be sustained by the Agency, and that it is and will be impracticable to determine the actual damage which the Agency will sustain in the event and by reason of such delay, and it is therefore agreed that the Contractor shall pay to the Agency the amount of four thousand (\$4,000) dollars for each day of delay, which shall be the period between the expiration of the contract time and the date of final acceptance by the Agency, as liquidated damages and not as a penalty. It is further agreed that the amount stipulated for liquidated damages per day of delay is a reasonable estimate of the damages that would be sustained by the Agency, and the Contractor agrees to pay such liquidated damages as herein provided. In case the liquidated damages are not paid, the Contractor agrees that the Agency may deduct the amount thereof from any money due or that may become due to the Contractor by progress payments or otherwise under the Contract, or if said amount is not sufficient, recover the total amount.

In addition to the liquidated damages, which may be imposed if the Contractor fails to complete the work within the time agreed upon, the Agency may also deduct from any sums due or to become due the Contractor, liquidated damages in accordance with the Bidding and Contract Requirements, Section B - Instruction to Bidders, Part 5.0 "Liquidated Damages", for any violation of the General Conditions, Section D - Contractor's Responsibilities, Part 8, "Law and Regulations"; Bidding and Contract Requirements Contract Section D - Contract and Relevant Documents, Part 1.0, Paragraphs 9 through 11; General Conditions, Section D - Contractor's Responsibilities, Part 4.0, "Labor, Materials and Equipment"; General Conditions Section D - Contractor's Responsibilities, Part 12.0, "Safety and Protection" or General Conditions Section H - Legal Responsibilities, Part 8.0, "Disturbance of the Peace".

9. That the Contractor will pay, and will require subcontractors to pay, employees on the work a salary or wage at least equal to the prevailing salary or wage established for such work as set forth in the wage determinations and wage standards applicable to this work, contained in or referenced in the contract documents.
10. That, in accordance with Section 1775 of the California Labor Code, Contractor shall forfeit to the Agency, as a penalty, not more than Fifty (\$50.00) Dollars for each day, or portion thereof, for each worker paid, either by the Contractor or any subcontractor, less than the prevailing rates as determined by the Director of the California Department of Industrial Relations for the work.
11. That, except as provided in Section 1815 of the California Labor Code, in the performance of the work not more than eight (8) hours shall constitute a day's work, and not more than forty (40) hours shall constitute a week's work; that the Contractor shall not require more than eight (8) hours of labor in a day nor more than forty hours of labor in a week from any person employed by the Contractor or any subcontractor; that the Contractor shall conform to Division 2, Part 7, Chapter 1, Article 3 (Section 1810, et seq.) of the California Labor Code; and that the Contractor shall forfeit to the Agency, as a penalty, the sum of Twenty-Five (\$25.00) Dollars for each worker employed in the execution of the work by Contractor or any subcontractor for each day during which any worker is required or permitted to labor more than eight (8) hours in violation of said Article 3.
12. That the Contractor shall carry Workers' Compensation Insurance and require all subcontractors to carry Workers' Compensation Insurance as required by the California Labor Code.
13. That the Contractor shall have furnished, prior to execution of the Contract, two bonds approved by the Agency, one in the amount of one hundred (100) percent of the contract price, to guarantee the faithful performance of the work, and one in the amount of one hundred (100) percent of the contract price to guarantee payment of all claims for labor and materials furnished.
14. The Contractor hereby agrees to protect, defend, indemnify and hold the Agency and its employees, agents, officers, directors, servants and volunteers free and harmless from any and all liability, claims, judgments, costs and demands, including demands arising from injuries or death of persons (including employees of the Agency and the Contractor) and damage to property, arising directly or indirectly out of the obligation herein undertaken or out of the operations conducted by the Contractor, its employees agents, representatives or subcontractors under or in connection with this Contract.


The Contractor further agrees to investigate, handle, respond to, provide defense for and defend any such claims, demands or suit at the sole expense of the Contractor.

IN WITNESS WHEREOF, The Contractor and the General Manager of Inland Empire Utilities Agency\*, thereunto duly authorized, have caused the names of said parties to be affixed hereto, each in duplicate, the day and year first above written.

Inland Empire Utilities Agency,\*  
San Bernardino County, California.

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

Contractor  
Yellow Jacket Drilling

By  Richard LeBlanc  
Title: Operations Manager

\*Municipal Water District



**ACTION  
ITEM  
1E**

**Date:** September 20, 2017

**To:** The Honorable Board of Directors

*Chris Berch for Job*  
**From:** P. Joseph Grindstaff, General Manager

**Committee:** Engineering, Operations & Water Resources

09/13/17

**Executive Contact:** Chris Berch, Executive Manager of Engineering/AGM

**Subject:** Chino I Desalter Structure Coating Construction Contract Award

---

**Executive Summary:**

The Chino I Desalter, located in Chino, began operation in 2000, and is operated by IEUA staff. Chino I produces an average of 11.1 million gallons per day of drinking water. The treatment processes at the Chino I Desalter include Reverse Osmosis (RO) and Ion-Exchange (IX) for removal of nitrate and total dissolved solids. The Chino I Desalter also includes air stripping for removal of some volatile organic chemicals.

The project is scoped to address the deterioration of surface coating as a result of weathering and exposure to sunlight. The existing process equipment and vessels are showing signs of surface deterioration and corrosion. The stenciled labels on the process vessels are fading. It is the goal of this project to recoat all surfaces and apply new in-kind stenciled labels to the process equipment and vessels to extend their useful life and provide clear identification of the system.

At the request of the Chino Basin Desalter Authority (CDA), IEUA advertised an invitation for bids to the contractors on PlanetBids on June 22, 2017. On July 12, 2017, IEUA received four bids with Industrial Coating and Restoration determined to be the lowest responsive and responsible bidder in the amount of \$169,950.16.

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**Staff's Recommendation:**

1. Award a construction contract for the CDA Chino I Desalter Structure Coating, Project No. DL37141, to Industrial Coating & Restoration in the amount of \$169,950.16; and
2. Authorize the General Manager to execute the construction contract.

---

**Budget Impact** Budgeted (Y/N): Y Amendment (Y/N): N Amount for Requested Approval:

**Account/Project Name:**

DL37141/CDA Chino I Desalter Structure Coating Project

**Fiscal Impact** (explain if not budgeted):

N/A

**Prior Board Action:**

None.

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**Environmental Determination:**

Categorical Exemption

CEQA identifies certain categories of projects as exempt from more detailed environmental review because these categories have been deemed to have no potential for significant impact on the environment. This project qualifies for a Categorical Exemption Class 1 as defined in Section 15301(b) of the State CEQA Guidelines.

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**Business Goal:**

The CDA Chino I Desalter Structure Coating Project is consistent with IEUA's Asset Management objective that IEUA will ensure the treatment facilities are well maintained, upgraded to meet evolving requirements, sustainably managed, and can accommodate changes in regional water use.

