

I hereby certify that the following Agenda was posted at least 72 hours prior to the time of the Board Meeting so noticed below, at the usual agenda posting location of the South Orange County Wastewater Authority [SOCWA] and at www.socwa.com.



Betty Burnett, General Manager
SOCWA and the Board of Directors thereof

AGENDA

*Regular Meeting
of the
South Orange County Wastewater Authority
Board of Directors*

To Be Held by Teleconference on:
November 4, 2021
8:30 a.m.

MEMBERS OF THE PUBLIC ARE INVITED TO PARTICIPATE IN THIS TELECONFERENCE MEETING AND MAY JOIN THE MEETING VIA THE TELECONFERENCE PHONE NUMBER AND ENTER THE ID CODE. THIS IS A PHONE CALL MEETING AND NOT A WEB-CAST MEETING SO PLEASE REFER TO AGENDA MATERIALS AS POSTED ON THE WEBSITE AT WWW.SOCWA.COM. ON YOUR REQUEST, EVERY EFFORT WILL BE MADE TO ACCOMMODATE PARTICIPATION. IF YOU REQUIRE ANY SPECIAL DISABILITY RELATED ACCOMMODATIONS, PLEASE CONTACT THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY SECRETARY'S OFFICE AT (949) 234-5452 AT LEAST **SEVENTY-TWO (72)** HOURS PRIOR TO THE SCHEDULED MEETING TO REQUEST DISABILITY RELATED ACCOMMODATIONS. THIS AGENDA CAN BE OBTAINED IN ALTERNATE FORMAT UPON REQUEST TO THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY'S SECRETARY AT LEAST **SEVENTY-TWO (72)** HOURS PRIOR TO THE SCHEDULED MEETING.

AGENDA ATTACHMENTS AND OTHER WRITINGS THAT ARE DISCLOSABLE PUBLIC RECORDS DISTRIBUTED TO ALL, OR A MAJORITY OF, THE MEMBERS OF THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY BOARD OF DIRECTORS IN CONNECTION WITH A MATTER SUBJECT TO DISCUSSION OR CONSIDERATION AT AN OPEN MEETING OF THE BOARD OF DIRECTORS ARE AVAILABLE BY PHONE REQUEST MADE TO THE AUTHORITY ADMINISTRATIVE OFFICE AT 949-234-5452. THE AUTHORITY ADMINISTRATIVE OFFICES ARE LOCATED AT 34156 DEL OBISPO STREET, DANA POINT, CA ("AUTHORITY OFFICE"), BUT ARE NOT OPEN TO THE PUBLIC DURING THE PERIOD OF STAY AT HOME ORDERS IF SUCH WRITINGS ARE DISTRIBUTED TO MEMBERS OF THE BOARD OF DIRECTORS LESS THAN **SEVENTY-TWO (72)** HOURS PRIOR TO THE MEETING, THEY WILL BE SENT TO PARTICIPANTS REQUESTING VIA EMAIL DELIVERY. IF SUCH WRITINGS ARE DISTRIBUTED IMMEDIATELY PRIOR TO, OR DURING, THE MEETING, THEY WILL BE AVAILABLE IMMEDIATELY ON VERBAL REQUEST TO BE DELIVERED VIA EMAIL TO REQUESTING PARTIES.

FOR MEETING PARTICIPATION:

Join Zoom Meeting

<https://socwa.zoom.us/>

Meeting ID: 831 5433 8453
Passcode: 462045

One tap mobile

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Find your local number: <https://socwa.zoom.us/j/kcVe77mrSM>

AGENDA

1. **CALL MEETING TO ORDER**
2. **PLEDGE OF ALLEGIANCE**
3. **ORAL COMMUNICATIONS**

MEMBERS OF THE PUBLIC MAY ADDRESS THE BOARD REGARDING AN ITEM ON THE AGENDA OR MAY RESERVE THIS OPPORTUNITY DURING THE MEETING AT THE TIME THE ITEM IS DISCUSSED BY THE BOARD. THERE WILL BE A THREE-MINUTE LIMIT FOR PUBLIC COMMENTS.

PAGE NO

4. **CONSENT CALENDAR**

A. Minutes of Board Meeting 1

1. Board of Directors – Closed Session Minutes September 2, 2021
2. Board of Directors - Closed Session Minutes September 24, 2021

ACTION The Board will be requested to approve subject Minutes as submitted.

B. Minutes of Executive Committee Meeting 3

1. Executive Committee Closed Session Minutes October 5, 2021
2. Executive Committee Closed Session Minutes October 18, 2021

ACTIONS The Executive Committee will be requested to approve subject Minutes as submitted; and the Board of Directors will be requested to receive and file subject Minutes.

C. Minutes of PC 23 Committee Meeting5

- PC 23 Committee Minutes October 7, 2021

ACTIONS The PC 23 Committee will be requested to approve subject Minutes as submitted; and the Board of Directors will be requested to receive and file subject Minutes.

D. Minutes of Finance Committee Meeting7

- Finance Committee Minutes September 21, 2021

ACTION The Board of Directors will be requested to receive and file subject Minutes as submitted.

E. Minutes of Engineering Committee Meeting11

- Engineering Committee Minutes August 12, 2021

ACTION The Board of Directors will be requested to receive and file subject Minutes as submitted.

F. Financial Reports for the Month of July 202116

The reports included are as follows:

1. Summary of Disbursements for July 2021 (Exhibit A)
 - ***The July Disbursements did include payment amounts to West Yost.***
2. Schedule of Funds Available for Reinvestment (Exhibit B)
 - Local Agency Investment Fund (LAIF)
3. Schedule of Cash and Investments (Exhibit C)
4. Capital Schedule (Exhibit D)
 - Capital Projects – Graph (Exhibit D-1)
5. Budget vs. Actual Expenses:
 - Operations and Environmental Summary (Exhibit E-1)
 - Operations and Environmental by PC (E-1.2)
 - Residual Engineering, after transfer to Capital (Exhibit E-2)
 - Administration (Exhibit E-3)
 - Information Technology (IT) (Exhibit E-4)

ACTION The Finance Committee recommends to the Board of Directors to ratify the July 2021 disbursements for the period from July 1, 2021, through July 31, 2021, totaling \$6,771,917, and to receive and file the July 2021 Financial Reports as submitted.

G. Financial Reports for the Month of August 202132

The reports included are as follows:

1. Summary of Disbursements for August 2021 (Exhibit A)
 - ***The August Disbursements did include payment amounts to West Yost.***
2. Schedule of Funds Available for Reinvestment (Exhibit B)
 - Local Agency Investment Fund (LAIF)
3. Schedule of Cash and Investments (Exhibit C)
4. Capital Schedule (Exhibit D)
 - Capital Projects – Graph (Exhibit D-1)

5. Budget vs. Actual Expenses:

- Operations and Environmental Summary (Exhibit E-1)
- Operations and Environmental by PC (E-1.2)
- Residual Engineering, after transfer to Capital (Exhibit E-2)
- Administration (Exhibit E-3)
- Information Technology (IT) (Exhibit E-4)

ACTION The Finance Committee recommends to the Board of Directors to ratify the August 2021 disbursements for the period from August 1, 2021, through August 31, 2021, totaling \$3,118,837, and to receive and file the August 2021 Financial Reports as submitted.

H. Financial Reports for the Month of September 202149

The reports included are as follows:

1. Summary of Disbursements for September 2021 (Exhibit A)
2. Schedule of Funds Available for Reinvestment (Exhibit B)
 - Local Agency Investment Fund (LAIF)
3. Schedule of Cash and Investments (Exhibit C)
4. Capital Schedule (Exhibit D)
 - Capital Projects – Graph (Exhibit D-1)
5. Budget vs. Actual Expenses:
 - Operations and Environmental Summary (Exhibit E-1)
 - Operations and Environmental by PC (E-1.2)
 - Residual Engineering, after transfer to Capital (Exhibit E-2)
 - Administration (Exhibit E-3)
 - Information Technology (IT) (Exhibit E-4)

ACTION The Finance Committee recommends to the Board of Directors to ratify the September 2021 disbursements for the period from September 1, 2021, through September 30, 2021, totaling \$2,474,901, and to receive and file the September 2021 Financial Reports as submitted.

I. September 2021 Operations Reports67

1. Monthly Operational Report
2. SOCWA Ocean Outfall Discharges by Agency
3. Quarterly Report on Key Operational Expenses
4. Beach Ocean Monitoring Report
5. Recycled Water Report
6. Pretreatment Report

ACTION The Board will be requested to receive and file the September Operations Reports.

J. Capital Improvement Program Status Report119

ACTION Information Item

K. Capital Improvement Program Project Financial Status and Change Orders
[Project Committees 2, and 15]125

ACTION The Engineering Committee recommends:

- to the PC-2 Board of Directors to approve Olsson Construction Change Order 29 for \$7,269 and Change Order 30 for \$8,045 for a total of \$15,315 and a revised contract price of \$18,516,758 for the JBL Package B Project and;
- to the PC-15 Board of Directors to approve PCL Change Order 29 for \$2,638, Change Order 30 for \$12,168, Change Order 31 for \$1,907, Change Order 32 for \$10,294, Change Order 33 for \$3,714, Change Order 34 for \$2,301, Change Order 35 for \$1,094, Change Order 36 for \$2,547, Change Order 37 for \$9,699, Change Order 38 for \$10,314 for a total of \$56,676 and a revised contract price of \$8,479,237 for the CTP Facility Improvements Project.

L. Passage of AB 361 – Allowing for Virtual Meetings – Findings and Approval to
continue virtual meetings144

ACTION The staff recommends the Board of Directors approve the findings and actions:

1. The Board hereby FINDS AND DECLARES that it has reconsidered the circumstances of the proclaimed state of emergency declared by the Governor on March 4, 2020 relating to the Covid-19 pandemic;
2. Based on the information provided in this staff report and pursuant to the information and discussion presented in the November 4, 2021 Board meeting, the Board hereby FINDS AND DECLARES that the state of emergency continues to directly impact the ability of the members to meet safely in person; and/or that state and/or local officials continue to impose or recommend measures to promote social distancing;
3. The Board hereby makes these findings and approves for the upcoming 30-day period, November 4, 2021 to December 2, 2021, regular and special meetings of the SOCWA Board and its Standing Committees and Project Committees will continue to be virtual meetings held in accordance with AB 361'S Public Notice and Public Participation requirements.
4. Staff is hereby directed to notice the December 9, 2021 board meeting as a virtual meeting if the proclaimed state of emergency remains, and to place AB 361 findings on the agenda for consideration at that meeting so that the Board can at that point in time make a determination regarding whether as a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees. Note that if the Board does not make this finding

by majority vote at the December 9th meeting, it will have to conclude the meeting and re-notice the meeting as an in-person meeting no less than 72 hours later.

5. ENGINEERING MATTERS

- A. Consequence of Failure Analysis Overview and J.B. Latham Report [Project Committees 2, 15, and 17].....166

ACTION Information Item, Board Discussion and Direction

6. GENERAL MANAGER’S REPORTS

- A. Resolution No. 2021-07: A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY REGARDING BASIN PLAN AMENDMENT, to accomplish an extension related to the Triennial Review.....213

ACTION Staff recommends the Board to approve:

1. Adoption Resolution 2021-07: A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY REGARDING BASIN PLAN AMENDMENT, to accomplish an extension related to the Triennial Review.
2. The additional work on the Triennial Review to be funded by Santa Margarita Water District and Moulton Niguel Water District in the amount of not to exceed \$250,000 per fiscal year (extension to original contract August 14, 2019, of \$750,000) with a term not to exceed three additional years.

- B. Update Regional Science Forum Proposal.....218

ACTION Staff recommends Board of Directors lend support to formation of the Regional Science Forum in cooperation with Santa Margarita Water District and San Juan Basin Authority and directs staff to return to SOCWA Board with estimated supporting information and costs.

- C. Contract Award to Nexustek for Information Technology/Hosting Services.....235

ACTION Staff recommends award of a multi-year contract to NexusTek for Information Technology/Hosting Monthly Services in an amount not to exceed \$68,000 in annual costs.

- D. Contract Extension Award to Northstar Chemical for Sodium Hydroxide [Project Committee Nos. 2, 15, 17].....236

ACTION Staff recommends award of a 1-year contract extension to Mile Chemical, Inc. for sodium hydroxide at the proposed rates, plus applicable fees and taxes, including applicable charges for split load deliveries.

E. Unison Solutions, Inc. 3-Year Service Agreement/Renewal for \$44,770 [Project Committee No. 2]	239
ACTION Staff recommends the Board of Directors authorize the General Manager to execute the new three (3) year JBL Gas Skid Service Agreement with Unison Solutions, Inc. in the amount of \$44,770.00.	
F. Unison Solutions, Inc. 2-Year Budget Authorization for Carbon Media Purchases \$150, 000 [Project Committee No. 2].....	241
ACTION Staff recommends the Board of Directors authorize the General Manager purchasing authority for JBL PC-2 to procure wood-based carbon media as budgeted over the next two (2) years in the amount not to exceed \$150,000.00.	
G. Enrollment in Southern California Edison’s Emergency Load Reduction Program [Project Committee Nos. 15 and 17]	243
ACTION Staff recommends the Board of Directors authorize the General Manager to execute the Agreement for Customers Enrolling Multiple Services Accounts in the Emergency Load Reduction Program with Southern California Edison.	
H. Contract Award to Sunset Property Services for Street Sweeping Services [Project Committee Nos. 2, 15 and 17]	245
ACTION Staff recommends 1) the award of a contract to Sunset Property Services for two (2) years for a not to exceed the amount of \$30,840.00, and 2) the approval of up to 3 annual optional renewals upon mutual agreement of both parties.	
I. Conferences and Training Year to Date.....	247
ACTION Information Item, Board Discussion and Direction.	
J. General Counsel’s Updates.....	
K. General Manager’s Report	1249
<ul style="list-style-type: none">• Update Ocean Outfall Flows Inception to Date – Director of Operations, Jim Burror• Update Recycled Water – Wastewater Supply vs. Production Report – Director Environmental Compliance, Amber Baylor• Review of Proposed Meeting Calendar beginning January 2022 – Asst Secretary to Board, Danita Hirsh• County Agreements – Alert OC and 800 MHZ Radio have been executed by the General Manager	
ACTION Information Items, Board Discussion and Direction	

7. CLOSED SESSION

- A. A Closed Session Conference with Legal Counsel Anticipated Litigation
 - Significant exposure to litigation pursuant to Government Code Section § 54956.9(d)(2): 1 matter
- B. A Closed Session conference with General Counsel Litigation in one matter: SOCWA vs. Pac Hydro, et al., Pursuant to Government Code Section § 54956.9.
- C. Report out of Closed Session

8. OTHER MATTERS

Open discussion or items received too late to be agendaized.

Note: Determine the need to take action on the following item(s) introduced by the General Manager which arose subsequent to the agenda being posted.

[Adoption of this action requires a two-thirds vote of the Board, or if less than two-thirds this are present a unanimous vote.]

ADJOURNMENT

THE NEXT SOCWA BOARD MEETING
DECEMBER 9, 2021

**MINUTES OF SPECIAL MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
Board of Directors**

DRAFT

September 2, 2021

The Special Meeting of the South Orange County Wastewater Authority (SOCWA) Board of Directors was held on September 2, 2021, to begin at 10:00 a.m. (or immediately following the SOCWA Regular Board Meeting) at 26880 Aliso Viejo Parkway, Aliso Viejo, California, and via Zoom. The following members of the Board of Directors were present in-person and via Zoom Meeting:

DAN FERONS	Santa Margarita Water District	Director [in-person]
DAVID SHISSLER	City of Laguna Beach	Alternate Director [in-person]
KATHRYN FRESHLEY	El Toro Water District	Director [in-person]
MIKE DUNBAR	Emerald Bay Service District	Director [in-person]
STEPHEN DOPUDJA	Trabuco Canyon Water District	Director [in-person]
KEVIN BURTON	Irvine Ranch Water District	Alternate Director [in-person]
DAVE REBENS DORF	City of San Clemente	Director [Zoom]
SCOTT GOLDMAN	South Coast Water District	Director [in-person]
HOWARD HART	City of San Juan Capistrano	Alternate Director [Zoom]
STEPHEN DOPUDJA	Trabuco Canyon Water District	Director [in-person]

Staff Present:

BETTY BURNETT General Manager

Also Present:

ADRIANA OCHOA Procopio Law
BRAD NEUFELD Varner & Brandt Law

1. CALL TO ORDER

Vice Chair Collings called the meeting to order at 12:08 p.m.

