



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

**WEDNESDAY, APRIL 12, 2017
9:45 A.M.**

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 March 8, 2017.

**B. CEQA ADDENDUM ADOPTION – FONTANA WATER COMPANY
RECYCLED WATER IMPROVEMENT PROJECT**

It is recommended that the Committee/Board:

1. Adopt an Addendum to the California Environmental Quality Act (CEQA) Initial Study/Mitigated Negative Declaration for the Fontana Water Company Recycled Water Improvement Project; and
2. Authorize the General Manager to file the Notice of Determination (NOD) with the San Bernardino County Clerk of the Board.

C. ADOPTION OF A RESOLUTION FOR A USBR WATERSMART APPLICATION

It is recommended that the Committee/Board:

1. Adopt Resolution No. 2017-4-2, authorizing IEUA to enter into a financial assistance agreement with the U.S. Department of Interior – Bureau of Reclamation (USBR) for the WaterSMART Grants: Water Marketing Strategy Grants for Fiscal Year 2017; and
2. Authorize the General Manager to execute the financial assistance agreement, any amendments, and any grant related documents thereto.

D. RP-1 DIGESTER CLEANING CONTRACT AWARD

It is recommended that the Committee/Board:

1. Award a digester cleaning service contract for the RP-1 Digesters Nos. 1, 6, and 7, Project No. EN17042, to Synagro-WWT, Inc. in the amount of \$1,750,200; and
2. Authorize the General Manager to execute the contract.

E. CCWRF CONSULTANT CONTRACT AWARD (2017 ASSET MANAGEMENT PACKAGE I)

It is recommended that the Committee/Board:

1. Award a consulting engineering services contract for the CCWRF Asset Management and Improvements Project No. EN17006, to CDM Smith, for the not-to-exceed amount of \$3,631,892; and
2. Authorize the General Manager to execute the consulting engineering services contract.

F. MASTER SERVICE CONTRACT AMENDMENTS FOR CONDITION ASSESSMENT

It is recommended that the Committee/Board:

1. Approve the Master Service Contract Amendments to perform corrosion and condition assessment services for the Agency's physical assets for a total aggregate not-to-exceed amount of \$300,000 over a three-year period to the following:
 - Contract No. 4600001614 to V&A Consulting Engineering Inc.
 - Contract No. 4600001616 to Lockwood, Andrews, & Newman, Inc.
 - Contract No. 4600001622 to HDR Engineering, Inc.; and

2. Authorize the General Manager to execute the contract amendments.

G. NRW AND COLLECTION SYSTEMS CONSTRUCTION CONTRACT AWARD

It is recommended that the Committee/Board:

1. Award a construction contract for the Non-Reclaimable Wastewater Manhole Upgrades FY 2016/17 and Collection System Upgrades FY 2016/17, Project Nos. EN17014 and EN17015 respectively, to Ferreira Construction Co. Inc., in the amount of \$284,738; and
2. Authorize the General Manager to execute the construction contract.

H. RP-5 CONSULTANT CONTRACT AWARD (OPERATIONS AND MAINTENANCE BUILDING)

It is recommended that the Committee/Board:

1. Award the consulting architectural services contract for the proposed RP-5 Operations and Maintenance Building, Project No. EN19001, to Gillis & Panichapan Architects, Inc., for the not-to-exceed amount of \$136,510; and
2. Authorize the General Manager to execute the contract.

2. INFORMATION ITEM

A. RECYCLED WATER SEMI-ANNUAL UPDATE FY 2016/17 (POWERPOINT)

B. SEPTIC TO SEWER FEASIBILITY STUDY UPDATE (POWERPOINT)

C. 3RD QUARTER PLANNING & ENVIRONMENTAL RESOURCES UPDATE (POWERPOINT)

RECEIVE AND FILE INFORMATION ITEMS

D. 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

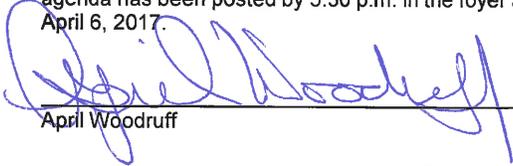
*A Municipal Water District

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: 

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, April 6, 2017.


April Woodruff

**ACTION
ITEM
1A**



MINUTES

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

WEDNESDAY, MARCH 8, 2017

9:45 A.M.

COMMITTEE MEMBERS PRESENT

Michael Camacho, Chair
Kati Parker

STAFF PRESENT

Jasmin A. Hall, Director
Paul Hofer, Director
P. Joseph Grindstaff, General Manager
Jerry Burke, Deputy Manager of Engineering
Pietro Cambiaso, Supervisor – Environmental Compliance & Energy
Chander Letulle, Manager of Operations and Maintenance
Jason Marseilles, Senior Engineer
Shaun Stone, Manager of Engineering
Christina Valencia, Chief Financial Officer/AGM
Al VanBreukelen, Deputy Manager of Maintenance
Jamal Zughbi, Senior Engineer/Project Manager, P.E.
April Woodruff, Board Secretary/Office Manager

OTHERS PRESENT

Tom Dodson, Tom Dodson and Associates

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 February 8, 2017.
- ◆ Recommended that the Board:
 1. Amend and increase the not-to-exceed amount of Contract No. 4600001868 to Superior Electric Motor Service, Inc. to provide repair, rebuild, or refurbishment services of rotating machinery for a total aggregate not-to-exceed amount of \$440,000 over the existing three-year period with a one-year option to extend;

2. Amend and increase the not-to-exceed amount of Contract No. 4600001864 to Vaughan's Industrial Repair, Inc. to provide repair, rebuild, or refurbishment services of rotating machinery for a total aggregate not-to-exceed amount of \$390,000 over the existing three-year period with a one-year option to extend; and
3. Authorize the General Manager to execute the contracts;

as a Consent Calendar Item on the March 15, 2017 Board meeting agenda.

◆ Recommended that the Board:

1. Approve the amendment to the Energy Management Services Agreement between Inland Empire Utilities Agency and Advanced Microgrid Solutions, Inc. (AMS); and
2. Authorize the General Manager to finalize and execute the agreement amendment subject to non-substantive changes;

as an Action Item on the March 15, 2017 Board meeting agenda.

◆ Recommended that the Board:

1. Adopt Resolution No. 2017-3-1, certifying the Final Program Environmental Impact Report as complete; and
2. Approve IEUA's Asset Management Plan (FY 2015/16), Recycled Water Program Strategy (2015), Amendment to the 2010 Recharge Master Plan Update (2013), Wastewater Facilities Master Plan Update Report (2015), Integrated Water Resources Plan (2015), and Energy Management Plan (2015);

as a Public Hearing Item on the March 15, 2017 Board meeting agenda.

◆ Recommended that the Board:

1. Award a three-year contract amendment to UtiliQuest, LLC, for dig alert locating services for a not-to-exceed amount of \$440,000; and
2. Authorize the General Manager to execute the contract amendment;

as a Consent Calendar Item on the March 15, 2017 Board meeting agenda.

◆ Recommended that the Board:

1. Approve the consultant task order amendment for the RP-1 Disinfection Improvements, Project No. EN11039, to Carollo Engineers, Inc., for the not-to-exceed amount of \$398,324; and
2. Authorize the General Manager to execute the amendment;

as a Consent Calendar Item on the March 15, 2017 Board meeting agenda.

◆ Recommend that the Board:

1. Award a design-build contract for the RP-1 Dewatering Building Safety Improvements and RP-1 Vertical Conveyor Housing Replacement, Project Nos. EN17047 and EN17048 respectively, to Baghouse & Industrial Sheet Metal Services, Inc., in the amount of \$392,800; and
2. Authorize the General Manager to execute the design-build contract;

as a Consent Calendar Item on the March 15, 2017 Board meeting agenda.

◆ Recommended that the Board:

1. Award a design-build contract for the RP-1 Iron Sponges Installation, Project No. EN17059, to W.A. Rasic in the amount of \$319,900;
2. Approve a total project budget amendment in the amount of \$200,000 for Project No. EN17059; and
3. Authorize the General Manager to execute the design-build contract and budget amendment;

as a Consent Calendar Item on the March 15, 2017 Board meeting agenda.

◆ Recommended that the Board concur with the findings of the RP-1/RP-5 Expansion Preliminary Design Report;

as an Action Item on the March 15, 2017 Board meeting agenda.

INFORMATION ITEMS

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

- ◆ Operations Division Update
- ◆ Chino Basin Storage PEIR Addendum
- ◆ Engineering and Construction Management Project Updates

GENERAL MANAGER'S COMMENTS

General Manager Joseph Grindstaff stated that the Agency had a violation last month of the NPDS permit for the first time in 12 years. There was a power bump which caused the main pump at RP-1 to go offline, activating the backup pump. The backup pump was operating until there was another power bump causing the backup pump to go offline as well. It took 12 minutes to get back online and for those 12 minutes chlorinated water was discharged to the river. The Agency received a new permit in November and one of the conditions of the new permit was to monitor for several Trihalomethane (THM) components, one of which is brominated methane. The bromide combines with the chlorine to create this compound. Bromide is a key component of THM and it is associated with sea water. The Agency tested it in the beginning of the month and the level was high and when later tested again, it remained high. The high level was only at the Carbon Canyon plant and there was no imported water coming into the system. We are in the process of backtracking to find where the bromide could have come from. Although it is a tiny amount of THM, the average for the month was over the requirement. It's not a chemical that the Agency has had problems in the past and staff is working on finding the source to meet the permit requirements in the future.

COMMITTEE MEMBER COMMENTS

There were no Committee Member comments.

COMMITTEE MEMBER REQUESTED FUTURE AGENDA ITEMS

There were no Committee Member requested future agenda items.

With no further business, Director Camacho adjourned the meeting at 10:40 a.m.

Respectfully submitted,

April Woodruff
Board Secretary/Office Manager

*A Municipal Water District

APPROVED: APRIL 12, 2017

**ACTION
ITEM
1B**

Date: April 19, 2017

To: The Honorable Board of Directors

Through: Engineering, Operations, and Water Resources Committee (4/12/17)

From:  P. Joseph Grindstaff
General Manager

Submitted by: Chris Berch 
Executive Manager of Engineering/Assistant General Manager

 Sylvie Lee
Manager of Planning and Environmental Resources

Subject: CEQA Addendum Adoption – Fontana Water Company Recycled Water Improvement Project

RECOMMENDATION

It is recommended that the Board of Directors:

1. Adopt an Addendum to the California Environmental Quality Act (CEQA) Initial Study/Mitigated Negative Declaration for the Fontana Water Company Recycled Water Improvement Project; and
2. Authorize the General Manager to file the Notice of Determination (NOD) with the San Bernardino County Clerk of the Board.

BACKGROUND

In 2013, Inland Empire Utilities Agency (IEUA) agreed to serve as the lead CEQA Agency for a recycled water improvement project initiated by San Gabriel Valley Water Company (SGVWC) through its subsidiary, Fontana Water Company (FWC) division, which is located within the Regional Plant No. 3 (RP-3) recharge basin facility and in the southern area of the city of Fontana. The project consists of the construction of a recycled water booster station, a half million gallon reservoir, and delivery piping that will connect to the existing Wineville recycled water pipeline located in the east side of RP-3 and distribute recycled water to the FWC distribution system. An easement will be granted by IEUA to FWC for these proposed recycled water facilities including an area reserved for a future half million-gallon reservoir. These facilities will allow FWC to deliver recycled water to its existing system in the southern area of Fontana.

Tom Dodson and Associates prepared the Initial Study/Mitigated Negative Declaration (IS/MND). The MND identified the mitigation measures that will be implemented during and after construction to reduce all potential significant impacts to less than significant levels. In June 2016, the site plan was revised and the IS/MND was updated to reflect the change. The public review was completed in August 2016. The Board of Directors adopted the CEQA findings in September 2016.

To accommodate the proposed RP-3 Basin Improvement Project of the Recharge Master Plan Update (RMPU), the site plan moved southerly, reducing the footprint which resulted in the removal of a future second half million-gallon reservoir and the addition of an enclosure around the proposed recycled water pump station. The impacts of the revised site plan are slightly less than forecasted in the adopted IS/MND. The prepared IS supports the determination. A 15-day public review of these documents was completed on March 3, 2017. The following state, county, and local agencies provided comments:

- State of California State Clearinghouse and Planning Unit
- San Bernardino County Department of Public Works
- California State Water Resources Control Board

Each of the comments were noted, addressed, and incorporated into the final IS/MND documents. These final documents require board adoption and the issuance of a NOD for state filing.

Adopting the addendum to the CEQA findings and mitigation measures for the Fontana Water Company Recycled Water Improvement Project is consistent with the IEUA business goal of *Water Reliability* by maximizing the beneficial reuse of recycled water and sources of groundwater within the Chino Basin.

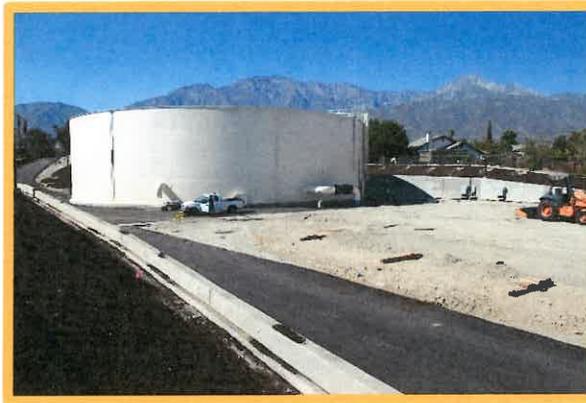
PRIOR BOARD ACTION

On September 21, 2016, the Board of Directors adopted the CEQA findings and mitigation measures for the Fontana Water Company Recycled Water Improvement Project.

IMPACT ON BUDGET

None.