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**Attachments:**

- Attachment 1 - Background
- Attachment 2 - PowerPoint
- Attachment 3 - Construction Contract

## Background

Subject: Chino I Desalter Structure Coating Construction Contract Award

The Chino I Desalter, located in Chino, began operation in 2000, and is operated by IEUA staff. Chino I produces an average of 11.1 million gallons per day of drinking water. The treatment processes at the Chino I include Reverse Osmosis (RO) and Ion-Exchange (IX) for removal of nitrate and total dissolved solids. The Chino I Desalter also includes air stripping for removal of some volatile organic chemicals. The project is scoped to address the deterioration of surface coating as a result of weathering and exposure to sunlight. The existing process vessels, towers, light poles, electrical cabinets, discharge pipelines, and pumps are showing signs of surface deterioration and corrosion. The stenciled labels on the process vessels are fading, which is detrimental to identifying the process system. It is the goal of this project to recoat all surfaces and apply new in-kind stenciled labels to the process equipment and vessels in order to extend their useful life and provide clear identification of the process system.

At the request of the Chino Basin Desalter Authority (CDA), IEUA advertised an invitation for bids to the contractors on PlanetBids on June 22, 2017. Fourteen contractors participated in the job walk on June 29, 2017. On July 12, 2017, the following four bids were received:

Bidder's Name	Total Price
Industrial Coating & Restoration	\$169,950
Olympos Painting	\$197,895
Blastco Inc	\$203,965
Techno Coating	non-responsive
<b>Engineer's Estimate</b>	<b>\$145,000</b>

Industrial Coating & Restoration was the lowest responsive and responsible bidder with a bid price of \$169,950.16. Industrial Coating & Restoration has performed several successful coating projects for other utilities and cities in the past, showing good workmanship and responsiveness. The following table is the anticipated project cost:

Description	Estimated Cost
<b>Construction Services</b>	<b>\$15,000</b>
IEUA Construction Services	\$15,000
<b>Construction</b>	<b>\$179,950</b>
Construction Contract	\$169,950
Contingency (~5%)	\$10,000
<b>Total Project Cost:</b>	<b>\$194,950</b>
<b>Total Project Budget:</b>	<b>\$195,000*</b>

\*The project is fully funded by CDA.

The following is the project schedule:

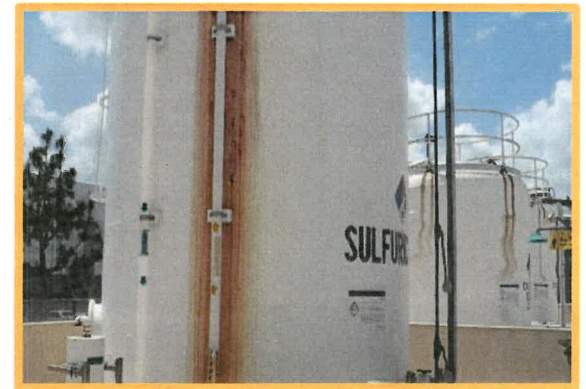
<b>Project Milestone</b>	<b>Date</b>
Construction Contract Award	September 2017
Construction Completion	December 2017

This item has been reviewed and approved by the CDA Technical Advisory Committee on September 12, 2017.

**Fiscal Impact:**

If approved, the construction contract for the CDA Chino I Desalter Structure Coating, Project No. DL37141, in the amount of \$169,950.16, will be within the total project budget of \$195,000 in the Desalter Capital (DM) Fund and is fully funded by the Chino Basin Desalter Authority.

# Chino Desalter Structure Coating Project Construction Contract Award Project No. DL37141



# Project Location



# Project Background

- O&M project support
- Deterioration of surface coating on process vessels and pipelines
  - Aging
  - Weathering
  - Long term sunlight exposure
- Corrosion due to previous pipe leakage

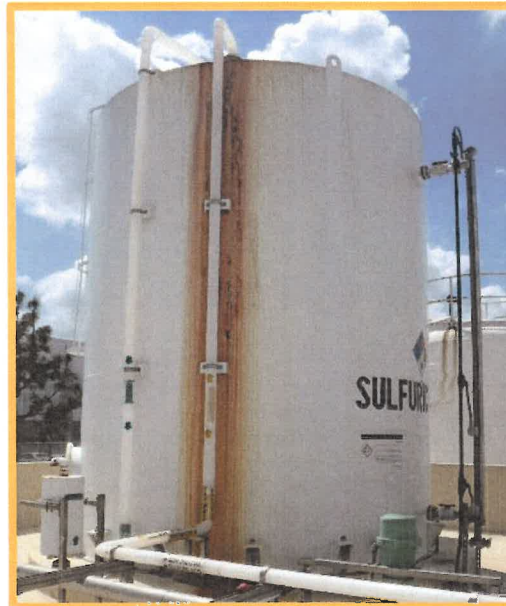


Deterioration of Surface Coating on Process Vessel

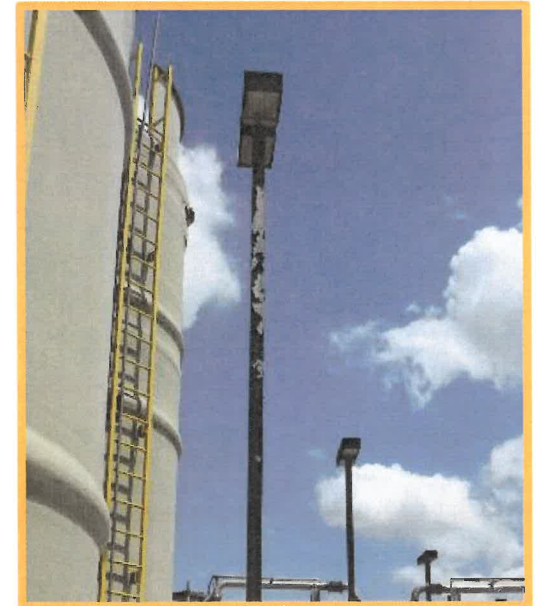


# Project Scope

- Recoat all equipment with surface corrosion and deterioration
  - Process vessels
  - Pumps and pipelines
  - Electrical cabinets/boxes
  - Chemical towers
  - Doors
  - Light poles



Corroded Vessel Surface



Faded Paint on Light Poles

# Contractor Selection

- Bid advertisement on June 19th, 2017
- Fourteen bidders participated in the job walk on June 29th, 2017
- Bids received on July 12, 2017:

Bidder's Name	Total
Industrial Coating & Restoration	\$169,950
Olympos Painting	\$197,895
Blastco Inc	\$203,965
Techno Coating	non-responsive
Engineer's Estimate	\$145,000

# Project Budget and Schedule

Description	Estimated Cost	Project Milestone	Date
<b>Construction Services</b>	<b>\$15,000</b>	Construction Contract Award	September 2017
IEUA Construction Services	\$15,000	Construction Completion	December 2017
<b>Construction</b>	<b>\$179,950</b>		
Construction Contract	\$169,950		
Contingency (5%)	\$10,000		
<b>Total Project Cost:</b>	<b>\$194,950</b>		
<b>Total Project Budget:</b>	<b>\$195,000*</b>		

\*The project is fully funded by CDA.

# Recommendation

- Award a construction contract for the CDA Chino I Desalter Structure Coating, Project No. DL37141, to Industrial Coating & Restoration in the amount of \$169,950.16; and
- Authorize the General Manager to execute the construction contract.

The CDA Chino I Desalter Structure Coating Project is consistent with the *IEUA's Asset Management Objective* that IEUA will ensure the treatment facilities are well maintained, upgraded to meet evolving requirements, sustainably managed, and can accommodate changes in regional water use.