2. PUBLIC COMMUNICATIONS

None

3. CLOSED SESSION

A Closed Session Conference was held with Legal Counsel pursuant to Government Code Section § 54957 – Public Employee Performance Evaluation – Title: General Manager.

The Board reconvened to Opened Session at 2:59 p.m.

There were no reportable actions out of Closed Session.

ADJOURNMENT

There being no further business, Director Collings adjourned the meeting at 3:00 p.m.

I HEREBY CERTIFY that the foregoing Minutes are a true and accurate copy of the Minutes of the Special Meeting of the South Orange County Wastewater Authority Board of Directors on September 2, 2021 and approved by the Board of Directors of the South Orange County Wastewater Authority.

Betty Burnett, General Manager/Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

**MINUTES OF SPECIAL MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
Board of Directors**

DRAFT

September 24, 2021

The Special Meeting of the South Orange County Wastewater Authority (SOCWA) Board of Directors was held on September 24, 2021, at 9:00 a.m. at 26880 Aliso Viejo Parkway, Aliso Viejo, California, and via Zoom. The following members of the Board of Directors were present in-person and via Zoom Meeting:

DAN FERONS	Santa Margarita Water District	Director [in-person]
DAVID SHISSLER	City of Laguna Beach	Alternate Director [Zoom]
KATHRYN FRESHLEY	El Toro Water District	Director [in-person]
MIKE DUNBAR	Emerald Bay Service District	Director [in-person]
STEPHEN DOPUDJA	Trabuco Canyon Water District	Director [in-person]
KEVIN BURTON	Irvine Ranch Water District	Alternate Director [in-person]
DAVE REBENDSORF	City of San Clemente	Director [Zoom][arrived @ 9:07 a.m.]
SCOTT GOLDMAN	South Coast Water District	Director [in-person]
HOWARD HART	City of San Juan Capistrano	Alternate Director [Zoom]
STEPHEN DOPUDJA	Trabuco Canyon Water District	Director [in-person]

Staff Present:

BETTY BURNETT General Manager

Also Present:

ADRIANA OCHOA Procopio Law
BRAD NEUFELD Varner & Brandt Law

1. CALL TO ORDER

Vice Chair Collings called the meeting to order at 9:04 a.m.

2. PUBLIC COMMUNICATIONS

None

3. CLOSED SESSION

A Closed Session Conference was held with pursuant to Government Code Section § 54957, Public Employee Discipline/Dismissal/Release.

The Board reconvened to Opened Session at 11:41 a.m.

There were no reportable actions out of Closed Session.

ADJOURNMENT

There being no further business, Director Collings adjourned the meeting at 11:43 a.m.

I HEREBY CERTIFY that the foregoing Minutes are a true and accurate copy of the Minutes of the Special Meeting of the South Orange County Wastewater Authority Board of Directors on September 24, 2021 and approved by the Board of Directors of the South Orange County Wastewater Authority.

Betty Burnett, General Manager/Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

**MINUTES OF SPECIAL MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY**

DRAFT

Executive Committee

October 5, 2021

The Special Meeting of the South Orange County Wastewater Authority (SOCWA) Executive Committee Meeting was held on October 5, 2021 at 10:30 a.m. via teleconference from the Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members of the Executive Committee were present:

MATT COLLINGS	Moulton Niguel Water District	Director
DAN FERONS	Santa Margarita Water District	Director
SCOTT GOLDMAN	South Coast Water District	Director
STEPHEN DOPUDJA	Trabuco Canyon Water District	Director

Staff Participation:

BETTY BURNETT	General Manager
DANITA HIRSH	Executive Assistant

Also Participating:

ADRIANA OCHOA	Procopio Law Firm
BRAD NEUFELD	Varner & Brandt, LLC

1. Call Meeting to Order

Chairman Collings called the meeting to order at 10:33 a.m.

2. Public Comments

None.

3. CLOSED SESSION

A Closed Session Conference was held in pursuant to pursuant to Government Code Section § 54957 – Public Employee Performance Evaluation – Title: General Manager.

The Executive Committee Members convened to Closed Session at 10:36 a.m.

The Executive Committee Members reconvened to Open Session at 11:27 a.m.

There were no reportable actions out of Closed Session.

Adjournment

There being no further business, Chairman Collings adjourned the meeting at 11:28 a.m.

I HEREBY CERTIFY that the foregoing Minutes are a true and accurate copy of the Minutes of the Special Meeting of the South Orange County Wastewater Authority Executive Committee of October 5, 2021 and approved by the Executive Committee and received and filed by the Board of Directors of the South Orange County Wastewater Authority.

Betty Burnett, General Manager / Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

**MINUTES OF SPECIAL MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY**

DRAFT

Executive Committee

October 18, 2021

The Special Meeting of the South Orange County Wastewater Authority (SOCWA) Executive Committee Meeting was held on October 18, 2021 at 2:00 a.m. via teleconference from the Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members of the Executive Committee were present:

MATT COLLINGS	Moulton Niguel Water District	Director
DAN FERONS	Santa Margarita Water District	Director
SCOTT GOLDMAN	South Coast Water District	Director
STEPHEN DOPUDJA	Trabuco Canyon Water District	Director

Staff Participation:

DANITA HIRSH	Executive Assistant
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Also Participating:

BRAD NEUFELD	Varner & Brandt, LLC
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1. Call Meeting to Order

Chairman Collings called the meeting to order at 2:00 p.m.

2. Public Comments

Ms. Hirsh reminded the Committee that the next Regular Executive Committee Meeting is November 9, 2021 at 9:00 a.m.

3. CLOSED SESSION

A Closed Session Conference was held in pursuant to pursuant to Government Code Section § 54957 – Public Employee Performance Evaluation – Title: General Manager.

The Executive Committee Members convened to Closed Session at 2:03 p.m.

The Executive Committee Members reconvened to Open Session at 3:03 a.m.

There were no reportable actions out of Closed Session.

Adjournment

There being no further business, Chairman Collings adjourned the meeting at 3:03 p.m.

I HEREBY CERTIFY that the foregoing Minutes are a true and accurate copy of the Minutes of the Special Meeting of the South Orange County Wastewater Authority Executive Committee of October 18, 2021 and approved by the Executive Committee and received and filed by the Board of Directors of the South Orange County Wastewater Authority.

Betty Burnett, General Manager / Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

**MINUTES OF SPECIAL MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY**

DRAFT

Project Committee No. 23

October 7, 2021

The Special Meeting of the South Orange County Wastewater Authority (SOCWA) Project Committee 23 Meeting was held on October 7, 2021 at 8:00 a.m. via teleconference from the Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members of the Project Committee 23 were present via Teams Meeting:

MIKE DUNBAR	Emerald Bay Service District	Director
DAVID SHISSLER	City of Laguna Beach	Alternate Director

Staff Participation:

BETTY BURNETT	General Manager
JIM BURROR	Director of Operations
DANITA HIRSH	Executive Assistant

Also Participating:

ADRIANA OCHOA	Procopio Law
SCOTT GOLDMAN	South Coast Water District
RICK SHINTAKU	South Coast Water District
ALLISON BURNS	Stradling Law

1. Call Meeting to Order

Chairman Dunbar called the meeting to order at 8:02 a.m.

2. Public Comments

None.

3. Open Session

- Agreement Between City of Laguna Beach, South Coast Water District and South Orange County Wastewater Authority on behalf of Project 23 for Design, Construction, Use, and Operation of Intertie Project

Ms. Betty Burnett, General Manager stated Ms. Adriana Ochoa, General Counsel will provide a summary of the work, of the participants and counsels for South Coast and the City in preparation of the agreement. Ms. Burnett commented she read over the document and was able to provide comments to Adriana. She also stated she understand the structure of the project and it seems to be quite reasonable for PC 23's participation.

Ms. Ochoa stated consistent with the last couple of sessions of conversations with the PC 23 meetings this project arises from City of Laguna Beach handling of the Regional Board issue relating to the Thanksgiving 2019 spill event from the North Coast Interceptor.¹ She stated this is part of the enhanced compliance action that City of Laguna Beach agreed to with the

¹ In November 2019, during a significant rain event over Thanksgiving weekend, a sanitary sewer overflow ("SSO") event occurred and the City discharged approximately 1,270,000 gallons of untreated raw sewage at Aliso Creek. In resolution of its liability for the SSO, the City negotiated the terms of a Stipulated Order (Settlement Agreement and Stipulation for Entry of Administrative Civil Liability Order No. R9-2021-0008, Place ID 631920, "Stipulated Order") entered into between the City and the San Diego Regional Water Quality Control Board.

Regional Board, and separately, it's part of South Coast's planning. Ms. Ochoa noted both agencies would benefit from the redundancy line that the Intertie Project would provide to both agencies. She noted SOCWA's PC 23 participation is very minimal. All costs, and all responsibilities with respect to construction and maintenance and operation will be paid for by South Coast and City of Laguna Beach. Ms. Ochoa also noted SOCWA/PC 23 involvement is only to allow permission to connect to the NCI and a characterization of that flow and how that flow will be treated once it's in the NCI and flows over to the Coastal Treatment Plant. Ms. Ochoa commented that she has been in close touch with counsel on behalf of South Coast and the City of Laguna Beach, and the only thing that's missing from the agreement is "Exhibit C" which the parties are still working on. The parties being South Coast and City of Laguna Beach. Ms. Ochoa stated "Exhibit C" should not be a very consequential exhibit for SOCWA because all it does is set forth the cost estimate and proportionate share of total costs between South Coast and City of Laguna Beach. SOCWA is not incurring any costs as a result of the project and will not be included in the exhibit. Ms. Ochoa stated the recommendation is to approve the Intertie Project Agreement as the City of Laguna Beach and South Coast will also be taking the agreement to their respective Boards later this month.

Ms. Burnett commented it might be good to give Ms. Ochoa as counsel, and myself as General Manager on behalf of PC 23 permission to enter into the Agreement if there are no substantive revisions to the document.

ACTION TAKEN

Motion was made by Director Shissler and seconded by Director Dunbar: Approval of Agreement Between City of Laguna Beach, South Coast Water District and South Orange County Wastewater Authority on behalf of Project 23 for Design, Construction, Use, and Operation of Intertie Project subject to review of Exhibit C.

Motion carried:	Aye 2, Nay 0, Abstained 0, Absent 0
	Director Dunbar Aye
	Director Shissler Aye

Adjournment

There being no further business, Chairman Dunbar adjourned the meeting at 8:17 a.m.

I HEREBY CERTIFY that the foregoing Minutes are a true and accurate copy of the Minutes of the Special Meeting of the South Orange County Wastewater Authority Project Committee No. 23 of October 7, 2021 and approved by the Project Committee No. 23 and received and filed by the Board of Directors of the South Orange County Wastewater Authority.

Betty Burnett, General Manager/Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

**MINUTES OF SPECIAL MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY**

Finance Committee

September 21, 2021

The Special Meeting of the South Orange County Wastewater Authority (SOCWA) Finance Committee Meeting was held on September 21, 2021 at 10:30 a.m. via teleconference from the Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members of the Finance Committee were present via Teams Meeting:

DAN FERONS	Santa Margarita Water District	Director
DAVID SHISSLER	City of Laguna Beach	Alternate Director [arrived @ 10:33 a.m.]
DENNIS CAFFERTY	El Toro Water District	Alternate Director
MATT COLLINGS	Moulton Niguel Water District	Director
PAMELA ARENDS-KING	South Coast Water District	Alternate Director

Absent:

SERGIO FARIAS	City of San Juan Capistrano	Director
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Staff Participation:

BETTY BURNETT	General Manager
AMBER BAYLOR	Director of Environmental Compliance
JASON MANNING	Director of Engineering
JIM BURROR	Director of Operations
MARY CAREY	Finance Controller
KONSTANTIN SHILKOV	Senior Accountant
NADYN KIM	Accountant
ANNA SUTHERLAND	Accounts Payable
DAVID BARANOWSKI	Senior Engineer
RONI YOUNG	Associate Engineer
JEANETTE COTINOLA	Contracts/Procurement Administrator
MATT CLARKE	IT Administrator
DANITA HIRSH	Executive Assistant

Also Participating:

ADRIANA OCHOA	Procopio Law Firm
MARY BETH REDDING	Bartel & Associates
KATHRYN FRESHLEY	El Toro Water District
TREVOR AGRELIUS	Moulton Niguel Water District
SHERRY WANNINGER	Moulton Niguel Water District
GAVIN CURRAN	City of Laguna Beach
JASON HAYDEN	El Toro Water District
EILEEN LIN	Irvine Ranch Water District
KEN DOMER	City of Laguna Beach

1. Call Meeting to Order

Chairman Ferons called the meeting to order at 10:32 a.m.

2. Public Comments

None

3. Approval of Minutes

- Finance Committee Meeting of August 17, 2021

ACTION TAKEN

Motion was made by Director Arends-King and seconded by Director Ferons to approve Finance Committee Meeting Minutes for August 17, 2021 as submitted.

Motion carried:	Aye 4, Nay 0, Abstained 1, Absent 1
	Director Ferons Aye
	Director Shissler Abstain
	Director Farias Absent
	Director Cafferty Aye
	Director Collings Aye
	Director Arends-King Aye

4. Financial Reports for the Month of July 2021

Ms. Burnett noted for the record to inform the Board of any items in the disbursements that related to payments to the West Yost contract. She commented that the July disbursements does contain disbursements to West Yost and would appear on the Consent Calendar allowing Director Dopudja to recuse or abstain as he appropriately elects.

ACTION TAKEN

Motion was made by Director Cafferty and seconded by Director Shissler to recommend to the Board of Directors to ratify the July 2021 disbursements for the period of July 1 through July 31, 2021, totaling \$6,771,917, and to receive and file the July 2021 Financial Reports as submitted.

Motion carried:	Aye 5, Nay 0, Abstained 0, Absent 1
	Director Ferons Aye
	Director Shissler Aye
	Director Farias Absent
	Director Cafferty Aye
	Director Collings Aye
	Director Arends-King Aye

5. Draft GASB 75, OPEB/Retiree Health, Report for the Fiscal Year Ended June 30, 2021

Ms. Carey reported on the OPEB/Retiree Health for the period of December 31, 2020 to the Fiscal Year Ended June 30, 2021.

As recommended by staff, the Finance Committee reviewed the report as an information item; no action was taken.

6. CalPERS Pension Plan and OPEB (Retiree Health) Unfunded Termination Liabilities Calculation for an individual Agency-Draft Template and Assumptions

Ms. Mary Beth Redding of Bartels & Associates gave a PowerPoint presentation (see pages 22 thru 72 of the Finance Committee Agenda Packet) on the GASB 74/75 Actuarial Valuation for Fiscal Year Ending June 30, 2021. An open discussion ensued.

This was an information item; no action was taken.

7. Uniform Purchasing Policy and Procedure – Nondiscretionary Spending

Ms. Burnett, General Manager stated this has been a long-standing open item and Directors indicated they are interested in adjustments to the Uniform Purchasing Policy and Procedure having to do with non-discretionary spending. The staff report captures input from Director Collings providing the way in which MNWD looks at authority to spend. Ms. Burnett also stated Director Ferons has talked about concerns over breaking contracts up into small pieces for the same purchase in the same time period. The item is brought now to give the Finance Committee Directors an opportunity to comment on Exhibit 2. She noted there was no change to the Exhibit 2 language the last time the Policy was formerly amended.

Ms. Burnett also stated Director Cafferty had comments and thoughts on the subject which she would like to get again so as to make some progress moving forward on what will help the Board to feel secure that staff is spending within authorization of the Board.