Fontana Water Company Recycled Water Improvement Project CEQA Addendum Adoption



Project Request

- Adoption of an addendum to the CEQA Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed Fontana Water Company (FWC) Recycled Water Improvement Project

Project Background

Sep 2016

- Adopted the IS/MND by the Board for the original site layout

Nov 2016

- Redesigned the FWC reservoir and pump station layout to coordinate with RP-3 Basin Improvement Project

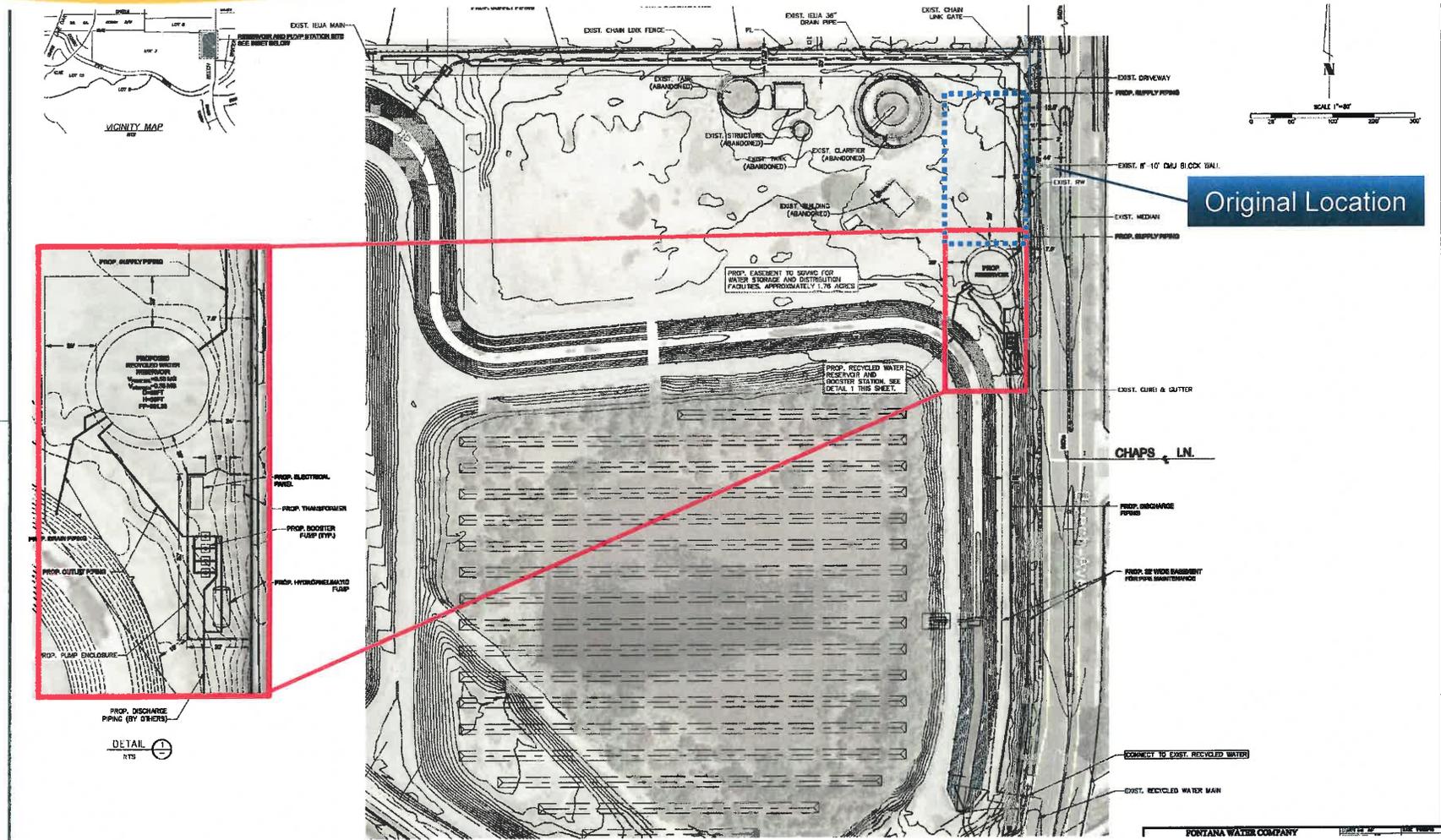
Feb 2017

- Revised the IS/MND and recirculated for a 15-day review

Mar 2017

- Addressed comments received

Revised Site Layout



Conclusion

- The redesigned site layout has slightly less impact than forecasted in the adopted IS/MND.
- Mitigated Negative Declaration (MND) is the appropriate environmental determination.
- Mitigation measures to be implemented through the Mitigation, Monitoring and Reporting Program (MMRP).

Recommendation

1. Adopt the Addendum to the Fontana Water Company Recycled Water Improvement Project CEQA Initial Study/Mitigated Negative Declaration and Mitigation, Monitoring and Reporting Program; and
2. Authorize the General Manager to file the Notice of Determination with the San Bernardino County Clerk of the Board.

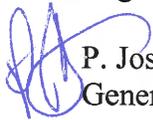
The adoption of the addendum to the CEQA findings and mitigation measures is consistent with IEUA's business goal of ***Water Reliability.***

**ACTION
ITEM
1C**

Date: April 19, 2017

To: The Honorable Board of Directors

Through: Engineering, Operations, and Water Resources Committee (4/12/17)

From:  P. Joseph Grindstaff
General Manager

Submitted by: Chris Berch 
Executive Manager of Engineering/Assistant General Manager

Jason Gu 
Grants Officer

Subject: Adoption of a Resolution for a USBR WaterSMART Application

RECOMMENDATION

It is recommended that the Board of Directors:

1. Adopt Resolution No. 2017-4-2, authorizing IEUA to enter into a financial assistance agreement with the U.S. Department of Interior – Bureau of Reclamation (USBR) for the WaterSMART Grants: Water Marketing Strategy Grants for Fiscal Year 2017; and
2. Authorize the General Manager to execute the financial assistance agreement, any amendments, and any grant related documents thereto.

BACKGROUND

USBR Drought Resiliency Implementation Grant:

In February 2017, the USBR announced the WaterSMART Grants: Water Marketing Strategy Grants for Fiscal Year 2017 to fund projects that support the development of water marketing strategies that will help prevent water conflicts and will contribute to water supply sustainability.

The USBR mandates that an official resolution be adopted by the applicant's Board of Directors to commit the applicant to the financial and legal obligations associated with the receipt of financial assistance under the Grant Program.

The Chino Basin Water Market Plan is to facilitate the maximum use of the Chino Basin water storage in accordance with the 1978 stipulated Chino Basin Judgement. The proposed project will

Adoption of a Resolution for a USBR WaterSMART Application

April 19, 2017

Page 2

perform groundwater and storage modeling to develop the operational and governance plans for the water bank. IEUA and stakeholders will work together on the concepts and procedures of a Joint Powers Authority, which will oversee and administrate the water bank.

This action supports IEUA's mission to increase sustainability through the development of a plan to develop a water marketing strategy and contribute to water supply sustainability in a manner that is consistent with the IEUA's mission of pursuing state and federal grants and low-interest financing.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

The proposed grant funding portion from USBR is \$400,000. The remaining balance, or \$600,000, will be funded by Project No. WR18028. There will be no impact to IEUA's current fiscal year budget. Upon award of funding, the annual project appropriations will be revised to reflect the grant funding.

Attachment:

Resolution No. 2017-4-2

RESOLUTION NO. 2017-4-2

RESOLUTION OF THE BOARD OF DIRECTORS OF THE INLAND EMPIRE UTILITIES AGENCY*, SAN BERNARDINO COUNTY, CALIFORNIA, AUTHORIZING THE INLAND EMPIRE UTILITIES AGENCY TO ENTER INTO A FINANCIAL ASSISTANCE AGREEMENT UNDER THE WATERSMART GRANTS: WATER MARKETING STRATEGY GRANTS FOR FY 2017 WITH THE U.S. DEPARTMENT OF INTERIOR - BUREAU OF RECLAMATION AND DESIGNATING A REPRESENTATIVE TO EXECUTE THE FINANCIAL ASSISTANCE AGREEMENT, AND ANY AMENDMENTS THERETO FOR THE CHINO BASIN WATER MARKET PLAN

BE IT RESOLVED, that the Inland Empire Utilities Agency* (IEUA) is authorized to enter into a financial assistance agreement under the WaterSMART Grants: Water Marketing Strategy Grants for Fiscal Year 2017, with the U.S. Department of Interior - Bureau of Reclamation (USBR) for Chino Basin Water Market Plan;

BE IT RESOLVED, that IEUA's Board of Directors authorizes the General Manager, or in his absence, his designees, to execute the financial assistance agreement, any amendments, and any grant related documents thereto;

BE IT RESOLVED, that IEUA has the capacity to provide the amount of funding and/or in-kind contributions specified in the funding plan;

BE IT RESOLVED, that IEUA will work with the USBR to meet established deadlines for entering into a cooperative agreement; and

BE IT FURTHER RESOLVED, that IEUA's Board of Directors hereby adopts Resolution No. 2017-4-2 on this 19th day of April, 2017.

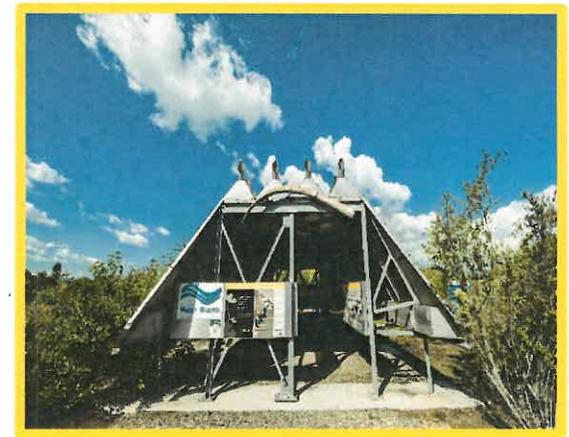
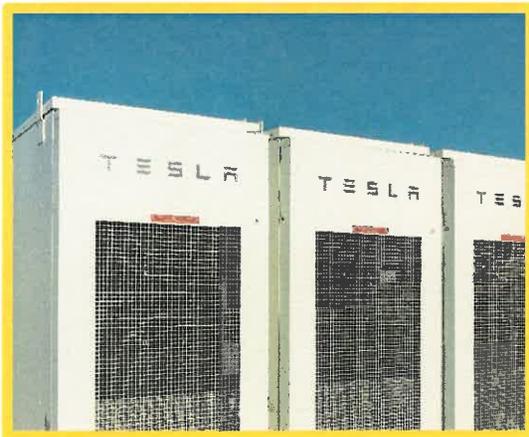
Steven J. Elie, President of the Inland Empire Utilities Agency* and of the Board of Directors thereof

ATTEST:

Jasmin A. Hall, Secretary/Treasurer of the Inland Empire Utilities Agency* and of the Board of Directors thereof

* A Municipal Water District

Water Bank Planning Grant Application



Water Marketing Strategy Grant Program

U.S. Department of Interior, Bureau of Reclamation (USBR)

Water Marketing Strategy Grant Objective

- Develop water marketing strategies:
 - Water rights transactions
 - Groundwater recharge and storage
 - Water use and management
 - Outreach and partnership plans
- Minimize water rights conflicts
- Provide water supply sustainability

The Proposed Chino Basin Water Bank Project

- Build the Water Bank concept
- Groundwater and storage modeling
- Operational and governance plans
- Maximize the Chino Basin storage capacity
- Drought resiliency and water supply sustainability
- Establish a JPA to oversee storage and administer the Water Bank

Grant Eligibility and Cost Share Requirement

- State and local government level planning
- \$400,000 grant with 50% local match
- Pre-award costs are eligible for match funding
- Grant cannot be used for implementation or construction (planning grant)
- IEUA has established budget for the project

Recommendation

- Adopt Resolution No. 2017-4-2, authorizing IEUA to enter into a financial assistance agreement with the USBR; and
- Authorize the GM to execute the financial assistance agreement.

This action supports the Agency's mission to increase sustainability through the development of reliable local water supplies and is consistent with the Agency's mission of pursuing grants and low-interest financing.

**ACTION
ITEM
1D**

Date: April 19, 2017

To: The Honorable Board of Directors

Through: Engineering, Operations, and Water Resources Committee (4/12/17)

From:  R. Joseph Grindstaff
General Manager

Submitted by: Chris Berch 
Executive Manager of Engineering/Assistant General Manager

Shaun J. Stone 
Manager of Engineering

Subject: RP-1 Digester Cleaning Contract Award

RECOMMENDATION

It is recommended that the Board of Directors:

1. Award a digester cleaning service contract for the RP-1 Digesters Nos. 1, 6, and 7, Project No. EN17042, to Synagro-WWT, Inc. in the amount of \$1,750,200; and
2. Authorize the General Manager to execute the contract.

BACKGROUND

To maintain the efficiency of the digestion process at the Regional Water Recycling Plant No. 1 (RP-1), the digesters need to be cleaned every seven to ten years. The digester tank interior and exterior systems are thoroughly cleaned to remove solids, debris, and deposits collected in the piping system over years of operation. The intent of this project is to clean Digester Nos. 1, 6, and 7, and provide piping improvements to enhance reliability and performance.

In addition to the cleaning, Digesters 6 and 7 will be inspected internally and externally for potential gas leaks on the roof area and other signs of deterioration and damage. It is anticipated that cleaning, inspection, design, and repairs of Digesters 6 and 7 will take nine to twelve months each. During this cleaning contract, staff will issue requests for proposals for inspection and the design of any necessary repairs revealed, and issue with Board approval, separate contracts for these components of the work.

