

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

# WEDNESDAY, NOVEMBER 10, 2021 10:00 A.M.

# INLAND EMPIRE UTILITIES AGENCY\* VIEW THE MEETING LIVE ONLINE AT IEUA.ORG TELEPHONE ACCESS: <u>(415) 856-9169 / Conf Code: 316 524 615#</u>

PURSUANT TO AB361 AND RESOLUTION NO. 2021-11-6, ADOPTED BY THE IEUA BOARD OF DIRECTORS ON NOVEMBER 3, 2021, 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 into the number provided above. Comments may also be submitted by email to the Board Secretary/Office Manager Denise Garzaro at <u>dgarzaro@ieua.org</u> 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. <u>Comments will be limited to three minutes per speaker</u>. 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.

\*A Municipal Water District

Engineering, Operations, & Water Resources Committee November 10, 2021 Page 2

# 1. <u>CONSENT ITEMS</u>

# A. <u>MINUTES</u>

Approve Minutes of the October 13, 2021 Engineering, Operations, and Water Resources Committee meeting.

# B. JANITORIAL SERVICES CONTRACT AWARD

Staff recommends that the Committee/Board:

- 1. Approve the award of Contract No. 4600003083 to Priority Building Services, LLC to provide Janitorial Services for a total contract price not-to-exceed amount of \$1,800,000 over five years with a fixed price period of two years with three one-year options to extend with CPI increases; and
- 2. Authorize the General Manager to execute the service contract.

# C. <u>AGENCY-WIDE CHEMICAL CONTAINMENT AREA REHABILITATION</u> <u>PHASE 2 CONSTRUCTION CONTRACT AWARD</u>

Staff recommends that the Committee/Board:

- 1. Award a construction contract for the Agency-Wide Chemical Containment Rehabilitation Phase 2, Project No. EN22043, to Techno Coating Inc., in the amount of \$238,112; and
- 2. Authorize the General Manager to execute the construction contract, subject to non-substantive changes.

# D. <u>RP-1 FLARE IMPROVEMENTS PROJECT CHANGE ORDER -</u> <u>EXTENDED OVERHEAD</u>

Staff recommends that the Committee/Board:

- 1. Approve a construction change order for the RP-1 Flare Improvement, Project No. EN18006, to W.M. Lyles Co., for the not-to-exceed amount of \$157,857, increasing the contract from \$5,914,408 to \$6,072,265 (approximately 2.6% increase); and
- 2. Amend the Total Project Budget for the RP-1 Flare Improvement, Project No. EN18006, in the amount of \$1,550,000, increasing the budget from \$7,650,000 to \$9,200,000 (20% increase) in the Regional Capital Fund; and
- 3. Authorize the General Manager to execute the change order and the budget amendment, subject to non-substantive changes.

Engineering, Operations, & Water Resources Committee November 10, 2021 Page 3

# 2. ACTION ITEM

# A. <u>RP-5 BIRD ABATEMENT CONTRACT AWARD</u>

Staff recommends that the Committee/Board:

- Approve the award of Contract No. 4600003080 to Adam's Falconry Service, LLC to provide RP-5 Bird Abatement Services for a total contract price not-to-exceed amount of \$195,000 over three years with two oneyear options to extend; and
- 2. Authorize the General Manager to execute the service contract.

# 3. **INFORMATION ITEMS**

# A. <u>RP-5 EXPANSION PROJECT UPDATE (POWERPOINT)</u>

# **RECEIVE AND FILE INFORMATION ITEMS**

- B. <u>ENGINEERING AND CONSTRUCTION MANAGEMENT PROJECT</u> <u>UPDATES (POWERPOINT)</u>
- C. <u>STRATEGIC PLANNING & RESOURCES ANNUAL REPORT REVISED</u> FOR NOVEMBER 2021 (WRITTEN)
- 4. GENERAL MANAGER'S COMMENTS
- 5. <u>COMMITTEE MEMBER COMMENTS</u>

# 6. <u>COMMITTEE MEMBER REQUESTED FUTURE AGENDA ITEMS</u>

# <u>ADJOURN</u>

#### DECLARATION OF POSTING

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 <u>www.ieua.org</u> 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 <u>dgarzaro@ieua.org</u>, 48 hours prior to the scheduled meeting so that IEUA can make reasonable arrangements to ensure accessibility.

# Engineering, Operations, and Water Resources Committee

# CONSENT ITEM **1A**



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

#### WEDNESDAY, OCTOBER 13, 2021 10:00 A.M.

#### COMMITTEE MEMBERS PRESENT via Video/Teleconference

Michael Camacho, Chair Marco Tule, Director

#### STAFF PRESENT

Shivaji Deshmukh, General Manager Christiana Daisy, Deputy General Manager Kathy Besser, Executive Manager of External & Government Affairs/AGM Denise Garzaro, Board Secretary/Office Manager Daniel Solorzano, Technology Specialist I Teresa Velarde, Manager of Internal Audit

#### STAFF PRESENT via Video/Teleconference

Jasmin A. Hall, President Javier Chagoyen-Lazaro, Acting Executive Manager of Finance & Administration/AGM Randy Lee, Executive Manager of Operations/AGM Christina Valencia, Executive Manager of Finance & Administration/AGM Adham Almasri, Principal Engineer Josh Biesiada, Senior Project Manager Jerry Burke, Manager of Engineering Pietro Cambiaso, Deputy Manager of Strategic Planning & Resources Robert Delgado, Manager of Operations & Maintenance Lucia Diaz, Deputy Manager of Maintenance Karen Ferrer, Assistant Engineer Julianne Frabizio, Engineer Consultant Christian Gomez, Associate Engineer Jennifer Hy-Luk, Acting Executive Assistant Joel Ignacio, Senior Engineer Scott Lening, Deputy Manager of Operations Jason Marseilles, Deputy Manager of Engineering Kanes Pantayatiwong, Manager of Business Information Systems Cathleen Pieroni, Manager of Inter-Agency Relations Mathew Poeske, Senior Engineer P.E. Sushmitha Reddy, Manager of Laboratories Jeanina Romero, Executive Assistant Victoria Salazar, Associate Engineer James Spears, Senior Engineer Travis Sprague, Principal Engineer Kenneth Tam, Deputy Manager of Strategic Planning & Resources

Engineering, Operations, and Water Resources Committee October 13, 2021 Page 2

> Wilson To, Technology Specialist II Ryan Ward, Assistant Engineer Jonathan Wu, Project Manager I Brian Wilson, Senior Engineer Jamal Zughbi, Senior Engineer/Project Manager P.E.

### 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. CONSENT ITEM

The Committee:

- Approved Minutes of the September 8, 2021 Engineering, Operations, and Water Resources Committee meeting.
- Recommended that the Board authorize the General Manager to execute the collectible work agreement with SoCalGas in the amount of \$390,156.10, subject to non-substantive changes as a Consent Calendar item on the October 20, 2021 Board meeting agenda.