Ms. Burnett noted that if Board Members desire to select or approve particular kinds of vendors or services those could be identified by the Committee. Staff is requesting comments from the Committee members to help identify changes desired. An open discussion ensued.

Director Collings stated the fundamental question for him is if there is discretion as to who the vendor is that we're utilizing to provide a service then it should not be considered non-discretionary. He continued stating there isn't discretion as to paying the San Diego Gas & Electric bill, but who provides your landscape maintenance services is very much an action of discretion that the Board should approve if it's over \$50k. He stated historically the Board has approved the Landscape Contract and that he didn't understand its listing in Exhibit 2 as nondiscretionary if you're already bringing it to the Board for approval.

Director Collings noted that as to the general definition the term nondiscretionary would apply to items that you do not have the discretion to change the vendor or who you're writing the check to or in such case things like insurance and legal counsel are things that generally are long standing items that require a lot of lead up to change. Another example would be software license agreements. You're not going to change your Blackbaud. That is nondiscretionary until you decide to change out Blackbaud because that's such a huge lead item. Director Collings stated that is how he looks at, and in his mind makes sense, but is open to discussion and comments on that. An open discussion ensued.

Director Ferons stated he is in agreement commenting that past practice has been to bring back the landscape contracts, and the chemical contracts. He noted where the discretion comes in is not necessarily in selecting the vendor and contractor in that annual amount. He noted once you have a chlorine vendor and going to purchase the amount of chlorine to use to run the plant, your point is selection based on unit prices is linked to the contract.

It's all of those variables once that is established. If you have a three-year contract, then in years two and three you don't need to approve that contract because you already know the unit price was established in those years as much as possible. An open discussion ensued.

Director Arends-King stated she also agrees with Director Collings and Director Ferons. She stated when she read through discretionary and nondiscretionary in the SOCWA Purchasing Policy it was a bit confusing. She stated her interpretation of discretionary and nondiscretionary falls in line with what Director Collings previously stated, and that Director Ferons was also correct. Director Arends-King stated if you have a three-year contract with chemicals or landscaper and you went out to bid and got the best price, then you know what that is and approved a three-year contract. She noted it's still discretionary because you went out and got bids with that vendor and you have the contract. It becomes nondiscretionary because you have a three-year contract. She commented that she would be more inclined to agree with Director Collings viewpoint on the policy vs. what's in it now. An open discussion ensued.

Director Cafferty stated he also agreed with Director Collings comments. He stated if it's something that you're choosing between vendors whether it its landscaping, there is a variety of the facilities maintenance agreements that could be of any different vendors that has some sort of process to select from, and for those contracts to exceed \$50k, he would expect they would go to the Board for approval. Director Cafferty also agreed that some of those services maybe not all is not going to make sense to bid them every year. He commented that it is a common practice to bring it to the Board even on a continuing contract but you can set that up as part of the budget process to acknowledge that certain of those services through the budget are assuming the continuation of an existing contract so it doesn't have to come back as an individual action item. Director Cafferty stated I think we're all saying the same thing but the kind of fundamental point Director Collings makes about the ability to choose between different vendors if it exceeds the purchasing authority of the General Manager then the Board should approve it. An open discussion ensued.

Director Ferons directed Ms. Burnett, General Manager to take the comments provided and do a revised mark-up to the purchasing policy for the Finance Committee to review.

This was an information item; no action was taken.

Adjournment

There being no further business, Chairman Ferons adjourned the meeting at 11:59 a.m.

I HEREBY CERTIFY that the foregoing Minutes are a true and accurate copy of the Minutes of the Regular Meeting of the South Orange County Wastewater Authority Finance Committee of September 21, 2021 and approved by the Finance Committee and received and filed by the Board of Directors of the South Orange County Wastewater Authority.

Betty Burnett, General Manager/Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

**MINUTES OF REGULAR MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
Engineering Committee**

August 12, 2021

The Regular Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee Meeting was held on August 12, 2021, at 8:30 a.m. via teleconferencing from the Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members of the Engineering Committee were present via Teams Meeting:

DAVID SHISSLER	City of Laguna Beach
DAVE REBENS DORF	City of San Clemente
MIKE MARQUIS	City of San Juan Capistrano
DENNIS CAFFERTY	El Toro Water District
ROD WOODS	Moulton Niguel Water District
DON BUNTS	Santa Margarita Water District
MARC SERNA	South Coast Water District
LORRIE LAUSTEN	Trabuco Canyon Water District

Absent:

MIKE DUNBAR	Emerald Bay Service District
KEVIN BURTON	Irvine Ranch Water District

Staff Present:

JASON MANNING	Director of Engineering
JIM BURROR	Director of Operations
AMBER BAYLOR	Director of Environmental Compliance
DAVID BARANOWSKI	Senior Engineer
RONI YOUNG	Associate Engineer
JEANETTE COTINOLA	Procurement/Contracts Administrator
MATT CLARKE	IT Administrator
DANITA HIRSH	Executive Assistant

Also Present:

TARYN KJOLSING	South Coast Water District
MATT COLLINGS	Moulton Niguel Water District
SHERRY WANNINGER	Moulton Niguel Water District
JESUS GARIBAY	Moulton Niguel Water District

1. Call Meeting to Order

Mr. Manning, Director of Engineering called the meeting to order at 8:32 a.m.

2. Public Comments

None

3. Approval of Minutes

- Engineering Committee Meeting of May 13, 2021

ACTION TAKEN

Motion was made by Mr. Bunts seconded by Mr. Shissler to approve the Engineering Committee Minutes of May 13, 2021, as submitted.

Motion Carried: Aye 6, Nay 0, Abstained 2, Absent 2
David Shissler (CLB) Aye
Dave Rebensdorf (CSC) Abstain
Mike Marquis (CSJC) Aye
Mike Dunbar (EBSD) Absent
Dennis Cafferty (ETWD) Abstain
Kevin Burton (IRWD) Absent
Rod Woods (MNWD) Aye
Marc Serna (SCWD) Aye
Don Bunts (SMWD) Aye
Lorrie Lausten (TCWD) Aye

- Engineering Committee Meeting of June 10, 2021

ACTION TAKEN

Motion was made by Mr. Bunts seconded by Mr. Shissler to approve the Engineering Committee Minutes of May 13, 2021, as submitted.

Motion Carried: Aye 5, Nay 0, Abstained 3, Absent 2
David Shissler (CLB) Aye
Dave Rebensdorf (CSC) Abstain
Mike Marquis (CSJC) Aye
Mike Dunbar (EBSD) Absent
Dennis Cafferty (ETWD) Abstain
Kevin Burton (IRWD) Absent
Rod Woods (MNWD) Aye
Marc Serna (SCWD) Aye
Don Bunts (SMWD) Aye
Lorrie Lausten (TCWD) Abstain

4. Operations Report

Mr. Burror reported that SCADA licenses for the facilities are coming up for renewal, and with the latest cost increase being over \$50,000 the item will be going to the Board in September. Mr. Burror also reported staff is quickly working on installing proper access into Digesters 1 and 2. He noted that he is currently reviewing the 80% design drawing and is preparing his questions before sharing with his team. He noted the goal is to stay within the 90-day window for cleaning the Digesters which will be challenging due to excessive rag and debris materials that need to be removed from inside of the Digester. An open discussion ensued.

This was an information item; no action was taken.

5. Use Audit Flow and Solids Methodology – Annual Update FY 20-21

Ms. Baylor reported that on page 3 of the staff report Table 4 for PC 17 Solids numbers was updated to apply the standard methodology that had been used and approved over the past three years. She noted the efforts being made to drive efficiencies in the water information system by automating the reports. Ms. Baylor stated she had received requests from El Toro Water District to include their solids concentration into pounds of solids. She noted when she initiated the data points into the automated report it resulted in a misallocation of solids. This

was pointed out by Mr. Dunbar of Emerald Bay Services District (EBSD) which resulted in the updated tables based on the Use Audit Methodologies in the report presented today. She also noted she provided the Excel table that contains the raw data to Jason, Director of Engineering who will distribute to the member agencies today. Ms. Baylor stated she is looking for the Engineering Committee's approval for the underlying methods for allocations for the Use Audit. An open discussion ensued.

Mr. Woods of Moulton Niguel Water District (MNWD) commented he typically would have questions and look forward to receiving the Excel table to review internally with Moulton's staff. He noted, they would need some time to review the data and get back to Ms. Baylor with any questions or comments.

Ms. Baylor responded that she would also be available to schedule a separate meeting to address the raw data if needed.

Mr. Bunts of Santa Margarita Water District (SMWD) stated on Table 2 of the summary table, he asked if the sum of reclaimed water used from the 3A Plant is split with MNWD. Mr. Bunts stated SMWD did not produce any reclaimed water from 3A with MNWD.

Ms. Baylor stated the tables were provided by Jesus Garibay of MNWD which are essentially a standing ratio of what is distributed from 3A.

Mr. Bunts stated he was initially comfortable with the tables being presented because SMWD receives the same tables as it relates to the annual or monthly production from 3A. He noted because there is no ratio, he thinks the number is zero, but would like to confirm the data.

Ms. Baylor responded she will pull the raw data into the calculations to show the variable input into the tables and will follow up with Mr. Bunts by email so that he will have the information and will include Mr. Woods on the correspondence so that everyone is on the same page.

Mr. Serna of South Coast Water District (SCWD) requested confirmation on Table 1 of the PC 2 Liquids with the average over three years if the loadings were the solids summary loadings. Ms. Baylor responded that they are.

Mr. Serna asked Ms. Baylor to confirm the values that are budgeted for SCWD at 4.4 MGD looking at the numbers in the table for SCWD, they are much higher than what was budgeted, and that for MNWD the numbers are lower.

Ms. Baylor responded the top portion of the table shows liquids and the bottom portion shows solids. She stated the policy decision was to calculate the pounds based on a three (3) year average.

Mr. Serna asked if Ms. Baylor could explain why SCWD number went up much higher than what was actually budgeted.

Ms. Baylor responded she did not have an answer at the time, and that she would review the budget vs. audit amounts and get back via email with an accurate response that is clear and concise.

Mr. Shissler of City of Laguna Beach (CLB) asked if somewhere in the raw data was the population served vs. lbs. of solids per day. Ms. Baylor responded it is captured through the loading of Total Suspended Solids and BOD.

Mr. Shissler noted Mr. Dunbar should also be included on the correspondence as he too had

questions regarding the raw data.

Mr. Cafferty of El Toro Water District (ETWD) requested confirmation that Ms. Baylor would be emailing all member agencies the Excel raw data tables. Ms. Baylor confirmed she would.

There was consensus of the Engineering Committee to bring back to for another review at the September Engineering Committee meeting; no action was taken

6. Capital Improvement Construction Projects Report

Ms. Young, Associate Engineer reported on the J.B. Latham Package B Project status. She stated Olsson continues to work on Primary tanks 5 and 6, and the channels. They are nearing completion of the rehab work on Daft #2 and started the excavation for MCC F1 located behind Digester 1 and continue working on the heat loop at Digester 3.

Ms. Young then reported on the two (2) Change Orders for the Package B Project. She stated Change Order 22 is for installing the UV rated wear strips for the Plant 1 Secondary Basin in the amount of \$28, 986, and Change Order 23 is for the MCC F1 design change for option 1 as indicated on page 14 of the agenda packet. An open discussion ensued.

ACTION TAKEN

There was consensus of the PC 2 Engineering Committee to recommend to the PC 2 Board of Directors to approve Olsson Construction Change Orders 22 and 23 for \$510,256.

Motion Carried:	Aye 4, Nay 0, Abstained 0, Absent 0
	Mike Marquis (CSJC) Aye
	Rod Woods (MNWD) Aye
	Marc Serna (SCWD) Aye
	Don Bunts (SMWD) Aye

Mr. Manning, Director of Engineering reported there are four (4) Change Orders on the Export Sludge Force Main Replacement Project. He noted one of the Change Orders is for Geotechnical services that will be further discussed under agenda item seven (7). He stated Change Order 2, 3, and 4 is for the HDPE Pipe price adjustment, existing 6-inch sludge line fix for pressure test, and 18-inch VCP sewer line conflicts in a total amount of \$24,649 to Filanc. An open discussion ensued.

ACTION TAKEN

Motion was made by Mr. Shissler and seconded by Mr. Serna to recommend to the PC 15 Board of Directors to approve JR Filanc Change Orders 2 through 4 for \$\$24,649.

Motion Carried:	Aye 2, Nay 0, Abstained 1, Absent 2
	David Shissler (CLB) Aye
	Mike Dunbar (EBSD) Absent
	Rod Woods (MNWD) Abstain
	Marc Serna (SCWD) Aye

7. Coastal Treatment Plant Sludge Force Main Replacement Project Geotechnical Services During Construction Change Order [Project Committee 15]

Mr. Manning, Director of Engineering reported on the Change Order for geotechnical service for the Export Sludge Force Main Replacement Project. He noted the Ninyo & Moore made an initial assumption that the work performed by Filanc would be 400 linear feet per day. The Change Order is reflective of the work Filanc is actually doing is moving 150-200 linear feet per day. An open discussion ensued.

ACTION TAKEN

There was consensus of the PC 15 Engineering Committee to recommend to the PC 15 Board of Directors to approve Ninyo & Moore change order in the amount of \$43,166 for a total revised contract amount of \$108,956 for the geotechnical services during construction for the Coastal Treatment Plant Export Sludge Replacement Project.

Motion Carried: Aye 2, Nay 0, Abstained 1, Absent 2
David Shissler (CLB) Aye
Mike Dunbar (EBSD) Absent
Rod Woods (MNWD) Abstain
Marc Serna (SCWD) Aye

8. San Juan Creek Ocean Outfall Junction Structure Rehabilitation Project Closeout [Project Committee 5]

Mr. Manning, Director of Engineering gave an update on the closeout of the San Juan Creek Ocean Outfall Junction Structure Rehabilitation Project. An open discussion ensued.

This was an information item; no action was taken.

9. Regional Treatment Miscellaneous 2018 Project Closeout [Project Committee 17]

Mr. Manning, Director of Engineering gave an update on the closeout of the Regional Treatment Miscellaneous 2018 Project. An open discussion ensued.

This was an information item; no action was taken.

Adjournment

There being no further business, Mr. Manning adjourned the meeting at 9.30 a.m.

I HEREBY CERTIFY that the foregoing Minutes are a true and accurate copy of the Minutes of the Regular Meeting of the South Orange County Wastewater Authority Engineering Committee of August 12, 2021 and approved by the Engineering Committee and received and filed by the Board of Directors of the South Orange County Wastewater Authority.

Betty Burnett, General Manager/Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

Agenda Item

4.F.

Board of Directors Meeting

Meeting Date: November 4, 2021

TO: Board of Directors
FROM: Betty Burnett, General Manager
STAFF CONTACT: Mary Carey, Finance Controller
SUBJECT: Financial Reports for the Month of July 2021

Summary/Discussion

The following selected financial reports are routinely provided monthly to the Finance Committee for recommendation to the Board of Directors to ratify Cash Disbursements and receive and file the remaining documents.

The reports included are as follows:

1. Summary of Disbursements for July 2021 (Exhibit A)
 - ***The July Disbursements did include payment amounts to West Yost.***
2. Schedule of Funds Available for Reinvestment (Exhibit B)
 - Local Agency Investment Fund (LAIF)
3. Schedule of Cash and Investments (Exhibit C)
4. Capital Schedule (Exhibit D)
 - Capital Projects – Graph (Exhibit D-1)
5. Budget vs. Actual Expenses:
 - Operations and Environmental Summary (Exhibit E-1)
 - Operations and Environmental by PC (E-1.2)
 - Residual Engineering, after transfer to Capital (Exhibit E-2)
 - Administration (Exhibit E-3)
 - Information Technology (IT) (Exhibit E-4)

Fiscal impact

July 2021 cash disbursements were: \$ 6,771,917.

- Monthly disbursements are summarized in the attached Exhibit A.
- The attached Exhibits B, C, D and E are informational reports only.