On February 7, 2017, IEUA advertised a request for bids on PlanetBids. On February 14, 2017, five contractors participated on the job walk. On March 9, 2017, the following bid was received:

Bidder's Name	Total Price
Synagro-WWT, Inc.	\$1,750,200
Engineer's Estimate	\$1,700,000.00

Synagro, after staff's review was deemed the lowest responsive and responsible bidder. Synagro's contractor licenses were checked and found to be current and in good standing, Synagro has performed several successful projects for IEUA in the past, showing good workmanship and responsiveness. Synagro is considered the most qualified contractor in the region who performs digester cleaning services. The Engineer's estimate was developed based on past contracts for similar work at IEUA and other wastewater agencies.

The following table is the anticipated project cost:

Description	Estimated Cost
Design	\$75,000
Construction Services (10%)	\$175,000
Construction (Digester Cleaning)	\$1,750,200
Contingency (10%)	\$175,000
Total Project Cost	\$2,175,200
Total Project Budget	\$3,800,000

The following is the project schedule:

Project Milestone	Date
Construction Contract Award	April, 2017
Digester No. 1 Cleaning and Service Completion	June 2017
Digester No. 6 Cleaning and Service Completion	September 2017
Digester No. 7 Cleaning and Service Completion	September 2018

The RP-1 Digester Cleaning Project is consistent with the *IEUA's Business Goal of Wastewater Management and Environmental Stewardship* specifically the Water Quality and Regulatory Compliance objectives that IEUA will comply with all federal, state, local, and environmental laws and regulations to protect public health and the environment.

PRIOR BOARD ACTION

None.

RP-1 Digester Cleaning Contract Award
April 19, 2017
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IMPACT ON BUDGET

If approved, the digester cleaning contract award for the Digesters 1, 6, and 7 Cleaning, Project No. EN17042, in the amount of \$1,750,200 will be within the total project budget of \$3,800,000 in the Regional Wastewater Operations and Maintenance (RO) Fund.

Attachment:

Digester Cleaning Contract

<https://dl.dropbox.com/s/kz0hvhg58apr2wg/17089%20Attachment%20RP-1%20Digester%20Cleaning%20Contract%20Award%204-2017.pdf?dl=0>

PJG:CB:SS:jz

RP-1 Digesters 1, 6, & 7 Cleaning Contract Award Project No. EN17042

Board Meeting

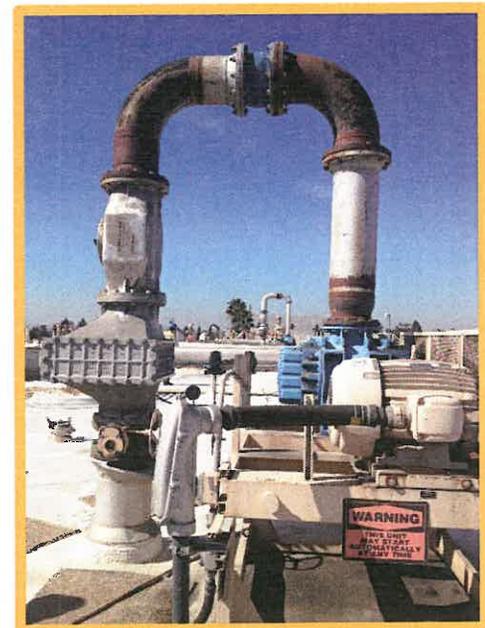


Regional Water Recycling Plant No. 1 Project Location



Project Background

- Digesters are cleaned every 7-10 years
- Cleaning maintains Digester Gas production at desired efficiency
- Various piping improvements are needed
- Signs of gas leak on Digesters 6 and 7 roofs



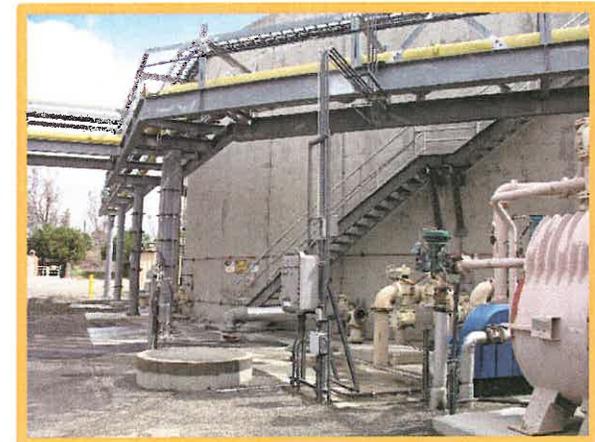
Gas Mixing System

Project Scope

- Clean Digesters 1, 6, and 7, and piping system
- Procurement and installation of critical isolation valves
- Procurement and installation of backup flame arrestors and associated piping system
- Installation of scaffolding throughout the project to facilitate Digesters 6 and 7 inspection and repairs
- Inspection, design, and repair under separate contracts



Digester No. 6 Flame Arrestor



Digester Area

Bid Summary

- One bid received on March 9, 2017:

Bids Received

Bidder's Name	Total Price
Synagro-WWT, Inc.	\$1,750,200
Engineer's Estimate	\$1,750,000

Project Budget and Schedule

Description	Estimated Cost
Design	\$75,000
Construction Services (10%)	\$175,000
Construction (Digester Cleaning)	\$1,750,200
Contingency (10%)	\$175,000
Total Project Cost	\$2,175,200
Total Project Budget	\$3,800,000

Milestone	Date
Construction Contract Award	April 2017
Digester No. 1 Cleaning and Service Completion	June 2017
Digester No. 6 Cleaning and Service Completion	September 2017
Digester No. 7 Cleaning and Service Completion	September 2018

Recommendation

- Award a digester cleaning service contract for the RP-1 Digesters Nos. 1, 6, and 7, Project No. EN17042, to Synagro-WWT, Inc. in the amount of \$1,750,200; and
- Authorize the General Manager to execute the contract.

The RP-1 Digester Cleaning Project is consistent with **IEUA's Business Goals of Wastewater Management and Environmental Stewardship** specifically the Water Quality and Regulatory Compliance objectives that IEUA will comply with all federal, state, local, and environmental laws and regulations to protect public health and the environment.

**ACTION
ITEM
1E**



Date: April 19, 2017

To: The Honorable Board of Directors

Through: Engineering, Operations, and Water Resources Committee (4/12/2017)

From:  P. Joseph Grindstaff
General Manager

Submitted by: Chris Berch 
Executive Manager of Engineering/Assistant General Manager

Shaun J. Stone 
Manager of Engineering

Subject: CCWRF Consultant Contract Award (2017 Asset Management Package I)

RECOMMENDATION

It is recommended that the Board of Directors:

1. Award a consulting engineering services contract for the CCWRF Asset Management and Improvements Project No. EN17006, to CDM Smith, for the not-to-exceed amount of \$3,631,892; and
2. Authorize the General Manager to execute the consulting engineering services contract.

BACKGROUND

Carbon Canyon Water Recycling Facility (CCWRF), located in the City of Chino, has been in operation since 1992, and provides quality recycle water pursuant to the State of California Title 22 regulations.

The plant has been in operation for over 25 years, with only minor work and rehabilitation completed, and now requires major overhaul services and process improvements to provide high quality treatment and remain in compliance with our National Pollutant Discharge Elimination System (NPDES) permits. The process improvements are required in various locations throughout the plant, therefore the project has been divided into three packages. Package I (current action) will address the preliminary, primary, and secondary treatment areas. Package II will

address the building interior improvements/rehabilitation, and Package III will address the tertiary treatment area.

Package I includes the following major scope items:

- Condition assessment of the existing underground structures within the preliminary, primary, and secondary treatment processes and provide repair recommendations.
- Headworks Facility: Install new screens, grit hardware, and enclosed screenings facility.
- Odor Control System: Install new odor control for the headworks and the primary clarifiers.
- Aeration Basins: Install new automated gates, remove abandoned pipes, evaluate the air diffusers, and provide upgrade/rehabilitation recommendations.
- Blowers: Install new energy-efficient automated blowers.
- Backup Generator: Replace generator and provide control upgrades.

It is important to note that this project includes significant condition assessment work as part of the preliminary design phase. The condition assessment requires a significant level of effort in bypassing the entire incoming plant flow as well as internal process flows; totaling up to 40 million gallons per day. The costs associated with this single activity account for approximately \$1.5 million of the \$3.6 million consulting contract.

On January 12, 2017, IEUA staff advertised the Request for Proposals for consulting engineering services (Package I) on *Planet Bids*. On February 28, 2017, IEUA received proposals from Carollo Engineers, CDM Smith, and Stantec. The proposals were reviewed by a selection committee of IEUA staff from Engineering, Operations, and Maintenance. Additionally, a representative from the City of Chino Hills assisted with the selection. Based on the project team qualifications and experience, understanding of the project scope, and ability to meet the project schedule, the committee unanimously concurred that CDM Smith was the most qualified firm to do the work.

The following table is the anticipated project cost:

Description	Estimated Cost
Project Development	\$75,000
Consultant Engineer	\$3,631,892
Design Services (~ 2%)	\$300,000
Construction Services (~ 15%)	\$2,250,000
Construction	\$15,000,000
Contingency (~ 15%)	\$2,250,000
Total Project Cost	\$23,506,892
Total Project Budget	\$24,000,000*

**The current total project budget of \$7,000,000 will be amended to \$24,000,000 during the Ten-Year Capital Improvement Plan process to account for additional scope identified during the project charter development.*

During the project charter development, additional scope items were identified as necessary to address within this project. The original approved budget of \$7,000,000 was based on a limited

preliminary evaluation at project inception. The detailed initial evaluation was placed in hold pending the completion of the RP-5 Expansion Preliminary Design Report's evaluation of maintaining the operation of the CCWRF. As such, the budget will be refined during the design phase and once complete, it is anticipated that the project budget will require an amendment to proceed with the construction phase of the project.

The following is the project schedule:

Project Milestone	Date
Consultant Contract Award	April 2017
Design Completion	March 2019
Construction Contract Award	June 2019
Construction Completion	June 2021

The CCWRF Asset Management and Improvements project is consistent with the *IEUA's Business Goal of Wastewater Management* specifically the Water Quality objective that IEUA will ensure that systems are planned, constructed, and managed to protect public health, the environment, and meet anticipated regulatory requirements.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

If approved, the consulting engineering services contract award for the CCWRF Asset Management and Improvements Project No. EN17006, for the not-to-exceed amount of \$3,631,892 will be within the total project budget of \$7,000,000 in the Wastewater Capital (RC) Fund.

Attachment:

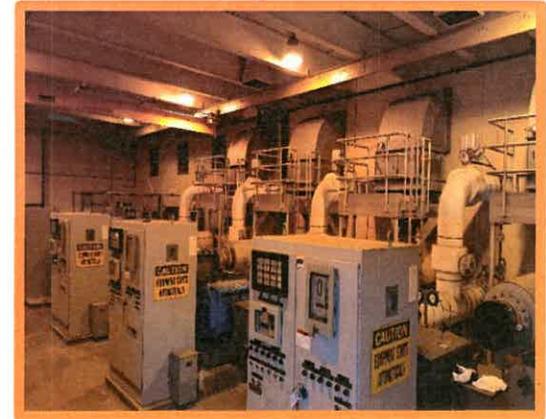
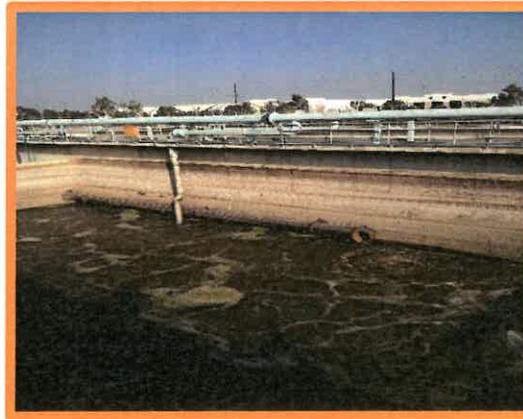
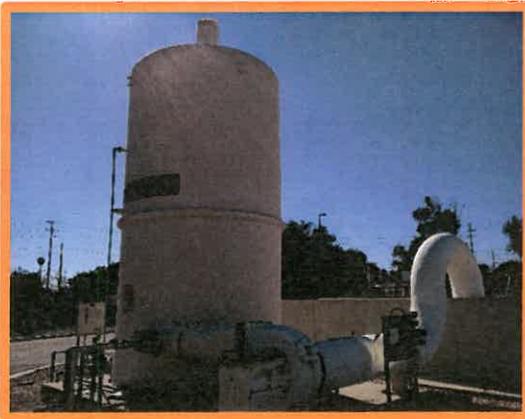
Consultant Contract Award

<https://dl.dropbox.com/s/0vlqcy01xxa196n/17092%20Attachment%20CCWRF%20Asset%20Management%20%20Improvements%20%20Consultant%20Contract%20Award%204-2017.pdf?dl=0>

PJG:CB:SS:aa

CCWRF Asset Management & Improvements – Package I Consultant Contract Award

Project No. EN17006
April 19, 2017
Board Meeting



Adham Almasri, PE, PMP
April 2017

Carbon Canyon Water Recycling Facility Project Location



Project Background

- CCWRF constructed in 1992
- General deterioration with over 25 years of operation
- This project is first of three packages
 - Package I: Preliminary, primary, and secondary treatments
 - Package II: Tenant improvements
 - Package III: Tertiary treatment
- Current issues to be addressed in Package I
 - Inefficient odor control system
 - Deteriorated headworks equipment
 - Blowers at the end of service life
 - Aeration Basins operation not optimized