**CONTRACT NUMBER: 4600002414**

**FOR CONTRACTOR SERVICES**

**CHINO BASIN DESALTER AUTHORITY (CDA)**

**STRUCTURE COATING PROJECT DL37141**

THIS CONTRACT (the "Contract"), is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2017, by and between Chino Desalter Authority, a Joint Powers Authority, organized and existing in the County of San Bernardino under and by virtue of the laws of the State of California (hereinafter referred to interchangeably as "CDA" and "Authority"), and Industrial Coating & Restoration Inc., of Oceanside, California (hereinafter referred to as "Contractor"), for the Chino Desalter Structure Coating Project DL37141.

NOW, THEREFORE, in consideration of the mutual promises and obligations set forth herein, the parties agree as follows:

1. AUTHORITY PROJECT MANAGER ASSIGNMENT: All technical direction related to this Contract shall come from the designated Project Manager. Details of the Authority's assignment are listed below.

Senior Project Manager: John Scherck  
Address: 6075 Kimball Avenue, Building "B"  
Chino, CA 91708  
Telephone: (909) 993-1547  
Facsimile: (909) 993-1982  
Email: [jscherck@ieua.org](mailto:jscherck@ieua.org)  
Cell: (909) 936-3126

2. CONTRACTOR ASSIGNMENT: Special inquiries related to this Contract and the effects of this Contract shall be referred to the following:

Contractor: Mahmoud Merzi  
President  
Address: 2534 Oceanside Blvd.  
Oceanside, CA 92054  
Telephone: (760) 717-4629  
Facsimile: (760) 966-0602  
Email: [mmerzi@yahoo.com](mailto:mmerzi@yahoo.com)

3. ORDER OF PRECEDENCE: The documents referenced below represent the Contract Documents. Where any conflicts exist between the General Terms and Conditions the governing order of precedence shall be as follows:

1. Amendments to Contract Number 4600002414.
2. Contract Number 4600002414 General Terms and Conditions.
3. Authority's Invitation for Bid (IFB) IFB MB-17-040 dated June 22, 2017 (**Attachment 1**).
4. Contractor's Bid Proposal dated July 11, 2017 (**Attachment 2**).

4. SCOPE OF WORK AND SERVICES: Contractor services and responsibilities shall include and be in accordance with Authority's Invitation for Bid (IFB) IFB MB-17-040 dated June 22, 2017, which is attached hereto as **Attachment 1** (hereinafter referred to as "Work"), attached hereto, incorporated herein, and made a part hereof. Germane Addenda are incorporated herein by reference.

Contractor may be requested to provide Authority with a Schedule of Work and Services, documenting the anticipated completion of the work within the time-frame set forth in the IFB documents. The Schedule of Work and Services will be prepared and submitted to the Project Manager for review and approval.

The Authority may, at any time, make changes to this Contract's Scope of Work; including additions, reductions, and other alterations to any or all of the Work. However, such changes shall only be made via written amendment to this Contract. The Contract compensation and Schedule of Work and Services shall be equitably adjusted, if required, to account for such changes and shall be set forth within the mutually approved Contract Amendment.

5. TERM: The term of this Contract shall extend from the date of the Notice to Proceed, and terminate upon completion of the Work to the written satisfaction of the CDA Project Manager, or June 30, 2018, whichever occurs first, unless agreed upon by both parties, reduced to writing, and amended to this Contract.

6. PAYMENT, INVOICING, AND COMPENSATION:

A. The Contractor may submit an invoice not more than once per month during the term of this Contract to the Authority's Accounts Payable Department. Authority shall pay Contractor's properly executed invoice, approved by the Project Manager, within thirty (30) days following receipt of the invoice.

B. As compensation for the Work performed under this Contract, Authority shall pay Contractor's monthly invoice, for a total **NOT-TO-EXCEED MAXIMUM OF \$169,950.16** for all services satisfactorily provided during the term of this Contract in accordance with Contractor's bid proposal, referenced herein, attached hereto, and made a part hereof as **Attachment 2**.

- C. Additionally, to qualify for payment, the Contractor shall prominently display, on the first page of the invoice, both:
1. The Contract Number – 4600002414, and;
  2. The Contract Release Purchase Order Number – To be provided by the CDA Project Manager.

Contractor's invoices shall be submitted, if by mail, as follows:

Chino Desalter Authority  
Re: Contract Number: 4600002414  
2151 South Haven Avenue, Suite #202  
Ontario, CA 91761

Contractor's invoices shall be submitted, if by e-mail, as follows:

To: [Finance@chinodesalter.org](mailto:Finance@chinodesalter.org)  
a. Scan the invoice as a PDF file;  
b. Attach the scanned file to an email;  
c. CDA staff will acknowledge receipt of the invoice.

- D. Concurrent with the submittal of the original invoice to the CDA's Finance Department, the Contractor shall forward (mail, fax, or email) a copy of the invoice to the designated Project Manager, identified in Section 1, on Page 1 of this Contract.
- E. No Additional Compensation: Nothing set forth in this Contract shall be interpreted to require payment by Authority to Contractor of any compensation specifically for the assignments and assurances required by the Contract, other than the payment of expenses as may be actually incurred by Contractor in complying with this Contract, as approved by the Project Manager.
- F. Contractor may request taking advantage of the Authority's practice of offering an expedited payment protocol to a Contractor who has proposed accepting an invoice amount reduction in exchange for early payment.
- G. Contractor shall provide with their invoice certified payroll verifying that Contractor has paid prevailing wage requirements as stipulated in SB-854 ( <https://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html> ).
7. **CONTROL OF THE WORK**: The Contractor shall perform the Work in compliance with the Schedule of Work and Services. If performance of the Work falls behind schedule, the Contractor shall accelerate the performance of the Work to comply with the Schedule of Work and Services as directed by the Project Manager. If the nature of the Work is such that Contractor is unable to accelerate the Work, Contractor shall promptly notify

the Project Manager of the delay, the causes of the delay, and submit a proposed revised Schedule of Work and Services.

8. INSURANCE: During the term of this Contract, the Contractor shall maintain, at Contractor's sole expense, the following insurance.

A. Minimum Scope of Insurance: Coverage shall be at least as broad as:

1. Commercial General Liability ("CGL"): Insurance Services Office ("ISO") Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than \$1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability: ISO Form Number CA 00 01 covering any auto (Code 1), or if Contractor has no owned autos, covering hired, (Code 8) and non-owned autos (Code 9), with limit no less than \$1,000,000 per accident for bodily injury and property damage.
3. Workers' Compensation and Employers Liability: Workers' compensation limits as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.

B. Deductibles and Self-Insured Retention: Any deductibles or self-insured retention must be declared to and approved by the Authority. At the option of the Authority, either: the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the Authority, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

C. Other Insurance Provisions: The insurance policies are to contain, or be endorsed to contain, the following provisions:

1. Commercial General Liability and Automobile Liability Coverage
  - a. Additional Insured Status: The Authority, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment supplied in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as broad as ISO Form CG 20 10 11 85; or **by either** CG 20 10, CG 20 26, CG 20 33, or CG 20 38 and CG 20 37 forms if later revisions are used).



