



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

**WEDNESDAY, FEBRUARY 9, 2022  
10:00 A.M.**

**INLAND EMPIRE UTILITIES AGENCY\*  
VIEW THE MEETING LIVE ONLINE AT IEUA.ORG  
TELEPHONE ACCESS: (415) 856-9169 / Conf Code: 813 028 107#**

PURSUANT TO AB361 AND RESOLUTION NO. 2022-2-1, ADOPTED BY THE IEUA BOARD OF DIRECTORS ON FEBRUARY 2, 2022, IEUA BOARD AND COMMITTEE MEETINGS WILL CONTINUE TO BE CONDUCTED THROUGH TELECONFERENCE. IN AN EFFORT TO PROTECT PUBLIC HEALTH AND PREVENT THE SPREAD OF COVID-19, THERE WILL BE NO PUBLIC LOCATION AVAILABLE FOR ATTENDING THE MEETING IN PERSON.

The public may participate and provide public comment during the meeting by dialing the number provided above. Comments may also be submitted by email to the Board Secretary/Office Manager Denise Garzaro at [dgarzaro@ieua.org](mailto:dgarzaro@ieua.org) prior to the completion of the Public Comment section of the meeting. Comments will be distributed to the Board of Directors.

**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 email the Board Secretary/Office Manager prior to the public comment section or request to address the Board during the public comments section of the meeting. Comments will be limited to three 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. **CONSENT ITEM**

A. **MINUTES**

Approve Minutes of the January 12, 2022 Engineering, Operations, and Water Resources Committee meeting.

2. **ACTION ITEMS**

A. **CITY OF RIALTO PRINCIPLES OF AGREEMENT FOR EXTERNAL RECYCLED WATER SUPPLIES**

Staff recommends that the Committee/Board approve the City of Rialto Principles of Agreement for the development of a final agreement that allows IEUA to purchase recycled water supplies.

B. **1299 RESERVOIR BYPASS PIPELINE CONSTRUCTION CONTRACT AWARD**

Staff recommends that the Committee/Board:

1. Award a construction contract from the 1299 Reservoir Bypass Pipeline, Project No. EN20022, to Norstar Plumbing and Engineering, Inc., in the amount of \$192,013;
2. Approve a total project budget and FY 2021/22 budget transfer from the 8<sup>th</sup> Street RW Turnout Connection, Project EN21050, to the 1299 Reservoir Bypass Pipeline, Project No. EN20022, in the amount of \$100,000; and
3. Authorize the General Manager to execute the construction contract and budget transfer, subject to non-substantive changes.

C. **RP-1 FLARE IMPROVEMENTS CONSTRUCTION CHANGE ORDER – PLC UPGRADES**

Staff recommends that the Committee/Board:

1. Approve a construction contract change order for the RP-1 Flare Improvement, Project No. EN18006, to W.M. Lyles Co., for the not-to-exceed amount of \$159,873, increasing the contract from \$6,162,844 to \$6,322,717 (approximately 2.6% increase); and
2. Authorize the General Manager to execute the change order, subject to non-substantive changes.

3. **INFORMATION ITEMS**

A. **LABORATORY SEMI-ANNUAL UPDATE (POWERPOINT)**

**B. RP-5 EXPANSION PROJECT UPDATE (POWERPOINT)**

**RECEIVE AND FILE INFORMATION ITEMS**

**C. ENGINEERING AND CONSTRUCTION MANAGEMENT PROJECT UPDATES (POWERPOINT)**

**4. GENERAL MANAGER'S COMMENTS**

**5. COMMITTEE MEMBER COMMENTS**

**6. COMMITTEE MEMBER REQUESTED FUTURE AGENDA ITEMS**

**ADJOURN**

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**DECLARATION OF POSTING**

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I, Denise Garzaro, CMC, Board Secretary/Office Manager of the Inland Empire Utilities Agency\*, a Municipal Water District, hereby certify that, per Government Code Section 54954.2, a copy of this agenda has been posted at the Agency's main office, 6075 Kimball Avenue, Building A, Chino, CA and on the Agency's website at [www.ieua.org](http://www.ieua.org) at least seventy-two (72) hours prior to the meeting date and time above.

**In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Board Secretary at (909) 993-1736 or [dgarzaro@ieua.org](mailto:dgarzaro@ieua.org), 48 hours prior to the scheduled meeting so that IEUA can make reasonable arrangements to ensure accessibility.**

**CONSENT  
ITEM  
1A**





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

**WEDNESDAY, JANUARY 12, 2022  
10:00 A.M.**

**COMMITTEE MEMBERS PRESENT via Video/Teleconference**

Michael Camacho, Chair  
Marco Tule, Director

**STAFF PRESENT**

Shivaji Deshmukh, P.E., General Manager  
Denise Garzaro, Board Secretary/Office Manager  
Daniel Solorzano, Network Administrator

**STAFF PRESENT via Video/Teleconference**

Christiana Daisy, P.E., Deputy General Manager  
Kathy Besser, Executive Manager of External & Government Affairs/AGM  
Javier Chagoyen-Lazaro, Acting Executive Manager of Finance & Administration/AGM  
Randy Lee, Executive Manager of Operations/AGM  
Adham Almasri, Principal Engineer  
Josh Biesiada, Senior Project Manager  
Jerry Burke, Manager of Engineering  
Andrea Carruthers, Manager of External Affairs  
Pietro Cambiaso, Deputy Manager of Strategic Planning & Resources  
Robert Delgado, Manager of Operations & Maintenance  
Lucia Diaz, Deputy Manager of Maintenance  
Don Hamlet, Acting Deputy Manager of Integrated System Systems  
Elizabeth Hurst, Senior Water Resource Planner  
Jennifer Hy-Luk, Acting Executive Assistant  
Nolan King, Network Administrator  
Scott Lening, Acting Manager of Operations & Maintenance  
Eddie Lin, Senior Engineer  
Ryan Love, Deputy Manager of Operations  
Jason Marseilles, Deputy Manager of Engineering  
Liza Munoz, Senior Engineer  
Kanes Pantayatiwong, Manager of Business Information Systems  
Cathleen Pieroni, Manager of Inter-Agency Relations  
Jesse Pompa, Manager of Grants  
Sushmitha Reddy, Manager of Laboratories  
Jeanina Romero, Executive Assistant  
Travis Sprague, Principal Engineer  
Wilson To, Technology Specialist II  
Megan Trott, Associate Engineer  
Brian Wilson, Senior Engineer

Teresa Velarde, Manager of Internal Audit  
Jeff Ziegenbein, Manager of Regional Compost Operations

### **CALL TO ORDER**

Committee Chair Michael Camacho called the meeting to order at 10:00 a.m. He gave the public the opportunity to comment and provided instructions for unmuting the conference line. There were no public comments received or additions to the agenda.

### **1A – 1C. CONSENT ITEMS**

The Committee:

- ◆ Approved Minutes of the November 10, 2021 Engineering, Operations, and Water Resources Committee meeting.
- ◆ Recommended that the Board:
  1. Award a construction contract for the BSS Manhole Upgrades, Project Nos. EN22014 and EN22015, to Genesis Construction Co., in the amount of \$367,777; and
  2. Authorize the General Manager to execute the contract, subject to non-substantive changes.
- ◆ and
  1. Approve a consultant contract amendment for the Philadelphia Force Main Improvements, Project No. EN23002, to GHD Inc., for the not-to-exceed amount of \$163,277, increasing the contract from \$1,262,002 to \$1,425,279 (11% increase); and
  2. Authorize the General Manager to execute the consultant contract amendment, subject to non-substantive changes.

as Consent Calendar items on the January 19, 2022 Board meeting agenda.

### **2A – 2E. INFORMATION ITEMS**

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

- ◆ Operations Division Quarterly Update
- ◆ City of Rialto Principles of Agreement for External Recycled Water Supplies
- ◆ 2<sup>nd</sup> Quarter Strategic Planning & Resources Update
- ◆ RP-5 Expansion Project Update: January 2022
- ◆ Engineering and Construction Management Project Updates

### **3. GENERAL MANAGER'S COMMENTS**

General Manager Shivaji Deshmukh stated that groundwater recharge staff did a fantastic job on stormwater capture in December 2021, capturing a total of 5,623 acre-feet of stormwater for the month, which is the second highest monthly stormwater capture in history. The highest monthly stormwater capture was in 2011 at 7,036 acre-feet.

During the same time in December 2021, the Agency's water recycling plants discharged a total of 3,735 acre-feet of recycled water to the Santa Ana River due to low demand.

**4. COMMITTEE MEMBER COMMENTS**

There were no Committee member comments.

**5. COMMITTEE MEMBER REQUESTED FUTURE AGENDA ITEMS**

There were no Committee member requested future agenda items.

**ADJOURNMENT**

With no further business, Committee Chair Camacho adjourned the meeting at 11:00 a.m.

Respectfully submitted,

Denise Garzaro  
Board Secretary/Office Manager

\*A Municipal Water District

**APPROVED: FEBRUARY 9, 2022**

ACTION  
ITEM  
2A

**Date:** February 16, 2022

**To:** The Honorable Board of Directors

*ASD*  
**From:** Shivaji Deshmukh, General Manager

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

02/09/22

**Executive Contact:** Christiana Daisy, Deputy General Manager



**Subject:** City of Rialto Principles of Agreement for External Recycled Water Supplies

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**Executive Summary:**

To meet Chino Basin water quality objectives and wastewater permit compliance requirements, IEUA needs to augment its recycled water system when the demands are higher than the available supplies during the months between May and October to provide a constant monthly supply to a proposed advanced water purification facility (AWPF) located at Regional Plant No. 4. The City of Rialto is interested in monetizing its recycled water to achieve ecosystem benefits and financial security and is amenable to engage in a partnership with IEUA to develop terms for their recycled water supplies. The removal of flows from the Santa Ana River generated from the City's treatment plant will reduce adverse impact to native species and a portion of these flows would serve as the AWPF supply.

The principles of agreement was drafted to consolidate the needs of both IEUA and the City. The proposed terms include the design and construction of recycled water facilities, the diversion of 3,500 acre-feet per year (afy) between May and October into the IEUA recycled water system at a rate of \$275 per acre foot for a period of 50 years, and the first right of purchase for any amount above the 3,500 afy or the remaining six months.

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**Staff's Recommendation:**

Approve the City of Rialto Principles of Agreement for the development of a final agreement that allows IEUA to purchase recycled water supplies.

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

Account/Project Name:

There is no impact to budget with this action.

*Fiscal Impact (explain if not budgeted):*

N/A

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**Prior Board Action:**

None

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**Environmental Determination:**

Not Applicable

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**Business Goal:**

The IEUA - City of Rialto Principles of Agreement supports IEUA's business goal of Water Reliability, of implementing an integrated water resources management plan providing a reliable and cost-effective water supply and promoting sustainable water use throughout the region.