Non-Operational Gates



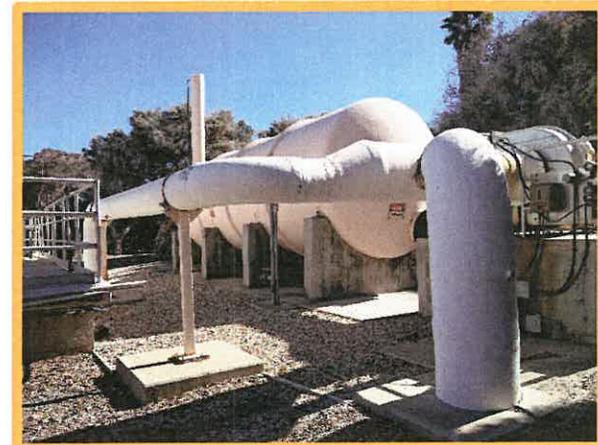
Rusted Pipe Surfaces

Project Scope

- Conditional assessment and flow bypassing while plant is in operation
- Headworks rehabilitation
- New odor control system
- Aeration basins modification
- Replace and automate blowers
- Replace backup generator and upgrade controls



Existing Headworks Structure



Existing Chemical Mist Odor Control

Consultant Selection

- Evaluation and Selection Committee
 - IEUA Engineering, Operations & Maintenance, and the City of Chino Hills
- Justification for unanimously selecting CDM Smith
 - Success in similar past projects
 - Comprehensive understanding of project scope and expectation
 - Most qualified consultant
- Three proposals received on February 28, 2017

Proposals Received

Carollo Engineers
CDM Smith
Stantec

Project Budget and Schedule

Description	Estimated Cost
Project Development	\$75,000
Consultant Engineer	\$3,631,892
Design Services (~2%)	\$300,000
Construction Services (~15%)	\$2,250,000
Construction	\$15,000,000
Contingency (~15%)	\$2,250,000
Total Project Cost	\$23,506,892
Total Project Budget	\$24,000,000*

**The current total project budget of \$7,000,000 will be amended to \$24,000,000 during the Ten-Year Capital Improvement Plan process to account for additional scope identified during the project charter development.*

Milestone	Date
Consultant Contract Award	April 2017
Design Completion	March 2019
Construction Contract Award	June 2019
Construction Completion	June 2021

Recommendation

- Award a consulting engineering services contract for the CCWRF Asset Management and Improvements Project No. EN17006, to CDM Smith, for the not-to-exceed amount of \$3,631,892; and
- Authorize the General Manager to execute the consultant engineering services contract.

The CCWRF Asset Management & Improvements is consistent with the *IEUA's Business Goal of Wastewater Management* specifically the Water Quality objective that IEUA will ensure that systems are planned, constructed, and managed to protect public health, the environment, and meet anticipated regulatory requirements.

**ACTION
ITEM
1F**

Date: April 19, 2017

To: The Honorable Board of Directors

Through: Engineering, Operations, and Water Resources Committee (4/12/17)

From:  P. Joseph Grindstaff
General Manager

Submitted by: Randy Lee 
Executive Manager of Operations/Assistant General Manager

Al VanBreukelen 
Deputy Manager of Maintenance

Subject: Master Service Contract Amendments for Condition Assessment

RECOMMENDATION

It is recommended that the Board of Directors:

1. Approve the Master Service Contract Amendments to perform corrosion and condition assessment services for the Agency's physical assets for a total aggregate not-to-exceed amount of \$300,000 over a three-year period to the following:
 - Contract No. 4600001614 to V&A Consulting Engineering Inc.
 - Contract No. 4600001616 to Lockwood, Andrews, & Newman, Inc.
 - Contract No. 4600001622 to HDR Engineering, Inc.; and
2. Authorize the General Manager to execute the contract amendments.

BACKGROUND

The Agency's physical assets are aging and some assets will require extensive rehabilitation or replacement. In order to evaluate the existing condition and identify the rehabilitation requirements, a thorough condition assessment of the Agency's process piping, clarifiers, digesters, and other process conveyance structures will be performed by corrosion engineering services consultants. In March of 2014, a three-year contract to three engineering consultants identified above was approved by the Board of Directors. Over the last three years, the condition assessment services provided by these consultants have provided valuable information on the

condition of the Agency's aging structures, in addition to providing recommendations for rehabilitation and repair.

By extending the existing contracts, Agency staff will ensure that the contract terms (e.g., labor rates, equipment rental rates, evidence of insurance, indemnification language, etc.) are established up front, which will expedite the condition assessment process, while still utilizing a competitive bid process between the three consultants. The three consultants also agreed to minimal labor rate increases, with 3% annual escalation, for the duration of the contract.

The types of required testing and evaluation specifications are identified in the master contracts, while the specific system to be assessed will be sent to the three pre-selected consultants for a competitive bid on a per job basis. This will enable staff to select the lowest priced, best-value award for each individual job. The three selected consultants offer extensive experience and expertise in the required services to provide the Agency a thorough condition assessment and guidance for any immediate and long-term rehabilitation needs.

PRIOR BOARD ACTION

On March 19, 2014, the Board of Directors approved the three-year contracts to HDR Engineering, Inc., Lockwood, Andrews, & Newman, Inc., and V&A Consulting Engineering Inc.

IMPACT ON BUDGET

If approved, sufficient funds are available in FY 2017/18 under Project EP17005 and will be budgeted for in FY 2018/19 and 2019/20 under Projects EP18005 and EP19005 respectively.



**AMENDMENT NUMBER 4600001622-001
TO
MASTER SERVICES CONTRACT NUMBER 4600001622
FOR PROVISION OF
CORROSION ASSESSMENT SERVICES**

THIS AMENDMENT, Number 4600001622-001, to Contract Number 4600001622 between the Inland Empire Utilities Agency, a Municipal Water District, and HDR Engineering, Inc., of Claremont, California, for provision of corrosion assessment services, revises the Contract as follows:

Delete the existing text within **Section 3, TERM OF CONTRACT AND OPTION**, in its entirety and replace with the superseding text as follows:

Section 3, TERM OF CONTRACT AND OPTION: The term of this Contract shall extend from the date the Contract's bi-lateral execution and terminate on the revised date of **February 28, 2019**, unless a subsequent revision of the Contract's term is mutually agreed to by both parties, reduced to writing and formally incorporated via additional amendment to this Contract.

ALL OTHER PROVISIONS OF CONTRACT NUMBER 4600001622 REMAIN UNCHANGED.

As evidenced by the signatures that follow, the Parties hereto mutually agree and covenant as to the above-stated amendment item(s), and in doing so have caused this Amendment to become an integral part of the Contract Documents.

INLAND EMPIRE UTILITIES AGENCY:

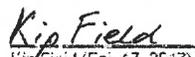
HDR ENGINEERING, Inc.:



Warren T. Green
Manager of Contracts & Procurement

2-21 2017

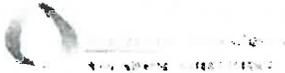
(Date)



Kip D. Field
Vice President

Feb 17, 2017

(Date)



**AMENDMENT NUMBER 4600001616-001
TO
MASTER SERVICES CONTRACT NUMBER 4600001616
FOR PROVISION OF
CORROSION ASSESSMENT SERVICES**

THIS AMENDMENT, Number 4600001616-001, to Contract Number 4600001616 between the Inland Empire Utilities Agency, a Municipal Water District, and Lockwood, Andrews & Newnam, Inc., of Orange, California, for provision of corrosion assessment services, revises the Contract as follows:

Delete the existing text within **Section 3, TERM OF CONTRACT AND OPTION**, in its entirety and replace with the superseding text as follows:

Section 3, TERM OF CONTRACT AND OPTION: The term of this Contract shall extend from the date the Contract's bi-lateral execution and terminate on the revised date of **February 28, 2019**, unless a subsequent revision of the Contract's term is mutually agreed to by both parties, reduced to writing and formally incorporated via additional amendment to this Contract.

ALL OTHER PROVISIONS OF CONTRACT NUMBER 4600001616 REMAIN UNCHANGED.

As evidenced by the signatures that follow, the Parties hereto mutually agree and covenant as to the above-stated amendment item(s), and in doing so have caused this Amendment to become an integral part of the Contract Documents.

INLAND EMPIRE UTILITIES AGENCY:

LOCKWOOD, ANDREWS & NEWNAM, Inc.:



Warren T. Green
Manager of Contracts & Procurement

2-6-2017
(Date)



(Authorized Representative)
(Title)

2/6/17
(Date)

M. CENK YAVAS
VICE PRESIDENT



**AMENDMENT NUMBER 4600001614-001
TO
MASTER SERVICES CONTRACT NUMBER 4600001614
FOR PROVISION OF
CORROSION ASSESSMENT SERVICES**

THIS AMENDMENT, Number 4600001614-001, to Contract Number 4600001614 between the Inland Empire Utilities Agency, a Municipal Water District and V&A Consulting Engineers, Inc., of San Diego, California, for provision of corrosion assessment services, revises the Contract as follows:

Delete the existing text within Section 3, TERM OF CONTRACT AND OPTION, in its entirety and replace with the superseding text as follows:

Section 3, TERM OF CONTRACT AND OPTION: The term of this Contract shall extend from the date the Contract's bi-lateral execution and terminate on the revised date of February 28, 2019, unless a subsequent revision of the Contract's term is mutually agreed to by both parties, reduced to writing and formally incorporated via additional amendment to this Contract.

ALL OTHER PROVISIONS OF CONTRACT NUMBER 4600001614 REMAIN UNCHANGED.

As evidenced by the signatures that follow, the Parties hereto mutually agree and covenant as to the above-stated amendment item(s), and in doing so have caused this Amendment to become an integral part of the Contract Documents.

INLAND EMPIRE UTILITIES AGENCY:

V & A CONSULTING ENGINEERS, Inc.:


Warren T. Green
Manager of Contracts & Procurement
(Date)


Glenn H. Wilson
Western Regional Manager
(Date)

**ACTION
ITEM
1G**

Date: April 19, 2017

To: The Honorable Board of Directors

Through: Engineering, Operations, and Water Resources Committee (4/12/17)

From:  P. Joseph Grindstaff
General Manager

Submitted by: Chris Berch 
Executive Manager of Engineering/Assistant General Manager

Shaun J. Stone 
Manager of Engineering

Subject: NRW and Collection Systems Construction Contract Award

RECOMMENDATION

It is recommended that the Board of Directors:

1. Award a construction contract for the Non-Reclaimable Wastewater Manhole Upgrades FY 2016/17 and Collection System Upgrades FY 2016/17, Project Nos. EN17014 and EN17015 respectively, to Ferreira Construction Co. Inc., in the amount of \$284,738; and
2. Authorize the General Manager to execute the construction contract.

BACKGROUND

IEUA is responsible for operating and maintaining the mainline sewer collection and Non-Reclaimable Waste (NRW) systems throughout the cities of Fontana, Upland, Montclair, Rancho Cucamonga, Ontario, Chino, and Chino Hills as well as the unincorporated areas of San Bernardino County. IEUA's collection crews are routinely tasked with maintaining the existing systems and in doing so, they are required to access numerous manholes that have been in service for many years. Many of the existing manholes are showing signs of deterioration and sulfide damage. To address the deterioration, IEUA implemented a manhole upgrade program that has spanned several fiscal years and it is anticipated to continue until all IEUA manholes have been inspected and upgraded, if required.

The NRW Manhole Upgrades FY 2016/17 and Collection System Upgrades FY 2016/17 Projects will continue the manhole upgrading process by replacing 46 existing cast iron manhole frames and covers with composite manhole frames and covers. Twenty-six of the 46 manholes are showing significant sulfide damage to the interior of the structure. The structures will be rehabilitated and treated with a protective liner to minimize future damage to the manhole interiors.

The worksites for the subject projects are in the public right-of-way in the cities of Ontario, Chino, Upland, and the unincorporated area of San Bernardino County. Fourteen manholes are located on private properties within IEUA easements.

On March 2, 2017, IEUA advertised a request for bids on PlanetBids. On March 16, 2017, the following bids were received:

Bidder's Name	EN17014	EN17015	Total Price
Ferreira Construction Co. Inc.	\$82,511	\$202,227	\$284,738
Genesis Construction Co.	\$152,167	\$396,610	\$548,777
Engineer's Estimate	\$178,000	\$374,000	\$552,000

Ferreira Construction Co. Inc. was the lowest responsive and responsible bidder with a bid price of \$284,738. In the past, Ferreira Construction Co. Inc. has performed several successful projects for IEUA showing good workmanship and responsiveness.

Due to the bid at 50% of Engineer's Estimate, staff contacted Ferreira Construction to confirm the validity of their bids and to confirm that all scope items were addressed. After extensive discussion and review, Ferreira confirmed that all items were accounted for and the bid is accurate.

The following table is the anticipated project cost:

Description	EN17014	EN17015	Estimated Cost
In-House Design	\$13,000	\$18,000	\$31,000
Construction Services (~15%)	\$12,400	\$30,400	\$42,800
Construction	\$82,511	\$202,227	\$284,738
Contingency (~15%)	\$12,400	\$30,400	\$42,800
Total Project Cost	\$120,311	\$281,027	\$401,338
Total Project Budget	\$350,000	\$500,000	\$850,000

The following is the project schedule:

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

The NRW Manhole Upgrades FY 2016/17 Project and the Collection System Upgrades FY 2016/17 Project are consistent with IEUA's Business Goal of Wastewater Management and Work Environment specifically the Water Quality and Staff Safety objectives that IEUA will ensure that

NRW and Collection Systems Construction Contract Award

April 19, 2017

Page 3 of 3

systems are planned, constructed, and managed to protect public health, the environment, and meet anticipated regulatory requirements, and ensure a safe and healthy work environment, exceeding industry best practices.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

If approved, the construction contract award for the NRW Manhole Upgrades FY 2016/17, Project No. EN17014, in the amount of \$82,511 will be within the total project budget of \$350,000 in the Non-Reclaimable Wastewater (NC) Fund.