- b. Primary Coverage: The Contractor's insurance coverage shall be primary insurance coverage at least as broad as ISO CG 20 01 04 13 as respects the Authority, its officer, officials, employees and volunteers. Any insurance or self-insurance maintained by the Authority, its officers, officials, employees, volunteers, property owners or engineers under contract with the Authority shall be excess of the Contractor's insurance and shall not contribute with it.
- c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Authority, its officers, officials, employees or volunteers.
- d. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- e. The Contractor may satisfy the limit requirements in a single policy or multiple policies. Any additional policies written as excess insurance shall not provide any less coverage than that provided by the first or primary policy.

2. Workers' Compensation and Employers Liability Coverage

Contractor hereby grants to Authority a waiver of any right to subrogation which any insurer of the Contractor may acquire against the Authority by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the Authority has received a waiver of subrogation endorsement from the insurer.

3. All Coverages

Each insurance policy required by this Contract shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, or reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the Authority pursuant to Section 14, page 12 of this Contract.

- D. Acceptability of Insurers: Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A minus:VII, and who are admitted insurers in the State of California.
- E. Verification of Coverage: Contractor shall provide the Authority with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the Authority before work

commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The Authority reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

- F. Submittal of Certificates: Contractor shall submit all required certificates and endorsements to the following:

Inland Empire Utilities Agency, on behalf of CDA  
Attn: Angela Witte, Risk Specialist  
P.O. Box 9020  
Chino Hills, CA 91709  
Email: [AWitte@ieua.org](mailto:AWitte@ieua.org)

9. FITNESS FOR DUTY:

- A. Fitness: Contractor and its Subcontractor personnel on the Jobsite:

1. Shall report to work in a manner fit to do their job;
2. Shall not be under the influence of or in possession of any alcoholic beverages or of any controlled substance (except a controlled substance as prescribed by a physician so long as the performance or safety of the Work is not affected thereby); and
3. Shall not have been convicted of any serious criminal offense which, by its nature, may have a discernible adverse impact on the business or reputation of the Authority.

- B. Confined Space Work:

Precautions and Programs:

1. The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work or the activities of subcontractors, suppliers, and others at the work site.
2. The Contractors and subcontractors shall comply with the provisions of the Safety and Health Regulations for Construction, promulgated by the Secretary of Labor under Section 107 of the "Contract Work Hours and Safety Standards Act," as set forth in Title 29 C.F.R. If the Agency is notified of an alleged violation of the Occupational Safety and Health Standards referred to in this Section and it is established that there is a violation, the Contractor shall be subject to liquidated damages as provided in the Contract.
3. The Contractor and all subcontractors shall comply with the provisions of the Occupational Safety and Health Standards, promulgated by the

United States Secretary of Labor under the "Occupational Safety and Health Act of 1970," as set forth in Title 29, C.F.R. Where an individual State act on occupational safety and health standards has been approved by federal authority, then the provisions of said state act shall control.

4. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary supervision, control, and direction to prevent damage, injury, or loss to:

- a) All employees on the work or work site and other persons and organizations who may be affected thereby;
- b) All the work and materials and equipment to be incorporated therein, whether in storage or on or off the work site; and
- c) All other property at the site.

5. Contract work requiring confined space entry must follow Cal-OSHA Regulation 8 CCR, Sections 5157 - 5158. This regulation requires the following to be submitted to IEUA for approval prior to the start of the project:

- a) *Proof of training on confined space procedures, as defined in Cal-OSHA Regulation 8 CCR, Section 5157.* This regulation also requires the following to be submitted to IEUA for approval prior to the entry of a confined space:
  - b) *A written plan that includes identification of confined spaces within the construction site, alternate procedures where appropriate, contractor provisions, specific procedures for permit-required and non-permit required spaces, and a rescue plan.*
- c) The Contractor must also submit a copy of their Safety Program or IIPP prior to the start of the project for approval by the Safety & Risk Department.

C. **Compliance:** Contractor shall advise all personnel and associated third parties of the requirements of this Contract ("Fitness for Duty Requirements") before they enter on the Jobsite and shall immediately remove from the Jobsite any employee determined to be in violation of these requirements. Contractor shall impose these requirements on its Subcontractors. Authority may cancel the Contract if Contractor violates these Fitness for Duty Requirements.

D. **Effective July 1, 2014, all Contractors must be registered with the California Dept. of Industrial Relations as required by law SB-854 for public works construction projects:**

<https://www.dir.ca.gov/Public-Works/PublicWorks.html>

1. **SB854 Requirements:**

- a) No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- b) No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- c) This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. A PWC-100 must be generated for any work determined to be Public Works with valuation in excess of \$1,000.00.

10. LEGAL RELATIONS AND RESPONSIBILITIES:

- A. Professional Responsibility: The Contractor shall be responsible, to the level of competency presently maintained by other practicing professionals performing the same or similar type of work.
- B. Status of Contractor: The Contractor is retained as an independent Contractor only, for the sole purpose of providing the services described herein, and is not an employee of the Authority.
- C. Observing Laws and Ordinances: The Contractor shall keep itself fully informed of all existing and future state and federal laws and all county and city ordinances and regulations which in any manner affect the conduct of any services or tasks performed under this Contract, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. The Contractor shall at all times observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees, and shall protect and indemnify, as required herein, the Authority, its officers, employees and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by the Contractor, its employees, or subcontractors.
- D. Subcontract Services: Any subcontracts for the performance of any services under this Contract shall be subject to the written approval of the Project Manager and shall comply with State of California, Department of Industrial Relations, SB 854 requirements.
- E. Hours of Labor: The Contractor shall comply with all applicable provisions of California Labor Code Sections 1810 to 1815 relating to working hours. The Contractor shall, as a penalty to the Authority, forfeit \$25.00 for each worker employed in the completion of the Contract by the Contractor or by any subcontractor for each calendar day during which such worker is required or

permitted to work more than eight hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of the Labor Code.

- F. Travel and Subsistence Pay: The Contractor shall make payment to each worker for travel and subsistence payments which are needed to complete the work and/or service, as such travel and subsistence payments are defined in an applicable collective bargaining agreements with the worker.
- G. Liens: Contractor shall pay all sums of money that become due from any labor, services, materials or equipment provided to Contractor on account of said services to be rendered or said materials to be provided under this Contract and that may be secured by any lien against the Authority. Contractor shall fully discharge each such lien at the time performance of the obligation secured matures and becomes due.
- H. Indemnification: Contractor shall indemnify the Authority, its directors, employees, and assigns, and shall defend and hold them harmless from all liabilities, demands, actions, claims, losses and expenses, including reasonable attorneys' fees, which arise out of, or are related to, the negligence, recklessness or willful misconduct of the Contractor, its directors, employees, agents, and assigns, in the performance of work under this contract.
- I. Conflict of Interest: No official of the Authority, who is authorized in such capacity and on behalf of the Authority to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving this Contract, or any subcontract relating to services or tasks to be performed pursuant to this Contract, shall become directly or indirectly personally interested in this Contract.
- J. Equal Opportunity: During the performance of this Contract, the Contractor shall not unlawfully discriminate against any employee or employment applicant because of race, color, religion, sex, age, marital status, ancestry, physical or mental disability, sexual orientation, veteran status or national origin. The Authority is committed to creating and maintaining an environment free from harassment and discrimination.
- K. Disputes:
  - 1. All disputes arising out of or in relation to this Contract shall be resolved in accordance with this section. The Contractor shall pursue the work to completion in accordance with the instruction of the Authority's Project Manager notwithstanding the existence of a dispute. By entering into this Contract, both parties are obligated, and hereby agree, to submit all disputes arising under or relating to the Contract which remain unresolved after the exhaustion of the procedures provided herein, to independent arbitration. Except as otherwise provided herein, arbitration shall be conducted under California Code of Civil Procedure Sections 1280, et seq., or their successor.
  - 2. Any and all disputes prior to the work starting shall be subject to resolution by the CDA's Project Manager; and the Contractor shall comply, with the