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**Attachments:**

Attachment 1 - Presentation

Attachment 2 - Principles of Agreement



# City of Rialto Water Resources Partnership Principles of Agreement

Elizabeth Hurst  
Chino Basin Program Manager  
February 16, 2022



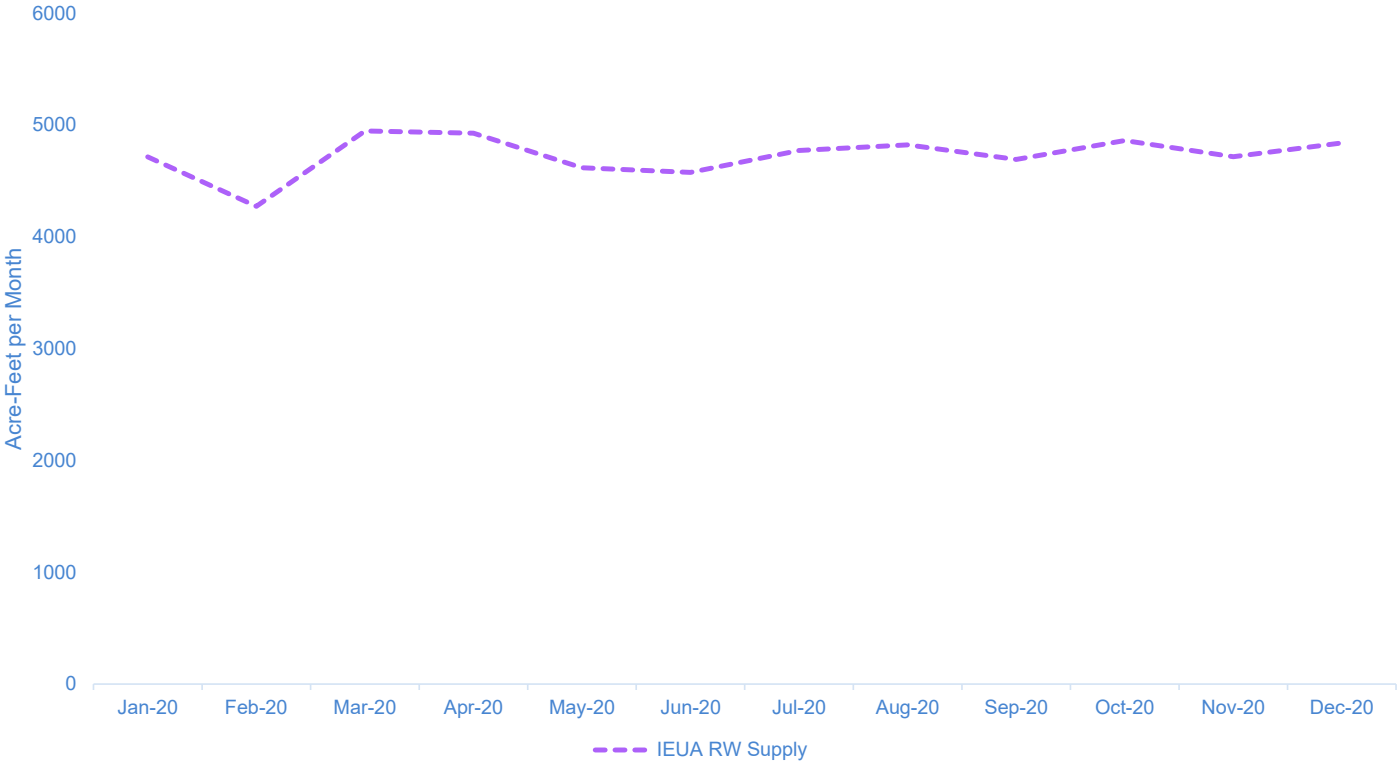
# Background

- The Santa Ana River Multi Species Habitat Conservation Plan (SAR HCP) identified the benefit of removing flows from the City of Rialto wastewater treatment plant during the summer months due to the adverse impact to native species.
- City of Rialto is interested in monetizing its recycled water as an annual revenue source.
- Due to seasonality of recycled water supplies, IEUA needs to augment its recycled water supply during peak demand months between May and October.
- IEUA and City of Rialto initiated water resources partnership discussions in 2019.