## 2A - 2E. ACTION ITEMS

The Committee:

- Recommended that the Board:
  - 1. Award a construction contract for the Headquarters Parking Lot and Driveway Improvements, Project Nos. EN20008 and EN20040, to W.A. Rasic Construction Company, Inc. in the amount of \$696,288 (\$426,000 for Project No. EN20008 and \$270,288 for Project No. EN20040);
  - Amend the Total Project Budget and FY 2021/22 Budget for Headquarters Parking Lot Project No. EN20008 in the amount of \$150,000, increasing the budget from \$440,000 to \$590,000 (34% increase) in the General Administrative (GG) fund; and
  - 3. Authorize the General Manager to execute the construction contract and budget amendment, subject to non-substantive changes;
- ♦ and
  - 1. Approve a construction contract for the Glen Meade Trunk Critical Repair, Project No. EN19024, to Tharsos, Inc., in the amount of \$168,540; and
  - 2. Authorize the General Manager to execute the contract, subject to nonsubstantive changes;
- ♦ and
  - 1. Approve two construction change orders for the RP-1 Flare Improvement,

Project No. EN18006, to WM Lyles Co., for the not-to-exceed amount of \$324,977, increasing the contract from \$5,589,431 to \$5,914,408 (approximately 5.8% increase); and

- 2. Authorize the General Manager to execute the change orders and budget amendment, subject to non-substantive changes;
- ♦ and
  - 1. Ratify the emergency task order for the 42-inch Recycled Water Leak, Project No. EN22017.02, to W.A. Rasic Construction Company, Inc., in the amount of \$331,053.57;
  - Amend the Total Project Budget and FY 2021/22 Budget for the WC Emergency, Project No. EN22017, in the amount of \$350,000, increasing the budget from \$150,000 to \$500,000 (334% increase) in the Recycled Water (WC) fund; and
  - 3. Authorize the General Manager to approve the emergency task order and budget amendment, subject to non-substantive changes;
- and
  - Adopt a finding pursuant to Public Contract Code 3400(c) that the use of Horiba Advanced Techno Company Ammonia Nitrogen Meters, specifically conditions (2) to match existing product that will be in use at Regional Plant No. 5 after the completion of the expansion project; and (3) the ammonia nitrogen meters are only available from Horiba; and
  - 2. Authorize the standardization selection and sole source procurement for future O&M and capital projects;

as Consent Calendar items on the October 20, 2021 Board meeting agenda.

# 3A – 3E. INFORMATION ITEMS

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

- Operations Division Quarterly Update
- Strategic Planning & Resources Annual Report & Annual Energy Report
- RP-5 Expansion Project Update: October 2021
- COVID-19 Pandemic Impact on Capital Improvement Projects
- Engineering and Construction Management Project Updates

### 4. GENERAL MANAGER'S COMMENTS

There were no General Manager comments.

### 5. COMMITTEE MEMBER COMMENTS

Chair Camacho thanked staff for their detailed presentations.

# 6. COMMITTEE MEMBER REQUESTED FUTURE AGENDA ITEMS

Engineering, Operations, and Water Resources Committee October 13, 2021 Page 4

There were no Committee member requested future agenda items.

#### **ADJOURNMENT**

With no further business, Committee Chair Camacho adjourned the meeting at 10:59 a.m.

Respectfully submitted,

Denise Garzaro Board Secretary/Office Manager

\*A Municipal Water District

# APPROVED: NOVEMBER 10, 2021

# Engineering, Operations, and Water Resources Committee

# CONSENT ITEM **1B**



Date: November 17, 2021

To: The Honorable Board of DirectorsFrom: Shivaji Deshmukh, General ManagerCommittee: Engineering, Operations & Water Resources11/10/21

SSD

**Executive Contact:** Randy Lee, Executive Manager of Operations/AGM **Subject:** Janitorial Services Contract Award

## **Executive Summary:**

The Inland Empire Utilities Agency (Agency) has 31 buildings throughout Agency-owned facilities that require routine janitorial services. One of the responsibilities of Facilities Management is to provide a safe, clean, and healthy work environment for staff and visitors. In order to consistently meet this task, the Agency contracts with a janitorial service provider to perform the needed services. These services include all quality surface cleaning tasks, glass cleaning, shampooing carpets, trash removal, replacing water-free urinal cartridges, disinfecting restrooms and showers, exterior building pressure washing, street sweeping, as well as refrigerator cleaning. In addition, an option for preventative COVID-19 surface disinfecting services are provided as needed.

To maintain the appropriate level of service for the Agency, a Request for Proposal (RFP) RFP-TL-21-03 was posted publicly on PlanetBids on September 1, 2021, for a new service contract. Staff received three RFP bid responses and accepted two. All complete bid responses were evaluated and scored based on pre-determined weighted criteria. Based on the committee evaluation, it is recommended that Priority Building Services, LLC be awarded the Janitorial Services contract.

### **Staff's Recommendation:**

1. Approve the award of Contract No. 4600003083 to Priority Building Services, LLC to provide Janitorial Services for a total contract price not-to-exceed amount of \$1,800,000 over five years with a fixed price period of two years with three one-year options to extend with CPI increases; and

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

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

Account/Project Name:

Regional Operations and Maintenance (RO) Fund, Professional Fees and Services

Fiscal Impact (explain if not budgeted):

None

#### **Prior Board Action:**

December 16, 2015 – Janitorial Maintenance Service Contract Award, Contract No. 4600002020 December 18, 2019 – Contract Amendment for Janitorial Service, Contract Amendment No. 4600002020-009. December 16, 2020 – Contract Amendment for Janitorial Service, Contract Amendment No. 4600002020-014.

## **Environmental Determination:**

Not Applicable

#### **Business Goal:**

The Agency's Janitorial Service Contract is consistent with the IEUA's Business Goal of Business Practices specifically the Efficiency & Effectiveness objective that IEUA will apply best industry practices in all processes to maintain or improve the quality and value of the services we provide to our member agencies and the public.

#### Attachments:

Attachment 1 - PowerPoint Presentation Attachment 2 - Service Contract No. 4600003083



# **Janitorial Services Contract**

Frank Sotomayor Facilities Program Supervisor November 2021

# **Janitorial Services**

- Janitorial services are required to ensure a safe and clean environment for Agency staff to carry out essential Agency-related business.
- Contracted Services Include:
  - -Quality Cleaning Tasks
    - Glass cleaning
    - Shampooing carpet
    - Trash removal
    - Replacing water-free urinal cartridges
    - Disinfecting restrooms and showers
    - · Pressure washing exterior building
    - Street sweeping
    - Refrigerator and oven cleaning
  - Preventative COVID-19 Day Porter Services
    - Disinfection of high touch areas such as breakrooms, copy rooms, door handles, etc.





**Proposal Evaluation** 



Two proposals were received on September 22, 2021, and were scored based on predetermined weighted criteria.

# **Selection Criteria**

- Level of experience and knowledge of scope of work
- Record of performance (work history)
- Methodology to maintain a high standard of service
- Availability of staff to meet Agency's deadlines
- References
- Fees
- Exceptions taken to the specifications

Bidders Ranked	using Selection Criteria

- 1. Priority Building Services, LLC. Brea, CA
- 2. Joncowest, LLC.

Corona, CA

# **Proposal Evaluation Results**



The evaluation of the two proposals received concludes that Priority Building Services, LLC would provide best value to the Agency.

# - Best Value

• Past performance, methodology, experience, references, and competitive pricing

# - Contract term: 5 years

- Two years with fixed price
- Three one-year options to extend with Consumer Price
  Index increases
- Experience with IEUA
  - Current service provider
  - · Staff is satisfied with their services
  - Provided additional cleaning services for COVID-19





# Recommendation



- Approve the award of Contract No. 4600003083 to Priority Building Services, LLC to provide Janitorial Services for a total contract price not-to-exceed amount of \$1,800,000 over five years with a fixed price period of two years with three one-year options to extend with CPI increases; and
- Authorize the General Manager to execute the service contract.

The Agency Janitorial Services Contract, is consistent with the IEUA's **Business Goal of Business Practices** specifically the Efficiency & Effectiveness objective that IEUA will apply best industry practices in all processes to maintain or improve the quality and value of the services we provide to our member agencies and the public.