CDA Project Manager's instructions. If the Contractor is not satisfied with the resolution directed by the CDA Project Manager, they may file a written protest with the CDA Project Manager within seven (7) calendar days after receiving written directive of the Project Manager's decision. Failure by Contractor to file a written protest within seven (7) calendar days shall constitute waiver of protest, and acceptance of the Project Manager's resolution. The Project Manager shall submit the Contractor's written protests to the General Manager, together with a copy of the Project Manager's written decision, for his or her consideration within seven (7) calendar days after receipt of the protest-related documents. The General Manager shall make his or her determination with respect to each protest filed with the Project Manager within ten (10) calendar days after receipt of the protest-related documents. If Contractor is not satisfied with any such resolution by the General Manager, they may file a written request for arbitration with the Project Manager within seven (7) calendar days after receiving written notice of the General Manager's decision.

3. In the event of arbitration, the parties to this contract agree that there shall be a single neutral Arbitrator who shall be selected in the following manner:
  - a. The Demand for Arbitration shall include a list of five names of persons acceptable to the Contractor to be appointed as Arbitrator. The Authority shall determine if any of the names submitted by Contractor are acceptable and, if so, such person will be designated as Arbitrator.
  - b. In the event that none of the names submitted by Contractor are acceptable to Authority, or if for any reason the Arbitrator selected in Step (a) is unable to serve, the Authority shall submit to Contractor a list of five names of persons acceptable to Authority for appointment as Arbitrator. The Contractor shall, in turn, have seven (7) calendar days in which to determine if one such person is acceptable.
  - c. If after Steps (a) and (b), the parties are unable to mutually agree upon a neutral Arbitrator, the matter of selection of an Arbitrator shall be submitted to the San Bernardino County Superior Court pursuant to Code of Civil Procedure Section 1281.6, or its successor. The costs of arbitration, including but not limited to reasonable attorneys' fees, shall be recoverable by the party prevailing in the arbitration. If this arbitration is appealed to a court pursuant to the procedure under California Code of Civil Procedure Section 1294, et seq., or their successor, the costs of arbitration shall also include court costs associated with such appeals, including but not limited to reasonable attorneys' fees which shall be recoverable by the prevailing party.
4. Association in Mediation/Arbitration: The Authority may join the Contractor in mediation or arbitration commenced by a contractor on the Project

pursuant to Public Contracts Code Sections 20104 et seq. Such association shall be initiated by written notice from the Authority's representative to the Contractor.

- L. **Workers' Legal Status:** For performance against this Contract, Contractor shall only utilize employees and/or subcontractors that are authorized to work in the United States pursuant to the Immigration Reform and Control Act of 1986.
- M. **Prevailing Wage Requirements:** Pursuant to Section 1770 and following, of the California Labor Code, the Contractor shall not pay less than the general prevailing wage rates, as determined by the Director of the State of California Department of Industrial Relations for the locality in which the work is to be performed and for each craft or type of worker needed to execute the work contemplated under the Contract. The Contractor or any subcontractor performing part of said work shall strictly adhere to all provisions of the Labor Code, including, but not limited to, minimum wages, work days, nondiscrimination, apprentices, maintenance and availability of accurate payroll records and any other matters required under all Federal, State and local laws related to labor.

Contractor shall provide with their invoice certified payroll verifying that Contractor has paid prevailing wage requirements as stipulated in SB-854 ( <https://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html> ).

- 11. **OWNERSHIP OF MATERIALS AND DOCUMENTS/CONFIDENTIALITY:** The Authority retains ownership of any, and all, partial or complete reports, drawings, plans, notes, computations, lists, and/or other materials, documents, information, or data prepared by the Contractor and/or the Contractor's subcontractor(s) pertaining to this Contract. Said materials and documents are confidential and shall be available to the Authority from the moment of their preparation, and the Contractor shall deliver them to the Authority whenever requested to do so by the Project Manager and/or Authority representative. The Contractor agrees that all documents shall not be made available to any individual or organization, private or public, without the prior written consent of an Authority representative.
- 12. **TITLE AND RISK OF LOSS:**
  - A. **Documentation:** Title to the Documentation shall pass to the Authority when prepared; however, a copy may be retained by Contractor for its records and internal use. Contractor shall retain such Documentation in a controlled access file, and shall not reveal, display, or disclose the contents of the Documentation to others without the prior written authorization of the Authority or for the performance of Work related to the Scope of Work described in this Contract.
  - B. **Material:** Title to all Material, field or research equipment, and laboratory models, procured or fabricated under the Contract shall pass to the Authority when procured or fabricated, and such title shall be free and clear of any and all encumbrances.

Contractor shall have risk of loss of any Material or Authority-owned equipment of which it has custody.

- C. Disposition: Contractor shall dispose of items to which the Authority has title as directed, in writing, by the Project Manager and/or an Authority representative.

13. PROPRIETARY RIGHTS:

- A. Rights and Ownership: Authority's rights to inventions, discoveries, trade secrets, patents, copyrights, and other intellectual property, including the Information and Documentation, and revisions thereto (hereinafter collectively referred to as "Proprietary Rights"), used or developed by Contractor in the performance of the Work, shall be governed by the following provisions:

1. Proprietary Rights conceived, developed, or reduced to practice by Contractor in the performance of the Work shall be the property of Authority, and Contractor shall cooperate with all appropriate requests to assign and transfer same to Authority.
2. If Proprietary Rights conceived, developed, or reduced to practice by Contractor prior to the performance of the Work are used in and become integral with the Work, or are necessary for Authority to have complete control of the Work, Contractor shall grant to Authority a non-exclusive, irrevocable, royalty-free license, as may be required by Authority for the complete control of the Work, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and grant sublicenses to others with respect to the Work.
3. If the Work includes the Proprietary Rights of others, Contractor shall procure, at no additional cost to Authority, all necessary licenses regarding such Proprietary Rights so as to allow Authority the complete control of the Work, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy, or dispose of any or all of the Work; and to grant sublicenses to others with respect to the Work. All such licenses shall be in writing and shall be irrevocable and royalty-free to Authority.

14. NOTICES: Any notice may be served upon either party by delivering it in person, or by depositing it in a United States Mail deposit box with the postage thereon fully prepaid, and addressed to the party at the address set forth below:

Authority: Mr. Warren T. Green  
Manager of Contracts and Procurement  
Inland Empire Utilities Authority, a Municipal Water District  
P.O. Box 9020  
Chino Hills, CA 91709

Contractor: Ms. Michele Lisi-Merzi  
Vice President  
Industrial Coating & Restoration, Inc.



2534 Oceanside Blvd.  
Oceanside, CA 92054

Any notice given pursuant to this section shall be deemed effective in the case of personal delivery, upon receipt thereof, or, in the case of mailing, at the moment of deposit in the course of transmission through the United States Postal Service.