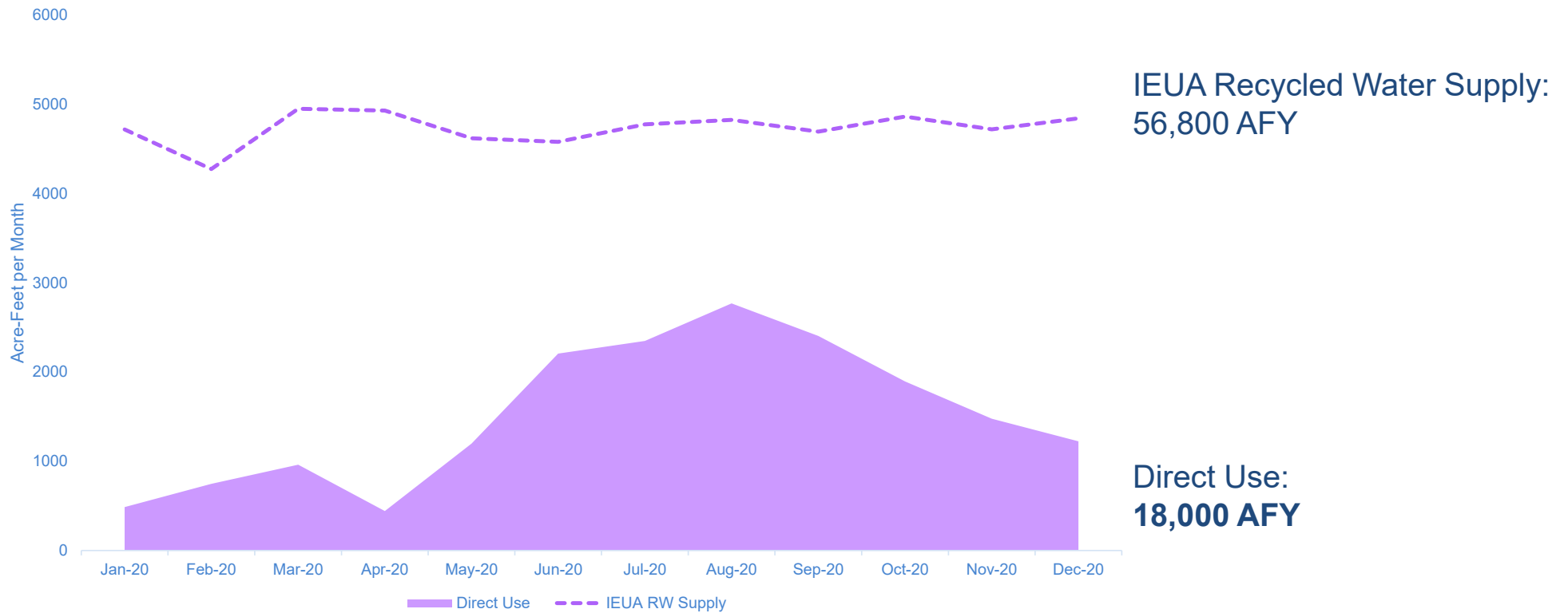




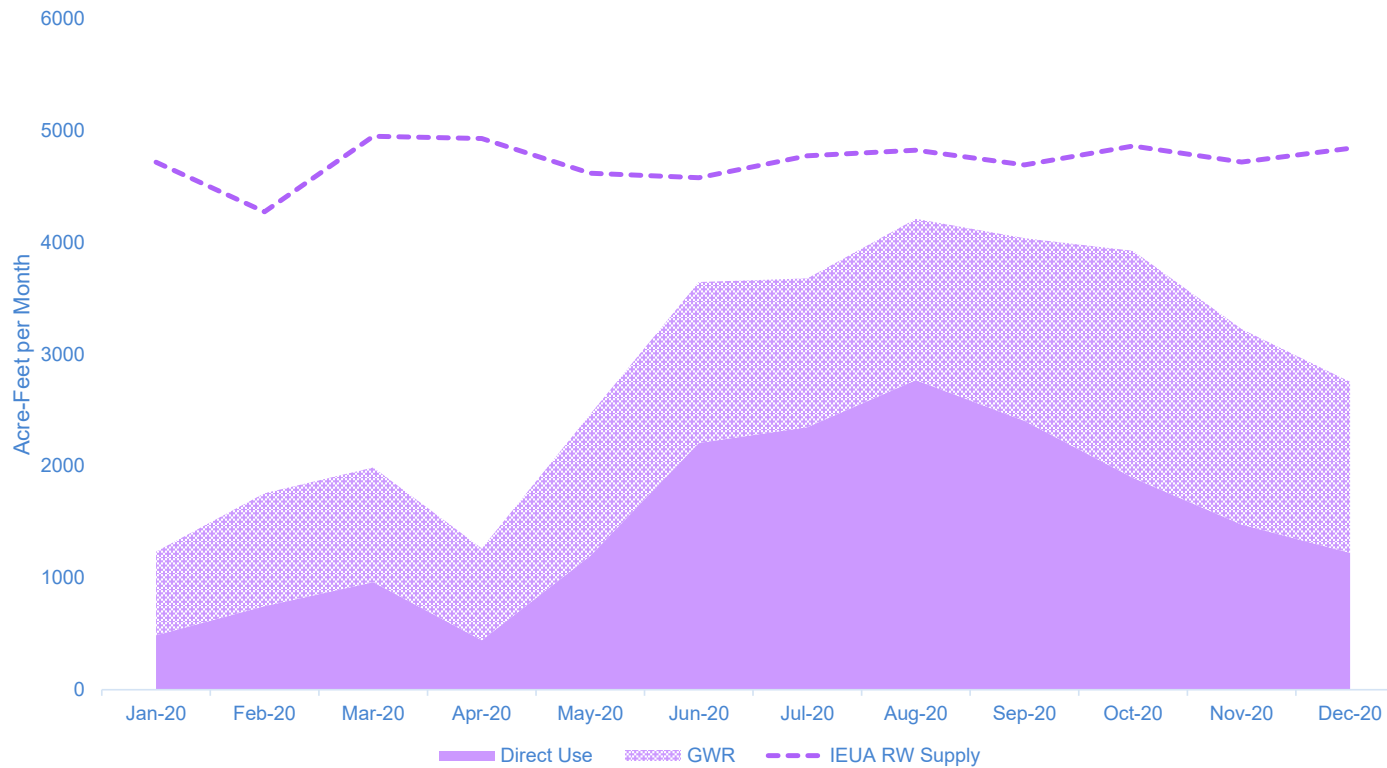
# Recycled Water Supplies vs Demands



# Recycled Water Supplies vs Demands



# Recycled Water Supplies vs Demands

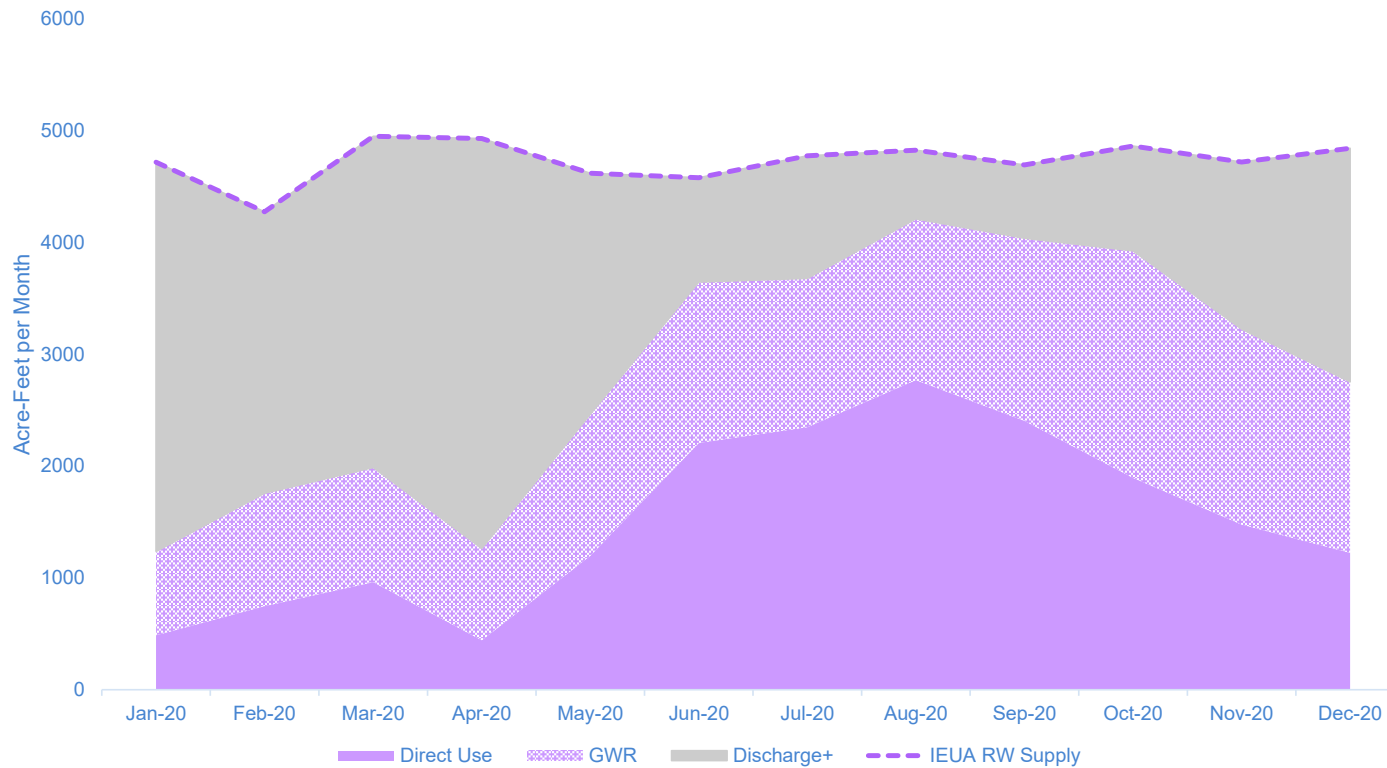


IEUA Recycled Water Supply:  
**56,800 AFY**

Groundwater Recharge:  
**16,000 AFY**

Direct Use:  
**18,000 AFY**

# Recycled Water Supplies vs Demands



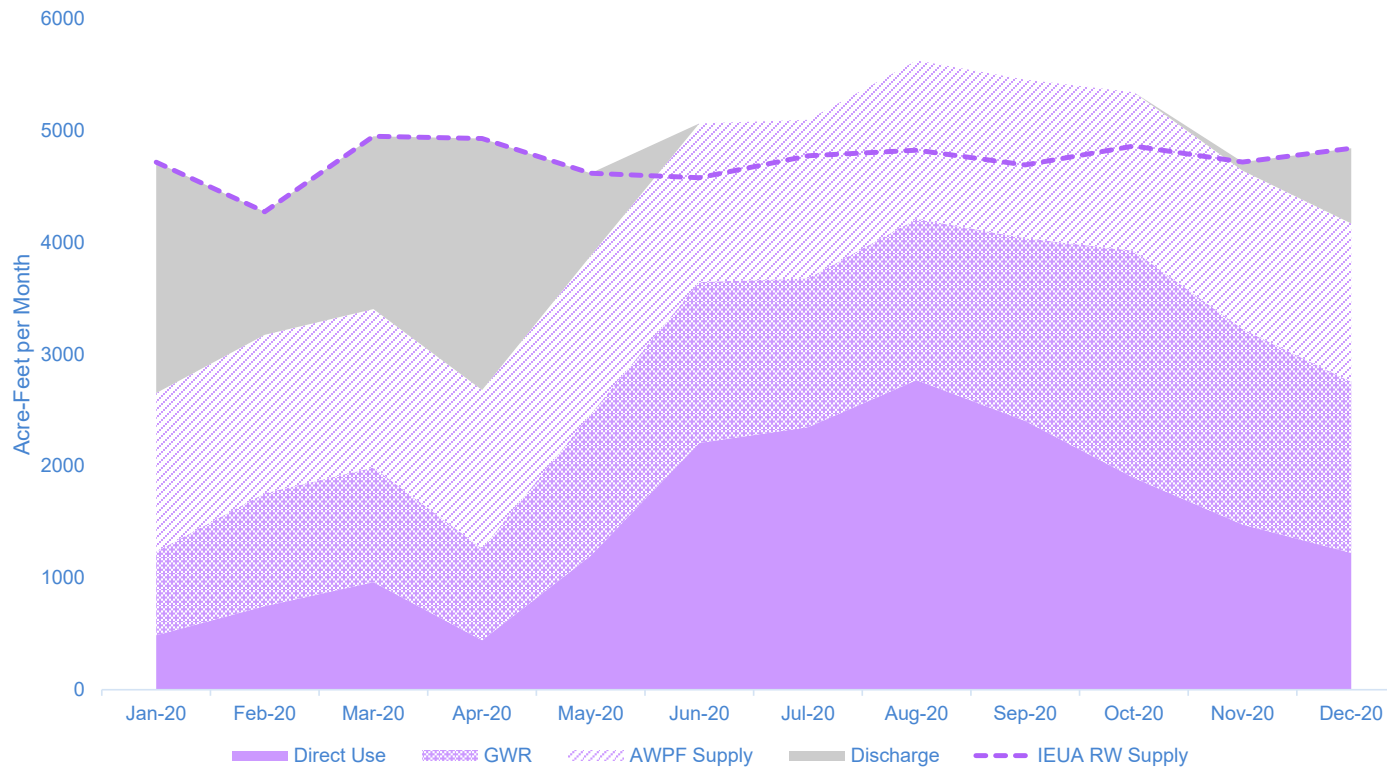
IEUA Recycled Water Supply:  
**56,800 AFY**

Discharge:  
**22,800 AFY**

Groundwater Recharge:  
**16,000 AFY**

Direct Use:  
**18,000 AFY**

# Recycled Water Supplies vs Demands



IEUA Recycled Water Supply:  
56,800 AFY

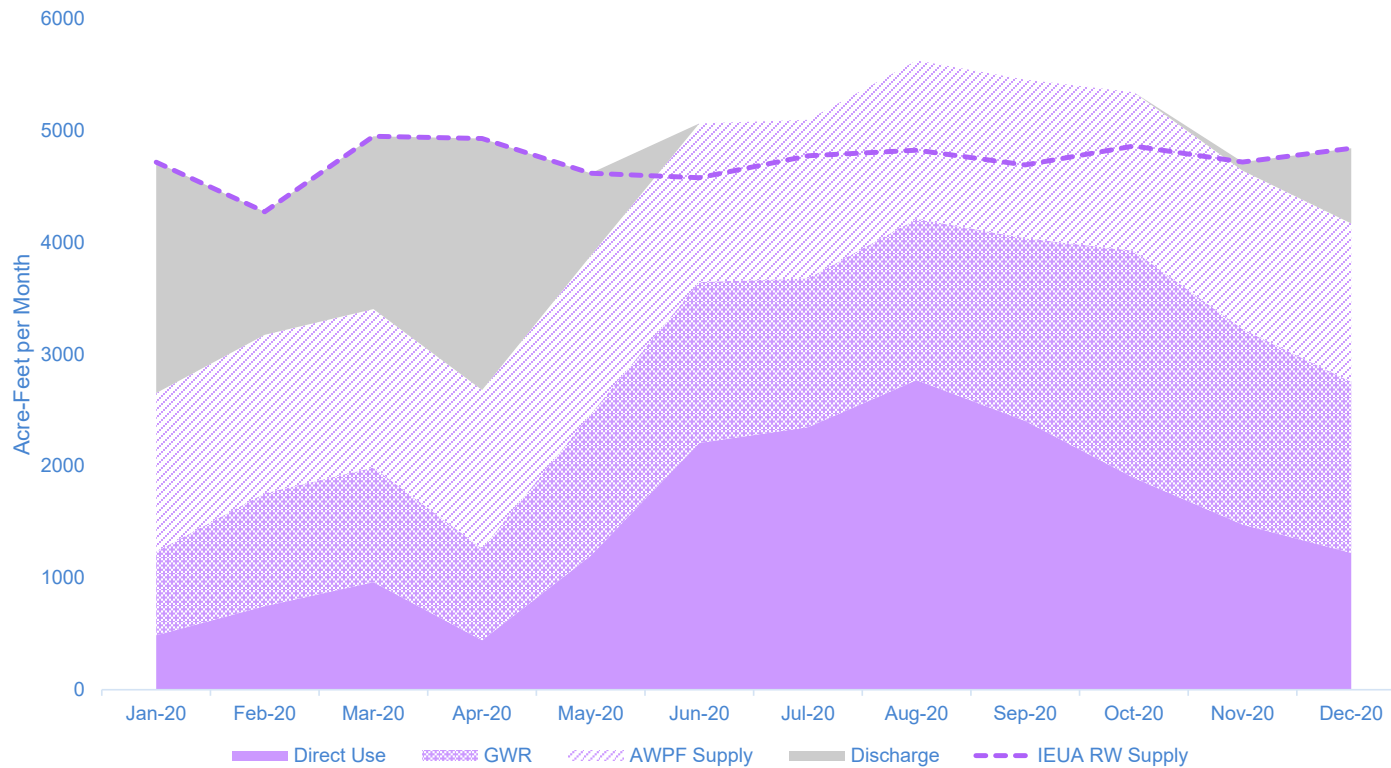
AWPf:  
**17,000 AFY**

Discharge:

Groundwater Recharge:  
16,000 AFY

Direct Use:  
18,000 AFY

# Recycled Water Supplies vs Demands



IEUA Recycled Water Supply:  
56,800 AFY

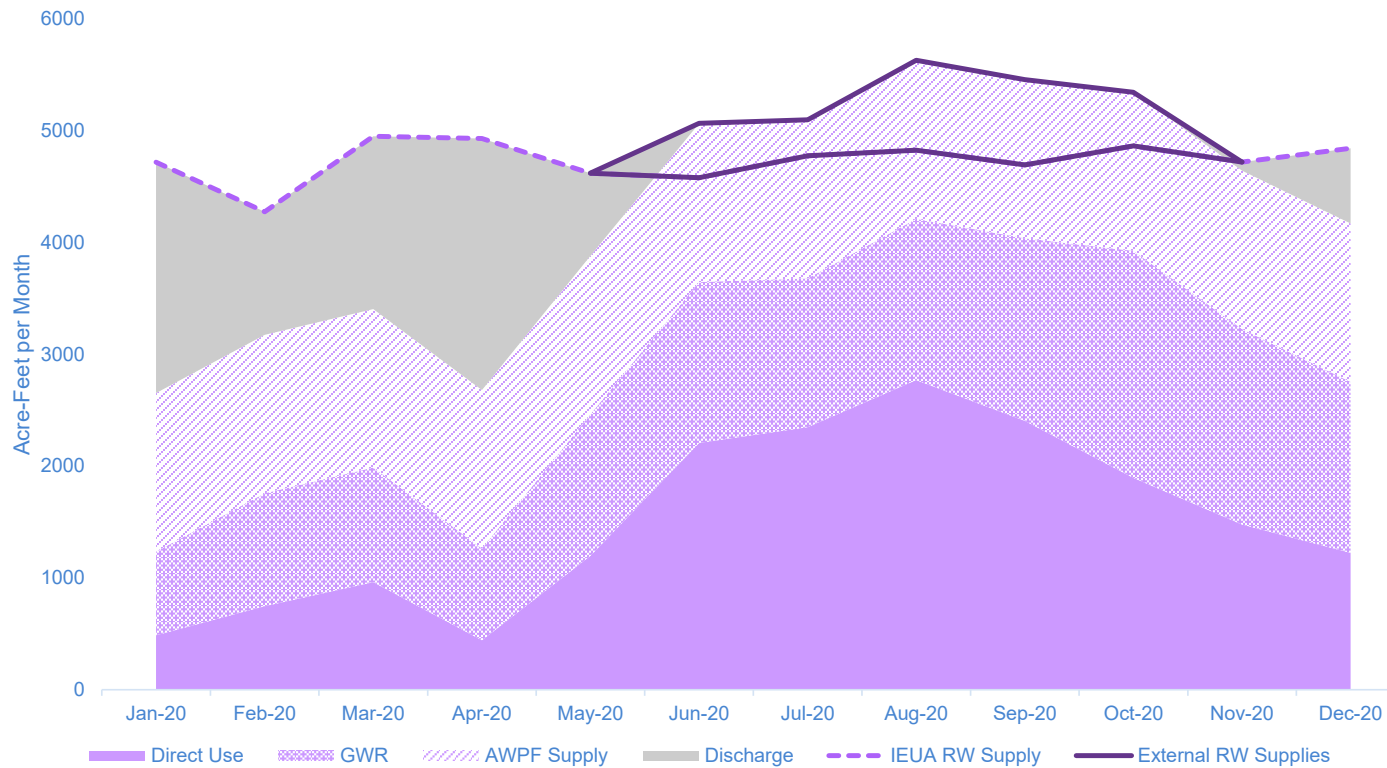
AWPf:  
**17,000 AFY**

Discharge:  
~~22,800~~ **11,800 AFY**

Groundwater Recharge:  
16,000 AFY

Direct Use:  
18,000 AFY

# Recycled Water Supplies vs Demands



External Recycled Water Supplies:  
**6,000 AFY**

IEUA Recycled Water Supply:  
**56,800 AFY**

AWPf:  
**17,000 AFY**

Discharge:  
**11,800 AFY**

Groundwater Recharge:  
**16,000 AFY**

Direct Use:  
**18,000 AFY**

# Principles of Agreement

- IEUA to design, construct, and operate recycled water facilities with 7,000-acre-foot capacity (i.e., pipeline, pump station, interconnection).
- IEUA to have exclusive rights to divert 3,500 acre-feet of Rialto's recycled water into IEUA system.
- IEUA to purchase this amount at a rate of \$275 per acre-feet annually between May and October for a period of 50 years. The annual rate to be adjusted at 2 percent or the CPI index, whichever is higher.
- IEUA and its agencies have first right of purchase for the remaining six months or future expanded flows over the facilities' capacity at a rate of \$375-\$400 per acre-feet.



# Recommendation

Approve the City of Rialto Principles of Agreement for the development of a final agreement that allows IEUA to purchase recycled water supplies.

*The Chino Basin Program supports IEUA's business goal of Water Reliability by implementing an integrated water resources management plan that provides the region with reliable and cost-effective water supply and promotes sustainable water use.*

# Schedule

- ✓ January 27, 2022 – Regional Technical Committee presentation
- ✓ February 3, 2022 – Regional Policy Committee presentation
- February 9, 2022 – IEUA Engineering, Operations & Water Resources Committee action for approval of the final Principles of Agreement
- February 16, 2022 – IEUA Board of Directors action for approval of the final Principles of Agreement
- February 22, 2022 – Rialto City Council action for approval of the final Principles of Agreement

*The City of Rialto Principles of Agreement supports IEUA's business goal of Water Reliability by implementing an integrated water resources management plan that provides the region with reliable and cost-effective water supply and promotes sustainable water use.*

**IEUA, RIALTO, SAN BERNARDINO VALLEY WATER DISTRICT WATER RESEOURCES PARTNERSHIP  
PRINCIPLES OF AGREEMENT**

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**Water Resource Partnership Objectives**

- City of Rialto is interested in monetizing its recycled water asset for the benefit of city by diversifying its water resources and financial security.
- IEUA is interested in securing additional reliable local water supplies to bolster its water resources portfolio to serve its community today, into the future, and under uncertain climate conditions.
- City of Rialto currently has 6.23 MGD of recycled water produced at its wastewater treatment plant that is discharged to the Santa Ana River. As the City grows, it anticipates receiving additional flows up to its maximum treatment plant capacity of 11.7 MGD. City of Rialto currently has a requirement to provide 7 cfs or 3.8 MGD for the benefit of the habitat in the Rialto Channel/ Santa Ana River.
- Valley District is leading the development of the Upper Santa Ana River Multi-Species Habitat Conservation Plan (SAR MSHCP); for the protection of the habitat in the Santa Ana River, the HCP identified that it is desirable to remove flows from the Rialto WWTP during the summer months, when the temperature of the water has an adverse impact on native species; the intent is to provide cold water to the Rialto channel during optimal times of the year to support the habitat.
- IEUA has a desire to augment its recycled water system in the summer months when its recycled water demands are higher than the available supplies and would benefit from such flows from Rialto. IEUA intends to fund the design and construction of an advanced water purification facility and injection facilities to beneficially use the water from Rialto, along with its own supplies to meet water quality objectives of the Chino Basin and its NPDES Permit limitations.
- The City of Rialto and IEUA can mutually agree the interconnection capacity may be upsized to provide additional capacity for future supply from growth within Rialto's service area. Should existing capacity be used to convey flows from other agencies, the City of Rialto and IEUA would be proportionally compensated.
- The value of the proposed project is beyond the above articulated components of water supply and habitat; the partnership could develop broader benefits such as meeting water quality objectives, and salt/nutrient management objectives, and from future use of interconnection capacity by parties other than the Partners.

**IEUA, RIALTO, SAN BERNARDINO VALLEY WATER DISTRICT WATER RESEOURCES PARTNERSHIP  
PRINCIPLES OF AGREEMENT**

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**Proposed Principles of Agreement**

- IEUA will fund the design, construction and operation of a pipeline, pump station and interconnection between City of Rialto WWTP and IEUA recycled water distribution system, at an estimated cost of \$45 million (2019 cost estimate) to facilitate the exchange of water from Rialto to IEUA. The current contemplated capacity of the facilities is 11.7 MGD, to match Rialto WWTP's ultimate treatment plant capacity.
- IEUA will fund a maximum of \$1 million (2019 cost estimate) the construction of one groundwater well adjacent to the Santa Ana River or the construction of a gravity pipeline from the bottom of the future Lake Rialto, with a preferred location within the City's property; the purpose of the project is to provide cold water for the benefit of the native species while the Rialto water is diverted to the IEUA recycled water distribution system.
- Rialto and Valley District will fund, design, permit, acquire the necessary property, and construct the well or pipeline as needed for the SAR MSHCP. Rialto and Valley will also fund the permitting, operation and maintenance of the well or pipeline. Rialto and Valley District will work together to identify funding opportunities in the future to design, permit and construct Lake Rialto to provide ecosystem benefits.
- Rialto and Valley District will provide water for environmental/ecosystem benefits in accord with the SAR MSHCP.
- Rialto will secure any needed water diversion permits from the State Water Resources Control Board prior to the start of construction, currently contemplated to be consistent with the Upper Santa Ana River Habitat Conservation Plan.

**Proposed Terms of the Agreement**

- In exchange for the capital investment and operation of the facilities to secure supplies from Rialto, IEUA will have exclusive rights to divert a constant flow of 7 MGD of Rialto's recycled water into the IEUA system at a rate of \$275 per acre-foot for the summer months commencing May 1 through October 31 of each calendar year, following execution of the agreement and construction of the facilities for a period of 50 years. The rate will be annually adjusted at 2 percent or the CPI index, whichever is higher.
- In consideration of the partnership, IEUA and its agencies shall have first right of purchase of recycled water during the remainder of the six months and/or any future expanded flows over the 6.23 MGD for a period of 50 years, commensurate with the start of the agreement at a rate of \$375-400 per acre-foot, with annual adjustments to the rate (2 percent, CPI index or based on other water index, (such as Metropolitan Water District rates).

**IEUA, RIALTO, SAN BERNARDINO VALLEY WATER DISTRICT WATER RESEOURCES PARTNERSHIP  
PRINCIPLES OF AGREEMENT**

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- If any of the Facilities Capacity, beyond the current contemplated 6.23 MGD, is used to provide benefits beyond this Partnership, such use of capacity shall be mutually agreed upon by both parties.
  - Any future participants which results in added value will be shared equitably as the opportunities arise.

ACTION  
ITEM  
2B

**Date:** February 16, 2022

**To:** The Honorable Board of Directors

*SD*  
**From:** Shivaji Deshmukh, General Manager

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

02/09/22

**Executive Contact:** Shivaji Deshmukh, General Manager

**Subject:** 1299 Reservoir Bypass Pipeline Construction Contract Award

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**Executive Summary:**

In 2021, Inland Empire Utilities Agency (IEUA) hired Harper and Associates Engineering Inc., to complete a condition assessment of the 1299 recycled water storage reservoir. The engineering report noted the reservoir currently has moderate deterioration of the coating and paint systems which will require rehabilitation within the next 2-3 years. This will include removing and replacing the existing coating and paint systems to extend the useful life of the structure. After discussions with the operations team, it was determined there is no current method of isolating the reservoir and continue to serve our recycled water customers while conducting required coating upgrades. Therefore, a new permanent bypass line around the reservoir is required to facilitate the reservoir rehabilitation and continue to serve our recycled water customers in the area.