Recommended Action: The Finance Committee recommends to the Board of Directors to ratify the July 2021 disbursements for the period from July 1, 2021, through July 31, 2021, totaling \$6,771,917, and to receive and file the July 2021 Financial Reports as submitted.

Exhibit A

**South Orange County Wastewater Authority
Summary of Disbursements for July 2021
Staff Recommendation of Fiscal Matters**

	<u>Actual¹</u>
General Fund	\$ (1,926,019)
PC 2 - Jay B. Latham Plant	(1,370,713)
PC 5 - San Juan Creek Ocean Outfall	(51,111)
PC 8 - Pretreatment Program	(11,669)
PC 12 SO - Water Reclamation Permits	(144,822)
PC 15 - Coastal Treatment Plant/AWT	(2,326,489)
PC 17 - Joint Regional Wastewater Reclamation	(899,510)
PC 21 - Effluent Transmission Main	(22,862)
PC 23 - North Coast Interceptor	(318)
PC 24 - Aliso Creek Ocean Outfall	(18,403)
Total	<u><u>\$ (6,771,917)</u></u>

¹ Disbursements increased \$4.6 million over the prior month, primarily due to the following:

CalPERS UAL payment of \$1.2 million for FY 21-22

PCL Construction, \$1.4 million

Olsson Construction, \$615 thousand

Filanc Construction, \$413 thousand.

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
SCHEDULE OF FUNDS AVAILABLE FOR REINVESTMENT
as of July 31, 2021**

CASH IN BANK: (BEGINNING BAL.)	\$ 1,271,925
L.A.I.F. FUNDS: (BEGINNING BAL.)	13,927,065
DEPOSITS, TRANSFERS & ADJUSTMENTS:	2,032,791
FUND REQUIREMENTS:	
BILLS FOR CONSIDERATION ¹	<u>(6,771,917)</u>
TOTAL CASH IN BANK	<u>\$ 10,459,864</u>

¹ GL postings.

In accordance with Government Code 53646(c), since all funds are placed in the State LAIF, staff has included in the Financial Packet, the most current statement from the State LAIF, in lieu of the report required by Government Code 53646(b)(1).

In accordance with requirements of the Government Code and the "SOCWA Investment Policy", I hereby certify that:

- 1). All investment actions executed since the last report have been made in full compliance with the Investment Policy.
- 2). SOCWA does not have sufficient funds currently on hand to meet its expenditure obligations for the next six months (see note) due to the fact that SOCWA bills and receives operational funds on a quarterly basis only.

Betty Burnett
General Manager

Note: Operational funds are collected on a quarterly basis at the beginning of the quarter. Capital funds are collected on a quarterly basis in connection with projected needs. Member agencies have pledged to have funds available to meet all obligations.



PMIA/LAIF Performance Report as of 08/13/21



PMIA Average Monthly Effective Yields⁽¹⁾

Jul	0.221
Jun	0.262
May	0.315

Quarterly Performance Quarter Ended 06/30/21

LAIF Apportionment Rate ⁽²⁾ :	0.33
LAIF Earnings Ratio ⁽²⁾ :	0.0000897371743018
LAIF Fair Value Factor ⁽¹⁾ :	1.00008297
PMIA Daily ⁽¹⁾ :	0.22%
PMIA Quarter to Date ⁽¹⁾ :	0.30%
PMIA Average Life ⁽¹⁾ :	291

Pooled Money Investment Account Monthly Portfolio Composition ⁽¹⁾ 07/31/21 \$181.8 billion

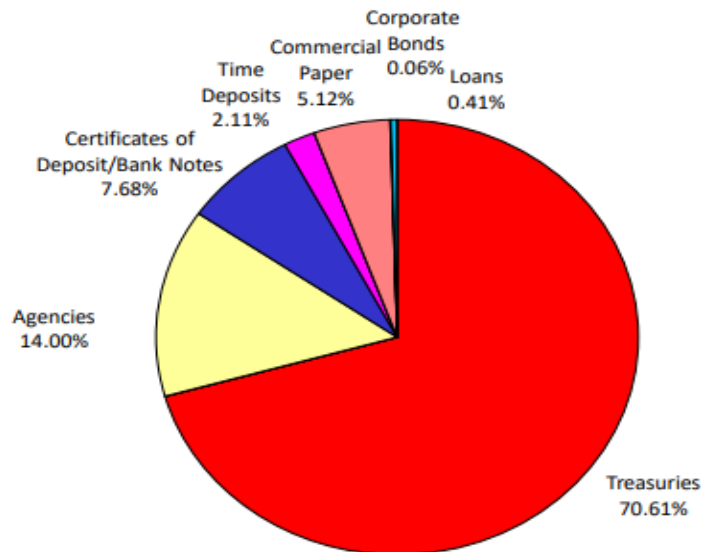


Chart does not include 0.01% of mortgages. Percentages may not total 100% due to rounding.

Daily rates are now available here. [View PMIA Daily Rates](#)

Notes: The apportionment rate includes interest earned on the CalPERS Supplemental Pension Payment pursuant to Government Code 20825 (c)(1) and interest earned on the Wildfire Fund loan pursuant to Public Utility Code 3288 (a).

Exhibit C

**South Orange County Wastewater Authority
Schedule of Cash and Investments
as of July 31, 2021**

MVA	\$ 413,414	(A)
A/P Checking	1,420,184	(B)
Payroll Checking	26,901	(C)
State LAIF	8,599,365	(D)
Total Cash in Bank	\$ 10,459,864	
Petty Cash	1,600	(E)
Total Operating Cash	\$ 10,461,464	
OPEB Trust	6,681,045	(F)
Total Cash and Investments	\$ 17,142,509	

Notes:

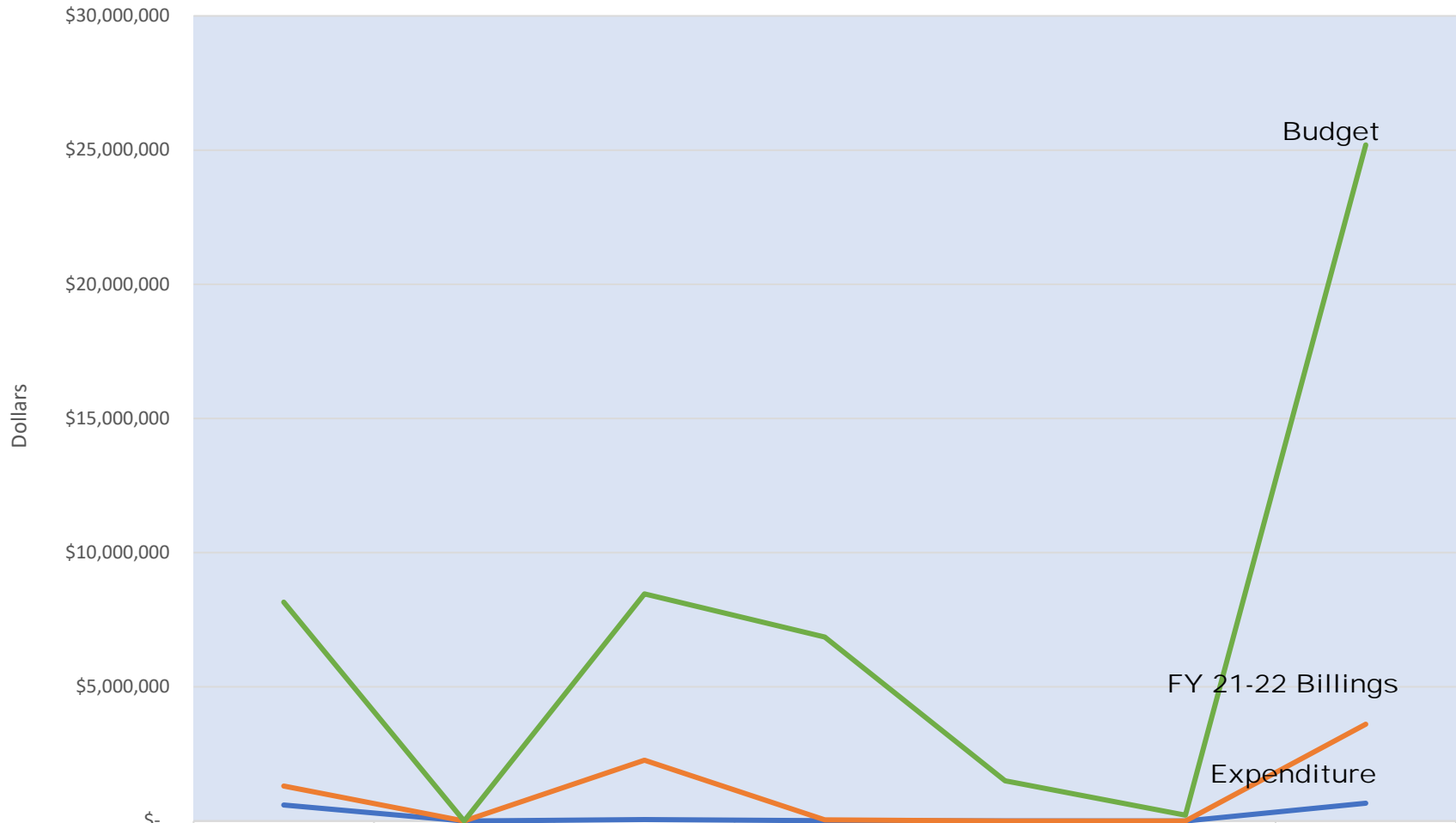
- (A) Interest bearing account; all cash receipts are deposited in this account and later moved to the LAIF account.
- (B) Accounts Payable Checks are drawn against this account; money is transferred to this account, as needed, from the LAIF account.
- (C) Payroll including payroll taxes and related liabilities are drawn against this account; money is transferred into this account, as needed, from the LAIF account.
- (D) California State Local Agency Investment Fund (LAIF) balance.
- (E) Cash on hand with GM's office and held by Chief Operators at each Treatment facility.
- (F) OPEB Trust Fund; these funds can only be used for Retiree Health Benefits.

**South Orange County Wastewater Authority
Capital Projects Summaries
For the Period Ended July 31, 2021
(in dollars)**

FY 2021-22 Budget vs. Actual Spending								
<u>Description</u>	Capital Budget	Fiscal Year Spending	(Over)/ Under Budget	% Expended	Member Agency Billed	Member Agency Collections	Open Receivables	% Expended vs. Billed
PC 2-JB Latham	\$ 8,153,937	\$ 591,461	\$ 7,562,476	7.3%	\$ 1,303,750	\$ -	\$ 1,303,750	45.4%
PC 5-San Juan Creek Outfall	-	-	-	-	-	-	-	-
PC 15-Coastal	8,464,653	53,677	8,410,976	0.6%	2,264,999	67,611	2,197,388	2.4%
PC 17-Regional	6,851,959	12,899	6,839,060	0.2%	38,249	4,050	34,199	-
PC 21 Effluent Transmission	1,502,000	4,979	1,497,021	0.3%	-	-	-	-
PC 24 Aliso Creek Outfall	220,000	-	220,000	0.0%	-	-	-	-
Total Large Capital	\$ 25,192,549	\$ 663,016	\$ 24,529,533	2.6%	\$ 3,606,998	\$ 71,661	\$ 3,535,337	18.4%
Non-Capital Engineering	405,871	-	405,871	0.0%	25,000	746	24,254	0.0%
Non-Capital Misc Engineering	254,500	12,057	242,443	4.7%	6,000	1,260	4,740	200.9%
Small Internal Capital	2,061,000	122,206	1,938,794	5.9%	515,250	19,103	496,147	23.7%
Total Capital	\$ 27,913,920	\$ 797,278	\$ 27,116,642	2.9%	\$ 4,153,248	\$ 92,770	\$ 4,060,478	19.2%

Large Capital Projects Fiscal Year '21-22 Budget vs. Year-to-Date Expenditures & Billings as of 7/31/2021

Exhibit D-1



	PC 2-JB Latham	PC 5-San Juan Creek Outfall	PC 15-Coastal	PC 17-Regional	PC 21 Effluent Transmission	PC 24 Aliso Creek Outfall	Total Large Capital
Spent - YTD 7/31/21	\$591,461	-	\$53,677	\$12,899	\$4,979.18	-	\$663,016
FY 21-22 Billings	\$1,303,750	-	\$2,264,999	\$38,249	-	-	\$3,606,998
Capital Budget 21-22	\$8,153,937	-	\$8,464,653	\$6,851,959	\$1,502,000	\$220,000	\$25,192,549

**South Orange County Wastewater Authority
O & M & Environmental Safety Costs Summary**
For the Period Ended July 31, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
Salary and Fringe					
5000-*	Regular Salaries-O&M	4,847,168	369,092	4,478,076	7.6%
5001-*	Overtime Salaries-O&M	107,256	9,249	98,007	8.6%
5306-*	Scheduled Holiday Work	91,000	12,011	78,989	13.2%
5315-*	Comp Time - O&M	15,980	3,419	12,561	21.4%
5401-*	Fringe Benefits IN to PC's & Depts.	2,511,460	191,278	2,320,182	7.6%
5700-*	Standby Pay	67,600	5,720	61,880	8.5%
	Total Payroll Costs	7,640,464	590,769	7,049,695	7.7%
Other Expenses					
5002-*	Electricity	1,170,780	111,259	1,059,521	9.5%
5003-*	Natural Gas	226,008	24,569	201,439	10.9%
5004-*	Potable & Reclaimed Water	85,000	4,730	80,270	5.6%
5005-*	Co-generation Power Credit	(686,000)	(93,122)	(592,878)	13.6%
5006-*	Chlorine/Sodium Hypochlorite	502,008	53,630	448,378	10.7%
5007-*	Polymer Products	747,004	108,707	638,297	14.6%
5008-*	Ferric Chloride	588,004	49,122	538,882	8.4%
5009-*	Odor Control Chemicals	107,016	11,185	95,831	10.5%
5010-*	Other Chemicals - Misc.	2,004	-	2,004	-
5011-*	Laboratory Services	65,196	948	64,248	1.5%
5012-*	Grit Hauling	120,000	6,415	113,585	5.3%
5013-*	Landscaping	219,008	10,627	208,381	4.9%
5015-*	Management Support Services	475,000	1,347	473,653	0.3%
5016-*	Audit - Environmental	1,304	-	1,304	-
5017-*	Legal Fees	48,612	-	48,612	-
5018-*	Public Notices/ Public Relations	6,000	-	6,000	-
5019-*	Contract Services Misc.	277,016	-	277,016	-
5021-*	Small Vehicle Expense	23,080	1,483	21,597	6.4%
5022-*	Miscellaneous Expense	16,012	-	16,012	-
5023-*	Office Supplies - All	46,008	1,272	44,736	2.8%
5024-*	Petroleum Products	34,008	-	34,008	-
5025-*	Uniforms	70,996	5,671	65,325	8.0%
5026-*	Small Vehicle Fuel	22,656	65	22,591	0.3%
5027-*	Insurance - Property/Liability	317,684	14,624	303,060	4.6%
5028-*	Small Tools & Supplies	80,000	3,883	76,117	4.9%
5030-*	Trash Disposal	8,500	308	8,192	3.6%
5031-*	Safety Program & Supplies	119,344	10,099	109,245	8.5%
5032-*	Equipment Rental	7,004	1,509	5,495	21.6%
5033-*	Recruitment	2,500	-	2,500	-
5034-*	Travel Expense/Tech. Conferences	29,928	-	29,928	-
5035-*	Training Expense	47,996	4,056	43,940	8.5%
5036-*	Laboratory Supplies	124,400	7,773	116,627	6.2%
5037-*	Office Equipment	25,992	699	25,293	2.7%
5038-*	Permits	489,996	18,743	471,253	3.8%
5039-*	Membership Dues/Fees	17,872	687	17,185	3.8%
5044-*	Offshore Monitoring	151,000	3,339	147,662	2.2%
5045-*	Offshore Biochemistry - 20B	23,024	-	23,024	-
5046-*	Effluent Chemistry	70,000	52	69,948	0.1%
5047-*	Access Road Expenses	45,000	-	45,000	-
5048-*	Storm Damage	21,000	-	21,000	-
5049-*	Biosolids Disposal	1,470,000	97,801	1,372,199	6.7%
5050-*	Contract Services Generators - 29A	28,008	-	28,008	-
5052-*	Janitorial Services	101,004	8,278	92,726	8.2%
5053-*	Contract Serv - Digester Cleaning - 29E	60,000	7,993	52,007	13.3%
5054-*	Diesel Truck Maint	42,000	354	41,646	0.8%
5055-*	Diesel Truck Fuel	11,500	-	11,500	-
5056-*	Maintenance Equip. & Facilities (Solids)	366,000	87,781	278,219	24.0%
5057-*	Maintenance Equip. & Facilities (Liquids)	651,996	38,715	613,281	5.9%
5058-*	Maintenance Equip. & Facilities (Common)	90,008	12,208	77,800	13.6%
5059-*	Maintenance Equip. & Facilities (Co-Gen)	738,996	32,203	706,793	4.4%
5060-*	Maintenance Equip. & Facilities (AWT)	88,000	-	88,000	-
5061-*	Mileage	3,608	149	3,459	4.1%
5068-*	MNWD Potable Water Supplies & Svcs.	28,000	7,304	20,696	26.1%
5074-*	Education Reimbursement	1,996	-	1,996	-
5076-*	SCADA Infrastructure	86,596	15,000	71,596	17.3%
5077-*	IT Direct	5,508	-	5,508	-
5105-*	Co-Generation Power Credit - Offset	685,992	93,122	592,870	13.6%
5303-*	Group Insurance Waiver	14,392	1,218	13,174	8.5%
5305-*	Medicare Tax Payments for Employees	2,160	170	1,990	7.9%
5309-*	Operating Leases	26,000	2,896	23,104	11.1%
5705-*	Monthly Car Allowance	35,396	3,480	31,916	9.8%
5799-*	Zephyr Wall Costs Share-O&M	(14,000)	(14,000)	0	100.0%
6500-*	IT Allocations in to PC's & Depts.	610,540	31,568	578,972	5.2%
	Total Other Expenses	10,881,660	789,923	10,091,737	7.3%
	Total O&M Expenses	18,522,124	1,380,691	17,141,433	7.5%