15. SUCCESSORS AND ASSIGNS: All of the terms, conditions and provisions of this Contract shall take effect to the benefit of and be binding upon the Authority, the Contractor, and their respective successors and assigns. No assignment of the duties or benefits of the Contractor under this Contract may be assigned, transferred, or otherwise disposed of, without the prior written consent of the Authority; and any such purported or attempted assignment, transfer, or disposal without the prior written consent of the Authority shall be null, void, and of no legal effect whatsoever.
16. PUBLIC RECORDS POLICY: Information made available to the Authority may be subject to the California Public Records Act (Government Code Section 6250 et seq.) The Authority's use and disclosure of its records are governed by this Act. The Authority shall use its best efforts to notify Contractor of any requests for disclosure of any documents pertaining to this work. In the event of litigation concerning disclosure of information Contractor considers exempt from disclosure; (e.g., Trade Secret, Confidential, or Proprietary) Authority shall act as a stakeholder only, holding the information until otherwise ordered by a court or other legal process. If Authority is required to defend an action arising out of a Public Records Act request for any of the information Contractor has marked "Confidential," "Proprietary," or "Trade Secret," Contractor shall defend and indemnify Authority from all liability, damages, costs, and expenses, in any action or proceeding arising under the Public Records Act.
17. RIGHT TO AUDIT: The Authority reserves the right to review and/or audit all Contractor's records related to the Work. The option to review and/or audit may be exercised during the term of the Contract, upon termination, upon completion of the Contract, or at any time thereafter up to twelve (12) months after final payment has been made to the Contractor. The Contractor shall make all records and related documentation available within three (3) working days after said records are requested by the Authority.
18. INTEGRATION: The Contract Documents represent the entire Contract made and entered into by and between the Authority and the Contractor as to those matters contained in this contract. No prior oral or written understanding shall be of any force or effect with respect to those matters covered by the Contract Documents. This Contract may not be modified, altered, or amended except by written mutual agreement by the Authority and the Contractor.
19. GOVERNING LAW: This Contract is to be governed by and constructed in accordance with the laws of the State of California, in the County of San Bernardino.

20. TERMINATION FOR CONVENIENCE: The Authority reserves and has the right to immediately suspend, cancel or terminate this Contract at any time upon written notice to the Contractor. In the event of such termination, the Authority shall pay Contractor for all authorized and Contractor-invoiced services up to the date of such termination, as approved by the Project Manager.
21. FORCE MAJEURE: Neither party shall hold the other responsible for the effects of acts occurring beyond their control; e.g., war, riots, strikes, natural disasters, etcetera.
22. NOTICE TO PROCEED: No services shall be performed or provided under this Contract unless and until this document has been properly signed by all responsible parties and a notice to proceed has been issued to the Contractor by the Project Manager.
23. AUTHORITY TO EXECUTE CONTRACT: The Signatories, below, each represent, warrant, and covenant that they have the full authority and right to enter into this Contract on behalf of the separate entities shown below.
24. DELIVERY OF DOCUMENTS: The Parties to this Contract and the individuals named to facilitate the realization of its intent, with the execution of the Contract, authorize the delivery of documents via facsimile, via email, and via portable document format (PDF) and covenant agreement to be bound by such electronic versions.

The parties hereto have caused the Contract to be entered as of the day and year written above.

**CHINO DESALTER AUTHORITY:**

**INDUSTRIAL COATING & RESTORATION, INC:**

\_\_\_\_\_  
 Curtis Paxton (Date)  
 General Manager

\_\_\_\_\_  
 Mahmoud A. Merzi (Date)  
 President

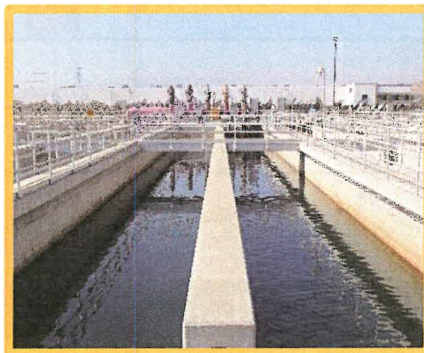
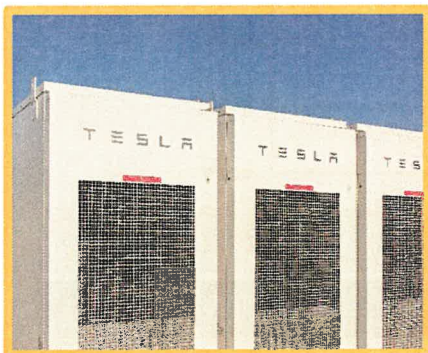
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**INFORMATION**

**ITEM**

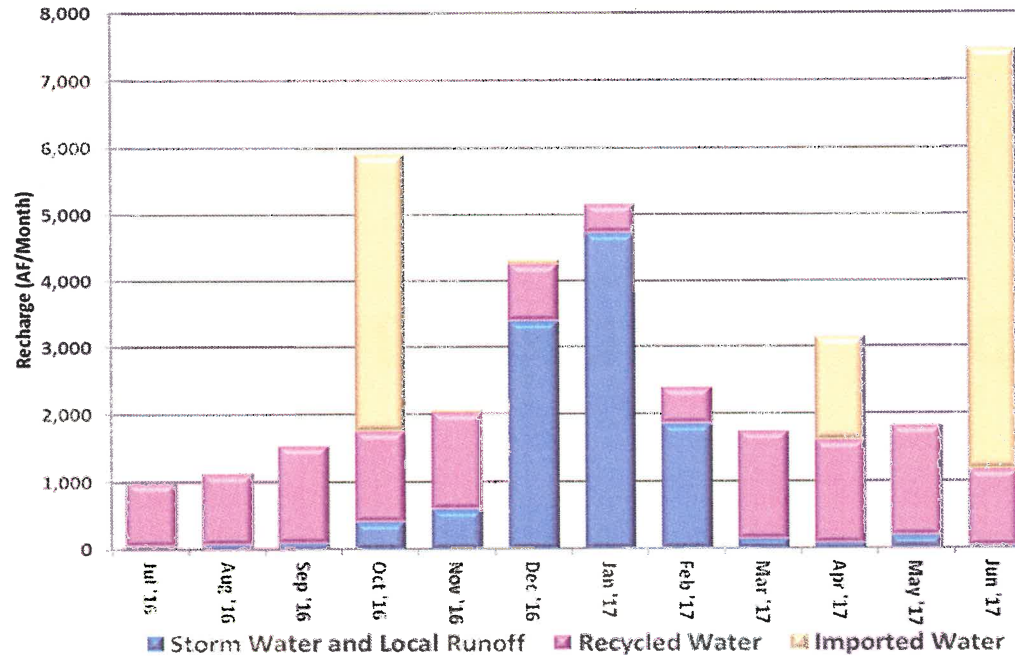
**2A**

# Operations Division Update



# Groundwater Recharge FY 2016/17

Storm Water	Recycled Water	Imported Water	Total
11,574 AF	13,934 AF*	12,129 AF	37,637 AF