On November 18, 2021, IEUA issued an invitation for bids from the under \$2,000,000 prequalified contractors. On December 14, 2021, IEUA received five construction bids. There were three non-responsive bids received. The three non-responsive bidders did not acknowledge Addendum No. 1. Norstar Plumbing and Engineering, Inc. was the lowest responsive, responsible bidder with a bid price of \$192,013. The engineer's estimate was \$105,000.

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**Staff's Recommendation:**

1. Award a construction contract for the 1299 Reservoir Bypass Pipeline, Project No. EN20022, to Norstar Plumbing and Engineering, Inc., in the amount of \$192,013;
2. Approve a total project budget and FY 2021/22 budget transfer from the 8th Street RW Turnout Connection, Project EN21050, to the 1299 Reservoir Bypass Pipeline, Project EN20022, in the amount of \$100,000; and
3. Authorize the General Manager to execute the construction contract and budget transfer, subject to non-substantive changes.

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**Budget Impact** Budgeted (Y/N): N Amendment (Y/N): Y Amount for Requested Approval: \$ 100,000

Account/Project Name:

EN20022/1299 Reservoir Bypass Pipeline

*Fiscal Impact (explain if not budgeted):*

If approved, the total project budget transfer and a FY 21/22 budget transfer for the 1299 Reservoir Bypass Pipeline, Project No. EN20022, will be \$100,000 in the Recycled Water (10600) Capital Fund.

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**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 15282(k) of the State CEQA Guidelines.

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**Business Goal:**

The 1299 Reservoir Bypass Pipeline Project is consistent with IEUA's Business Goal of Water Reliability specifically the Recycled Water objective that IEUA will maximize the use of recycled water to enhance regional water reliability.

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**Attachments:**

Attachment 1 - PowerPoint

Attachment 2 - Construction Contract



# **Attachment 1**



# 1299 Reservoir Bypass Pipeline

## Construction Contract Award

### Project EN20022

Sandra Salazar, E.I.T.  
Associate Engineer  
February 2022

# Project Location: 7420 East Avenue



# Background

- Harper and Associates Engineering Inc.
  - Contracted in 2021
  - Coating and paint near end of life
  - Significant deterioration in last 5 years
  - Rehabilitation required in 2-3 years
- Planning with Operations for Rehabilitation
  - Determined reservoir cannot be taken offline

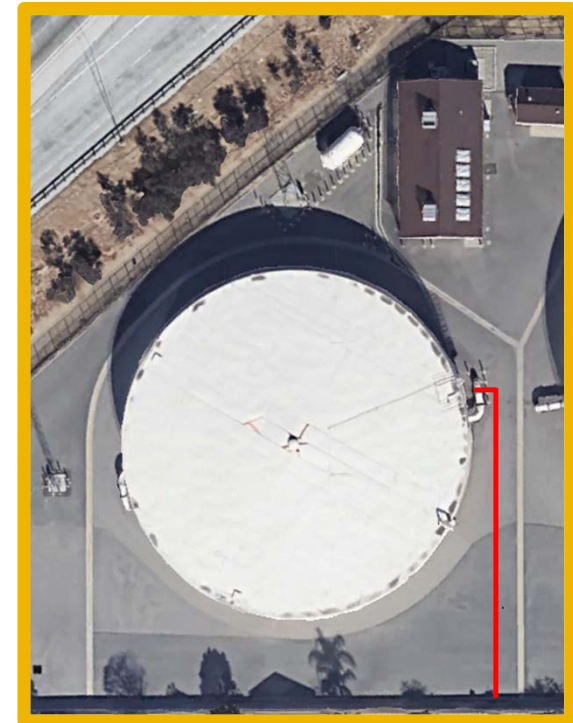


1299 Reservoir



# The Project

- Install bypass
- Scope of Work:
  - Excavate and install 160 feet of 30" CMLC steel pipe
  - Install two butterfly valves and fittings
  - Trench and pavement restorations



# Contractor Selection

Five bids were received on December 14, 2021:

Bidder's Name	Final Bid Amount
Norstar Plumbing & Engineering, Inc.	\$192,013
W.A. Rasic Construction Co.	\$245,000
Engineer's Estimate	\$105,000

\* Three other bids were considered non-responsive

# Project Budget and Schedule

Description	Estimated Cost
<b>Design Services</b>	<b>\$40,000</b>
IEUA Design Services (actuals)	\$40,000
<b>Construction Services</b>	<b>\$30,000</b>
IEUA Construction Services (~15%)	\$30,000
<b>Construction</b>	<b>\$222,013</b>
Construction Contract (this action)	\$192,013
Contingency (~15%)	\$30,000
<b>Total Project Cost</b>	<b>\$292,013</b>
<b>Total Project Budget:</b>	<b>\$200,000</b>
<b>Budget Transfer:</b>	<b>\$100,000</b>
<b>Revised Project Budget:</b>	<b>\$300,000</b>

Project Milestone	Date
<b>Construction</b>	
Construction Contract Award	February 2022
Construction Completion	June 2022

## Recommendation

- Award a construction contract for the 1299 Reservoir Bypass Pipeline, Project No. EN20022, to Norstar Plumbing and Engineering Inc., in the amount of \$192,013; and
- Approve a total project budget and FY 21/22 budget transfer from the 8th Street RW Turnout Connection, Project EN21050, to the 1299 Reservoir Bypass Pipeline, Project EN20022, in amount of \$100,000; and
- Authorize the General Manager to execute the construction contract and budget transfer, subject to non-substantive changes.

The 1299 Reservoir Bypass Pipeline Project is consistent with **IEUA's Business Goal of Water Reliability**, specifically the Recycled Water objective that IEUA will maximize the use of recycled water to enhance regional water reliability.



# **Attachment 2**

4600003113

## **1299 RESERVOIR BYPASS PIPELINE CONTRACT**

THIS CONTRACT made and entered into this 16th day of February, 2022, by and between Norstar Plumbing 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 "IEUA".

### **WITNESSETH:**

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

- A.** CONTRACTOR agrees to perform and complete in a workmanlike manner, all Work required under these Bid Documents FOR **IFB-JV-21-008, Project No. EN20022, 1299 Reservoir Bypass Pipeline** in accordance with the Bid Documents, 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 Bid Documents to be furnished by IEUA, and to do everything required by this Contract and the said Bid Documents.
- B.** 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 Bid Documents; 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 IEUA, 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 Bid Documents are expressly stipulated to be borne by IEUA; and for completing the Work in accordance with the requirements of said Bid Documents, IEUA will pay and said CONTRACTOR shall receive, in full compensation therefore, the price(s) set forth in this Contract.
- C.** That IEUA 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 Section 4 – Forms, Bid Price Schedule & Bid Forms, and accepted by IEUA, and set forth in this below.

Total Bid Price: \$192,013 Dollars and 00 Cents.

- D.** IEUA 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

Bid Documents; 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.

- E.** The Notice Inviting Bids, Instructions to Bidders, Bid Forms, Information Required of Bidder, Performance Bond, Payment Bond, Contractor's License Declaration, Specifications, Drawings, all General Conditions, Special Conditions, and all Project Requirements, and all Addenda issued by IEUA 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.
- F.** 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 IEUA **Ninety (90)** calendar days after the Notice to Proceed. All Work shall be completed before final payment is made.
- G.** Time is of the essence on this Contract.
- H.** CONTRACTOR agrees that in case the Work is not completed before or upon the expiration of the Contract Time, damage will be sustained by IEUA, and that it is and will be impracticable to determine the actual damage which IEUA will sustain in the event and by reason of such delay, and it is therefore agreed that the CONTRACTOR shall pay to IEUA the amounts as set forth in Section 2 – General Information, S., Liquidated Damages for each day of delay, which shall be the period between the expiration of the Contract Time and the date of final acceptance by IEUA, 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 IEUA, and the CONTRACTOR agrees to pay such liquidated damages as herein provided. In case the liquidated damages are not paid, the CONTRACTOR agrees that IEUA 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.
- I.** In addition to the liquidated damages, which may be imposed if the CONTRACTOR fails to complete the Work within the time agreed upon, IEUA may also deduct from any sums due or to become due to the CONTRACTOR, penalties and fines for violations of applicable local, state, and federal law.
- J.** That the CONTRACTOR shall carry Workers' Compensation Insurance and require all subcontractors to carry Workers' Compensation Insurance as required by the California Labor Code.

- K.** That the CONTRACTOR shall have furnished, prior to execution of the Contract, two bonds approved by IEUA, 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.
- L.** The CONTRACTOR hereby agrees to protect, defend, indemnify and hold IEUA 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 IEUA 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 to the extent permitted by law.

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.

- M.** The CONTRACTOR, by signing the contract does swear under penalty of perjury that no more than one final unappeasable finding of contempt of court by a Federal court has been issued against the CONTRACTOR within the immediately preceding two year period because of the CONTRACTOR's failure to comply with an order of a Federal court which orders the CONTRACTOR to comply with an order of the National Labor Relations Board (Public Contract Code 10296).

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

By \_\_\_\_\_  
*Shivaji Deshmukh*  
*General Manager*

CONTRACTOR

DocuSigned by:  
By SUE PLUMMER  
C9D10FF642084A2...

Second treas VP

\_\_\_\_\_  
*Title*

\* *A Municipal Water District*

ACTION  
ITEM  
2C

**Date:** February 16, 2022

*ADD*

**To:** The Honorable Board of Directors

**From:** Shivaji Deshmukh, General Manager

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

02/09/22

**Executive Contact:** Christiana Daisy, Deputy General Manager

**Subject:** RP-1 Flare Improvements Construction Change Order - PLC Upgrades

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**Executive Summary:**

On June 17, 2020, Inland Empire Utilities Agency (IEUA) awarded a \$5,540,000 construction contract to W.M. Lyles Co., for the Regional Water Recycling Plant No. 1 (RP-1) Flare Improvements Project. On June 20, 2021, IEUA staff organized a workshop with the contractor and flare manufacturer. It was noted by staff during the workshop, that the control panel did not meet IEUA control requirements to provide fully redundant Allen Bradley ControlLogix Programmable Logic Controllers (PLC) in the Main Control Panel (MCP). This revision was as a result of recent SCADA standards that were updated as part of the RP-1 SCADA Migration Project. Flare system original design started in 2017. This required redesign of the control panels and change in hardware procurement and programming. Additionally, the controls redesign and procurement impacted the schedule by one-hundred and twenty (120) working days.

The contractor submitted a change order request in the amount of \$159,873 to cover the above hardware changes and extended overhead costs, which staff evaluated and found to be fair and reasonable. Therefore, staff recommends approval of this change order for a total not-to-exceed amount of \$159,873, increasing the current contract from \$6,162,844 to \$6,322,717 (approximately 2.6% increase).

---

**Staff's Recommendation:**

1. Approve a construction contract change order for the RP-1 Flare Improvement, Project No. EN18006, to W.M. Lyles Co., for the not-to-exceed amount of \$159,873, increasing the contract from \$6,162,844 to \$6,322,717 (approximately 2.6% increase); and,
2. Authorize the General Manager to execute the change order, subject to non-substantive changes.