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
For the Period Ended July 31, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
02 - Jay B. Latham Plant					
Salary and Fringe					
02-5000-***.**	Regular Salaries-O&M	1,585,228	133,748	1,451,480	8.4%
02-5001-***.**	Overtime Salaries-O&M	37,904	6,676	31,228	17.6%
02-5306-***.**	Scheduled Holiday Work	36,600	4,390	32,210	12.0%
02-5315-***.**	Comp Time - O&M	8,264	1,793	6,471	21.7%
02-5401-***.**	Fringe Benefits IN to PC's & Depts.	821,352	69,299	752,053	8.4%
02-5700-***.**	Standby Pay	25,096	1,885	23,211	7.5%
	Total Payroll Costs	2,514,444	217,792	2,296,652	8.7%
Other Expenses					
02-5002-***.**	Electricity	506,564	40,047	466,517	7.9%
02-5003-***.**	Natural Gas	132,160	10,306	121,854	7.8%
02-5004-***.**	Potable & Reclaimed Water	25,000	2,476	22,525	9.9%
02-5006-***.**	Chlorine/Sodium Hypochlorite	8,000	-	8,000	-
02-5007-***.**	Polymer Products	305,000	55,414	249,586	18.2%
02-5008-***.**	Ferric Chloride	200,000	14,576	185,424	7.3%
02-5009-***.**	Odor Control Chemicals	21,004	-	21,004	-
02-5010-***.**	Other Chemicals - Misc.	1,000	-	1,000	-
02-5011-***.**	Laboratory Services	19,000	228	18,772	1.2%
02-5012-***.**	Grit Hauling	55,000	2,989	52,011	5.4%
02-5013-***.**	Landscaping	77,004	4,039	72,965	5.2%
02-5015-***.**	Management Support Services	30,008	-	30,008	-
02-5017-***.**	Legal Fees	4,996	-	4,996	-
02-5019-***.**	Contract Services Misc.	70,636	-	70,636	-
02-5021-***.**	Small Vehicle Expense	11,000	50	10,950	0.5%
02-5022-***.**	Miscellaneous Expense	8,000	-	8,000	-
02-5023-***.**	Office Supplies - All	29,000	914	28,086	3.2%
02-5024-***.**	Petroleum Products	11,004	-	11,004	-
02-5025-***.**	Uniforms	33,996	1,912	32,084	5.6%
02-5026-***.**	Small Vehicle Fuel	10,004	65	9,939	0.7%
02-5027-***.**	Insurance - Property/Liability	108,384	5,257	103,127	4.9%
02-5028-***.**	Small Tools & Supplies	38,000	862	37,138	2.3%
02-5030-***.**	Trash Disposal	3,000	95	2,905	3.2%
02-5031-***.**	Safety Program & Supplies	41,000	4,152	36,848	10.1%
02-5032-***.**	Equipment Rental	3,000	-	3,000	-
02-5033-***.**	Recruitment	348	-	348	-
02-5034-***.**	Travel Expense/Tech. Conferences	9,012	-	9,012	-
02-5035-***.**	Training Expense	16,976	1,385	15,591	8.2%
02-5036-***.**	Laboratory Supplies	21,004	608	20,396	2.9%
02-5037-***.**	Office Equipment	13,000	61	12,939	0.5%
02-5038-***.**	Permits	13,496	17,773	(4,277)	131.7%
02-5039-***.**	Membership Dues/Fees	4,516	96	4,420	2.1%
02-5049-***.**	Biosolids Disposal	620,000	35,679	584,321	5.8%
02-5050-***.**	Contract Services Generators - 29A	10,004	-	10,004	-
02-5052-***.**	Janitorial Services	47,000	4,264	42,736	9.1%
02-5053-***.**	Contract Serv - Digester Cleaning - 29E	60,000	7,993	52,007	13.3%
02-5054-***.**	Diesel Truck Maint	22,000	15	21,985	0.1%
02-5055-***.**	Diesel Truck Fuel - 37B	2,996	-	2,996	-
02-5056-***.**	Maintenance Equip. & Facilities (Solids)	155,000	27,482	127,518	17.7%
02-5057-***.**	Maintenance Equip. & Facilities (Liquids)	260,000	6,839	253,161	2.6%
02-5058-***.**	Maintenance Equip. & Facilities (Common)	29,000	9,662	19,338	33.3%
02-5059-***.**	Maintenance Equip. & Facilities (Co-Gen)	277,120	21,037	256,083	7.6%
02-5061-***.**	Mileage	2,104	57	2,047	2.7%
02-5076-***.**	SCADA Infrastructure	28,960	5,000	23,960	17.3%
02-5077-***.**	IT Direct	2,620	-	2,620	-
02-5303-***.**	Group Insurance Waiver	3,596	305	3,291	8.5%
02-5309-***.**	Operating Leases	26,000	2,091	23,909	8.0%
02-5705-***.**	Monthly Car Allowance	22,804	1,929	20,875	8.5%
02-5799-***.**	Zephyr Wall Costs Share-O&M	(14,000)	(14,000)	0	100.0%
02-6500-***.**	IT Allocations in to PC's & Depts.	199,812	10,331	189,481	5.2%
	Total Other Expenses	3,585,128	281,991	3,303,137	7.9%
	Total Expenses	6,099,572	499,782	5,599,790	8.2%

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
For the Period Ended July 31, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
05 - San Juan Creek Ocean Outfall					
Salary and Fringe					
05-5000-***.**	Regular Salaries-O&M	146,556	10,664	135,892	7.3%
05-5001-***.**	Overtime Salaries-O&M	72	-	72	-
05-5306-***.**	Scheduled Holiday Work	416	44	372	10.5%
05-5401-***.**	Fringe Benefits IN to PC's & Depts.	75,928	5,526	70,402	7.3%
	Total Payroll Costs	222,972	16,234	206,738	7.3%
Other Expenses					
05-5015-***.**	Management Support Services	212,500	459	212,041	0.2%
05-5017-***.**	Legal Fees	2,008	-	2,008	-
05-5026-***.**	Small Vehicle Fuel	500	-	500	-
05-5027-***.**	Insurance - Property/Liability	9,668	433	9,235	4.5%
05-5031-***.**	Safety Supplies	1,052	-	1,052	-
05-5033-***.**	Recruitment	556	-	556	-
05-5034-***.**	Travel Expense/Tech. Conferences	1,512	-	1,512	-
05-5035-***.**	Training Expense	1,952	-	1,952	-
05-5036-***.**	Laboratory Supplies	35,000	3,302	31,698	9.4%
05-5038-***.**	Permits	228,968	-	228,968	-
05-5039-***.**	Membership Dues/Fees	216	-	216	-
05-5044-***.**	Offshore Monitoring	75,496	-	75,496	-
05-5045-***.**	Offshore Biochemistry - 20B	11,512	-	11,512	-
05-5046-***.**	Effluent Chemistry	35,000	26	34,974	0.1%
05-5058-***.**	Maintenance Equip. & Facilities (Common)	1,004	-	1,004	-
05-6500-***.**	IT Allocations in to PC's & Depts.	18,464	954	17,510	5.2%
	Total Other Expenses	635,408	5,174	630,234	0.8%
	Total Expenses	858,380	21,407	836,973	2.5%
08 - Pre Treatment					
Salary and Fringe					
08-5000-***.**	Regular Salaries-O&M	117,772	10,427	107,345	8.9%
08-5306-***.**	Scheduled Holiday Work	-	-	-	-
08-5315-***.**	Comp Time - Environment	-	-	-	-
08-5401-***.**	Fringe Benefits IN to PC's & Depts.	61,016	5,402	55,614	8.9%
	Total Payroll Costs	178,788	15,829	162,959	8.9%
Other Expenses					
08-5011-***.**	Laboratory Services	3,200	295	2,905	9.2%
08-5016-***.**	Audit - Environmental	1,304	-	1,304	-
08-5017-***.**	Legal Fees	2,596	-	2,596	-
08-5018-***.**	Public Notices/ Public Relations	6,000	-	6,000	-
08-5021-***.**	Small Vehicle Expense - 31A	1,076	-	1,076	-
08-5022-***.**	Miscellaneous Expense	2,008	-	2,008	-
08-5026-***.**	Small Vehicle Fuel - 37A	1,148	-	1,148	-
08-5027-***.**	Insurance - Property/Liability	3,024	135	2,889	4.5%
08-5028-***.**	Small Tools & Supplies	3,000	41	2,959	1.4%
08-5034-***.**	Travel Expense/Tech. Conferences	2,732	-	2,732	-
08-5035-***.**	Training Expense	-	150	(150)	-
08-5038-***.**	Permits and Fines	3,132	-	3,132	-
08-6500-***.**	IT Allocations in to PC's & Depts.	14,832	767	14,065	5.2%
	Total Other Expenses	44,052	1,388	42,664	3.2%
	Total Expenses	222,840	17,217	205,623	7.7%
12 - Water Reclamation Permits					
Salary and Fringe					
12-5000-***.**	Regular Salaries-O&M	44,808	10,879	33,929	24.3%
12-5401-***.**	Fringe Benefits IN to PC's & Depts.	23,208	5,637	17,571	24.3%
	Total Payroll Costs	68,016	16,516	51,500	24.3%
Other Expenses					
12-5015-***.**	Management Support Services	-	-	-	-
12-5017-***.**	Legal Fees	2,000	-	2,000	-
12-5027-***.**	Insurance - Property/Liability	5,164	231	4,933	4.5%
12-5034-***.**	Travel Expense/Tech. Conferences	920	-	920	-
12-5038-***.**	Permits	12,044	-	12,044	-
12-5039-***.**	Membership Dues/Fees	68	-	68	-
12-6500-***.**	IT Allocations in to PC's & Depts.	5,640	292	5,348	5.2%
	Total Other Expenses	25,836	523	25,313	2.0%
	Total Expenses	93,852	17,039	76,813	18.2%

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
For the Period Ended July 31, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
15 - Coastal Treatment Plant					
Salary and Fringe					
15-5000-***.**	Regular Salaries-O&M	1,083,504	62,063	1,021,441	5.7%
15-5001-***.**	Overtime Salaries-O&M	19,208	-	19,208	-
15-5306-***.**	Scheduled Holiday Work	15,584	2,533	13,051	16.3%
15-5315-***.**	Comp Time - O&M	2,000	-	2,000	-
15-5401-***.**	Fringe Benefits IN to PC's & Depts.	561,396	33,060	528,336	5.9%
15-5700-***.**	Standby Pay	16,504	130	16,374	0.8%
	Total Payroll Costs	1,698,196	97,786	1,600,410	5.8%
Other Expenses					
15-5002-***.**	Electricity	202,348	17,429	184,919	8.6%
15-5003-***.**	Natural Gas	2,872	35	2,837	1.2%
15-5004-***.**	Potable & Reclaimed Water	25,000	1,965	23,035	7.9%
15-5006-***.**	Chlorine/Sodium Hypochlorite	94,004	5,123	88,881	5.4%
15-5007-***.**	Polymer Products	1,004	-	1,004	-
15-5008-***.**	Ferric Chloride	58,000	5,548	52,452	9.6%
15-5009-***.**	Odor Control Chemicals	51,004	4,021	46,983	7.9%
15-5011-***.**	Laboratory Services	20,000	80	19,920	0.4%
15-5012-***.**	Grit Hauling	23,000	1,662	21,338	7.2%
15-5013-***.**	Landscaping	57,000	-	57,000	-
15-5015-***.**	Management Support Services	10,000	-	10,000	-
15-5017-***.**	Legal Fees	30,000	-	30,000	-
15-5019-***.**	Contract Services Misc.	91,732	-	91,732	-
15-5021-***.**	Small Vehicle Expense	4,004	813	3,191	20.3%
15-5022-***.**	Miscellaneous Expense	1,000	-	1,000	-
15-5023-***.**	Office Supplies - All	4,004	58	3,946	1.5%
15-5024-***.**	Petroleum Products	3,000	-	3,000	-
15-5025-***.**	Uniforms	9,000	705	8,295	7.8%
15-5026-***.**	Small Vehicle Fuel	2,000	-	2,000	-
15-5027-***.**	Insurance - Property/Liability	47,112	2,108	45,004	4.5%
15-5028-***.**	Small Tools & Supplies	9,000	-	9,000	-
15-5030-***.**	Trash Disposal	2,996	145	2,851	4.8%
15-5031-***.**	Safety Supplies	35,000	3,111	31,889	8.9%
15-5032-***.**	Equipment Rental	1,000	-	1,000	-
15-5033-***.**	Recruitment	312	-	312	-
15-5034-***.**	Travel Expense/Tech. Conferences	5,244	-	5,244	-
15-5035-***.**	Training Expense	11,632	1,260	10,372	10.8%
15-5036-***.**	Laboratory Supplies	14,000	223	13,777	1.6%
15-5037-***.**	Office Equipment	2,996	61	2,935	2.0%
15-5038-***.**	Permits	4,820	481	4,339	10.0%
15-5039-***.**	Membership Dues/Fees	4,960	298	4,662	6.0%
15-5047-***.**	Access Road Expenses	45,000	-	45,000	-
15-5048-***.**	Storm Damage	21,000	-	21,000	-
15-5050-***.**	Contract Services Generators - 29A	5,000	-	5,000	-
15-5052-***.**	Janitorial Services	12,004	1,033	10,971	8.6%
15-5054-***.**	Diesel Truck Maint - 31B	1,000	-	1,000	-
15-5055-***.**	Diesel Truck Fuel - 37B	504	-	504	-
15-5057-***.**	Maintenance Equip. & Facilities (Liquids)	149,996	12,740	137,256	8.5%
15-5058-***.**	Maintenance Equip. & Facilities (Common)	23,000	545	22,455	0.02
15-5060-***.**	Maintenance Equip. & Facilities (AWT)	38,000	-	38,000	-
15-5061-***.**	Mileage	500	-	500	-
15-5076-***.**	SCADA Infrastructure	28,952	5,000	23,952	17.3%
15-5077-***.**	IT Direct	264	-	264	-
15-5303-***.**	Group Insurance Waiver	3,600	305	3,295	8.5%
15-5305-***.**	Medicare Tax Payments for Employees	2,160	170	1,990	7.9%
15-5705-***.**	Monthly Car Allowance	4,196	355	3,841	8.5%
15-6500-***.**	IT Allocations in to PC's & Depts.	136,476	7,057	129,419	5.2%
	Total Other Expenses	1,299,696	72,332	1,227,364	5.6%
	Total Expenses	2,997,892	170,118	2,827,774	5.7%