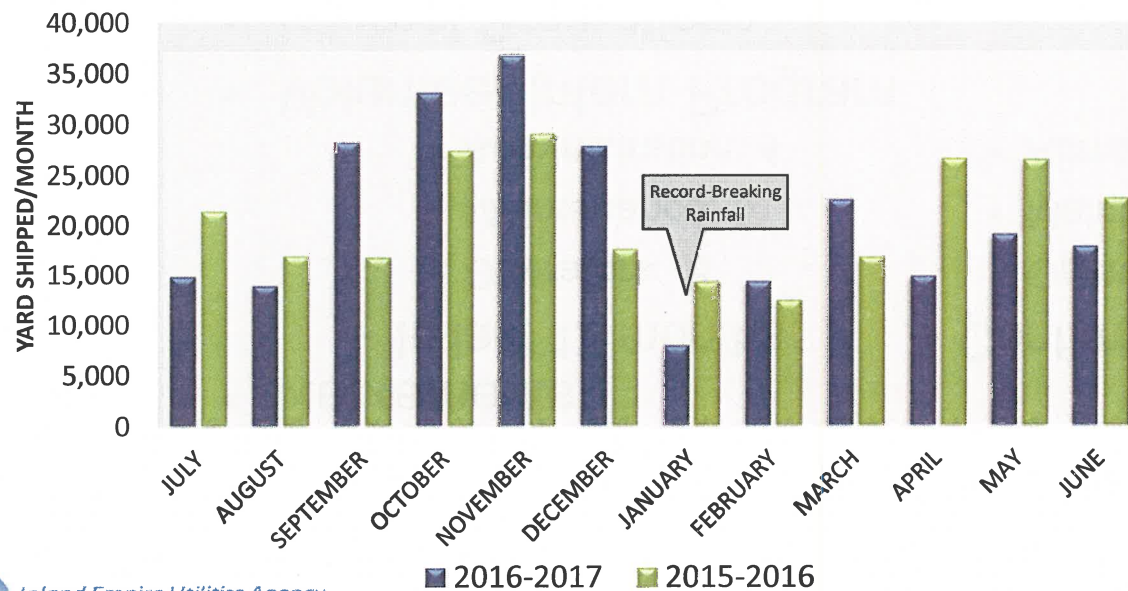


\*New GWR RW record

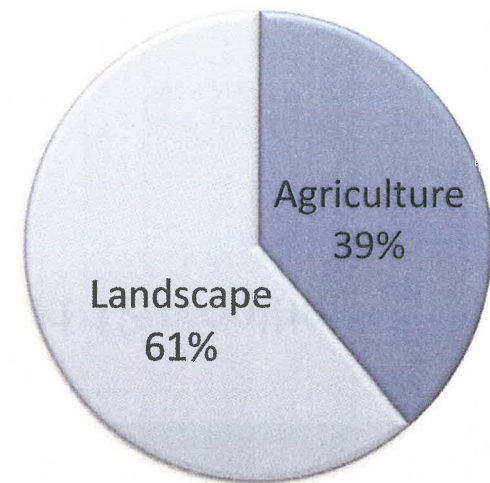
# Inland Empire Regional Composting Facility

- Increased outbound stability through market diversity
- Greater inventory turnover and decreased average inventory level

### Compost Shipped – Fiscal Year Comparison



### Sales by Segment



# Staffing

- Retirements
  - In last 12 months
    - Operators: 3
    - Maintenance: 5
    - Administration: 4
  - Confirmed in next 12 months
    - Operators: 2
    - Maintenance: 2
    - Administration: 2
- Volunteer/Intern Program
- Internal Promotions



Vijay Korisal  
Operations Supervisor



Noah Ball  
Senior Operator



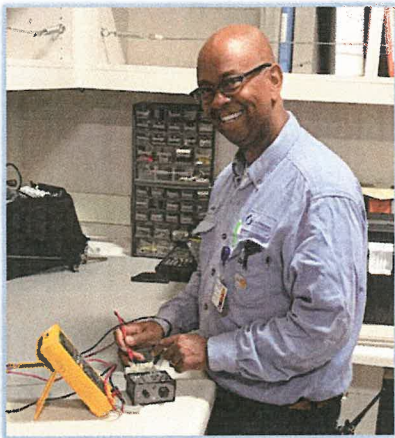
Jose Mendez  
Senior Operator



Yvonne Taylor  
Administrative Assistant II

# Maintenance Skills Proficiency Advancements

- Combining crafts:
  - Electrician and Instrumentation combined into one classification
  - Plant Maintenance Technician and Mechanic combined into one classification
- Training occurred between 8/2016 and 7/2017
  - 7,824 hours of staff time
- 16 staff passed practical exams and reclassified to higher level

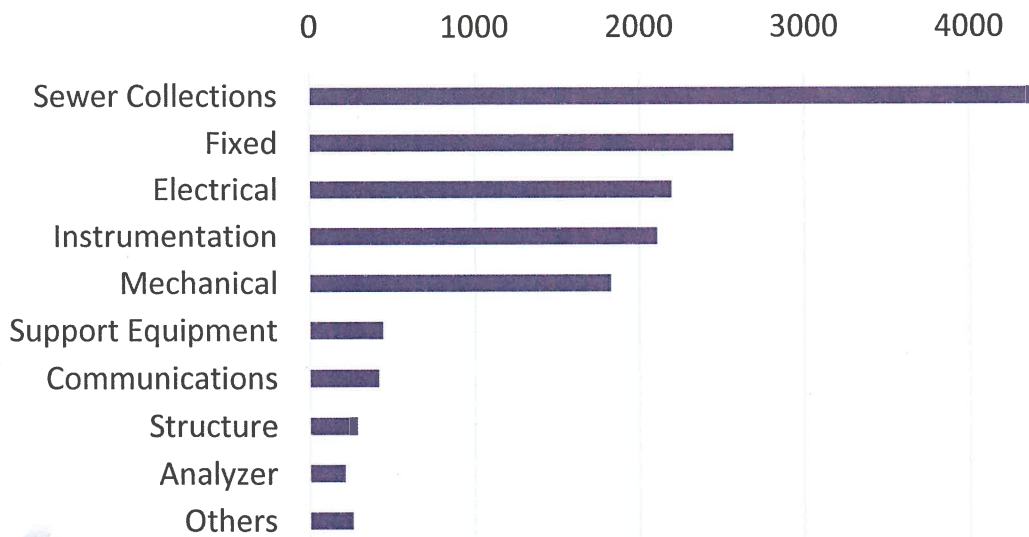




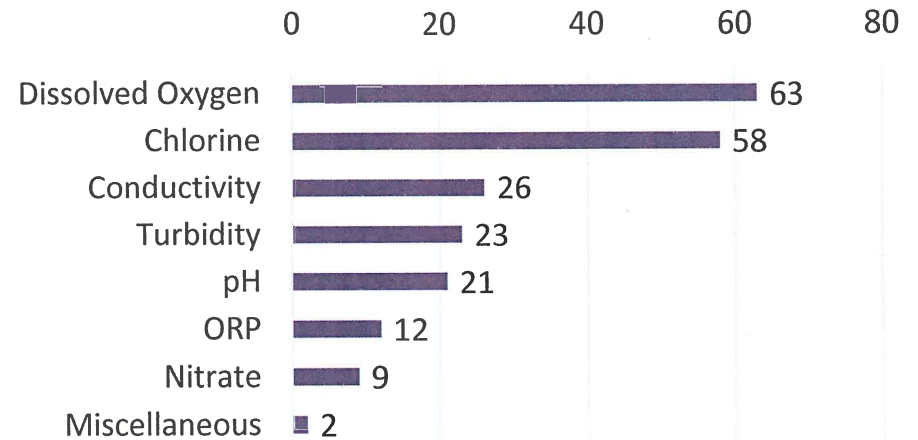
# Operations & Maintenance by the Numbers