If approved, the construction contract award for the Collection System Upgrades FY 2016/17, Project No. EN17015, in the amount of \$202,227 will be within the total project budget of \$500,000 in the Regional Wastewater (RC) Fund.

Attachment:

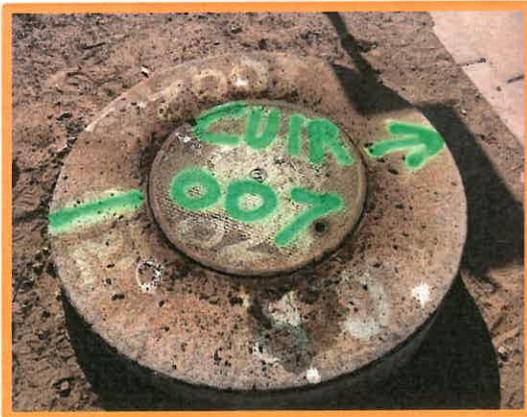
Construction Contract

<https://dl.dropbox.com/s/jcj6nypiga2lnwa/17088%20Attachment%20NRW%20%26%20Collection%20Systems%20Construction%20Contract%20Award%204-2017.pdf?dl=0>

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NRW Manhole Upgrades FY 2016/17 and Collection System Upgrades FY 2016/17 Construction Contract Award Project Nos. EN17014 & EN17015

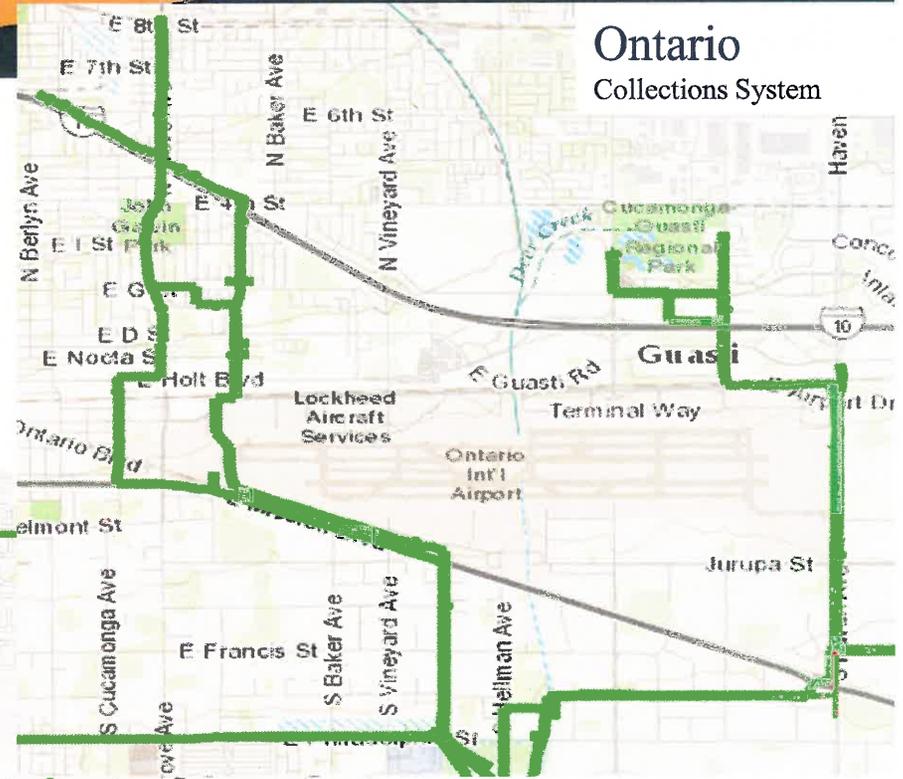
Board Meeting



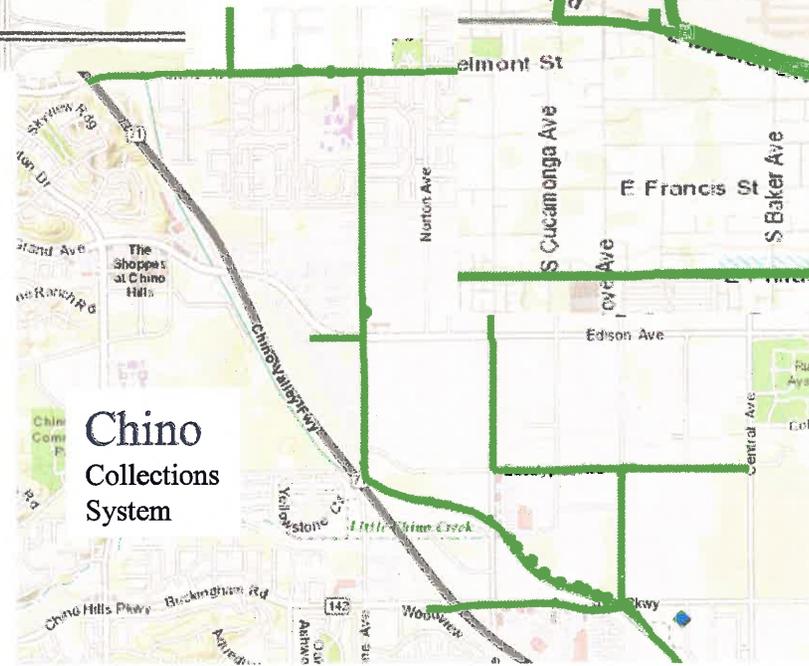
Project Location



San Bernardino County
NRW



Ontario
Collections System



Chino
Collections System



Upland
Collections System



Project Background

- EN17014 & EN17015
 - Deterioration identified by Operations & Maintenance Staff on 46 manholes
 - Three buried manholes
 - Twenty-six manhole structures damaged by sulfide
 - Fourteen manholes above grade level



Existing NRW Manhole in the City of Ontario



Existing Sewer Manhole in the City of Chino

Project Scope

- EN17014
 - Replace 10 cast iron manholes with composite manholes
 - Rehabilitate and line 10 manhole structures
 - Adjust three manholes to grade level
- EN17015
 - Replace 36 cast iron manholes with composite manholes
 - Rehabilitate and line 16 manhole structures
 - Adjust 11 manholes to grade level
 - Locate and excavate three buried manholes



Existing NRW Manhole in San Bernardino County



Existing Sewer Manhole in the City of Ontario

Contractor Selection

- Two proposals received on March 16, 2017

Proposals Received

Bidder's Name	EN17014	EN17015	Total
Ferreira Construction Co. Inc.	\$82,511	\$202,227	\$284,738
Genesis Construction Co.	\$152,167	\$396,610	\$548,777
Engineer's Estimate	\$178,000	\$374,000	\$552,000

Project Budget and Schedule

Milestone	Estimated Cost EN17014	Estimated Cost EN17015	Estimated Total Cost
In-House Design Services	\$13,000	\$18,000	\$31,000
Construction Services (15%)	\$12,400	\$30,400	\$42,800
Construction	\$82,511	\$202,227	\$284,738
Contingency (15%)	\$12,400	\$30,400	\$42,800
Total Project Cost	\$120,311	\$281,027	\$401,338
Total Project Budget	\$350,000	\$500,000	\$850,000

Milestone	Date
Construction Contract Award	April 2017
Construction Completion	September 2017

Recommendation

- Award a construction contract for the NRW Manhole Upgrades FY 2016/17 and Collection System Upgrades FY 2016/17, Project Nos. EN17014 and EN17015 respectively, to Ferreira Construction Co. Inc. for the not-to-exceed amount of \$284,738; and
- Authorize the General Manager to execute the construction contract.

The NRW Manhole Upgrades FY 2016/17 and Collection System Upgrades FY 2016/17 Projects are consistent with **IEUA's Business Goals of Wastewater Management and Work Environment** specifically the Water Quality and Staff Safety objectives that IEUA will ensure that Agency systems are planned, constructed, and managed to protect public health, the environment, and meet anticipated regulatory requirements, and ensure a safe and healthy work environment, exceeding industry best practices.

**ACTION
ITEM
1H**

Date: April 19, 2017

To: The Honorable Board of Directors

Through: Engineering, Operations, and Water Resources Committee (4/12/17)

From:  P. Joseph Grindstaff
General Manager

Submitted by: Chris Berch 
Executive Manager of Engineering/Assistant General Manager

Shaun Stone 
Manager of Engineering

Subject: RP-5 Consultant Contract Award (Operations and Maintenance Building)

RECOMMENDATION

It is recommended that the Board of Directors:

1. Award the consulting architectural services contract for the proposed RP-5 Operations and Maintenance Building, Project No. EN19001, to Gillis & Panichapan Architects, Inc., for the not-to-exceed amount of \$136,510; and
2. Authorize the General Manager to execute the contract.

BACKGROUND

In January 2016, IEUA began working on the Regional Water Recycling Plant No. 1 (RP-1) and Regional Water Recycling Plant No. 5 (RP-5) Expansion Preliminary Design Report (PDR) which has resulted in three Board Workshops conducted in May 2016, October 2016, and February 2017. In addition, multiple staff workshops and monthly meetings have been conducted based upon three different series of technical memoranda packages as part of the creation of the PDR. During the November monthly meeting, Operations and Maintenance staff requested an additional evaluation be included in the RP-5 Expansion Preliminary Design to evaluate the addition of an Operations and Maintenance Building. Currently, the only Maintenance Building in the southern service area is located at RP-2, which will be decommissioned in 2023 after the start-up of the RP-5 Expansion Project. An Operations and Maintenance Building was not included in the original scope of work for the PDR.

Engineering, Operations, and Maintenance staff detailed the requirements for an Operations and Maintenance Building, which includes:

- Centrally support Operations and Maintenance staff from RP-5 (Liquids and Solids Facilities), CCWRF, Chino I Desalter, and Groundwater Recharge/Recycled Water
- Provide an operations command center
- Provide a maintenance bay
- Provide equipment storage
- Provide parking for IEUA's Operations and Maintenance vehicle fleet

Due to the schedule to complete a preliminary analysis of the RP-5 Operations and Maintenance Building and to maintain the current schedule of the Expansion PDR, it was decided to initiate a separate contract for this initial evaluation. IEUA staff requested proposals for consulting engineering services for the proposed RP-5 Operations and Maintenance Building, which included scope items for preliminary space programming, floor plans and elevations, and building renderings. Additionally, a feasibility assessment of a conversion of the Renewable Energy Efficiency Project (REEP) Building to an Operations and Maintenance Building was requested. Staff received proposals from two consultants Gillis & Panichapan Architects (GPA) and Parsons. The proposals were reviewed by Engineering and Construction Management staff. Both firms presented outstanding proposals showing depth of experience, good references, and understanding of the project requirements. After internal review of the proposals, it was decided to select GPA to complete the initial evaluation for the proposed RP-5 Operations and Maintenance Building. One key component of this selection was to maintain Parsons' focus on the preliminary design and transition into the full design for the RP-5 Liquids Treatment Expansion and RP-5 Solids Facility.

The following table is the anticipated project cost:

Description	Estimated Cost
Project Development	\$18,000
Design Consultant	\$136,510
Total Projected Cost for Initial Evaluation	\$154,510
Total Projected Operations and Maintenance Building Cost	\$15M - \$20M

The current phase of the project will be funded through the RP-5 Liquids Expansion, Project No. EN19001. If the proposed RP-5 Operations and Maintenance Building Preliminary Design Report is approved, the project will continue under a new future project number.

The following is the project schedule:

Project Milestone	Date
Consultant Contract Award	April 2017
Preliminary Design Completion	August 2017
Operations and Maintenance Building Board Workshop	October 2017

The RP-5 Operations and Maintenance Building Project is consistent with the *IEUA's Business Goal of Wastewater Management* specifically the Asset Management objective that IEUA will ensure the regional sewer system and treatment facilities are well maintained, upgraded to meet evolving requirements, sustainably managed, and can accommodate changes in regional water use.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

If approved, the consulting architectural services contract award for the RP-5 Operations and Maintenance Building, Project No. EN19001, to Gillis & Panichapan Architects, Inc., for the not-to-exceed amount of \$136,510 will be within the total project budget of \$160,000,000 in the Regional Wastewater Capital (RC) Fund. Once the Preliminary Design is complete and approved, a new project will be created.

Attachment:

Consultant Architectural Contract

<https://dl.dropbox.com/s/zj52rykdmrnf0tk/17087%20Attachment%20RP-5%20Operations%20%26%20Maintenance%20Building%20Consultant%20Contract%20Award%204-2017.pdf?dl=0>

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RP-5 Operations & Maintenance Building Consultant Contract Award Project No. EN19001

Board Meeting



Regional Water Recycling Plant No. 5 Project Location



Project Background

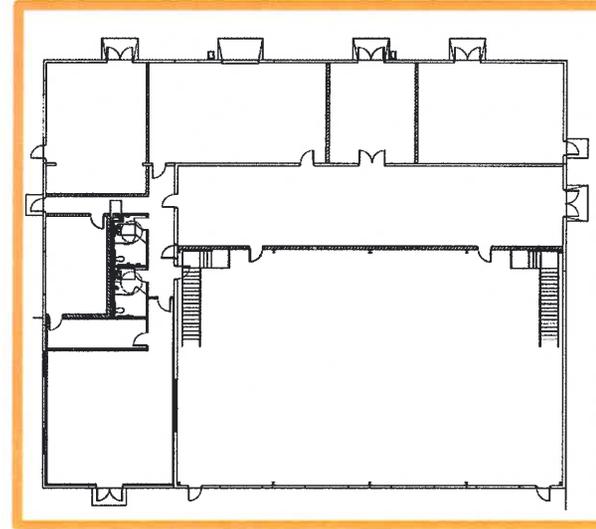
- No Maintenance Building or equipment storage in southern service area.
- O&M Building required due to:
 - RP-5 Expansion
 - Decommissioning of RP-2



RP-5 Liquids & Solids Treatment Systems

Project Scope

- Preliminary Design for O&M Building:
 - Space Programming
 - Conceptual Design including floor plans and elevations
 - Preliminary cost and building rendering
 - Feasibility Assessment of converting REEP to O&M Building



REEP Building First Floor Plan



RP-1 Maintenance Bay

Consultant Selection

- Justification for selecting Gillis & Panichapan Architects
 - Qualifications and experience
 - Understanding of the project scope
 - Maintains project schedule
 - Parsons to focus on completion of Preliminary Design Report and transition to final design
- Two proposals received:

Proposals Received

Gillis & Panichapan Architects
Parsons

Project Budget and Schedule

Description	Estimated Cost
Project Development and Preliminary Design (Staff Labor)	\$18,000
Consultant Engineer	\$136,510
Total Projected Cost for Initial Evaluation	\$154,510
Total Projected Operations and Maintenance Building Cost	\$15M - \$20M

Milestone	Date
Consultant Contract Award	April 2017
Preliminary Design Completion	August 2017
Operations and Maintenance Building Board Workshop	October 2017

Recommendation

- Award a consultant contract for the preliminary design of the proposed RP-5 Operations & Maintenance Building, Project No. EN19001, to Gillis & Panichapan Architects, Inc., for the not-to-exceed amount of \$136,510; and
- Authorize the General Manager to execute the consultant engineering services contract.