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
For the Period Ended July 31, 2021
(in dollars)

	FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended	
17 - Joint Regional Wastewater Reclamation and Sludge Handling					
Salary and Fringe					
17-5000-***.**	Regular Salaries-O&M	1,718,916	130,087	1,588,829	7.6%
17-5001-***.**	Overtime Salaries-O&M	49,452	4,302	45,150	8.7%
17-5306-***.**	Scheduled Holiday Work	38,136	5,000	33,136	13.1%
17-5315-***.**	Comp Time - O&M	5,716	1,640	4,076	28.7%
17-5401-***.**	Fringe Benefits IN to PC's & Depts.	890,632	67,402	823,230	7.6%
17-5700-***.**	Standby Pay	26,000	3,705	22,295	14.3%
	Total Payroll Costs	2,728,852	212,136	2,516,716	7.8%
Other Expenses					
17-5002-***.**	Electricity	461,868	53,783	408,085	11.6%
17-5003-***.**	Natural Gas	90,976	14,229	76,747	15.6%
17-5004-***.**	Potable & Reclaimed Water	35,000	290	34,710	0.8%
17-5005-***.**	Co-generation Power Credit	(686,000)	(93,122)	(592,878)	13.6%
17-5006-***.**	Chlorine/Sodium Hypochlorite	400,004	48,507	351,497	12.1%
17-5007-***.**	Polymer Products	441,000	53,293	387,707	12.1%
17-5008-***.**	Ferric Chloride	330,004	28,998	301,006	8.8%
17-5009-***.**	Odor Control Chemicals	35,008	7,164	27,844	20.5%
17-5010-***.**	Other Chemicals - Misc.	1,004	-	1,004	-
17-5011-***.**	Laboratory Services	22,996	345	22,651	1.5%
17-5012-***.**	Grit Hauling - 21A	42,000	1,764	40,236	4.2%
17-5013-***.**	Landscaping	85,004	6,587	78,417	7.7%
17-5015-***.**	Management Support Services	9,996	-	9,996	-
17-5017-***.**	Legal Fees	5,004	-	5,004	-
17-5019-***.**	Contract Services Misc.	96,312	-	96,312	-
17-5021-***.**	Small Vehicle Expense	7,000	620	6,380	8.9%
17-5022-***.**	Miscellaneous Expense	5,004	-	5,004	-
17-5023-***.**	Office Supplies - All	13,004	300	12,704	2.3%
17-5024-***.**	Petroleum Products	20,004	-	20,004	-
17-5025-***.**	Uniforms	28,000	3,054	24,946	10.9%
17-5026-***.**	Small Vehicle Fuel	9,004	-	9,004	-
17-5027-***.**	Insurance - Property/Liability	135,628	6,070	129,558	4.5%
17-5028-***.**	Small Tools & Supplies	30,000	2,980	27,020	9.9%
17-5030-***.**	Trash Disposal	2,504	67	2,437	2.7%
17-5031-***.**	Safety Supplies	41,248	2,837	38,411	6.9%
17-5032-***.**	Equipment Rental	3,004	1,509	1,495	50.2%
17-5033-***.**	Recruitment	728	-	728	-
17-5034-***.**	Travel Expense/Tech. Conferences	8,996	-	8,996	-
17-5035-***.**	Training Expense	15,480	1,260	14,220	8.1%
17-5036-***.**	Laboratory Supplies	24,392	339	24,053	1.4%
17-5037-***.**	Office Equipment	9,996	577	9,419	5.8%
17-5038-***.**	Permits	10,612	488	10,124	4.6%
17-5039-***.**	Membership Dues/Fees	7,892	293	7,599	3.7%
17-5049-***.**	Biosolids Disposal	850,000	62,123	787,877	7.3%
17-5050-***.**	Contract Services Generators - 29A	13,004	-	13,004	-
17-5052-***.**	Janitorial Services	42,000	2,981	39,019	7.1%
17-5054-***.**	Diesel Truck Maint	19,000	339	18,661	1.8%
17-5055-***.**	Diesel Truck Fuel	8,000	-	8,000	-
17-5056-***.**	Maintenance Equip. & Facilities (Solids)	211,000	60,299	150,701	28.6%
17-5057-***.**	Maintenance Equip. & Facilities (Liquids)	242,000	19,136	222,864	7.9%
17-5058-***.**	Maintenance Equip. & Facilities (Common)	36,000	2,001	33,999	5.6%
17-5059-***.**	Maintenance Equip. & Facilities (Co-Gen)	461,876	11,166	450,710	2.4%
17-5060-***.**	Maintenance Equip. & Facilities (AWT) 41-E	50,000	-	50,000	-
17-5061-***.**	Mileage	1,004	92	913	9.1%
17-5068-***.**	MNWD Potable Water Supplies & Svcs.	28,000	7,304	20,696	26.1%
17-5074-***.**	Education Reimbursement	1,996	-	1,996	-
17-5076-***.**	SCADA Infrastructure	28,684	5,000	23,684	17.4%
17-5077-***.**	IT Direct	2,624	-	2,624	-
17-5105-***.**	Co-Generation Power Credit - Offset	685,992	93,122	592,870	13.6%
17-5303-***.**	Group Insurance Waiver	7,196	609	6,587	8.5%
17-5309-***.**	Operating Leases	-	805	(805)	-
17-5705-***.**	Monthly Car Allowance	8,396	1,195	7,201	14.2%
17-6500-***.**	IT Allocations in to PC's & Depts.	216,520	11,195	205,325	5.2%
	Total Other Expenses	4,655,964	419,600	4,236,364	9.0%
	Total Expenses	7,384,816	631,736	6,753,080	8.6%

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
For the Period Ended July 31, 2021
(in dollars)

	FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended	
21 - Effluent Transmission Main					
Salary and Fringe					
21-5000-***.**	Regular Salaries-O&M	1,088	-	1,088	-
21-5401-***.**	Fringe Benefits IN to PC's & Depts.	564	-	564	-
	Total Payroll Costs	1,652	-	1,652	-
Other Expenses					
21-5019-***.**	Contract Services Misc.	18,336	-	18,336	-
21-5027-***.**	Insurance - Property/Liability	-	-	-	-
	Total Other Expenses	18,336	-	18,336	-
	Total Expenses	19,988	-	19,988	-
24 - Aliso Creek Ocean Outfall					
Salary and Fringe					
24-5000-***.**	Regular Salaries-O&M	149,296	9,481	139,815	6.4%
24-5001-***.**	Overtime Salaries-O&M	620	-	620	-
24-5306-***.**	Scheduled Holiday Work	264	44	220	16.6%
24-5401-***.**	Fringe Benefits IN to PC's & Depts.	77,364	4,951	72,413	6.4%
	Total Payroll Costs	227,544	14,476	213,068	6.4%
Other Expenses					
24-5015-***.**	Management Support Services	212,496	888	211,608	0.4%
24-5017-***.**	Legal Fees	2,008	-	2,008	-
24-5027-***.**	Insurance - Property/Liability	8,704	390	8,314	4.5%
24-5031-***.**	Safety Supplies	1,044	-	1,044	-
24-5033-***.**	Recruitment	556	-	556	-
24-5034-***.**	Travel Expense/Tech. Conferences	1,512	-	1,512	-
24-5035-***.**	Training Expense	1,956	-	1,956	-
24-5036-***.**	Laboratory Supplies	30,004	3,302	26,702	11.0%
24-5038-***.**	Permits	216,924	-	216,924	-
24-5039-***.**	Membership Dues/Fees	220	-	220	-
24-5044-***.**	Offshore Monitoring	75,504	3,339	72,166	4.4%
24-5045-***.**	Offshore Biochemistry - 20B	11,512	-	11,512	-
24-5046-***.**	Effluent Chemistry	35,000	26	34,974	0.1%
24-5058-***.**	Maintenance Equip. & Facilities (Common) 41-C	1,004	-	1,004	-
24-6500-***.**	IT Allocations in to PC's & Depts.	18,796	972	17,824	5.2%
	Total Other Expenses	617,240	8,916	608,324	1.4%
	Total Expenses	844,784	23,392	821,392	2.8%
	Total O&M Expenses	18,522,124	1,380,691	17,141,433	7.5%

**South Orange County Wastewater Authority
Budget vs. Actual Comparison - Engineering**

For the Period Ended July 31, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
Salary and Fringe					
01-5000-03-00-00	Regular Salaries-O&M	175,927	11,706	164,221	6.7%
01-5401-03-00-00	Fringe Benefits IN to PC's & Depts.	91,154	6,065	85,089	6.7%
	Total Payroll Costs	267,081	17,772	249,310	6.7%
Other Expenses					
01-5022-03-00-00	Miscellaneous Expense	3,184	-	3,184	-
01-5023-03-00-00	Office Supplies - All	208	-	208	-
01-5031-03-00-00	Safety Supplies	306	-	306	-
01-5034-03-00-00	Travel Expense/Tech. Conferences	6,439	-	6,439	-
01-5035-03-00-00	Training Expense	2,244	-	2,244	-
01-5037-03-00-00	Office Equipment	408	-	408	-
01-5039-03-00-00	Membership Dues/Fees	1,377	-	1,377	-
01-5061-03-00-00	Mileage	510	-	510	-
01-5309-03-00-00	Operating Leases	9,300	-	9,300	-
01-5705-03-00-00	Monthly Car Allowance	4,200	355	3,845	8.5%
01-5802-03-00-00	Shipping/Freight	312	-	312	-
01-6500-03-00-00	IT Allocations in to PC's & Depts.	54,293	2,834	51,459	5.2%
	Total Other Expenses	82,781	3,190	79,591	3.9%
	Total Engineering Expenses	349,863	20,962	328,901	6.0%

**South Orange County Wastewater Authority
Budget vs. Actual Comparison- Administration**

For the Period Ended July 31, 2021

(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
Salary and Fringe					
01-6000-04-00-00	Regular Salaries-Admin or IT	998,424	57,399	941,025	5.7%
01-6001-04-00-00	Overtime Salaries-Admin or IT	10,000	-	10,000	-
01-6315-04-00-00	Comp Time - Admin	5,000	129	4,871	2.6%
01-6401-04-00-00	Fringe Benefits IN to ADMIN or IT	517,316	29,740	487,576	5.7%
	Total Payroll Costs	1,530,740	87,268	1,443,472	5.7%
Other Expenses					
01-6018-04-00-00	Public Notices/Public Relations	3,270	-	3,270	-
01-6101-04-00-00	HR Recruitment & Employee Relations	24,350	1,379	22,971	5.7%
01-6102-04-00-00	Subscriptions	2,081	1,261	820	60.6%
01-6103-04-00-00	Contract Labor	50,000	315	49,685	0.6%
01-6200-04-00-00	Management Support Services	90,000	-	90,000	-
01-6201-04-00-00	Audit	46,000	12,500	33,500	27.2%
01-6202-04-00-00	Legal	220,000	9,110	210,890	4.1%
01-6204-04-00-00	Postage	1,500	18	1,482	1.2%
01-6223-04-00-00	Office Supplies - Admin	4,500	787	3,713	17.5%
01-6224-04-00-00	Office Equipment Admin or IT	1,200	221	979	18.4%
01-6234-04-00-00	Memberships & Trainings	88,000	3,488	84,512	4.0%
01-6239-04-00-00	Travel & Conference	11,000	-	11,000	-
01-6241-04-00-00	Education Reimbursement	1,500	-	1,500	-
01-6310-04-00-00	Miscellaneous	18,000	1,296	16,704	7.2%
01-6311-04-00-00	Mileage	1,236	-	1,236	-
01-6317-04-00-00	Contract Services Misc	5,722	-	5,722	-
01-6500-04-00-00	IT Allocations in to PC's & Depts.	125,761	6,502	119,258	5.2%
01-6601-04-00-00	Shipping/Freight	3,815	1,237	2,578	32.4%
01-6705-04-00-00	Monthly Car Allowance	12,000	1,015	10,985	8.5%
	Total Other Expenses	709,934	39,130	670,804	5.5%
	Total Admin Expenses	2,240,674	126,398	2,114,276	5.6%

South Orange County Wastewater Authority
Budget vs. Actual Comparison-IT
 For the Period Ended July 31, 2021
 (in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
Salary & Fringe					
01-6000-05-00-00	Regular Salaries-Admin or IT	100,076	5,689	94,387	5.7%
01-6401-05-00-00	Fringe Benefits IN to ADMIN or IT	51,852	2,948	48,904	5.7%
	Total Salary & Fringe	151,928	8,637	143,291	5.7%
Other Expenses					
01-6028-05-00-00	Small Tools & Supplies	1,000	200	800	20.0%
01-6035-05-00-00	Training Expense	3,000	-	3,000	-
01-6224-05-00-00	Office Equipment Admin or IT	600	-	600	-
01-6234-05-00-00	Memberships & Trainings	2,750	-	2,750	-
01-6239-05-00-00	Travel & Conference	1,500	-	1,500	-
01-6300-05-00-00	Software Maintenance Agreements	41,026	860	40,166	2.1%
01-6301-05-00-00	Hardware Maintenance Agreements	14,726	-	14,726	-
01-6302-05-00-00	Cloud Subscriptions (Internet)	177,328	8,190	169,138	4.6%
01-6303-05-00-00	Telecommunications	165,582	8,560	157,022	5.2%
01-6305-05-00-00	IT Professional Services	92,400	2,331	90,069	2.5%
01-6306-05-00-00	Small Hardware Purchases (< \$5k)	40,985	498	40,487	1.2%
01-6307-05-00-00	Small Software Purchases & Licenses (<\$5k)	28,968	3,928	25,040	13.6%
01-6308-05-00-00	IT Memberships	160	-	160	-
01-6309-05-00-00	Operating Leases	64,173	7,702	56,471	12.0%
01-6310-05-00-00	Miscellaneous	5,000	-	5,000	-
	Total Other Expenses	639,198	32,268	606,930	5.0%
	Total Expenses before Allocation	791,126	40,905	750,221	5.2%
IT Allocations (Out) to PC's & Depts					
01-6400-05-00-00	IT Allocations (OUT) to PC's & Depts.	(791,126)	(40,905)	(750,221)	5.2%
	Total IT Allocations (Out) to PC's & Depts	(791,126)	(40,905)	(750,221)	5.2%

Agenda Item

4.G.

Board of Directors Meeting

Meeting Date: November 4, 2021

TO: Board of Directors
FROM: Betty Burnett, General Manager
STAFF CONTACT: Mary Carey, Finance Controller
SUBJECT: Financial Reports for the Month of August 2021

Summary/Discussion

The following selected financial reports are routinely provided monthly to the Finance Committee for recommendation to the Board of Directors to ratify Cash Disbursements and receive and file the remaining documents.

The reports included are as follows:

1. Summary of Disbursements for August 2021 (Exhibit A)
 - ***The August Disbursements did include payment amounts to West Yost.***
2. Schedule of Funds Available for Reinvestment (Exhibit B)
 - Local Agency Investment Fund (LAIF)
3. Schedule of Cash and Investments (Exhibit C)
4. Capital Schedule (Exhibit D)
 - Capital Projects – Graph (Exhibit D-1)
5. Budget vs. Actual Expenses:
 - Operations and Environmental Summary (Exhibit E-1)
 - Operations and Environmental by PC (E-1.2)
 - Residual Engineering, after transfer to Capital (Exhibit E-2)
 - Administration (Exhibit E-3)
 - Information Technology (IT) (Exhibit E-4)

Fiscal impact

August 2021 cash disbursements were: \$ 3,118,837.