# Engineering, Operations, and Water Resources Committee

# CONSENT ITEM **1C**



Date: November 17, 2021

To: The Honorable Board of DirectorsFrom: Shivaji Deshmukh, General ManagerCommittee: Engineering, Operations & Water Resources11/10/21

SSD

Executive Contact: Christiana Daisy, Deputy General Manager

Subject: Agency-Wide Chemical Containment Rehabilitation Phase 2 Construction Contract Award

## **Executive Summary:**

In October 2019, Inland Empire Utilities Agency (IEUA) issued a contract to Harper and Associates Engineering, Inc., (HAE) to evaluate the conditions of twenty-eight chemical containment areas located at six different IEUA facilities. HAE provided a detailed condition assessment report in November 2019 with recommendations based on the field conditions of each area. Last fiscal year, using the report provided by HAE, IEUA staff prioritized and rehabilitated the most critical containment areas. Staff utilized the same report to develop this project to rehabilitate six additional deteriorated chemical containment areas within Carbon Canyon Water Reclamation Facility (CCWRF). This project will cover the remaining critical areas. All other areas were in good condition or will be rehabilitated during the RP-5 Expansion Project.

On August 31, 2021, IEUA issued an invitation for bids to specialty coating contractors listed on PlanetBids. Four bids were received on October 5, 2021. There were two non-responsive bids received. One non-responsive bidder did not acknowledge the addendum, and the other did not have a current registration with California's Department of Industrial Relations. Techno Coating Inc., was the lowest responsive, responsible bidder with a bid price of \$238,112 (engineer's estimate was \$240,000).

### **Staff's Recommendation:**

1. Award a construction contract for the Agency-Wide Chemical Containment Rehabilitation Phase 2, Project No. EN22043, to Techno Coating Inc., in the amount of \$238,112; and

2. Authorize the General Manager to execute the construction contract, subject to non-substantive changes.

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

Account/Project Name:

EN22043/Agency-Wide Chemical Containment Coating Rehabilitation Phase 2

*Fiscal Impact (explain if not budgeted):* None.

# **Prior Board Action:**

None.

# **Environmental Determination:**

Categorical Exemption

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

### **Business Goal:**

The Agency-Wide Chemical Containment Rehabilitation Phase 2 Project is consistent with IEUA's Business Goal of Wastewater Management specifically the Asset Management objective that IEUA will ensure the treatment facilities are well maintained, upgraded to meet evolving requirements, sustainably managed, and can accommodate changes in regional water use.

## Attachments:

Attachment 1 - PowerPoint Attachment 2 - Construction Contract

# **Attachment 1**

Inland Empire Utilities Agency

# Agency-Wide Chemical Containment Rehabilitation Phase 2 Construction Contract Award Project EN22043

Christian Gomez Associate Engineer November 2021

# **Project Location: Carbon Canyon**

Inland Empire Utilities Agency



# Background

# • Harper and Associates

- Contracted in October 2019
- Evaluated 28 chemical containment structures
- Recommendations report completed November 2019

# • Phase 1

-Rehabilitated four containment areas at RP-1

# • Phase 2

- Will rehabilitate six containment area at Carbon Canyon
- Remaining 18 areas
  - In good to excellent condition



**RP-1 Headworks Chemical Containment Area** 

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# **The Project**

- Recoating of six concrete chemical containment areas
- Scope of Work:
  - Prepare surfaces
  - Repair damaged concrete
  - -Apply coating to concrete surfaces



Ferric Chloride Containment





Tertiary Sodium Hypochlorite Containment

# **Contractor Selection**



# Four bids were received on October 5, 2021:

Bidder's Name	Final Bid Amount
Techno Coating Inc.	\$238,112
Tony Painting	\$238,450
Engineer's Estimate	\$240,000

\* Two other bids were considered non-responsive

# **Project Budget and Schedule**

Description	Estimated Cost
Design Services	\$3,310
IEUA Design Services (actuals)	\$3,310
Construction Services	\$50,000
IEUA Construction Services (~5%)	\$50,000
Construction	\$262,112
Construction Contract (this action)	\$238,112
Contingency (~10%)	\$24,000
Total Project Cost	\$315,422
Total Project Budget:	\$505,000

Project Milestone	Date	
Construction		
Construction Contract Award	November 2021	
Construction Completion	March 2022	

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# Recommendation



- Award a construction contract for the Agency-Wide Chemical Containment Rehabilitation Phase 2, Project No. EN22043, to Techno Coating Inc., in the amount of \$238,112; and
- Authorize the General Manager to execute the construction contract, subject to non-substantive changes.

The Agency-Wide Chemical Containment Rehabilitation Phase 2 Project is consistent with *IEUA's Business Goal of Wastewater Management*, specifically the Asset Management objective that IEUA will ensure the treatment facilities are well maintained, upgraded to meet evolving requirements, sustainability managed, and can accommodate changes in regional water use.

# Attachment 2

# Contract Number:46000003090

# AGENCY WIDE CHEMICAL CONTAINMENT AREA REHABILITATION PHASE 2

# 1.0 CONTRACT

THIS CONTRACT made and entered into this <u>17th</u> day of <u>November</u>, 20<u>21</u>, by and between Techno Coating 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 <u>IFB-JV-21-004, Project No.</u> <u>EN22043, Agency Wide Chemical Containment Areas Rehabilitation Phase</u> <u>2</u> 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: \$238,112 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 One Hundred Twenty (120) 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<sup>\*</sup>, 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.

CONTRACTOR

DocuSianed by:

Bv

<u>uff Маил</u> <sup>CFF82ABF9F974E7...</sup> Project Manager

Techno Coatings

By\_

Shivaji Deshmukh General Manager

\* A Municipal Water District

# Engineering, Operations, and Water Resources Committee

# CONSENT ITEM **1D**



**Date:** November 17, 2021

To: The Honorable Board of DirectorsFrom: Shivaji Deshmukh, General ManagerCommittee: Engineering, Operations & Water Resources11/10/21

SSD

**Executive Contact:** Christiana Daisy, Deputy General Manager **Subject:** RP-1 Flare Improvements Project Change Order - Extended Overhead

## **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. During the early stage of construction, initial potholing by the Contractor revealed multiple underground utility conflicts that interfered with the new buried digester gas pipeline alignment. Multiple solutions were evaluated, and the most feasible solution selected was to install the gas piping aboveground. This required redesigning the mechanical piping system. The redesign process occurred from August 2020 through March 2021. In October 2021, the Board approved the mechanical redesign change order for the material supply and installation. Additionally, the mechanical redesign work impacted the project schedule by fifty-five working days. Extended overhead costs include project management, project facilities, home office, labor, and equipment.

The Contractor submitted a change order request in the amount of \$157,857 to cover the above-extended overhead, 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 \$157,857, increasing the current contract from \$5,914,408 to \$6,072,265 (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 \$157,857, increasing the contract from \$5,914,408 to \$6,072,265 (approximately 2.6% increase);

2. Amend the Total Project Budget for the RP-1 Flare Improvement, Project No. EN18006, in the amount of \$1,550,000, increasing the budget from \$7,650,000 to \$9,200,000 (20% increase) in the Regional Capital Fund; and,

3. Authorize the General Manager to execute the change order and the budget amendment, subject to non-substantive changes.

Budget Impact Budgeted (Y/N): N Amendment (Y/N): Y Amount for Requested Approval: \$1,550,000

Account/Project Name:

EN18006/RP-1 Flare Improvements

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

If approved the Total Project Budget amendment, in the Regional Capital Fund, for the RP-1 Flare Improvement, Project No. EN18006, in the amount of \$1,550,000, will increase the total project budget from \$7,650,000 to \$9,200,000. The overall Regional Capital Fund can support the FY 21/22 expenses.

## **Prior Board Action:**

On October 20, 2021, the Board of Directors approved change orders for the equipment foundation modifications and mechanical redesign for the not-to-exceed amount of \$324,977. 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, and approved a total project budget amendment in the amount of \$1,968,000 in the Regional Capital Fund.