The RP-5 Operations & Maintenance Building Project is consistent with the *IEUA's Business Goal of Wastewater Management* specifically the Asset Management objective that IEUA will ensure the regional sewer system and treatment facilities are well maintained, upgraded to meet evolving requirements, sustainably managed, and can accommodate changes in regional water use.

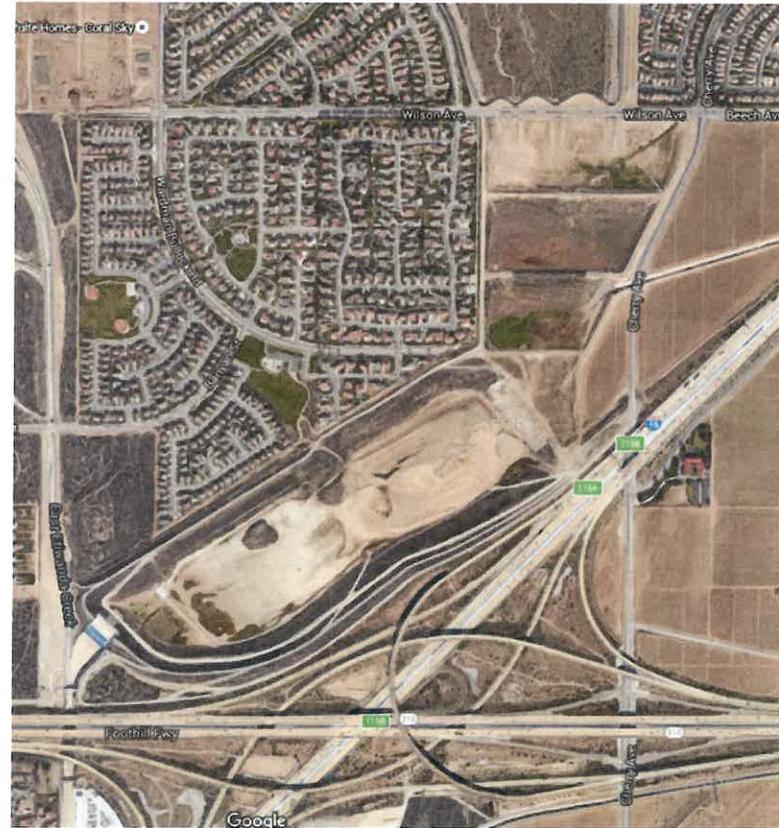
INFORMATION
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2A

Recycled Water Semi-Annual Update FY 2016/17



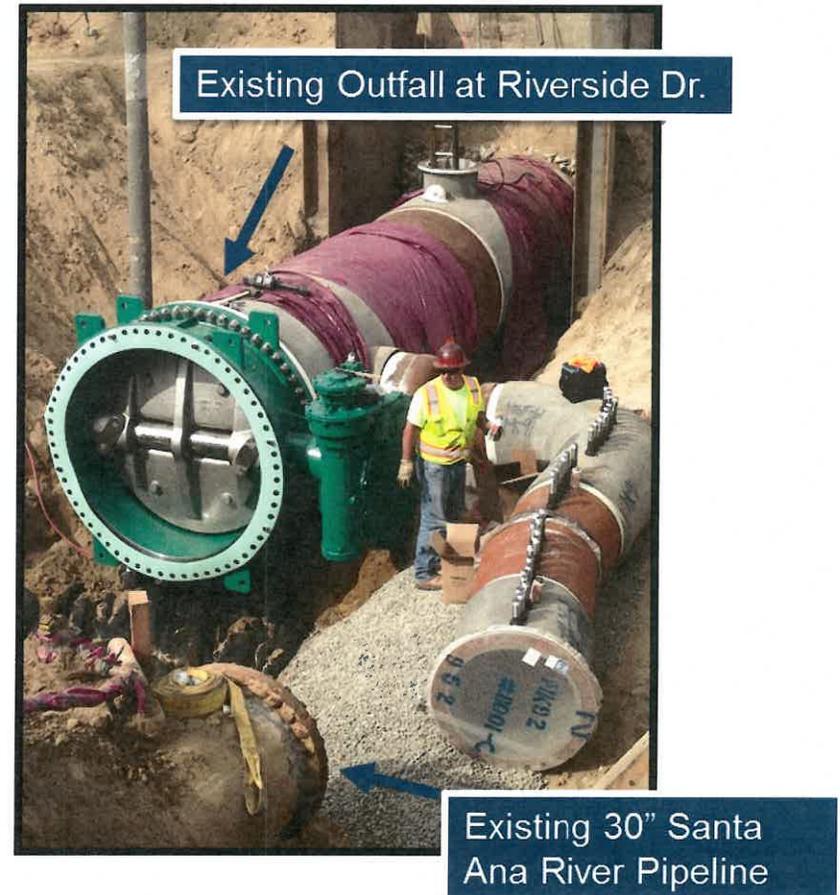
RW Project- San Sevaine

- San Sevaine 5
 - Pump Station & Pipeline to upper 3 Basins
 - Final Design
 - Estimated Completion: June 2018
 - Approx. 4,000-6,000 AFY RW Capacity
 - Total Project Cost: \$6.5M



Other Near Term RW Projects

- RW 1158 Pump Station Upgrades
- Baseline RW Pipeline Extension
 - Village of Heritage
- Napa Laterals
 - CSI & Speedway
- RP-1 Outfall Parallel Pipeline
- RP-5 RW Pipeline Bottleneck



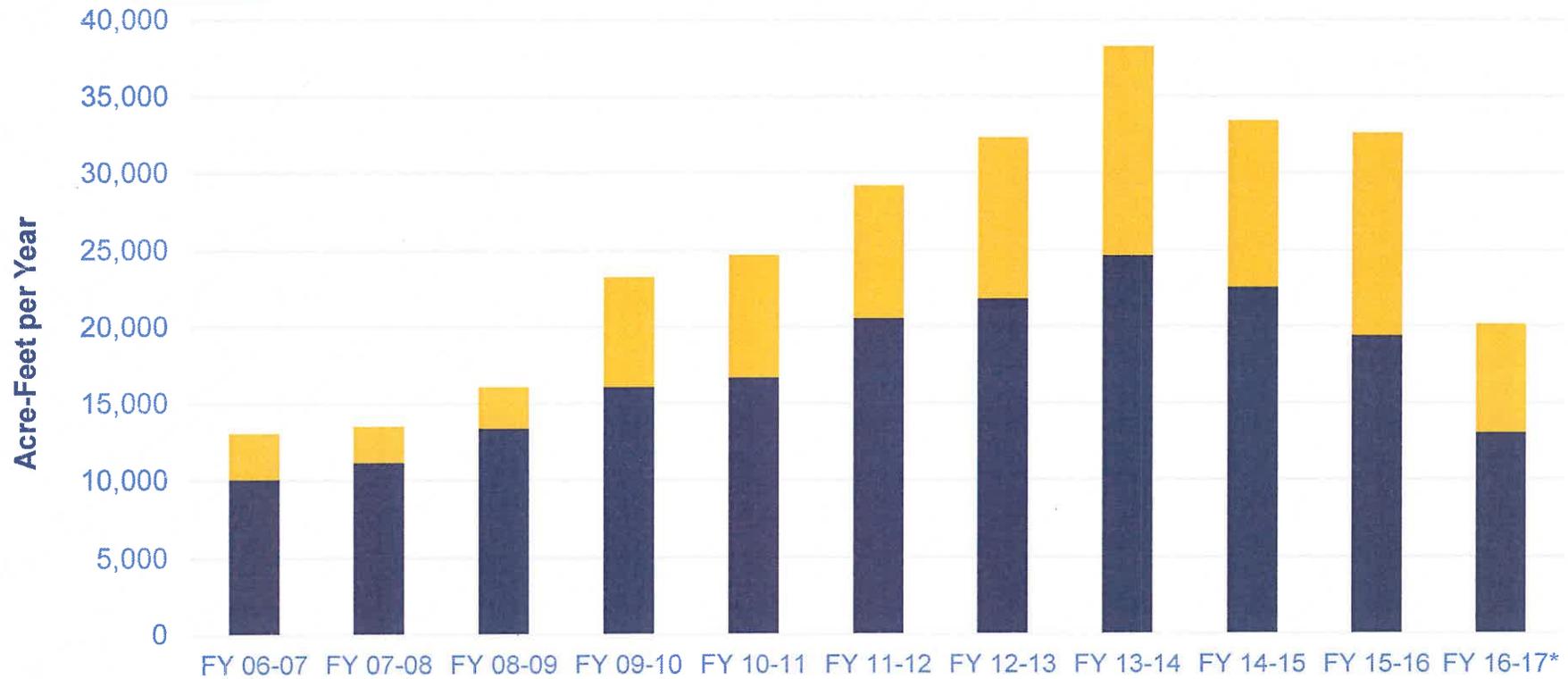
Existing Recycled Water Pipe Connection at Riverside Dr.

RW Projects

- Prop 1 Grant Projects
 - State Board in process of evaluating funding

Project Name	Status	Estimated Completion Date	Grant Commitment (AFY)	Prop 1 Group	Est. Award Date
San Sevaine Basin Improvements	Design	Jan-18	1,500	3	2017
Napa Lateral	Pre Design	Dec-18	500	3	2017
RP-1 1158 PS Upgrades	Pre Design	July-19	2,361	3	2018
RP-5 RW Pipeline Bottleneck	Design	Oct-18	0	3	2018
Pressure Sustaining Valve Installation	Pre Design	Dec-18	0	3	2018
RP-1 Parallel Outfall Pipeline	Initial Eval	Dec-18	500	3	2018
Baseline RW Extension (Village of Heritage)	Pre Design	Dec-18	105	3	2018
City of Ontario Euclid/Riverside Pipeline	Design	Dec-18	476	4	TBD
IEUA-JCSD	Initial Study	TBD	3,000	4	TBD
IEUA-Pomona-MVWD	Initial Study	TBD	1,000	4	TBD

Recycled Water Deliveries



Direct	10,048	11,153	13,361	16,057	16,656	20,556	21,840	24,659	22,850	19,397	13,055
GWR	2,981	2,340	2,684	7,208	8,028	8,634	10,479	13,593	10,840	13,222	7,085
Total	13,029	13,493	16,045	23,265	24,684	29,190	32,319	38,252	33,690	32,619	20,140



RW GWR Allocations

Agency	Pro Rata Share	Recharge Allocation Acre-Feet, FY 16/17*
Chino	10.8%	685**
Chino Hills	9.1%	578
CVWD	25.4%	1,616
Fontana	19%	1,210
Montclair	4.4%	279
Ontario	21.7%	1379
Upland	9.7%	621
Total (Excluding JCSD)		6,368
JCSD***		716
TOTAL		7,084

* Through December 2016

** Chino's allocation will be reconciled at end of FY per IEUA Resolution 2016-6-17

*** JCSD maximum benefit: 750 AFY

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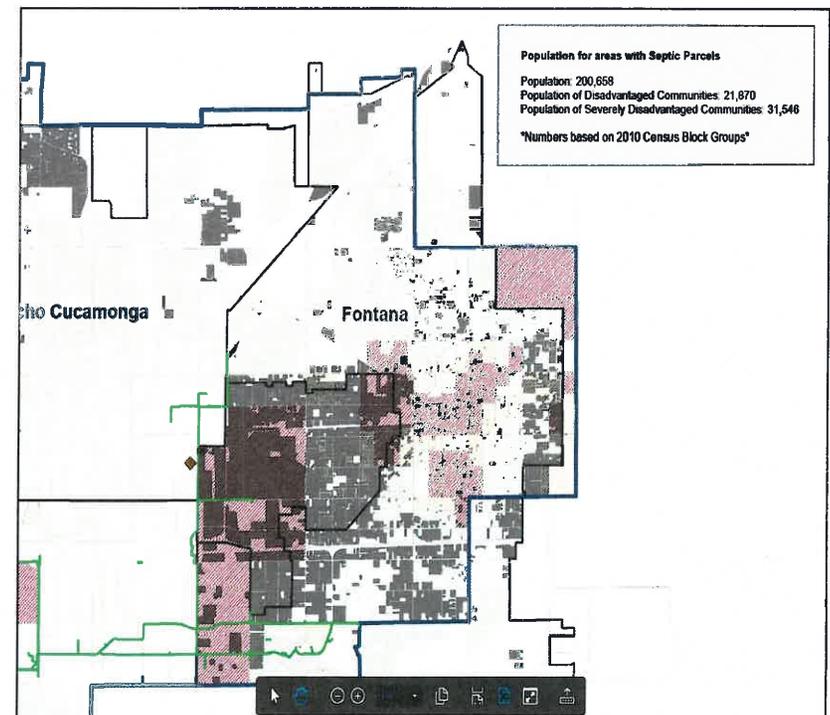
2B