---

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

*Account/Project Name:*

EN18006/RP-1 Flare Improvements

*Fiscal Impact (explain if not budgeted):*

None.

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**Prior Board Action:**

On November 17, 2021 and October 20, 2021, the Board of Directors approved change orders for extended overhead/budget amendment (\$1.55M) and equipment pad modifications/mechanical redesign for the not-to-exceed amounts of \$157,857 and \$324,977 respectively. On June 17, 2020, the Board of Directors awarded a Construction Contract to W.M. Lyles in the amount of \$5,540,000, approved a contract amendment to Lee & Ro, Inc., for engineering services during construction for a not-to-exceed amount of \$182,500.

---

**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 and Class 2 as defined in Section 15301 of the State CEQA Guidelines

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**Business Goal:**

The RP-1 Flare Improvements Project is consistent with IEUA's Business Goal of Wastewater Management, specifically the Asset Management and Water Quality objectives that IEUA will ensure that systems are well maintained, upgraded to meet evolving requirements, sustainably managed, and can accommodate changes in regional water use to protect public health, the environment, and meet anticipated regulatory requirements.

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**Attachments:**

Attachment 1 - PowerPoint

# **Attachment 1**



The background of the slide is a photograph of an industrial facility at dusk. A large, bright orange and yellow flame is visible coming from a flare stack in the center. To the left, there is a large white cylindrical storage tank. In the foreground, there are yellow bollards and a paved area. The sky is a deep blue with some clouds. A semi-transparent dark blue rectangular box is overlaid in the center, containing the title text.

# RP-1 Flare Improvements

## Construction Change Order

### Project No. EN18006

Justin Tao, E.I.T.  
Associate Engineer  
February 2022

# Regional Water Recycling Plant No. 1 Project Location





# The Project



New and Existing Flares Side-by-Side

- Replace existing flare
- Install low pressure gas-holding tank
- Install new digester gas piping system
- Install one Iron Sponge and relocate two existing

# Challenges

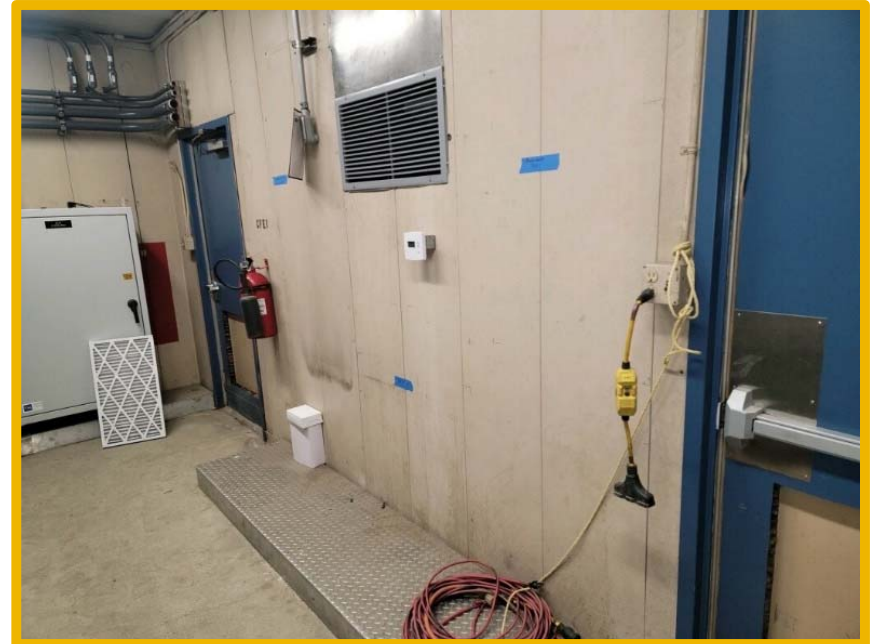
- Control Panel Redesign
  - Meet RP-1 SCADA controls requirements
    - Main Control Panel (MCP) required a redundant controller
  - Added 120 working days to schedule
    - Equipment long lead times
    - Redesign efforts with vendor



Future Local Control Panel Location

# The Outcome

- Control Hardware Panel Upgrades
  - Redesign of control panels:
  - August to December 2021
  - Enhanced control systems for compliance and reliability
    - Replace basic CompactLogix PLC with a more advanced version
    - ControlLogix PLC supports redundant processors
    - Prevents the possibility of venting
    - Provide seamless transition and smooth flare operation



Future location of Main Control Panel  
(MCP) – Building N

# Project Budget

Description	Estimated Cost
<b>Design Services</b>	<b>\$1,025,439</b>
Design Services (IEUA and Consultants)	\$917,857
Project Development (IEUA) + Bid and Award	\$107,582
<b>Construction Services</b>	<b>\$1,165,618</b>
Engineering Services During Construction (consultants)	\$331,633
IEUA Construction Services ( <i>actuals</i> )	\$312,578
Estimated Remaining Construction Services	\$521,407
<b>Construction</b>	<b>\$7,008,943</b>
Current Construction Contract	\$6,162,844
Construction Contract Change Order (this action)	\$159,873
Remaining Project Contingency	\$686,226
<b>Total Project Cost:</b>	<b>\$9,200,000</b>
<b>Current Total Project Budget:</b>	<b>\$9,200,000</b>

Project Milestone	Date
<b>Construction Contract</b>	
Construction Contract Award	June 2020
Current Construction Completion	March 2022
New Construction Completion	August 2022

# Recommendation

- Approve a construction contract change order for the RP-1 Flare Improvement, Project No. EN18006, to W.M. Lyles Co., for the not-to-exceed amount of \$159,873, increasing the contract from \$6,162,844 to \$6,322,717 (approximately 2.6% increase); and,
- Authorize the General Manager to execute the change order, subject to non-substantive changes.

The RP-1 Flare Improvements Project is consistent with **IEUA's Business Goal of Wastewater Management**, specifically the Asset Management and Water Quality objectives that IEUA will ensure that systems are well maintained, upgraded to meet evolving requirements, sustainably managed, and can accommodate changes in regional water use to protect public health, the environment, and meet anticipated regulatory requirements.

INFORMATION  
ITEM  
**3A**



# Laboratory Semi Annual Update Per and Polyfluoroalkyl Substances (PFAS) Laboratory Testing

Charles Grady  
Laboratory Supervisor  
February 2022

# Essential Monitoring and Analysis

## FY 20/21 Samples and Analyses

- Total # Samples: 20,000
- Total # Analyses: 52,000

## Special Projects

- 1,2,3-Trichloropropane (1,2,3-TCP) Investigation
- Toxicity Accelerated Monitoring
- Archibald Plume
- Illegal Dumping





# Operational Challenges

## Revised Laboratory Accreditation

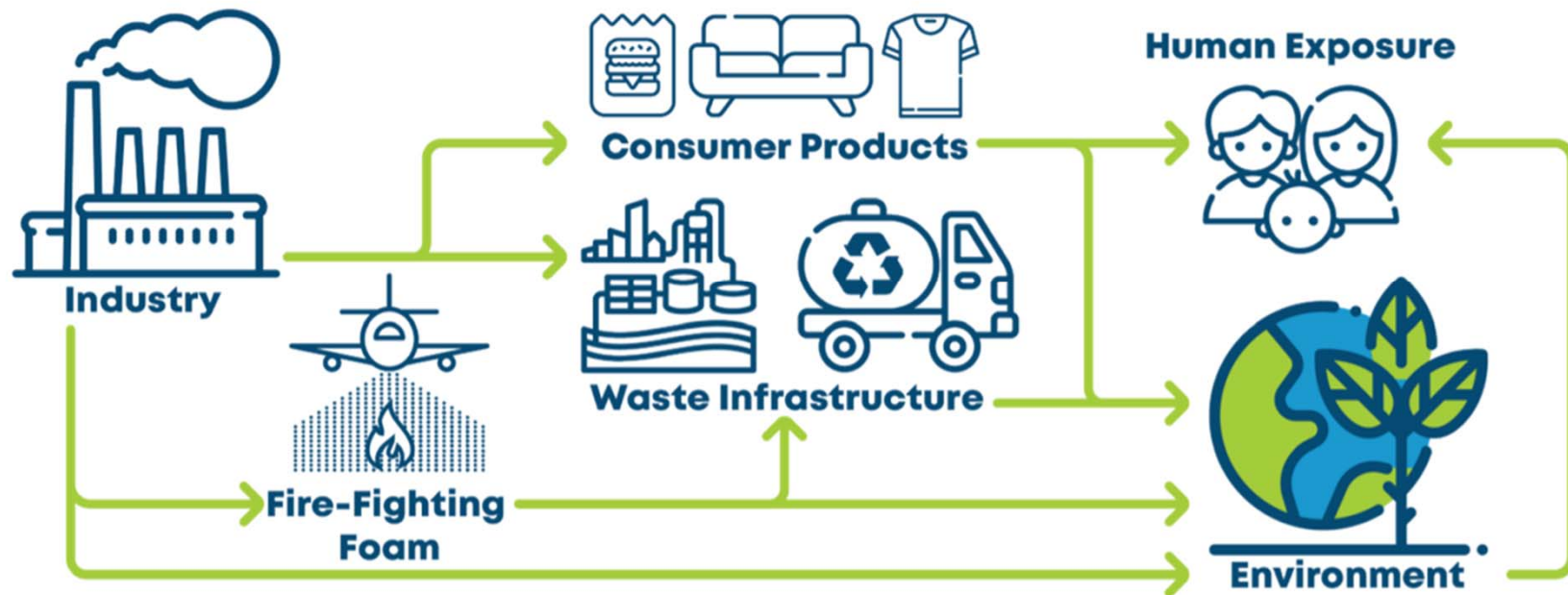
- Implement Quality Management Systems
- Proficiency Test
- Personnel Credentials

## New or Proposed Regulatory Mandates

- 1,2,3-TCP
- Per- and Polyfluoroalkyl Substances (PFAS)
- Microplastics
- New Toxicity Testing Requirements
- Lower Detection Levels



# PFAS in the Environment



Source: Orange County Water District (2021) <https://www.ocwd.com/what-we-do/water-quality/pfas/>

# PFAS Monitoring Requirements

## Recycled Water (RW) Policy

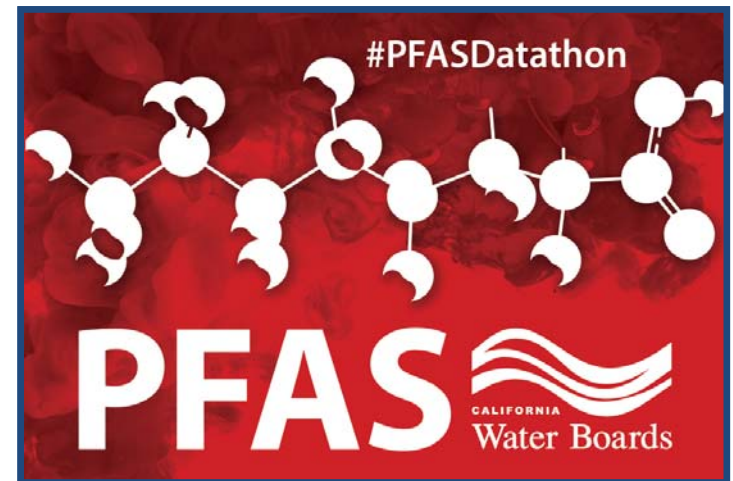
- Updated in 2018 to include PFAS
- Quarterly testing of RP1, RP1/RP4, and stormwater/local runoff