- Monthly disbursements are summarized in the attached Exhibit A.
- The attached Exhibits B, C, D and E are informational reports only.

Recommended Action: The Finance Committee recommends to the Board of Directors to ratify the August 2021 disbursements for the period from August 1, 2021, through August 31, 2021, totaling \$3,118,837, and to receive and file the August 2021 Financial Reports as submitted.

Exhibit A

**South Orange County Wastewater Authority
Summary of Disbursements for August 2021
Staff Recommendation of Fiscal Matters**

	<u>Actual</u>
General Fund	\$ (277,017)
PC 2 - Jay B. Latham Plant	(1,211,159)
PC 5 - San Juan Creek Ocean Outfall	(15,565)
PC 8 - Pretreatment Program	(16,340)
PC 12 SO - Water Reclamation Permits	(60,535)
PC 15 - Coastal Treatment Plant/AWT	(785,794)
PC 17 - Joint Regional Wastewater Reclamation	(722,984)
PC 21 - Effluent Transmission Main	(10,821)
PC 23 - North Coast Interceptor	-
PC 24 - Aliso Creek Ocean Outfall	(18,623)
Total	<u><u>\$ (3,118,837)</u></u>

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
SCHEDULE OF FUNDS AVAILABLE FOR REINVESTMENT
as of August 31, 2021**

CASH IN BANK: (BEGINNING BAL.)	\$ 1,860,499
L.A.I.F. FUNDS: (BEGINNING BAL.)	8,599,365
DEPOSITS, TRANSFERS & ADJUSTMENTS:	8,401,985
FUND REQUIREMENTS:	
BILLS FOR CONSIDERATION ¹	<u>(3,118,837)</u>
TOTAL CASH IN BANK	<u>\$ 15,743,012</u>

¹ GL postings.

In accordance with Government Code 53646(c), since all funds are placed in the State LAIF, staff has included in the Financial Packet, the most current statement from the State LAIF, in lieu of the report required by Government Code 53646(b)(1).

In accordance with requirements of the Government Code and the "SOCWA Investment Policy", I hereby certify that:

- 1). All investment actions executed since the last report have been made in full compliance with the Investment Policy.
- 2). SOCWA does not have sufficient funds currently on hand to meet its expenditure obligations for the next six months (see note) due to the fact that SOCWA bills and receives operational funds on a quarterly basis only.

Betty Burnett
General Manager

Note: Operational funds are collected on a quarterly basis at the beginning of the quarter. Capital funds are collected on a quarterly basis in connection with projected needs. Member agencies have pledged to have funds available to meet all obligations.



PMIA/LAIF Performance Report as of 10/06/21



PMIA Average Monthly Effective Yields⁽¹⁾

Sep	0.206
Aug	0.221
Jul	0.221

Quarterly Performance Quarter Ended 06/30/21

LAIF Apportionment Rate ⁽²⁾ :	0.33
LAIF Earnings Ratio ⁽²⁾ :	0.0000897371743018
LAIF Fair Value Factor ⁽¹⁾ :	1.00008297
PMIA Daily ⁽¹⁾ :	0.22%
PMIA Quarter to Date ⁽¹⁾ :	0.30%
PMIA Average Life ⁽¹⁾ :	291

Pooled Money Investment Account Monthly Portfolio Composition ⁽¹⁾ 08/31/21 \$176.7 billion

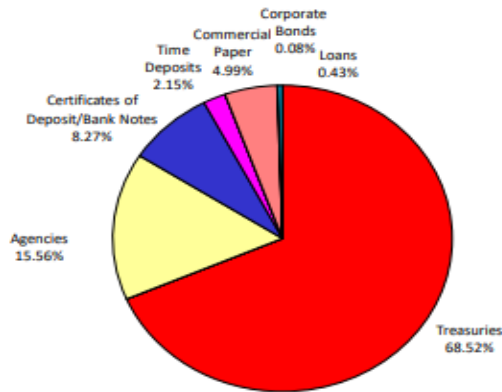


Chart does not include \$8,585,000.00 in mortgages, which equates to 0.004859%. Percentages may not total 100% due to rounding.

Daily rates are now available here. [View PMIA Daily Rates](#)

Notes: The apportionment rate includes interest earned on the CalPERS Supplemental Pension Payment pursuant to Government Code 20825 (c)(1) and interest earned on the Wildfire Fund loan pursuant to Public Utility Code 3288 (a).

Source:

⁽¹⁾ State of California, Office of the Treasurer

⁽²⁾ State of California, Office of the Controller

Exhibit C

**South Orange County Wastewater Authority
Schedule of Cash and Investments
as of August 31, 2021**

MVA	\$ 2,765	(A)
A/P Checking	1,312,028	(B)
Payroll Checking	370,855	(C)
State LAIF	14,057,365	(D)
Total Cash in Bank	\$ 15,743,012	
Petty Cash	1,600	(E)
Total Operating Cash	\$ 15,744,612	
OPEB Trust	6,774,894	(F)
Total Cash and Investments	\$ 22,519,507	

Notes:

- (A) Interest bearing account; all cash receipts are deposited in this account and later moved to the LAIF account.
- (B) Accounts Payable Checks are drawn against this account; money is transferred to this account, as needed, from the LAIF account.
- (C) Payroll including payroll taxes and related liabilities are drawn against this account; money is transferred into this account, as needed, from the LAIF account.
- (D) California State Local Agency Investment Fund (LAIF) balance.
- (E) Cash on hand with GM's office and held by Chief Operators at each Treatment facility.
- (F) OPEB Trust Fund; these funds can only be used for Retiree Health Benefits.

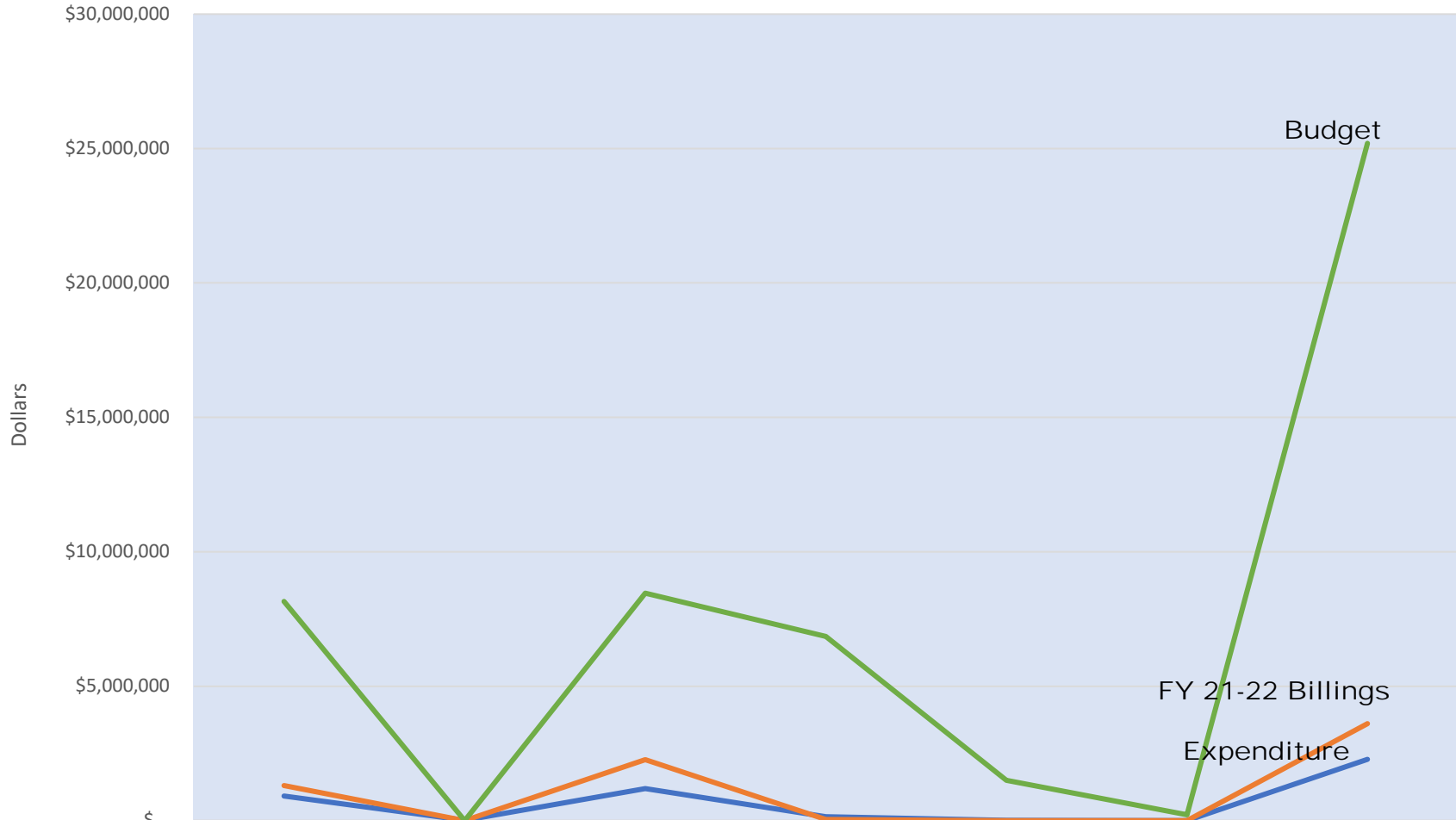
**South Orange County Wastewater Authority
Capital Projects Summaries
For the Period Ended August 31, 2021
(in dollars)**

FY 2021-22 Budget vs. Actual Spending								
<u>Description</u>	Capital Budget	Fiscal Year Spending	(Over)/ Under Budget	% Expended	Member Agency Billed	Member Agency Collections	Open Receivables	% Expended vs. Billed
PC 2-JB Latham	\$ 8,153,937	\$ 917,024	\$ 7,236,913	11.2%	\$ 1,303,750	\$ 1,303,750	\$ -	70.3%
PC 5-San Juan Creek Outfall ¹	-	12,688	(12,688)		-	-	-	-
PC 15-Coastal	8,464,653	1,193,833	7,270,820	14.1%	2,264,999	2,264,999	-	52.7%
PC 17-Regional	6,851,959	140,426	6,711,533	2.0%	38,249	38,249	-	367.1%
PC 21 Effluent Transmission	1,502,000	15,462	1,486,538	1.0%	-	-	-	-
PC 24 Aliso Creek Outfall	220,000	-	220,000	0.0%	-	-	-	-
Total Large Capital	\$ 25,192,549	\$ 2,279,434	\$ 22,913,115	9.0%	\$ 3,606,998	\$ 3,606,998	\$ -	63.2%
Non-Capital Engineering	405,871	8,307	397,565	2.0%	25,000	25,000	-	33.2%
Non-Capital Misc Engineering	254,500	11,530	242,970	4.5%	6,000	6,000	-	192.2%
Small Internal Capital	2,061,000	207,222	1,853,778	10.1%	515,250	515,250	-	40.2%
Total Capital	\$ 27,913,920	\$ 2,506,493	\$ 25,407,427	9.0%	\$ 4,153,248	\$ 4,153,248	\$ -	60.4%

¹ PC 24 is paid out of Cash on Hand collected in an earlier year.

Large Capital Projects Fiscal Year '21-22 Budget vs. Year-to-Date Expenditures & Billings as of 8/31/2021

Exhibit D-1



	PC 2-JB Latham	PC 5-San Juan Creek Outfall	PC 15-Coastal	PC 17-Regional	PC 21 Effluent Transmission	PC 24 Aliso Creek Outfall	Total Large Capital
Spent - YTD 8/31/21	\$917,024	12,688.00	\$1,193,833	\$140,426	\$15,461.76	-	\$2,279,434
FY 21-22 Billings	\$1,303,750	-	\$2,264,999	\$38,249	-	-	\$3,606,998
Capital Budget 21-22	\$8,153,937	-	\$8,464,653	\$6,851,959	\$1,502,000	\$220,000	\$25,192,549

South Orange County Wastewater Authority
O & M & Environmental Safety Costs Summary

For the Period Ended August 31, 2021
(in dollars)

	FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended	
Salary and Fringe					
5000--**_**	Regular Salaries-O&M	4,847,168	750,093	4,097,075	15.5%
5001--**_**	Overtime Salaries-O&M	107,256	14,887	92,369	13.9%
5306--**_**	Scheduled Holiday Work	91,000	13,209	77,791	14.5%
5315--**_**	Comp Time - O&M	15,980	5,037	10,943	31.5%
5401--**_**	Fringe Benefits IN to PC's & Depts.	2,511,460	388,648	2,122,812	15.5%
5700--**_**	Standby Pay	67,600	11,440	56,160	16.9%
	Total Payroll Costs	7,640,464	1,183,315	6,457,149	15.5%
Other Expenses					
5002--**_**	Electricity	1,170,780	202,515	968,265	17.3%
5003--**_**	Natural Gas	226,008	53,643	172,365	23.7%
5004--**_**	Potable & Reclaimed Water	85,000	6,726	78,274	7.9%
5005--**_**	Co-generation Power Credit	(686,000)	(191,395)	(494,605)	27.9%
5006--**_**	Chlorine/Sodium Hypochlorite	502,008	106,185	395,823	21.2%
5007--**_**	Polymer Products	747,004	135,472	611,532	18.1%
5008--**_**	Ferric Chloride	588,004	105,902	482,102	18.0%
5009--**_**	Odor Control Chemicals	107,016	22,504	84,512	21.0%
5010--**_**	Other Chemicals - Misc.	2,004	-	2,004	-
5011--**_**	Laboratory Services	65,196	1,781	63,415	2.7%
5012--**_**	Grit Hauling	120,000	17,211	102,789	14.3%
5013--**_**	Landscaping	219,008	26,323	192,685	12.0%
5015--**_**	Management Support Services	475,000	8,636	466,364	1.8%
5016--**_**	Audit - Environmental	1,304	-	1,304	-
5017--**_**	Legal Fees	48,612	5,513	43,099	11.3%
5018--**_**	Public Notices/ Public Relations	6,000	-	6,000	-
5019--**_**	Contract Services Misc.	277,016	-	277,016	-
5021--**_**	Small Vehicle Expense	23,080	3,649	19,431	15.8%
5022--**_**	Miscellaneous Expense	16,012	159	15,853	1.0%
5023--**_**	Office Supplies - All	46,008	3,869	42,139	8.4%
5024--**_**	Petroleum Products	34,008	454	33,554	1.3%
5025--**_**	Uniforms	70,996	10,948	60,048	15.4%
5026--**_**	Small Vehicle Fuel	22,656	1,507	21,149	6.7%
5027--**_**	Insurance - Property/Liability	317,684	26,047	291,637	8.2%
5028--**_**	Small Tools & Supplies	80,000	13,157	66,843	16.4%
5030--**_**	Trash Disposal	8,500	899	7,601	10.6%
5031--**_**	Safety Program & Supplies	119,344	16,946	102,398	14.2%
5032--**_**	Equipment Rental	7,004	1,509	5,495	21.6%
5033--**_**	Recruitment	2,500	164	2,336	6.6%
5034--**_**	Travel Expense/Tech. Conferences	29,928	10	29,918	0.0%
5035--**_**	Training Expense	47,996	7,860	40,136	16.4%
5036--**_**	Laboratory Supplies	124,400	19,040	105,360	15.3%
5037--**_**	Office Equipment	25,992	4,358	21,634	16.8%
5038--**_**	Permits	489,996	18,855	471,141	3.8%
5039--**_**	Membership Dues/Fees	17,872	1,621	16,251	9.1%
5044--**_**	Offshore Monitoring	151,000	5,274	145,726	3.5%
5045--**_**	Offshore Biochemistry - 20B	23,024	-	23,024	-
5046--**_**	Effluent Chemistry	70,000	2,859	67,141	4.1%
5047--**_**	Access Road Expenses	45,000	-	45,000	-
5048--**_**	Storm Damage	21,000	-	21,000	-
5049--**_**	Biosolids Disposal	1,470,000	241,074	1,228,926	16.4%
5050--**_**	Contract Services Generators - 29A	28,008	4,145	23,863	14.8%
5052--**_**	Janitorial Services	101,004	15,003	86,001	14.9%
5053--**_**	Contract Serv - Digester Cleaning - 29E	60,000	30,676	29,324	51.1%
5054--**_**	Diesel Truck Maint	42,000	1,284	40,716	3.1%