Septic to Sewer Feasibility Study Update

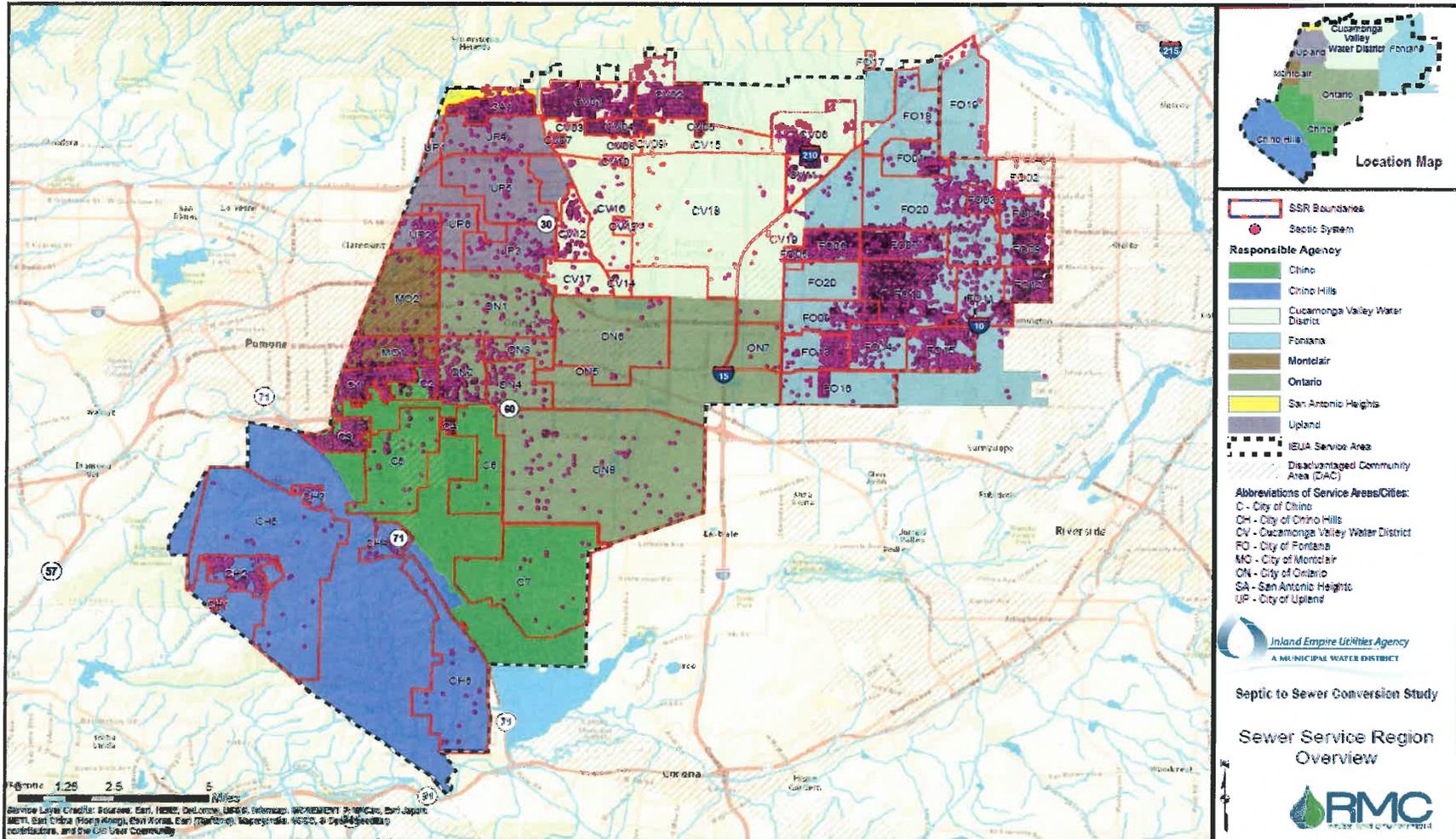


Feasibility Study Project Goals

- Goal: Conversion of septic users to sewer service
 - Cost Effectiveness – ranked based on grant funding
 - Groundwater quality benefits
 - Low Impact Development Considerations
- Grant Opportunity
 - \$500,000 max/city
 - Disadvantaged Communities
 - Fontana Service Area Submitted to State Water Resources Control Board



Feasibility Study Progress Update



Feasibility Study Progress Update

- **Septic System Parcels***

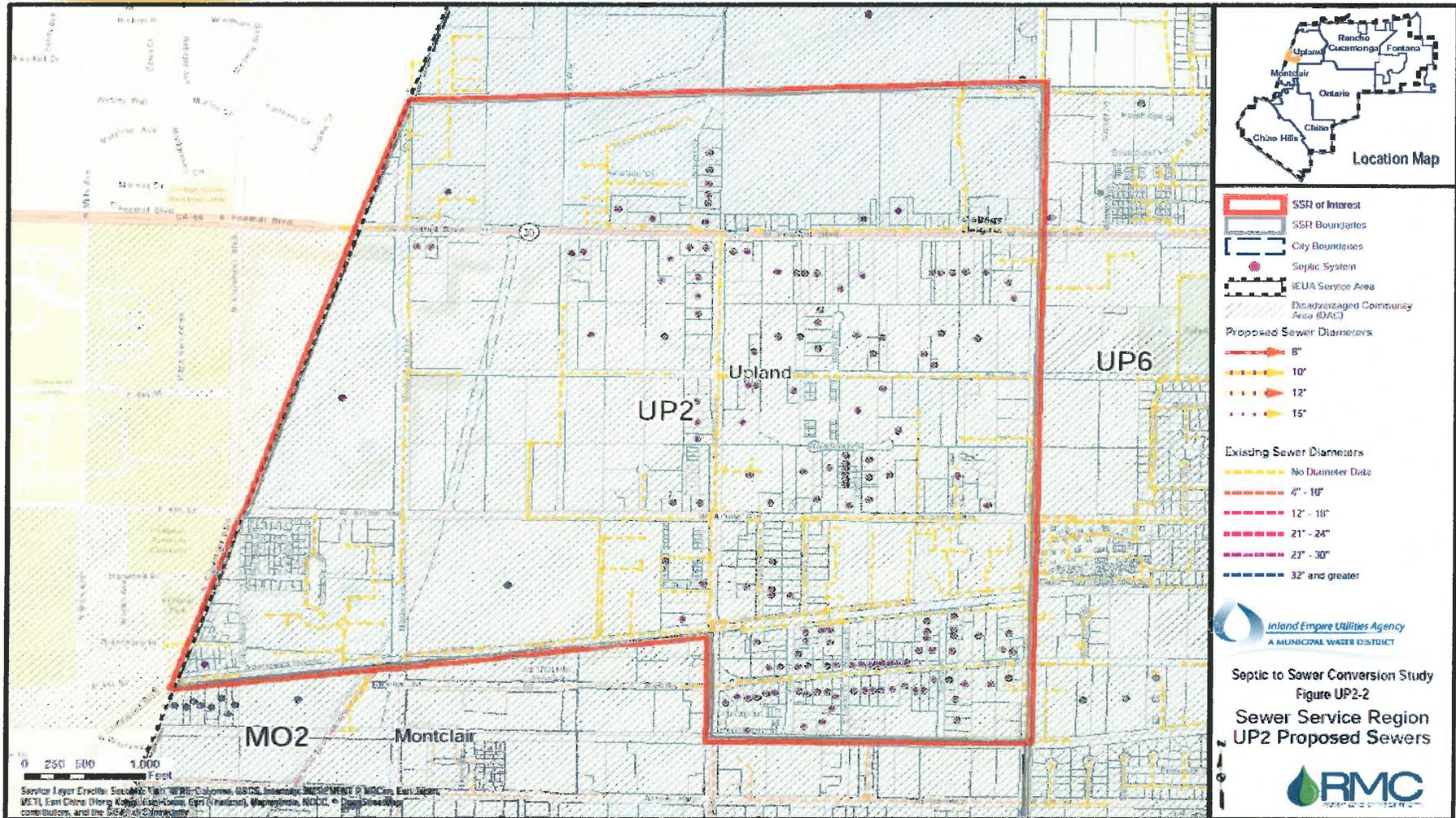
Chino	Chino Hills	CVWD	Fontana	Montclair	Ontario	Upland	Total
1,898	449	4,771	11,853	514	300	1,632	21,417

* un-incorporated areas and non-member agency areas are depicted as most probable member agency parcels

- **Sewer Service Regions (SSRs) as established by the study**
 - SSRs: parcels grouped as “sewer sheds” within each area for funding and construction purposes
 - Comments on SSRs requested from all Contracting Agencies

Chino	Chino Hills	CVWD	Fontana	Montclair	Ontario	Upland	Total
7	6	19	20	2	8	9	71

Upland SSR Example



Next Steps

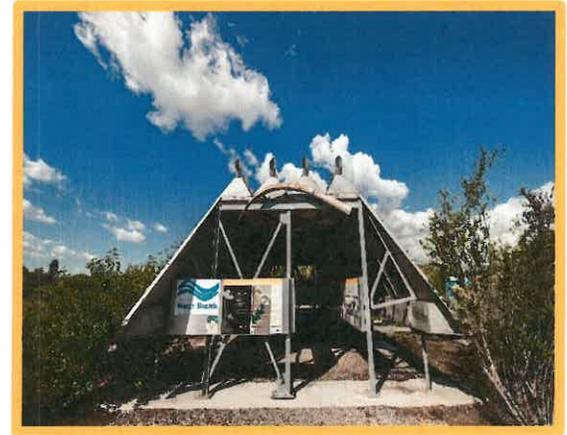
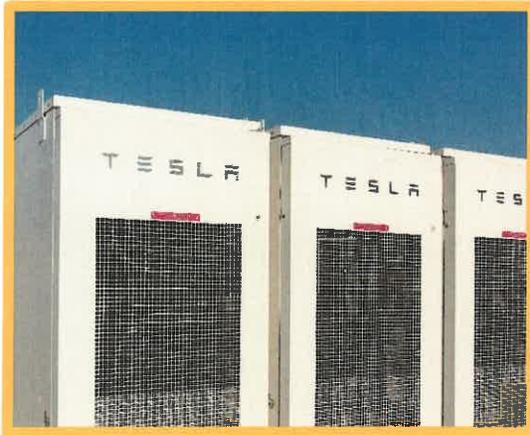
- Assessment of current sewer system capacity for SSRs (May 2017)
 - Contracting Agency and IEUA Collection Systems
- Development of SSRs master layout & cost estimation (May 2017)
- SSRs prioritization (June 2017)
 - Cost
 - Disadvantaged communities
 - Groundwater impacts
 - Proximity to existing sewers
 - Multiple benefits (stormwater/recycled water)
- Draft & final feasibility study (July 2017)
 - Contracting Agency representatives have opportunity to comment on draft

INFORMATION

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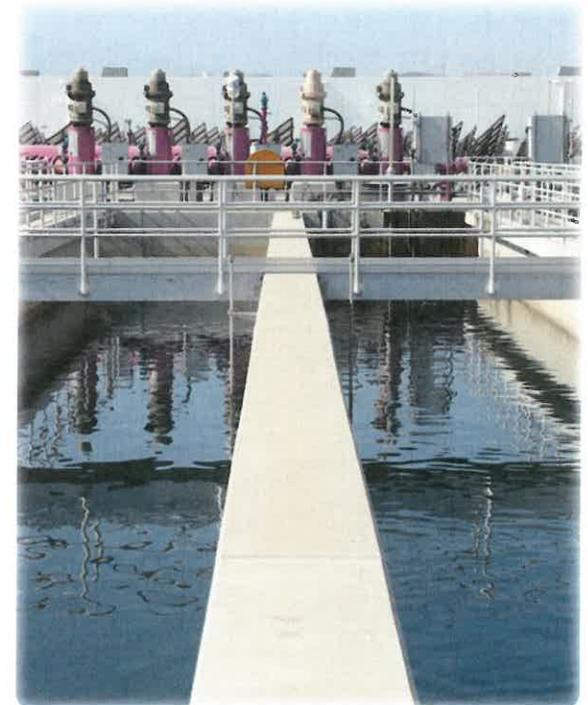
2C