## State Water Resources Control Board (SWRCB) Investigative Order in 2020

- Quarterly monitoring of POTW influent, effluent, and biosolids

## Notification Levels (NL)

- 2019: 5.1 ppt for PFOA and 6.5 ppt for PFOS
  - Weekly monitoring: RP1 and RP1/RP4
- 2021: 500 ppt for PFBS
  - No impact



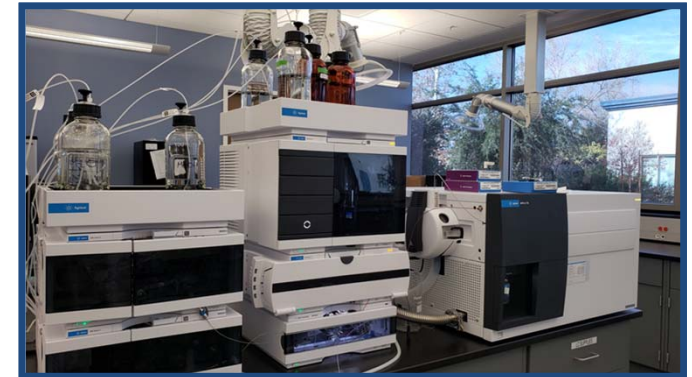
# PFAS Testing

## Contract Lab Challenges

- High Costs
- Capacity
- Data Quality

## Develop In-house Capabilities

- Liquid Chromatography Mass Spectrometer (LCMS)  
Purchase



April 2021  
LCMS Purchase  
Board Approval

September 2021  
Method EPA 537.1  
Development

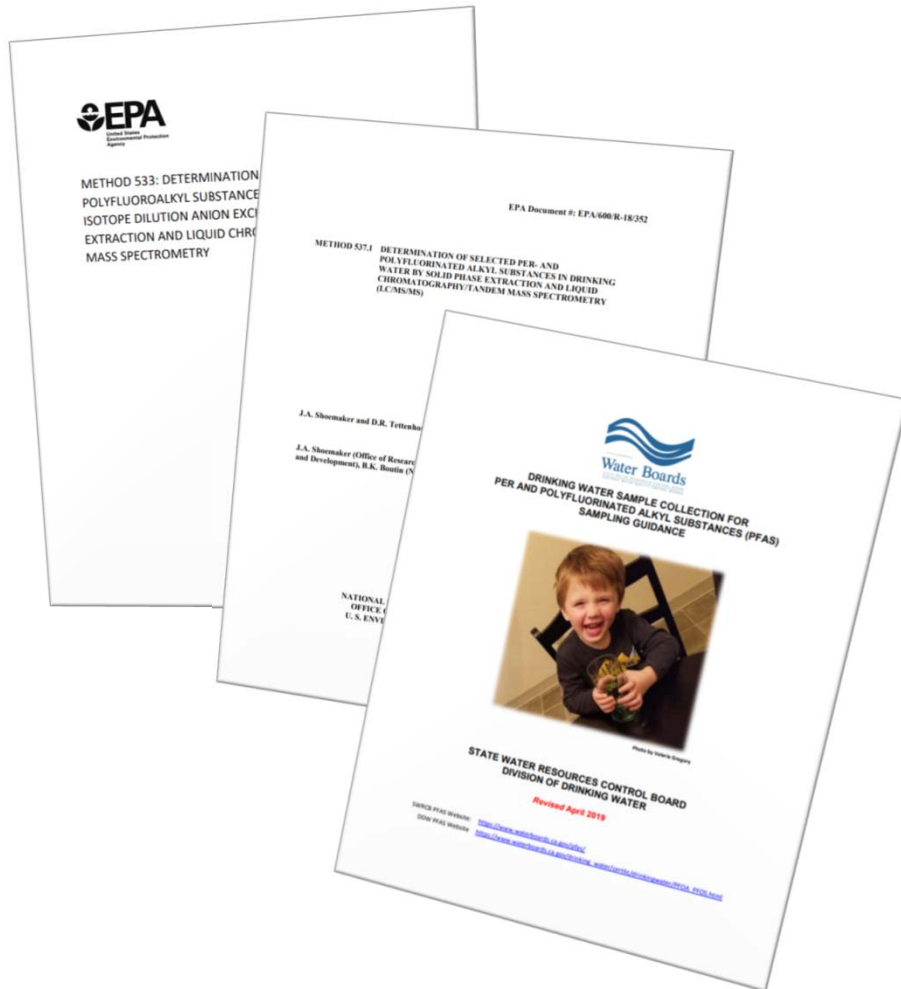
November 2021  
Method EPA 533  
Development

December 2021  
Non-Potable Water  
Development

July 2021  
LCMS Installation  
and Staff Training

November 2021  
Method EPA 537.1  
Validation

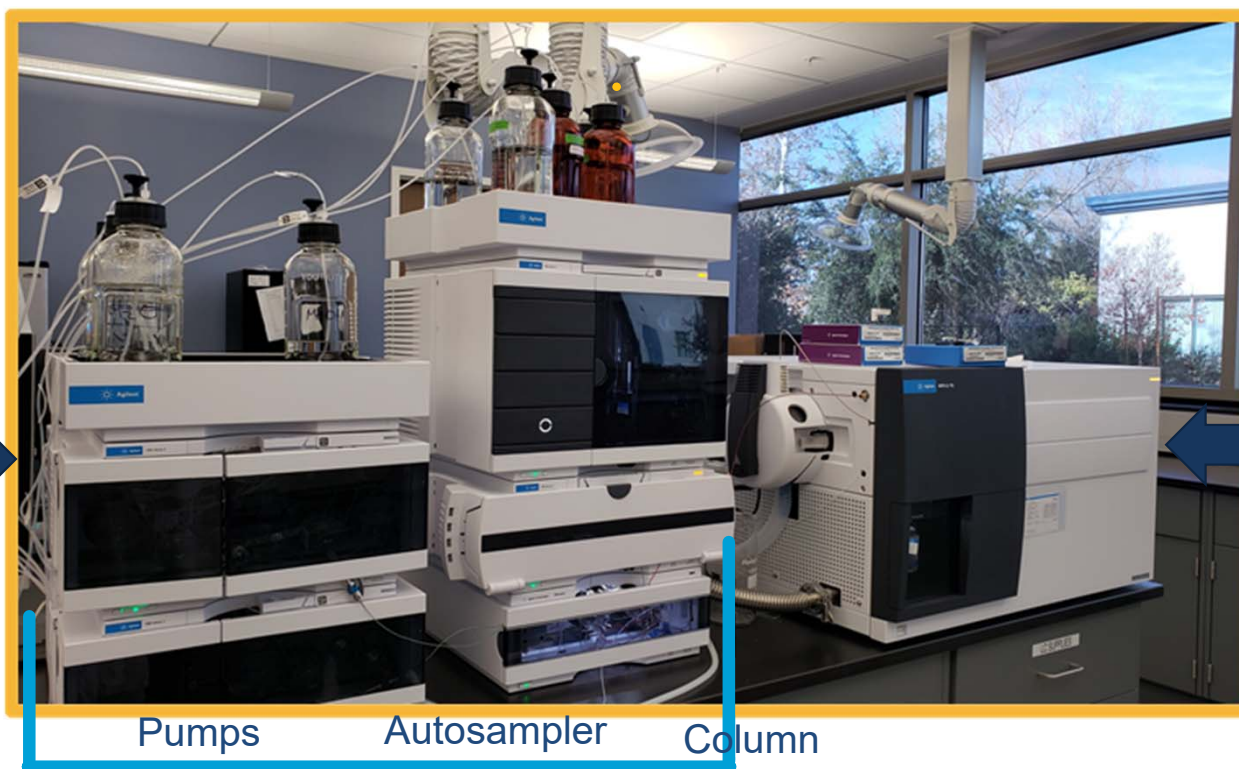
# PFAS In-house Testing Challenges



- Approved Methods
- Approved Suppliers
- Instrumentation
- Qualified Personnel
- Industry Expertise, Self Learn



# Agilent LCMS System (Liquid Chromatography Mass Spectrometer)



The HPLC

Agilent 1290  
Infinity II

The Mass  
Spectrometer

Agilent 6470b  
Triple quadrupole

Pumps

Autosampler

Column

HPLC = (HIGH PRESSURE LIQUID CHROMATOGRAPHY)



# IEUA Capabilities - Timeline

## Capabilities: ETA, February 2022

- Potable Matrices
  - EPA method 537.1: Validation complete
  - EPA Method 533 - In the process of Validation
- Non-potable Matrices
  - EPA Method 1633 – In the process of Development

## State Accreditation: ETA, Fall 2022

- Requirements
  - Pass Proficiency Testing
  - Complete Internal Validation Package: proof of training, Standard Operating Procedure (SOP) and Quality Assurance Manual (QAM)
  - Acceptable Onsite Assessment
- Submit Accreditation Application: July 2022