### **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.

### **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.

#### Attachments:

Attachment 1 - PowerPoint

# **Attachment 1**



# **RP-1 Flare Improvements** Construction Change Order Project No. EN18006

Jamal Zughbi, P.E. Senior Engineer November 17, 2021
# **Regional Water Recycling Plant No. 1 Project Location**



Inland Empire Utilities Agency

## **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

- Mechanical Gas Pipeline Redesign
  - Conflicts with unforeseen buried utilities
  - Redesign: August 2020 thru March 2021



Gas Holder Tank and Iron Sponge



**Underground Utilities Conflict** 

Inland Empire Utilities Agency

### **The Outcome**

#### • Mechanical Gas Pipeline Redesign

- New design above ground
- Change Order for material and installation approved October 2021
- Project delayed 55 working days
- Contractor incurred Extended Overhead Cost



#### Gas Blower Skid and Foundation



**Redesigned Mechanical Piping Partial View** 

# **Project Budget**

Description	Estimated Cost	Project Milestone	Date
Design Services	\$1,025,439	Construction Contract	
Design Services (IEUA and Consultants)	\$917,857	Construction Contract Award	June 2020
Project Development (IEUA) + Bid and Award	\$107,582	Current Construction Completion	December 2021
Construction Services	\$1,165,618	New Construction Completion	March 2022
Engineering Services During Construction (consultants)	\$331,633	New Construction Completion March 20	
IEUA Construction Services (actuals)	\$233,985		
Estimated Remaining Construction Services	\$600,000		
Construction	\$7,008,943		
Current Construction Contract	\$5,914,408		
Construction Contract Change Order (this action)	\$157,857		
Pending Change Orders (PLC TBD,11,12,13)	\$267,143		
Remaining Project Contingency	\$669,535		
Total Project Cost:	\$9,200,000		
Current Total Project Budget:	\$7,650,000		
Budget Amendment:	\$1,550,000		
Revised Total Project Budget:	\$9,200,000		

### 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 \$157,857, increasing the contract from \$5,914,408 to \$6,072,265 (approximately 2.6% increase);
- Amend the Total Project Budget for the RP-1 Flare Improvement, Project No. EN18006, in the amount of \$1,550,000, increasing the budget from \$7,650,000 to \$9,200,000 (20% increase) in the Regional Capital Fund; and,
- Authorize the General Manager to execute the change order and the budget amendment, 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.

#### Engineering, Operations, and Water Resources Committee

# ACTION ITEM **2A**



Date: November 17, 2021

To: The Honorable Board of DirectorsFrom: Shivaji Deshmukh, General ManagerCommittee: Engineering, Operations & Water Resources11/10/21

ADD

**Executive Contact:** Randy Lee, Executive Manager of Operations/AGM **Subject:** RP-5 Bird Abatement Contract Award

#### **Executive Summary:**

The Inland Empire Utilities Agency (Agency) operates five water recycling facilities. The facilities are ideal locations for birds as they seek food, water, and shelter. Regional Water Recycling Plant No. 5 (RP-5) installed permanent bird deterrent devices such as rotating mirrors, bird deterrent sound boxes, netting, and other devices due to several permit violations from bird droppings at the disinfection process several years ago. These deterrents were successful at the beginning, but now the birds have learned, and these devices are no longer effective. Based on staff's experience and risk exposure, the Operations Division is switching to a biologically based bird deterrent method using a falconer. Staff is requesting one long-term contract with a reputable and highly qualified service provider at a competitive cost. This contract will provide on-site falconry services at RP-5. On July 28, 2021, a Request for Proposal (RFP) RFP-GD-21-005 was posted publicly on PlanetBids for Bird Abatement at RP-5. Staff received one RFP bid response. The bid response was evaluated based on pre-determined criteria. Based on the evaluation, it is recommended that Adam's Falconry Service, LLC be awarded the RP-5 Bird Abatement Services contract.

#### **Staff's Recommendation:**

1. Approve the award of Contract No. 4600003080 to Adam's Falconry Service, LLC to provide RP-5 Bird Abatement Services for a total contract price not-to-exceed amount of \$195,000 over three years with two one-year options to extend; and

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

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

Account/Project Name:

Regional Operations and Maintenance (RO) Fund, Professional Fees and Services

*Fiscal Impact* (*explain if not budgeted*): None.

#### **Prior Board Action:**

None.

#### **Environmental Determination:**

**Categorical Exemption** 

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

#### **Business Goal:**

The Agency's RP-5 Bird Abatement Services Contract is consistent with the IEUA's Business Goal of Environmental Stewardship, specifically the Regulatory Compliance objective, that IEUA will comply with all federal, state, local and environmental laws and regulations.

#### Attachments:

Attachment 1 - PowerPoint Presentation Attachment 2 - Service Contract No. 4600003080



# **RP-5 Bird Abatement Contract**

Ryan Love Deputy Manager of Operations November 2021

## Background

#### • RP-5 Bird infestation:

- Ideal environment for birds
- -Birds are seeking food, water and shelter
- Nearby Chino Creek Wetlands & Education
  Park provides ideal roosting location



## Background

#### • Attempted solutions:

- Birds of prey
- -Wind powered bird reflectors
- -Audible bird deterrent
- Predator decoys
- Hazards and Ongoing Challenges:
  - $-\operatorname{Employee}$  and public safety
  - Permit compliance
  - Manpower
  - Facility aesthetics



**Proposal Evaluation** 

Proposal was scored based on the pre-determined weighted criteria.

#### **Selection Criteria**

- Prices and Fees
- Completeness of Proposal
- Relevant Experience
- References
- Methodology in Performing the Services
- Understanding of Agency's Bird Abatement Goals
- Project Approach and Technical Understanding
- Qualification of Key Personnel
- Completeness and Ability to Implement the Project on Schedule

One proposal was received on August 11, 2021:

Bid Received			
dam's Falconry Service, LLC	San Juan Capistrano, CA		



Inland Empire Utilities Agency

# **Proposal Evaluation Results**

The evaluation of the proposal received concludes that Adam's Falconry Service, LLC would provide the best value to the Agency.

- -Best Value: Reasonable pricing, methodology, experience, and references
- Environmentally friendly and effective methods
- Experience with IEUA: Successful approaches used for reduction of birds at RP-5





Inland Empire Utilities Agency

MUNICIPAL WATER DISTRICT

### Recommendation



- Approve the award of Contract No. 4600003080 to Adam's Falconry Service, LLC to provide RP-5 Bird Abatement Services for a total contract price not-to-exceed amount of \$195,000 over three years with two one-year options to extend; and
- Authorize the General Manager to execute the service contract.

The Agency's RP-5 Bird Abatement Services Contract is consistent with the IEUA's **Business Goal of Environmental Stewardship**, specifically the Regulatory Compliance objective, that IEUA will comply with all federal, state, local and environmental laws and regulations.

Engineering, Operations, and Water Resources Committee

# INFORMATION ITEM **3A**

Inland Empire Utilities Agency A MUNICIPAL WATER DISTRICT

# **RP-5 Expansion Project Update:** November 2021 Project Nos. EN19001 and EN19006

Brian Wilson, P.E. Senior Engineer November 2021 **RP-5: Project Status** 

Day 473 of 1640 = 29%



Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT

### **RP-5: Project Status Changes**

	Amount	Quantity
Original Contact	\$329,982,900	
Change Order (CO)	\$ 1,930,596	58
Request For Deviation (RFD)	\$ 2,562,251	120
Changes Total (CO+RFD)	\$4,492,847	178
% Change of Contract	1.4%	
% of Contingency	13.6%	

#### **RP-5: Major Activity Areas**

Inland Empire Utilities Agency

#### Construction Staff

- WML Craft: 170
- WML Project: 34
- IEUA & CM: 15
- Total: 219





**Influent Pump Station** 



#### **Primary Clarifiers**



Inland Empire Utilities Agency A MUNICIPAL WATER DISTRICT

7

#### **Micro-tunneling**

(Overflow pipeline from Influent Pump Station to the Emergency Overflow Pond)



**Micro-tunneling** 

(Overflow pipeline from Influent Pump Station to the Emergency Overflow Pond)

Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT



#### **Membrane Bioreactor (MBR) Phase 1**

Inland Empire Utilities Agency





#### **Membrane Bioreactor (MBR) Phase 1**



#### **Membrane Bioreactor (MBR) Phase 1**

Inland Empire Utilities Agency

**Acid Phase Digester** 

#### Thickening Building Gas Phase Digesters



#### Warehouses

THE R. L.