6 Treatment Plants + 1 Composting Facility + 19 GWR Sites + 2 Sewage Collection Systems  
Produce 48 MGD Recycled Water + 12 MGD Potable Water

Equipment Count by Category  
(Total: 14,721)



Analyzers  
(Total: 214)



All of the equipment is operated and maintained by:  
43 Operators + 43 Maintenance Staff  
6 Sewage Collection Staff  
4 Groundwater/Recycled Water staff

# Operations and Maintenance Challenges

- CCWRF Trihalomethanes
- RP-5 Coliform

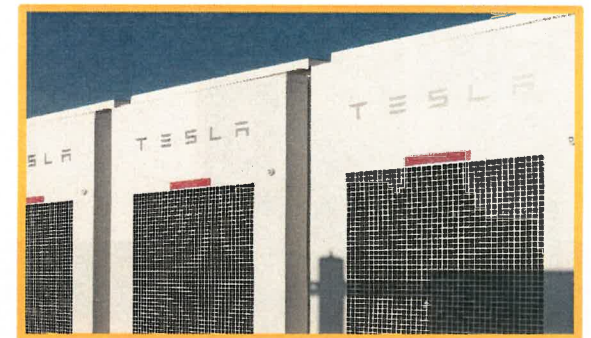


- RP-4 Headworks Fine Screen



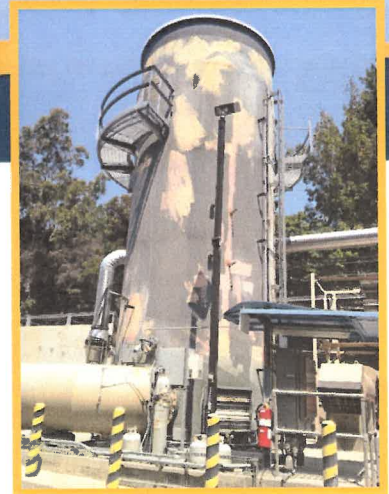
**INFORMATION  
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2B**

# Engineering and Construction Management Project Updates

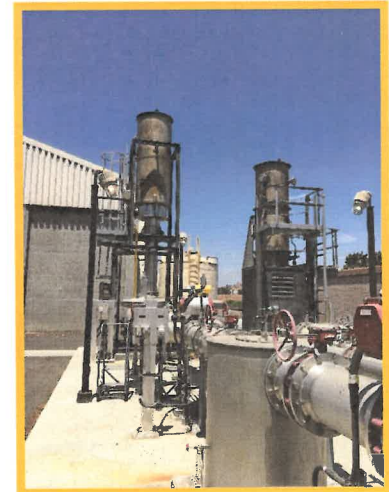


# EN18006 – RP-1 Flare Improvements

- Design Engineer: Lee & Ro/Arcadis
- Current Contract (Design): \$378 K
- Total Project Budget: \$5.3 M
- Project Completion: March 2019
- Percentage Complete: 10%
- Scope of Work:
  - Replacement of existing flare with new high efficiency flares
  - Assess gas piping condition and provide pre-design for relocation/upgrades
  - Provide pre-design for future piping inspection/access
- Current Activities:
  - Update/Revise pre-design report per IEUA's comments
  - Continue coordination with potential flare manufacturers
  - Flare installations site visits within South Coast Air Quality Management District area
- Focus Points:
  - Coordinate flare system site/location with RP-1 Expansion Project
  - Perform partial detailed design awaiting final flare site determination



LACSD Flare (Site Visit)



Riverside Flares (Site Visit)

# EN14042 – RP-1 1158 RWPS Upgrades

- Design Engineer: Stantec
- Current Contract (Design): \$445 K
- Total Project Budget: \$4.0 M
- Project Completion: November 2019
- Percentage Complete: 37%
- Scope of Work:
  - Replace existing four 400 HP pumps with four 700 HP pumps
  - Condition assessment of the wet well
  - Upgrade existing power center
  - Upgrade SCADA/Programming
  - Construct a 7,500 gallon water/air surge tank
- Current Activities:
  - Review draft pre-design report
  - Review wet well condition assessment report
  - Grant and loan approval process
- Focus Points:
  - Proceed with 50% design



Recycled Water Pump Station Motors



Front of Switchgear

# EN15008 – Water Quality Laboratory

- Construction Contractor: Kemp Bros Construction
- Current Contract (Construction): \$17.5 M
- Total Project Budget: \$24.6 M
- Project Completion: August 2018
- Percentage Complete: 41%
- Scope of Work:
  - Construction of new Water Quality Laboratory
  - Central Chiller Plant Expansion
  - Construction of new 25-stall parking lot
- Current Activities:
  - Finish outside panels erection and insulation
  - Interior stud walls installation
  - Reinforce roof opening in roof decks
- Focus Points:
  - Metal decking for canopy roof
  - Finalize roof support for solar panels



Lab Building Structure



Lab Building Entrance Canopy

# EN17041 – Orchard Recycled Water Turnout

- Design Engineer: Lee & Ro, Inc.
- Current Contract (Design): \$35 K
- Total Project Budget: \$125 K
- Project Completion: July 2019
- Percentage Complete: 10%
- Scope of Work:
  - Relocate existing 24” recycled water discharge pipeline
  - Install a flap gate to mitigate noise for surrounding neighbors
  - Repair leak at channel wall
- Current Activities:
  - Lee & Ro developing the 50% design for review
- Focus Points:
  - Permits required by US Army Corps of Engineers



Current Turnout



Nearby Residents

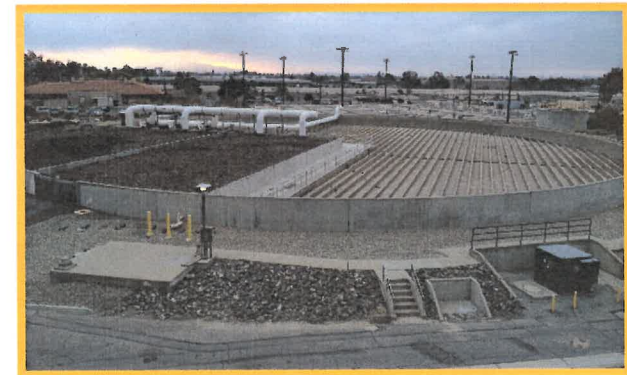


# EN24001 – RP-1 Liquid Treatment Capacity Recovery

- Design Engineer: TBD
- Current Contract (Design): TBD
- Total Project Budget: \$182 M
- Project Completion: 2023/2030
- Percentage Complete: 10%
- Scope of Work:
  - Recover facility treatment capacity from 32 MGD to 40 MGD
  - New Membrane Bio-Reactor, primary clarifier improvements, secondary effluent equalization, and odor control
- Current Activities:
  - Design Engineer Request for Proposal issued on 8/15, due 9/28
  - Design contract for Board award in December 2017
- Focus Points:
  - Funding opportunities
  - RP-1 Site Master Plan
  - 30% design



Membrane Bio-Reactor



RP-1 Biofilter/Trickling Filter