Process Compliance Samples once State grants accreditation

INFORMATION  
ITEM  
**3B**



# RP-5 Expansion Project Update:

February 2022  
Project Nos. EN19001 and EN19006

Brian Wilson, P.E.  
Senior Engineer  
February 2022

## RP-5: Major Activity Areas

### Construction Staff

- WML Craft: 172
- WML Project: 35
- IEUA & CM: 15
- Total: 222

### 2021 Total Hours

- WML: 372K
- CM Team: 31K
- DE Team: 27K
- Total: 430K
- 207 FTE





## RP-5: 2021 - Year 1 Review



**Liquids North – January 2021 & January 2022**

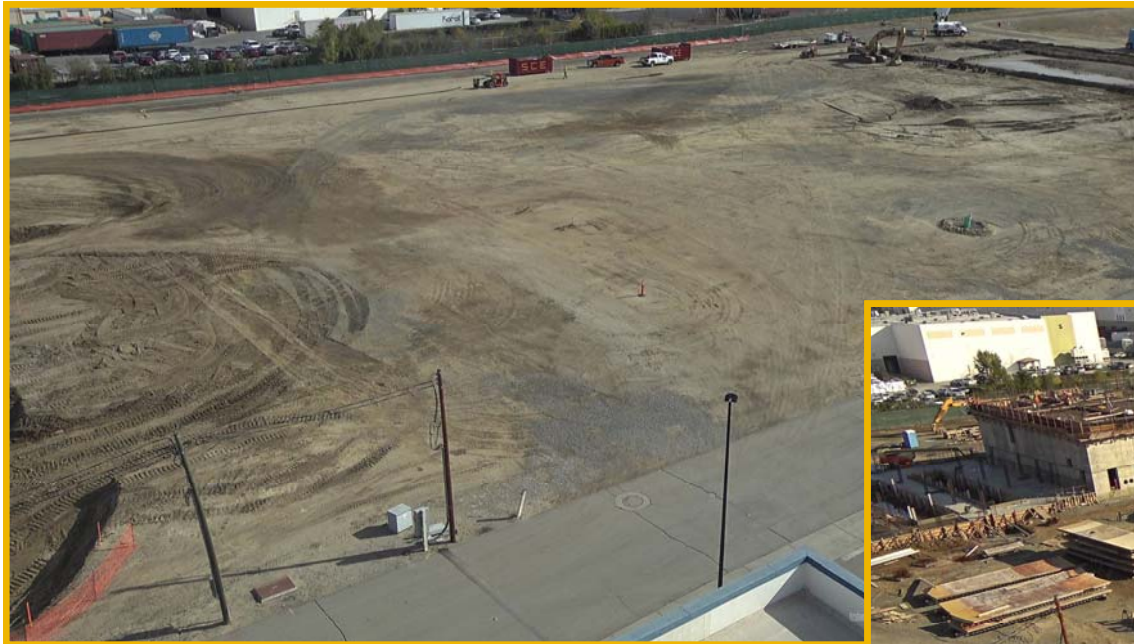


# RP-5: 2021 - Year 1 Review



**Solids North – January 2021 & January 2022**

# RP-5: 2021 - Year 1 Review



**Solids South – January 2021 & January 2022**



## RP-5: 2021 - Year 1 Review



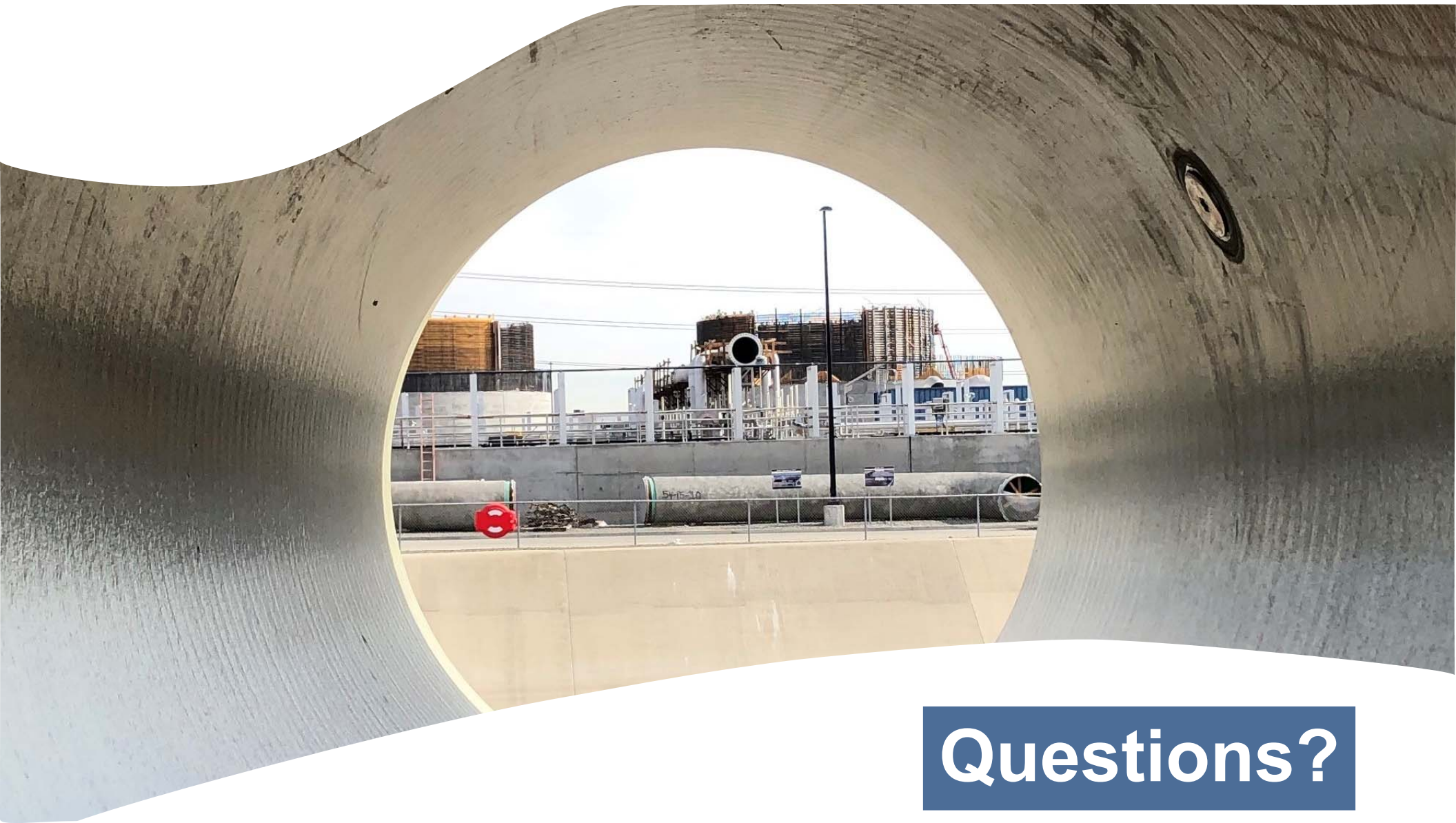
**Liquids South – January 2021 & January 2022**



## RP-5: Site Fly Over 1-7-2022







**Questions?**

INFORMATION  
ITEM  
3C



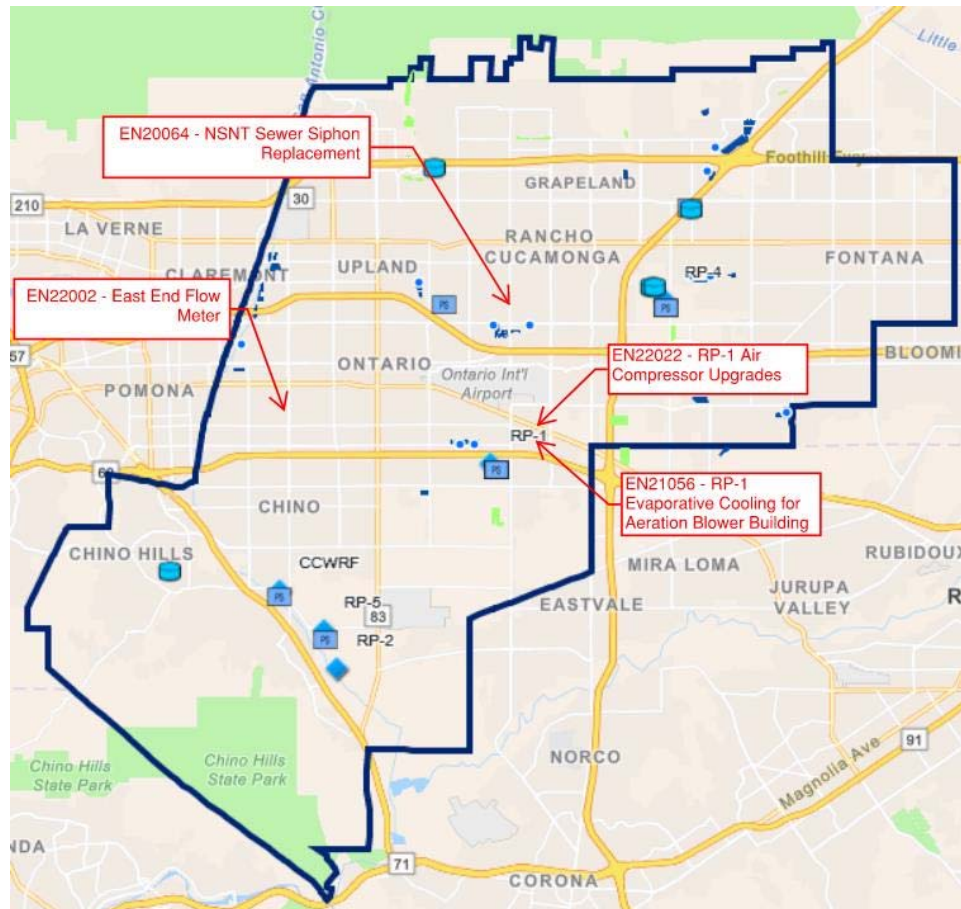
# Engineering and Construction Management Project Updates

Jason Marseilles, P.E.

Manager of Engineering & Construction Management

February 2022





## Project Location Map

# NSNT Sewer Siphon Replacement

Project Goal: Improve Performance



Example of Potholing Location Along Hellman Avenue

**Total Project Budget: \$2.8 M**  
**Project Completion: March 2023**  
**Design Percent Complete: 95%**

Phase	Consultant/ Contractor	Current Contract	Amendments/ Change Orders
Design (Current)	Michael Baker International	\$265k	9.95%
Construction	TBD	\$0	0%
Project Management Team			
Project Manager:		Biesiada, Josh	
Assistant/Associate Engineer:		Megan Trott	
Administrative Assistant:		Wallace & Associates	
Inspector:		MWH	

# RP-1 Evaporative Cooling for Aeration Blower Building

Project Goal: Increase Reliability

**Total Project Budget: \$450k**  
**Project Completion: June 2023**  
**Design Percent Complete: 10%**

Phase	Consultant/ Contractor	Current Contract	Amendments/ Change Orders
Design (Current)	Kennedy Jenks	\$108k	0%
Construction	TBD	\$0	0%
Project Management Team			
Project Manager:		Cayatte, Pierre	
Assistant/Associate Engineer:		N/A	
Administrative Assistant:		Wallace & Associates	
Inspector:		TBD	



# NRW East End Flowmeter Replacement

Project Goal: Improve Efficiency and Safety



New Electrical Cabinets

**Total Project Budget: \$3.6M**  
**Project Completion: December 2021**  
**Construction Percent Complete: 100%**

Phase	Consultant/ Contractor	Current Contract	Amendments/ Change Orders
Pre-Design	Civiltec Engineering Inc	\$302k	12.97%
Construction	SCW Contracting	\$2.3M	1.56%
Project Management Team			
Project Manager:		Trott, Megan	
Assistant/Associate Engineer:		N/A	
Administrative Assistant:		Wallace & Associates	
Inspector:		MWH	



# RP-1 Air Compressor Upgrades

Project Goal: Increase Reliability

**Total Project Budget: \$1.7M**  
**Project Completion: June 2024**  
**Design Percent Complete: 0%**

Phase	Consultant/ Contractor	Current Contract	Amendments/ Change Orders
Project Evaluation (Current)	TBD	\$0	0%
Construction	TBD	\$0	0%
Project Management Team			
Project Manager:	Cayatte, Pierre		
Assistant/Associate Engineer:	TBD		
Administrative Assistant:	Wallace & Associates		
Inspector:	TBD		