Inland Empire Utilities Agency

**Dewatering Building Warehouses Blower Building 2**<sup>14</sup>



Flyover



Engineering, Operations, and Water Resources Committee

# INFORMATION ITEM **3B**



# **Engineering and Construction Management Project Updates**

Jerry Burke, PE Manager of Engineering November 2021



Project Location Map

### **RP-1 Hot Water Loop Replacement** Project Goal: Improve Reliability

Inland Empire Utilities Agency A MUNICIPAL WATER DISTRICT



Hot Water Loop Leak

Total Project Budget: \$1.5 M Project Completion: August 2021 Construction Percent Complete: 100%

Phase	Consultant/ Contractor	Current Contract	Amendments/ Change Orders
Design	Kennedy Jenks	\$25 K	0%
Construction (Current)	Ferreira	\$1.1 M	13%

Project Management Team			
Project Manager:	Spears, James		
Assistant/Associate Engineer:	Gomez, Christian		
Administrative Assistant:	Wood and Associates		
Inspector:	Hull, Kurt		
Inland Empire Utilities Agency

# **RP-1 Thickening Building & Acid Phase Digester**

Project Goal: Increase Useful Life, Productivity and Efficiency

# Total Project Budget: \$100 M Project Completion: June 2026 Design Percent Complete: 5%

Phase	Consultant/ Contractor	Current Contract	Amendments/ Change Orders
Design (Current)	Carollo	\$6.5 M	0%
Construction	TBD	\$0	0%

Project Management Team					
Project Manager:	Simpson, James				
Assistant/Associate Engineer:	Asprer, Kevin				
Administrative Assistant:	Ferguson, Jennifer				
Inspector:	TBD				



Site Layout

# **RP-3 Basin Improvements**

Project Goal: Increase Storm and Recycled Water Recharge



Total Project Budget: \$24 M Project Completion: December 2021 Construction Percent Complete: 35%

Phase	Consultant/ Contractor	Current Contract	Amendments/ Change Orders	
Design	Stantec/Carollo	\$136 K	21%	
Construction (Previous)	James McMinn, Inc.	\$750 K	11%	
Construction (Current)	Metro Builders	\$ 634 K	0%	
	Project Manag	ement Team		
Project Manager:		Ignacio, Joel		
Assistant/Associate Engineer:		Ward, Ryan		
Administrative Assistant:		GK & Associates		
Inspector:		Jones, Nicolas		

Inland Empire Utilities Agency

UNICIPAL WATER DISTRIC

Engineering, Operations, and Water Resources Committee

# INFORMATION ITEM **3C**



**Date:** November 17, 2021

To: The Honorable Board of DirectorsFrom: Shivaji Deshmukh, General ManagerCommittee: Engineering, Operations & Water Resources11/10/21

SSD

**Executive Contact:** Christiana Daisy, Deputy General Manager **Subject:** Strategic Planning & Resources Annual Report - Revised for November 2021

#### **Executive Summary:**

The Inland Empire Utilities Agency (IEUA) monitors and compiles water use data including recycled water use for the Planning Annual Report. Staff previously submitted the Planning Annual Report for Fiscal Year 2020/2021 during the October 20, 2021 Board of Director's Meeting as a receive and file item. An error was identified on Table 14 of the Annual Report, which summarizes the 10-Year Projected Equivalent Dwelling Unit (EDU) values of the IEUA Regional Contracting Agencies. The error has been corrected in the updated Planning Annual Report - Revised for November 2021.

#### **Staff's Recommendation:**

This is a revised informational item for the Board of Directors to receive and file.

Budget Impact Budgeted (Y/N): N Amendment (Y/N): N Amount for Requested Approval: \$0 Account/Project Name: N/A

Fiscal Impact (explain if not budgeted):

#### **Prior Board Action:**

The Strategic Planning & Resources Annual Report - October 2021 was receive and filed by the Board of Directors on October 20, 2021.

**Environmental Determination:** Not Applicable

#### **Business Goal:**

The Strategic Planning & Resources Annual Report is consistent with the Agency's Business Goals of Business Practices and Environmental Stewardship by providing an evaluation of Agency activities and being committed to the responsible use and protection of the environment through conservation and sustainable practices.

#### Attachments:

Attachment 1 - SPAR Annual Report (Revised for November 2021)

Inland Empire Utilities Agency

# **Planning Annual Report**

# Fiscal Year 2020/2021



**Revised for November 2021** 

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\*Ten Year Projected EDU Activity located on page 19 revised October 26, 2021

# **INTRODUCTION**

The Inland Empire Utilities Agency (IEUA) is located in Western San Bernardino County and serves approximately 900,000 residents in a 242-square mile service area. As a regional wastewater treatment agency, IEUA provides wastewater utility services to seven regional contracting agencies (RCAs) under the Chino Basin Regional Sewage Service Contract: cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Upland, and Cucamonga Valley Water District (CVWD) in the city of Rancho Cucamonga. In addition to the RCAs, the Agency provides wholesale imported water from the Metropolitan Water District of Southern California (MWD) to seven retail agencies: the cities of Chino, Chino Hills, Ontario, Upland, CVWD in the city of Rancho Cucamonga, Fontana Water Company in the city of Fontana, and the Monte Vista Water District in the city of Montclair.

In addition to providing these key services, IEUA also produces and distributes high quality recycled water, implements the Chino Basin stormwater/groundwater recharge program, and provides regional water resources planning to ensure reliable, cost-effective environmentally responsible water supplies for current and future customers. The purpose of the Strategic Planning Annual Report (SPAR) is to provide annually updated information about the IEUA service area's potable water, recycled water, groundwater, and wastewater. This report also provides a holistic summary of historic trends, usage patterns, current programs, and future forecasts.

# **SECTION 1: ANNUAL IEUA SERVICE AREA WATER USE**

IEUA monitors and compiles water use data from each of its retail agencies to track overall water demands and sources of supply. Annual water use is split between potable water usage and the direct use of recycled water. IEUA's regional water usage in FY 20/21 was 202,776 AF (183,242 AF potable usage and 19,534 AF recycled direct usage). Recycled water used for groundwater recharge is not included in this total but can be found in Section 2 of the SPAR.



Figure 1 – FY 20/21 IEUA Service Area Water Use

# **Current Potable Water Use**

Total potable water consumption within IEUA's service area for FY 20/21 was 183,242 AF. This is approximately a 4% increase (7,413 AF) from FY 2019/20 potable consumption of 175,829 AF. The region is now using approximately 11% less potable water than before the recent drought in FY 13/14 when potable consumption was at 205,381 AF. MWD Tier 1 imported water use in the region slightly increased from 66,438 AF in FY 19/20 to 71,444 AF in FY 20/21. Both FY 19/20 and FY 20/21 MWD usage includes Dry Year Yield (DYY) water supplies. For more information on DYY, see "Dry Year Yield" in section 2 of the SPAR. A breakdown of the IEUA regional usage can be found in Table 2, while a breakdown of the retail water agencies' FY 20/21 water usage can be found in Appendix B.