3rd Quarter Planning & Environmental Resources Update



Regulatory Compliance Update

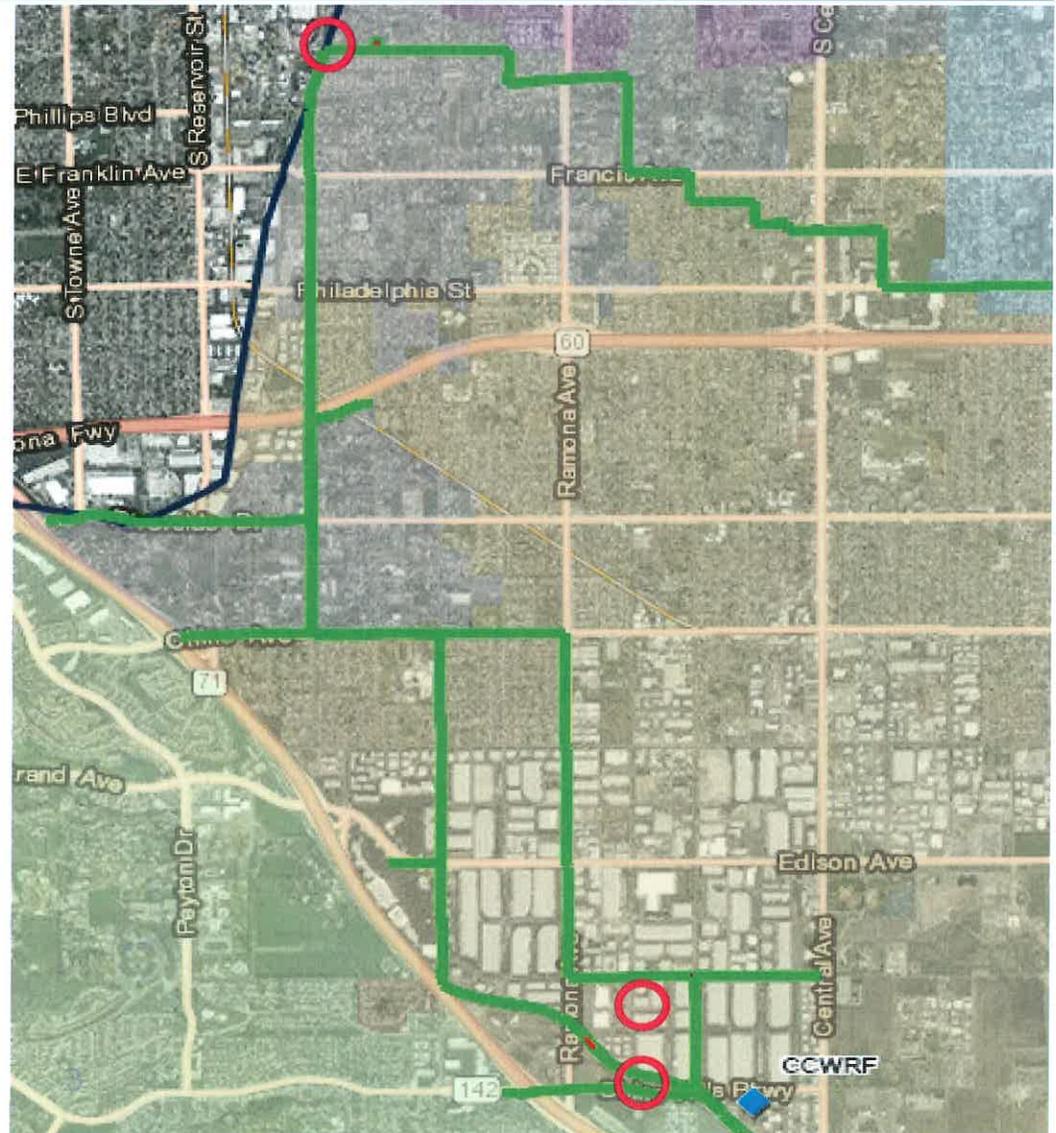
- **Regional Water Quality Control Board**
 - RP-1: Chlorinated Discharge
 - Feb 14, 2017, 137,500 gallons
 - CCWRF – Chlorodibromomethane
 - 3 exceedances in February (avg. monthly & 2 max. daily)
 - 2 exceedances in March (avg. monthly)
- **Air Quality Management District**
 - 100% compliance
- **Division of Drinking Water**
 - CDA1 and GWR – 100% compliance



Bromide Source Evaluation

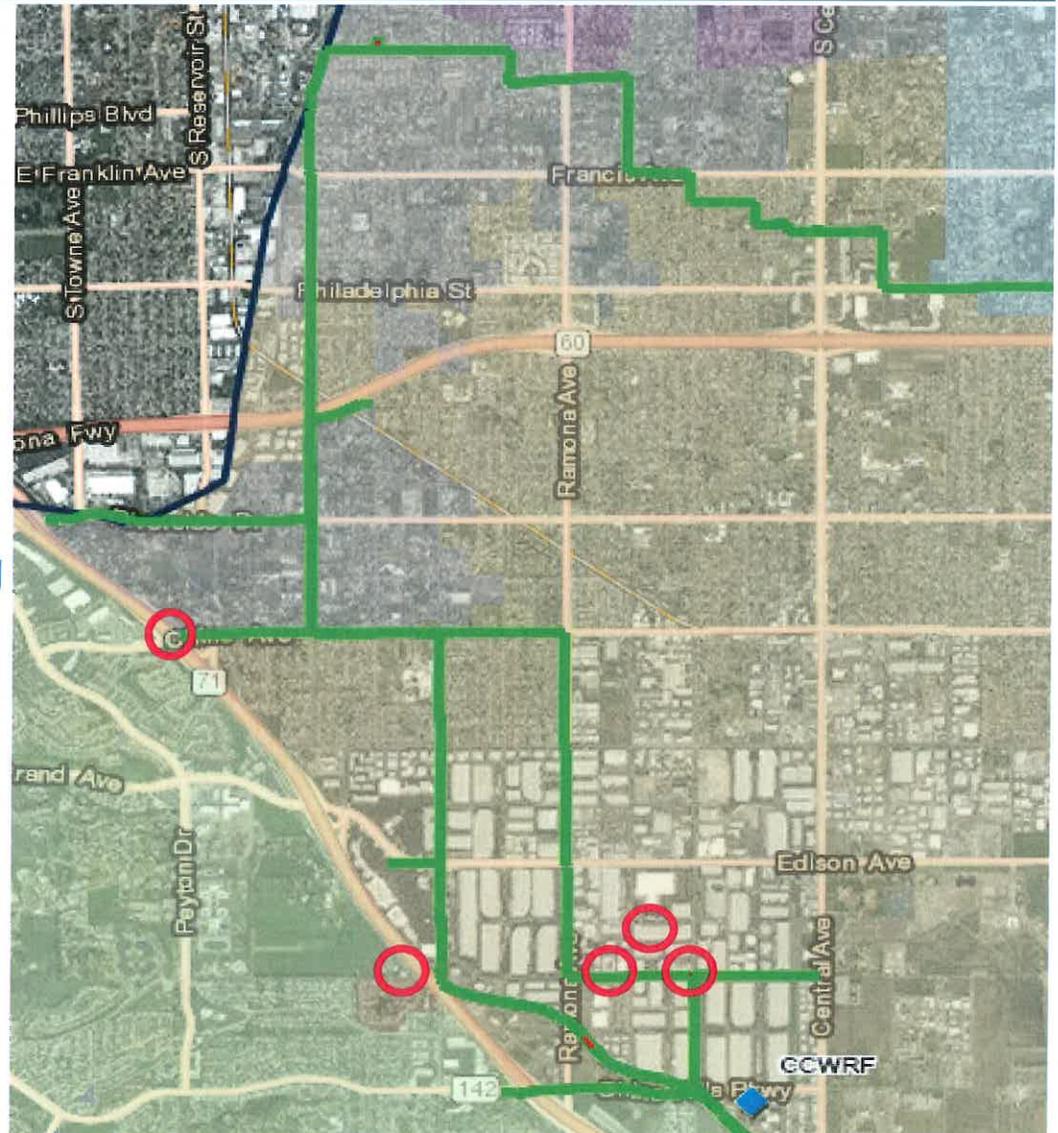
- Identification

- No change in permitted industries
- Bromide is precursor to the Tri Halomethanes (THM)
- Chlorodibromomethane
- Dichlorobromomethane



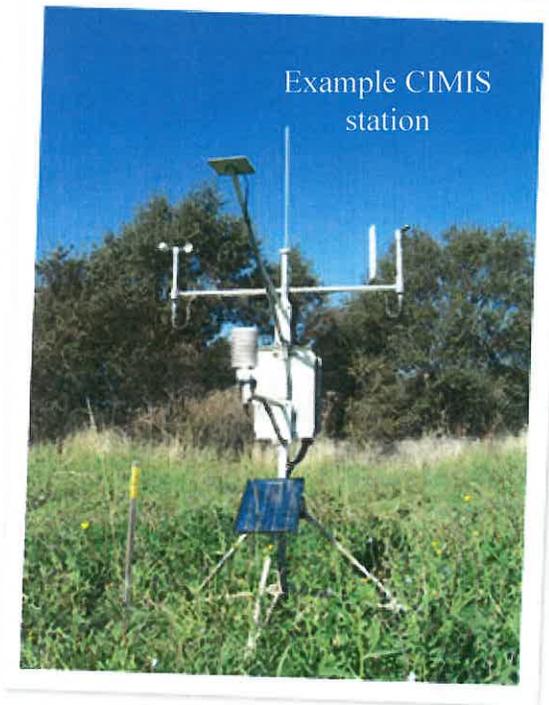
Bromide Source Evaluation

- Sampling
 - CCWRF trunk line sampling
 - Westside Interceptor sewer indicate presence of Bromide
 - Suspect multiple sources
- Next Steps
 - Continue upstream monitoring
 - Identify specific source(s)
 - Prohibit discharges



Water Resources Activities

- **Weather Station at California Institute for Men (CIM)**
 - Received approval from State/DWR to calculate service area water budgets
- **Agricultural water use efficiency**
 - Installation of soil moisture sensors/ use of compost
 - Demonstration project: agricultural | water savings
- **California Data Collaborative**
 - Demonstrate residential efficiency standards per water agency
 - Rate comparison tool specific to agencies
 - Analysis of turf market transformation (MWD service area)
 - State-wide heat map of efficiency



INFORMATION

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Engineering and Construction Management Project Updates

Board Meeting

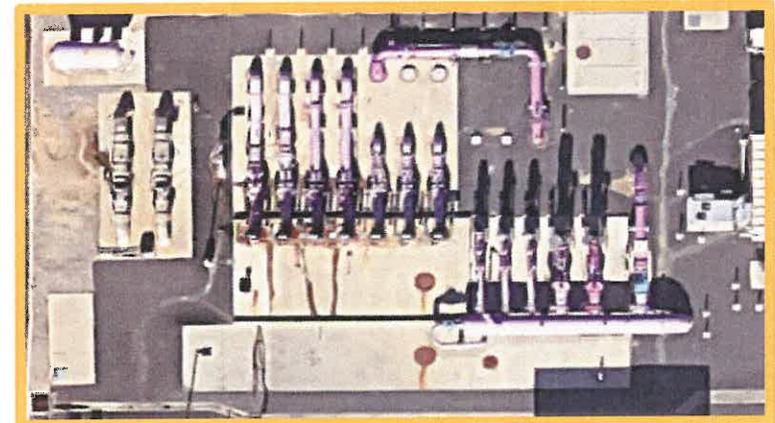


EN13048 – RP-1 Power System Upgrades

- Design Engineer: Tetra Tech
- Current Contract (Design): \$435 K
- Total Project Budget: \$1.6 M
- Project Completion: August 2018
- Scope of Work:
 - Upgrade and install power capacity to the RP-1 Site
 - Upgrade existing switchgear
- Current Activities:
 - Field investigations
 - 50% design preparation



Switchgear at RP-1



RP-1 Site with RW Pump Stations

EN15008 – Water Quality Laboratory

- Contractor: Kemp Bros. Construction, Inc.
- Current Contract (Construction): \$17 M
- Total Project Budget: \$25 M
- Project Completion: August 2018
- Scope of Work:
 - Construction of new Water Quality Laboratory
 - Central Chiller Plant Expansion
 - Construction of new 25-stall parking lot
- Current Activities:
 - Finalizing building location excavation, grading, compaction and pad certification
 - Finalizing grading/compaction for new parking, cooling tower, and retaining wall
 - Excavation and preparing for utilities under the building
 - Preparing footings and grade beams
 - Solar system design coordination pending



Site Grading



Retaining Wall Area Grading

EN14018 – RP-4 Disinfection Facility Improvements

- Construction Contractor: W. A. Rasic
- Current Contract (Construction): \$1.8 M
- Total Project Budget: \$2.7 M
- Project Completion: February 2018
- Scope of Work:
 - Relocate the chemical disinfection facility
 - New chemical metering pumps and chemical tanks
 - Install new injection pipelines
- Current Activities:
 - Mobilization
 - Shop drawing submittals review



Existing and Old Diaphragm Pump



Corrosion from Bleach Leakage

EN16024 RP-1 Mixed Liquor Return Pumps

- Contractor: J. F. Shea Construction
- Current Contract (Construction): \$4.8 M
- Total Project Budget: \$6.6 M
- Project Completion: January 2018
- Scope of Work:
 - Add mixed liquor functionality
 - Upgrade electrical system
- Current Activities:
 - Shutdown Train No. 2
 - Pump wastewater from Train No. 2
 - Remove the aeration panels
 - Remove sediment and install pump and mixer



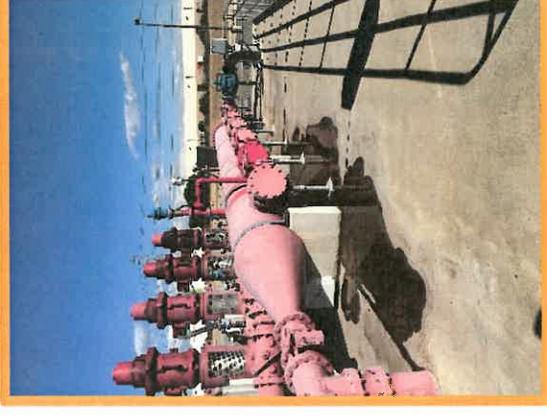
Drained Aeration Train No. 2



Aeration Basin New Conduit Installation

EN14043 - RP-5 RW Pipeline Bottleneck

- Design Engineer: Stantec Consulting
- Current Contract (Design): \$238 K
- Total Project Budget: \$2.8 M
- Project Completion: September 2018
- Scope of Work:
 - Upgrade of piping system downstream of pump station
 - Installation of surge control system
 - Buried valve replacements
 - Installation of new wet well access hatch
- Current Activities:
 - 100% design preparation
 - Cost estimate update



Pump Station Header



Bottleneck Upgrade Area