### **Projected Imported Water Use**

Demands for MWD Tier 1 imported water brought into the region through IEUA were projected to 2045 as part of the 2020 Urban Water Management Plan (2020 UWMP). The 2020 UWMP imported water demand projections were supplied by the retail agencies to IEUA. IEUA expects imported demand to increase over the next 25 years based on the 2020 UWMP projections.

Retail Agency	2025	2030	2035	2040	2045
Chino	5,353	5,353	5,353	5,353	5,353
Chino Hills	7,153	7,367	7,711	7,758	7,802
CVWD	28,369	28,369	28,369	28,369	28,369
FWC	15,000	15,000	15,000	15,000	15,000
MVWD	5,000	5,000	5,000	5,000	5,000
Ontario	11,000	13,000	15,000	17,000	17,000
Upland	5,541	5,541	5,541	5,541	5,541
Total	77,416	79,630	81,974	84,021	84,065

#### Table 1 – Projected Imported Water Use Demands by Retail Agency (AF)

		IEUA Service Area Potable Water Use FY20/21 (AF)												
		July	August	September	October	November	December	January	February	March	April	May	June	Total
Burchasos from IELIA	Imported MWD	5,020	5,593	5,107	4,141	3,324	2,604	3,177	2,705	3,454	3,497	4,598	5,224	48,444
Purchases ITOITTEOA	DYY Take	<mark>3,</mark> 533	3,333	3,333	2,500	1,500	2,000	-	-	-	2,000	2,600	2,200	23,000
	Subtotal	8,553	8,927	8,440	6,641	4,824	4,604	3,177	2,705	3,454	5,497	7,198	7,424	71,444
	Chino Groundwater	5,256	5,490	4,736	5,540	4,276	4,390	3,961	3,977	4,284	5,085	5,254	6,437	58,687
Production	Other Groundwater	2,732	3,042	2,682	2,442	2,070	1,724	1,769	1,568	1,608	1,895	2,054	2,070	25,654
	Local Surface Water	1,795	1,339	1,099	1,074	1,097	827	973	979	870	805	661	462	11,981
	Subtotal	9,784	9,871	8,517	9,056	7,443	6,941	6,703	6,524	6,762	7,785	7,968	8,970	96,322
	CDA	1,315	1,333	1,276	1,607	1,450	1,553	1,519	1,166	1,347	1,252	1,324	1,451	<i>16,593</i>
	CVWD	-	-	-	-	-	-	-	-	-	-	-	-	-
Purchases	MVWD	700	803	798	548	335	177	239	342	311	325	536	508	5,621
	SAWCo	1,365	1,142	906	789	755	417	579	489	554	788	885	884	<u>9,552</u>
	West End	203	226	190	183	146	205	139	145	127	160	120	183	2,027
	Subtotal	3,583	3,503	3,169	3,127	2,686	2,352	2,476	2,142	2,339	2,525	2,866	3,025	33,794
	Chino Hills	(947)	(1,037)	(1,015)	(833)	(543)	<mark>(524)</mark>	(317)	(353)	<mark>(408)</mark>	(634)	(819)	(719)	(8,150)
Salar	Ontario	(47)	(46)	(45)	(45)	(44)	(28)	(44)	(41)	(44)	(42)	(34)	(40)	(500)
Jales	MVWD	(53)	(52)	(51)	(51)	(104)	(87)	(86)	<mark>(46)</mark>	(50)	(47)	(38)	(45)	(709)
	Upland	(1,318)	(1,149)	(861)	(743)	(657)	(334)	(499)	(449)	(509)	(746)	(851)	<mark>(844)</mark>	(8,959)
	Subtotal	(2,365)	(2,283)	(1,971)	(1,673)	(1,347)	(973)	(946)	(889)	(1,012)	(1,469)	(1,742)	(1,648)	(18,318)
	Total	19,555	20,018	18,155	17,151	13,605	12,923	11,411	10,482	11,543	14,338	16,291	17,771	183,242

#### Table 2 – Fiscal Year 2020/2021 Regional Potable Monthly Water Use



Figure 2 – IEUA Service Area Potable Water Use

# **Current Recycled Water Use**

IEUA is the wholesale recycled water provider to the RCAs which work as or with retail agencies to directly serve their customers. IEUA contracting/retail water agencies which served recycled water in 2020/21 include:

- City of Chino
- City of Chino Hills
- Cucamonga Valley Water District (CVWD)
- City of Fontana (through FWC)
- City of Montclair (through MVWD)
- City of Ontario
- City of Upland

Fontana Water Company (FWC) and Monte Vista Water District (MVWD) are the water retailers in the Cities of Fontana and Montclair, respectively, but are not IEUA regional contracting agencies. FWC and MVWD retail recycled water obtained from their overlying cities, which are IEUA regional contracting agencies. San Bernardino County is currently a direct use customer of IEUA based on long standing historical contracts. Total recycled water direct use within the region was 19,534 AF in FY 20/21.

Table 5 Recycled Water Demand by Agency for 11 20/21						
Retail Agency	Direct Use (AF)	Percent of Direct Demand				
Chino	5,643	29%				
Chino Hills	1,668	9%				
CVWD	1,222	6%				
Fontana/FWC	425	2%				
Montclair/MVWD	343	2%				
Ontario	8,556	44%				
Upland	772	4%				
IEUA	628	3%				
San Bernardino County	277	1%				
Total	19,534	100%				

#### Table 3 – Recycled Water Demand by Agency for FY 20/21

#### **Projected Recycled Water Use**

Direct recycled water use in the IEUA service area has been projected out to 2040 in both the 2020 UWMP and as part of the Recycled Water Demand Forecast Technical Memorandum (Demand Forecast). The 2020 UWMP recycled water projections were supplied by the retail agencies to IEUA as part of the 2020 UWMP. The Demand Forecast recycled water projections utilized land use-based demand modeling completed by IEUA in conjunction with the retail agencies in 2015 and were subsequently updated in 2021.

Retail Agency	<b>Projection Source</b>	2025	2030	2035	2040
China	2020 UWMP	4,500	4,500	4,000	3,800
Chino	Demand Forecast	5,498	5,780	5,961	6,178
China Hills	2020 UWMP	1,609	1,609	1,609	1,609
CIIIIO HIIIS	Demand Forecast	1,858	2,047	2,047	2,626
	2020 UWMP	1,800	2,000	2,000	2,000
CVWD	Demand Forecast	2,032	2,288	2,513	2,674
FWC	2020 UWMP	1,000	1,500	2,000	2,500
	Demand Forecast	994	1,392	1,911	2,000
	2020 UWMP	1,100	1,100	1,100	1,100
	Demand Forecast	359	363	396	398
Ontorio	2020 UWMP	12,168	13,465	14,330	16,059
Ontario	Demand Forecast	9,188	10,383	10,814	12,820
Upland	2020 UWMP	703	703	703	703
	Demand Forecast	940	1,022	1,062	1,158
Total	2020 UWMP	22,880	24,877	25,742	27,771
lotal	Demand Forecast	20,869	23,275	24,704	27,854

#### Table 4 – Projected Recycled Water Direct Use Demand by Retail Agency (AF)

# **Projected Regional Water Use**

Projected water use was calculated as part of the development of the 2020 UWMP. IEUA collected each retail agencies' projected water use from their respective UWMP and totaled the use to obtain a regional water use projection. Regional water use projections include both potable and recycled water direct use.

				0 / ( /	
Retail Agency	2025	20302	2035	2040	2045
Chino	20,843	22,310	23,087	23,963	25,108
Chino Hills	17,120	17,334	17,678	17,725	17,769
CVWD	53,369	58,092	59,650	60,949	60,949
FWC	45,593	46,909	47,665	50,442	51,943
MVWD	14,232	14,564	15,175	15,437	15,706
Ontario	52,550	58,513	63,406	73,668	73,668
Upland	25,328	25,328	25,328	25,328	25,328
Total	229,035	243,050	251,989	267,512	270,471

#### Table 5 – 2020 UWMP Projected Water Demand by Retail Agency (AF)

Projected water use was also calculated as part of the 2015 Integrated Resources Plan (2015 IRP), which developed a range of demand possibilities to accommodate for future uncertainty caused by the various demand factors including climate change. This analysis came from demand modeling conducted as part of the 2015 IRP and 2015 Urban Water Management Plan (2015 UWMP), which found that new developments in the region are more water efficient due to changes in the plumbing code, higher density developments with less landscaping, and compliance landscape ordinance requirements set forth in AB1881.

#### Table 6 – 2015 IRP Demand Forecast (AF)

Urban M&I Forecast	2015	2020	2040
High Forecast	225,000	230,000	267,000
Medium Forecast	225,000	220,100	238,600
Low Forecast	225,000	212,000	217,400



Figure 3 – IEUA Regional Water Use and Projections

The 2020 UWMP and 2015 IRP both reach approximately 267,000 AF in the year 2040. However, IEUA's actual FY 20/21 regional water use of 202,776 AF (183,242 AF potable use and 19,534 AF recycled direct use) is below the 2020 low demand forecast of 212,000 AF outlined in IEUA's 2015 IRP. A continuous focus on water use efficiency and per capita reductions, as required in SB X7-7, AB 1668, and SB 606 is anticipated to reduce per capita water use and demands. IEUA anticipates a slight increase in FY21/22 water use due to the continually growing population in the region and the general climate change trend of projected temperature increases. However, long-term demands are not expected to exceed the peak 10-year demand reached during FY 13/14.

In addition to the increase in projected water use, an increase to the number of Meter Equivalent Units (MEUs) in the region is also anticipated. For FY 21/22 it is projected that the region will contain 413,826 MEUs, an increase of 4,937 MEUs from FY 20/21's actual MEUs count of 408,889.

Retail Agency	FY 20/21 Actual MEUs	FY 21/22 Projected MEUs
Chino	39,264	40,238
Chino Hills	39,499	38,924
CVWD	105,805	106,006
FWC	90,162	91,413
MVWD	21,901	21,979
Ontario	76,459	78,166
Upland	32,779	33,966
WVWD*	3,020	3,134
Total	408,889	413,826

\*IEUA and WVWD have a shared service area for emergency supply

#### SECTION 2: GROUNDWATER RECHARGE DELIVERIES

#### **Historical Groundwater Recharge Deliveries**

The Chino Basin is one of the largest groundwater basins in Southern California containing approximately 5,000,000 AF of water with an un-used storage capacity of approximately 1,000,000 AF. Groundwater from the Chino Basin accounts for approximately 29% of FY 20/21, regional water supplies. The Chino Basin is an adjudicated basin and has been overseen by the Chino Basin Watermaster (CBWM) since 1978. The basin is dependent on rainfall and supplemental sources for recharge.

IEUA, in coordination with CBWM, the Chino Basin Water Conservation District (CBWCD), San Bernardino County Flood Control District (SBCFCD), the Chino Desalter Authority (CDA), and local agencies capture water for replenishment. Sources include recycled water from IEUA's regional water recycling plants, stormwater and dry weather flow capture, and imported water recharge.

Recharged imported water is either purchased by a local agency, requested by the Chino Basin Watermaster to maintain safe operating yield of the basin, used to blend down recharged recycled water TDS levels, or as part of the Chino Basin Dry-Year Yield (DYY) Program. Total groundwater recharge delivered to the Chino Basin in FY 20/21 was 23,430 AF. Groundwater recharge deliveries is water delivered to recharge facilities and does not take into consideration evaporative or other losses that may occur prior to recharge.

	0
Groundwater Recharge Source	Recharge (AF)
Recycled Water	16,253
Stormwater & Dry Weather Flow	4,911
Imported Water	2,266
IEUA (MWD)	0
DYY Puts*	0
TVMWD (MWD)**	2,266
Total	23,430

# Table 8 – FY 20/21 Groundwater Recharge Purchases

\*DYY Puts Exclude aquifer storage and recovery

\*\* Three Valleys Municipal Water District (TVMWD) purchases water directly from MWD.



Figure 4 – FY 20/21 Groundwater Recharge Deliveries

Recycled water groundwater recharge use was 16,253 AFY in FY 20/21, up 21% from FY 19/20's recycled water ground water recharge of 13,381 AF. Recycled water is recharged by IEUA on behalf of its RCAs and retail water agencies.

Retail Agency	Recharge (AF)
Chino	-
Chino Hills	1,463
CVWD	9,336
Fontana/FWC	3,185
Montclair/MVWD	737
Ontario	-
Upland	1,531
Subtotal	16,253

Table 9 – FY 20/21 Recycled Groundwater Recharge Deliveries by Agency

FY 20/21 was a 5 year low for groundwater recharge totals but was also the highest recycled water recharge recorded to date at over 16,000 AF. The overall decrease to recharged is due in part to low precipitation rates reducing stormwater availability and MWD not requesting the storage of any water for the DYY program in FY 20/21.



Figure 5 – Historical Groundwater Recharge Deliveries

# **Projected Groundwater Recharge Deliveries**

It is projected that future groundwater recharge delivery projections will remain at an estimated 16,420 AFY of recycled water as outlined in the 2018 Recharge Master Plan Update. Due to the unpredictability of storm events and variability of imported water for groundwater recharge in the IEUA region, the five-year average was taken to determine the projected recharge of stormwater and dry weather flows and imported water. It is estimated that future groundwater

recharge will contain 8,761 AF of stormwater and dry weather flows and 2,549 AF of imported water. Imported groundwater projections do not include DYY values as continued storage of DYY water is not expected to continue past FY 20/21.

Groundwater Recharge Source	Projected Groundwater Recharge (AFY)			
Recycled Water	16,420			
Stormwater & Dry Weather Flow	8,761			
Imported Water (No DYY)	2,549			
Total	27,730			

Table 10 – Projected Groundwater Recharge Deliveries by Source

# Dry Year Yield

The DYY program provides for the storage of up to 100,000 AF of water in a MWD Storage Account in the Chino Basin pursuant to the Groundwater Storage Program Funding Agreement dated June 2003 and as subsequently amended. Signatories to the Phase I Agreement are:

- Metropolitan Water District of Southern California,
- Inland Empire Utilities Agency
- Three Valleys Municipal Water District
- Chino Basin Watermaster

The DYY Agreement provides for storage of up to 25,000 AF per year unless Chino Basin Watermaster allows for more, and extraction, at MWD's call during dry years, of up to 33,000 AF per year not to exceed the amount of water in the Metropolitan Storage Account (DYY Account). In February 2019, the signatories expanded the extraction provisions so that water could be voluntarily extracted from the DYY Account outside of call years, with approval from the signatories.

From June 2017 through June 2021 a total of 64,830 AF were stored in the DYY Account; 59,894 AF by groundwater recharge and 4,936 AF by Aquifer Storage and Recovery (ASR) injected water. From July 2019 through June 2021 Cucamonga Valley Water District and Fontana Water Company have voluntarily extracted 40,395 AF, leaving the account with a balance of 24,435 AF.

DYY Account Balance (June 2017-June 2021)			
"PUTS"			
Recharged Water	59,894		
ASR Injection	4,936		
"TAKES"			
CVWD	37,895		
FWC	2,500		
Total	24,435		

#### Table 11 – DYY Account Balance

The voluntary production projection for FY 21/22 is shown in Table 11. Signatories have agreed for Cucamonga Valley Water District and Fontana Water Company to extract the remaining DYY Account balance by June 2022.

#### Table 12 – DYY Voluntary Production Projections

Agency	Baseline	July-December 2021 Production	Jan-June 2022 Production	Total DYY Voluntary Production
CVWD	5,536	13,000	5,000	18,000
FWC	863	4,000	1,000	5,000

### SECTION 3: SANTA ANA REGIONAL BASEFLOW OBLIGATION

### Santa Ana River Regional Baseflow Obligation

The Santa Ana River has a regional baseflow obligation established by past judgment. The baseflow obligation is a joint obligation between IEUA and Western Municipal Water District to ensure an average of 42,000 AF at Prado Dam. The minimum baseflow obligation was reduced to 34,000 AF after 1986 as long as no cumulative baseflow debt exists. In Water Year 2019/2020, baseflow at Prado Dam was 74,465 AF. More information about the Santa Ana River baseflow obligation can be found in the Santa Ana River Watermaster Annual Report (https://www.wmwd.com/292/Santa-Ana-Watermaster-Reports).



DISCHARGE OF SANTA ANA RIVER AT PRADO STARTING WITH 1934-35

Figure 6 – Discharge of Santa Ana River at Prado Source: Santa Ana River Watermaster Annual Report 2019-2020

### **SECTION 4: WASTEWATER**

#### Wastewater Actuals

Over the past decade the IEUA service area has experienced an increase in indoor water use efficiency as a direct result of drought, shifting public policy, more efficient building and plumbing codes, and effective conservation program campaigns. This increased efficiency has decreased the volume of wastewater flows received by IEUA treatment plants by approximately 10% since 2010. While the flows have continued to decrease, the regional population has continued to grow. The combination of an increased population but reduced wastewater flow has resulted in an increase in the strength of the wastewater coming into IEUA's treatment facilities. This trend of increased wastewater strength is expected to continue as both the population and regional water efficiency continue to increase. Current and future wastewater treatment plant expansions are driven by the increased strength of wastewater flows to the facilities, rather than the volume of flows to the facilities.





Figure 8 – Historical Regional Influent Flows

While wastewater flows have decreased from FY 09/10, recycled water use has increased. This increase in recycled water utilization can be attributed to the San Bernardino Avenue Lift Station and the Montclair Lift Station. The Montclair Lift Station pumps wastewater from portions of Montclair, Upland, and Chino to IEUA's RP-1 and CCWRF treatment plants. The San Bernardino Ave Pump Station pumps a portion of the flow from the City of Fontana to IEUA's RP-4 treatment plant. Together, these lift stations help shift flows that would naturally flow from one portion of the service area to a different treatment plant to balance flows and keep water in the northern portion of the service area. This shift in flows allows IEUA to maximize the potential for recycled water use. These lift stations also increase regional system flexibility and allow the treatment plants to operate as an interconnected system.

Equivalent Dwelling Unit (EDU) activity has increased from FY 19/20 to FY 20/21 with the addition of 5,281 EDUs to the region compared to the addition of only 3,435 EDUs the previous fiscal year. The additional EDUs added in FY 20/21 are 3,732 EDUs lower than the RCAs projections of 9,013 EDUs and 1,281 EDUs more than the IEUA Budgeted Projections of 4,000 EDUs. Two sets of projections exist to allow for conservative estimates on both the flow and financial aspects of EDUs. The RCAs projections are required under the Regional Sewage Service Contract and serve as a planning tool for plant treatment capacity. Under the Regional Sewage Service Contract, RCAs who report EDU projections that are lower than what the regional experiences may have building moratoriums imposed. For this reason, the RCAs may make projections conservatively high. Budgeted projections on the other hand are used by IEUA to project future needs. To ensure fund availability, budgeted projections are conservatively low. The result of both sets of projections is the assumption that projections are conservative, ensuring IEUA treatment plants can handle the added load while also ensuring the agency does not over project fund availability.

Building Activity for Last Five Fiscal Years (FY 15/16 through FY 19/20)					
Year	Building Activity (EDUs)	Budgeted Projections (EDUs)	RCAs Projections (EDUs)		
FY 15/16	4,787	4,330	5,849		
FY 16/17	5,189	3,000	5,277		
FY17/18	5,223	4,000	5,442		
FY 18/19	3,459	4,000	6,149		
FY 19/20	3,435	4,000	6,390		
FY 20/21	5,281	4,000	9,013		





Figure 9 – FY 20/21 Building Activity

### **Wastewater Projections**

Wastewater flow forecasts are conducted annually and are based on four main components: (1) historical wastewater flow trends; (2) per dwelling unit wastewater generation factors, based on the 2015 Wastewater Facilities Master Plan Update (WWFMPU) projections; (3) actual influent flows measured at the treatment plants; and (4) expected future growth numbers provided by the RCAs. These projections are used to determine future demands on the Agency's facilities and help anticipate the need for modifications to treatment plants and solids handling facilities.

The WWFMPU identified the projected flows to the treatment plants in 2035 through 2060. The WWFMPU estimates that there will be a regional flow of 73.5 MGD by 2035 and an ultimate/build-out flow of 80 MGD by 2060. The increase in flows implies that there will be facility expansions over the next 20 years.

In 2021, the RCAs completed a survey of their 10-year capacity demand forecast. The results of the 10-year capacity demand forecast survey are summarized in Table 12. For FY 2021/22, the forecasted activity was 13,538 EDUs. Over the next ten years, activity was projected to total 100,857 EDUs region wide. Approximately 77% of this projected activity is a result of new development in the service areas of Ontario and Fontana. Over the next ten years, building activity is projected to be approximately 80% residential and 20% commercial/industrial.



Figure 10 – FY 20/21 10-Year Growth Forecast

	Chino	Chino Hills	CVWD	Fontana	Montclair*	Ontario	Upland	Total
Fiscal Year	EDUs	EDUs	EDUs	EDUs	EDUs	EDUs	EDUs	EDUs
FY 21/22	434	138	2,050	1,792	474	3,780	476	9,144
FY 22/23	396	361	2,050	1,863	106	3,382	456	8,614
FY 23/24	396	570	1,650	1,935	26	3,382	351	8,310
FY 24/25	396	391	1,250	2,011	26	3,382	271	7,727
FY 25/26	396	200	890	2,089	26	2,660	176	6,437
FY 26/27	395	276	490	2,171	26	2,520	100	5,978
FY 27/28	285	231	490	2,171	26	2,410	55	5,668
FY 28/29	285	1	490	2,171	26	2,410	0	5,383
FY 29/30	235	1	490	2,171	26	2,410	0	5,333
FY 30/31	235	1	490	2,171	26	2,410	0	5,333
TOTAL	3,453	2,170	10,340	20,545	788	28,746	1,885	67,927

#### Table 14 – 10 Year Projected EDU Activity\*\*

\*The City of Montclair's forecasts have been extended from last Fiscal Year as a completed 2021 10-year capacity demand forecast was not completed. \*\*EDU values revised October 26, 2021.

**APPENDIX A: ACRONYMS** 

**AF: Acre Feet AFY: Acre Feet per Year ASR: Aquifer Storage and Recovery CBWCD: Chino Basin Water Conservation District CBWM: Chino Basin Water Master CDA: California Desalter Authority CVWD: Cucamonga Valley Water District DYY: Dry Year Yield Program EDU: Equivalent Dwelling Unit FWC: Fontana Water Company IEUA: Inland Empire Utilities Agency IRP: 2015 Integrated Resource Plan MEUs: Meter Equivalent Units MGD: Million Gallons per Day** MVWD: Monte Vista Water District **MWD: Metropolitan Water District of Southern California SPAR: Strategic Planning Annual Report RCAs: Regional Contracting Agencies** SAR: Santa Ana River **SBCFCD: San Bernardino County Flood Control District UWMP: Urban Water Management Plan** WVMWD: West Valley Municipal Water District WWFMPU: 2015 Wastewater Facilities Master Plan Update **APPENDIX B: RETAIL AGENCY WATER USE CHARTS** 


