**South Orange County Wastewater Authority
O & M & Environmental Safety Costs Summary**

For the Period Ended August 31, 2021
(in dollars)

	FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended	
-5055--**-**	Diesel Truck Fuel	11,500	416	11,084	3.6%
-5056--**-**	Maintenance Equip. & Facilities (Solids)	366,000	118,905	247,095	32.5%
-5057--**-**	Maintenance Equip. & Facilities (Liquids)	651,996	63,547	588,449	9.7%
-5058--**-**	Maintenance Equip. & Facilities (Common)	90,008	29,502	60,506	32.8%
-5059--**-**	Maintenance Equip. & Facilities (Co-Gen)	738,996	83,583	655,413	11.3%
-5060--**-**	Maintenance Equip. & Facilities (AWT)	88,000	3,689	84,311	4.2%
-5061--**-**	Mileage	3,608	192	3,416	5.3%
-5068--**-**	MNWD Potable Water Supplies & Svcs.	28,000	10,722	17,278	38.3%
-5074--**-**	Education Reimbursement	1,996	101	1,895	5.1%
-5076--**-**	SCADA Infrastructure	86,596	30,000	56,596	34.6%
-5077--**-**	IT Direct	5,508	-	5,508	-
-5105--**-**	Co-Generation Power Credit - Offset	685,992	191,395	494,597	27.9%
-5303--**-**	Group Insurance Waiver	14,392	2,437	11,955	16.9%
-5305--**-**	Medicare Tax Payments for Employees	2,160	317	1,843	14.7%
-5309--**-**	Operating Leases	26,000	5,263	20,737	20.2%
-5705--**-**	Monthly Car Allowance	35,396	6,799	28,597	19.2%
-5799--**-**	Zephyr Wall Costs Share-O&M	(14,000)	(14,000)	0	100.0%
-6500--**-**	IT Allocations in to PC's & Depts.	610,540	62,933	547,607	10.3%
	Total Other Expenses	10,881,660	1,528,185	9,353,475	14.0%
	Total O&M Expenses	18,522,124	2,711,500	15,810,624	14.6%

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
For the Period Ended August 31, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
02 - Jay B. Latham Plant					
Salary and Fringe					
02-5000-***.**	Regular Salaries-O&M	1,585,228	267,666	1,317,562	16.9%
02-5001-***.**	Overtime Salaries-O&M	37,904	8,696	29,208	22.9%
02-5306-***.**	Scheduled Holiday Work	36,600	4,903	31,697	13.4%
02-5315-***.**	Comp Time - O&M	8,264	2,527	5,737	30.6%
02-5401-***.**	Fringe Benefits IN to PC's & Depts.	821,352	138,687	682,665	16.9%
02-5700-***.**	Standby Pay	25,096	4,680	20,416	18.6%
	Total Payroll Costs	2,514,444	427,159	2,087,285	17.0%
Other Expenses					
02-5002-***.**	Electricity	506,564	72,764	433,800	14.4%
02-5003-***.**	Natural Gas	132,160	23,962	108,198	18.1%
02-5004-***.**	Potable & Reclaimed Water	25,000	2,476	22,525	9.9%
02-5006-***.**	Chlorine/Sodium Hypochlorite	8,000	1,255	6,745	15.7%
02-5007-***.**	Polymer Products	305,000	64,540	240,460	21.2%
02-5008-***.**	Ferric Chloride	200,000	38,415	161,585	19.2%
02-5009-***.**	Odor Control Chemicals	21,004	5,096	15,908	24.3%
02-5010-***.**	Other Chemicals - Misc.	1,000	-	1,000	-
02-5011-***.**	Laboratory Services	19,000	264	18,736	1.4%
02-5012-***.**	Grit Hauling	55,000	8,342	46,658	15.2%
02-5013-***.**	Landscaping	77,004	8,078	68,926	10.5%
02-5015-***.**	Management Support Services	30,008	3,550	26,458	11.8%
02-5017-***.**	Legal Fees	4,996	928	4,068	18.6%
02-5019-***.**	Contract Services Misc.	70,636	-	70,636	-
02-5021-***.**	Small Vehicle Expense	11,000	1,091	9,909	9.9%
02-5022-***.**	Miscellaneous Expense	8,000	83	7,917	1.0%
02-5023-***.**	Office Supplies - All	29,000	1,546	27,454	5.3%
02-5024-***.**	Petroleum Products	11,004	-	11,004	-
02-5025-***.**	Uniforms	33,996	4,857	29,139	14.3%
02-5026-***.**	Small Vehicle Fuel	10,004	856	9,148	8.6%
02-5027-***.**	Insurance - Property/Liability	108,384	9,422	98,962	8.7%
02-5028-***.**	Small Tools & Supplies	38,000	1,021	36,979	2.7%
02-5030-***.**	Trash Disposal	3,000	282	2,718	9.4%
02-5031-***.**	Safety Program & Supplies	41,000	7,996	33,004	19.5%
02-5032-***.**	Equipment Rental	3,000	-	3,000	-
02-5033-***.**	Recruitment	348	164	184	47.1%
02-5034-***.**	Travel Expense/Tech. Conferences	9,012	-	9,012	-
02-5035-***.**	Training Expense	16,976	2,559	14,417	15.1%
02-5036-***.**	Laboratory Supplies	21,004	1,344	19,660	6.4%
02-5037-***.**	Office Equipment	13,000	2,573	10,427	19.8%
02-5038-***.**	Permits	13,496	17,818	(4,322)	132.0%
02-5039-***.**	Membership Dues/Fees	4,516	344	4,172	7.6%
02-5049-***.**	Biosolids Disposal	620,000	99,001	520,999	16.0%
02-5050-***.**	Contract Services Generators - 29A	10,004	-	10,004	-
02-5052-***.**	Janitorial Services	47,000	7,531	39,469	16.0%
02-5053-***.**	Contract Serv - Digester Cleaning - 29E	60,000	30,676	29,324	51.1%
02-5054-***.**	Diesel Truck Maint	22,000	18	21,982	0.1%
02-5055-***.**	Diesel Truck Fuel - 37B	2,996	-	2,996	-
02-5056-***.**	Maintenance Equip. & Facilities (Solids)	155,000	36,129	118,871	23.3%
02-5057-***.**	Maintenance Equip. & Facilities (Liquids)	260,000	17,562	242,438	6.8%
02-5058-***.**	Maintenance Equip. & Facilities (Common)	29,000	22,324	6,676	77.0%
02-5059-***.**	Maintenance Equip. & Facilities (Co-Gen)	277,120	44,020	233,100	15.9%
02-5061-***.**	Mileage	2,104	57	2,047	2.7%
02-5076-***.**	SCADA Infrastructure	28,960	10,000	18,960	34.5%
02-5077-***.**	IT Direct	2,620	-	2,620	-
02-5303-***.**	Group Insurance Waiver	3,596	609	2,987	16.9%
02-5309-***.**	Operating Leases	26,000	3,348	22,652	12.9%
02-5705-***.**	Monthly Car Allowance	22,804	3,859	18,946	16.9%
02-5799-***.**	Zephyr Wall Costs Share-O&M	(14,000)	(14,000)	-	100.0%
02-6500-***.**	IT Allocations in to PC's & Depts.	199,812	20,596	179,216	10.3%
	Total Other Expenses	3,585,128	563,357	3,021,771	15.7%
	Total Expenses	6,099,572	990,517	5,109,055	16.2%

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
For the Period Ended August 31, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
05 - San Juan Creek Ocean Outfall					
Salary and Fringe					
05-5000-***.**	Regular Salaries-O&M	146,556	16,175	130,381	11.0%
05-5001-***.**	Overtime Salaries-O&M	72	-	72	-
05-5306-***.**	Scheduled Holiday Work	416	44	372	10.5%
05-5401-***.**	Fringe Benefits IN to PC's & Depts.	75,928	8,381	67,547	11.0%
	Total Payroll Costs	222,972	24,599	198,373	11.0%
Other Expenses					
05-5015-***.**	Management Support Services	212,500	4,138	208,362	1.9%
05-5017-***.**	Legal Fees	2,008	-	2,008	-
05-5026-***.**	Small Vehicle Fuel	500	-	500	-
05-5027-***.**	Insurance - Property/Liability	9,668	768	8,900	7.9%
05-5031-***.**	Safety Supplies	1,052	-	1,052	-
05-5033-***.**	Recruitment	556	-	556	-
05-5034-***.**	Travel Expense/Tech. Conferences	1,512	10	1,502	0.6%
05-5035-***.**	Training Expense	1,952	-	1,952	-
05-5036-***.**	Laboratory Supplies	35,000	6,150	28,850	17.6%
05-5038-***.**	Permits	228,968	-	228,968	-
05-5039-***.**	Membership Dues/Fees	216	-	216	-
05-5044-***.**	Offshore Monitoring	75,496	617	74,879	0.8%
05-5045-***.**	Offshore Biochemistry - 20B	11,512	-	11,512	-
05-5046-***.**	Effluent Chemistry	35,000	1,047	33,953	3.0%
05-5058-***.**	Maintenance Equip. & Facilities (Common)	1,004	189	815	18.8%
05-6500-***.**	IT Allocations in to PC's & Depts.	18,464	1,903	16,561	10.3%
	Total Other Expenses	635,408	14,822	620,586	2.3%
	Total Expenses	858,380	39,421	818,959	4.6%
08 - Pre Treatment					
Salary and Fringe					
08-5000-***.**	Regular Salaries-O&M	117,772	20,122	97,650	17.1%
08-5401-***.**	Fringe Benefits IN to PC's & Depts.	61,016	10,426	50,590	17.1%
	Total Payroll Costs	178,788	30,548	148,240	17.1%
Other Expenses					
08-5011-***.**	Laboratory Services	3,200	295	2,905	9.2%
08-5016-***.**	Audit - Environmental	1,304	-	1,304	-
08-5017-***.**	Legal Fees	2,596	-	2,596	-
08-5018-***.**	Public Notices/ Public Relations	6,000	-	6,000	-
08-5021-***.**	Small Vehicle Expense - 31A	1,076	-	1,076	-
08-5022-***.**	Miscellaneous Expense	2,008	-	2,008	-
08-5026-***.**	Small Vehicle Fuel - 37A	1,148	-	1,148	-
08-5027-***.**	Insurance - Property/Liability	3,024	240	2,784	7.9%
08-5028-***.**	Small Tools & Supplies	3,000	706	2,294	23.5%
08-5034-***.**	Travel Expense/Tech. Conferences	2,732	-	2,732	-
08-5035-***.**	Training Expense	-	150	(150)	-
08-5038-***.**	Permits and Fines	3,132	-	3,132	-
08-6500-***.**	IT Allocations in to PC's & Depts.	14,832	1,529	13,303	10.3%
	Total Other Expenses	44,052	2,920	41,132	6.6%
	Total Expenses	222,840	33,468	189,372	15.0%
12 - Water Reclamation Permits					
Salary and Fringe					
12-5000-***.**	Regular Salaries-O&M	44,808	18,620	26,188	41.6%
12-5401-***.**	Fringe Benefits IN to PC's & Depts.	23,208	9,648	13,560	41.6%
	Total Payroll Costs	68,016	28,268	39,748	41.6%
Other Expenses					
12-5015-***.**	Management Support Services	-	-	-	-
12-5017-***.**	Legal Fees	2,000	-	2,000	-
12-5027-***.**	Insurance - Property/Liability	5,164	410	4,754	7.9%
12-5034-***.**	Travel Expense/Tech. Conferences	920	-	920	-
12-5038-***.**	Permits	12,044	-	12,044	-
12-5039-***.**	Membership Dues/Fees	68	-	68	-
12-6500-***.**	IT Allocations in to PC's & Depts.	5,640	582	5,058	10.3%
	Total Other Expenses	25,836	992	24,844	3.8%
	Total Expenses	93,852	29,260	64,592	31.2%

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
For the Period Ended August 31, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
15 - Coastal Treatment Plant					
Salary and Fringe					
15-5000-***.**	Regular Salaries-O&M	1,083,504	140,218	943,286	12.9%
15-5001-***.**	Overtime Salaries-O&M	19,208	-	19,208	-
15-5306-***.**	Scheduled Holiday Work	15,584	2,689	12,895	17.3%
15-5315-***.**	Comp Time - O&M	2,000	283	1,717	14.1%
15-5401-***.**	Fringe Benefits IN to PC's & Depts.	561,396	73,136	488,260	13.0%
15-5700-***.**	Standby Pay	16,504	650	15,854	3.9%
	Total Payroll Costs	1,698,196	216,975	1,481,221	12.8%
Other Expenses					
15-5002-***.**	Electricity	202,348	45,776	156,572	22.6%
15-5003-***.**	Natural Gas	2,872	71	2,801	2.5%
15-5004-***.**	Potable & Reclaimed Water	25,000	1,965	23,035	7.9%
15-5006-***.**	Chlorine/Sodium Hypochlorite	94,004	15,570	78,434	16.6%
15-5007-***.**	Polymer Products	1,004	-	1,004	-
15-5008-***.**	Ferric Chloride	58,000	15,294	42,706	26.4%
15-5009-***.**	Odor Control Chemicals	51,004	9,700	41,304	19.0%
15-5011-***.**	Laboratory Services	20,000	479	19,521	2.4%
15-5012-***.**	Grit Hauling	23,000	2,923	20,078	12.7%
15-5013-***.**	Landscaping	57,000	5,070	51,930	8.9%
15-5015-***.**	Management Support Services	10,000	-	10,000	-
15-5017-***.**	Legal Fees	30,000	666	29,334	2.2%
15-5019-***.**	Contract Services Misc.	91,732	-	91,732	-
15-5021-***.**	Small Vehicle Expense	4,004	1,378	2,626	34.4%
15-5022-***.**	Miscellaneous Expense	1,000	-	1,000	-
15-5023-***.**	Office Supplies - All	4,004	1,257	2,747	31.4%
15-5024-***.**	Petroleum Products	3,000	-	3,000	-
15-5025-***.**	Uniforms	9,000	1,287	7,713	14.3%
15-5026-***.**	Small Vehicle Fuel	2,000	98	1,902	4.9%
15-5027-***.**	Insurance - Property/Liability	47,112	3,742	43,370	7.9%
15-5028-***.**	Small Tools & Supplies	9,000	-	9,000	-
15-5030-***.**	Trash Disposal	2,996	290	2,706	9.7%
15-5031-***.**	Safety Supplies	35,000	4,238	30,762	12.1%
15-5032-***.**	Equipment Rental	1,000	-	1,000	-
15-5033-***.**	Recruitment	312	-	312	-
15-5034-***.**	Travel Expense/Tech. Conferences	5,244	-	5,244	-
15-5035-***.**	Training Expense	11,632	2,434	9,198	20.9%
15-5036-***.**	Laboratory Supplies	14,000	2,984	11,016	21.3%
15-5037-***.**	Office Equipment	2,996	394	2,602	13.1%
15-5038-***.**	Permits	4,820	511	4,309	10.6%
15-5039-***.**	Membership Dues/Fees	4,960	396	4,564	8.0%
15-5047-***.**	Access Road Expenses	45,000	-	45,000	-
15-5048-***.**	Storm Damage	21,000	-	21,000	-
15-5049-***.**	Biosolids Disposal	-	10,308	(10,308)	-
15-5050-***.**	Contract Services Generators - 29A	5,000	-	5,000	-
15-5052-***.**	Janitorial Services	12,004	1,966	10,038	16.4%
15-5054-***.**	Diesel Truck Maint - 31B	1,000	-	1,000	-
15-5055-***.**	Diesel Truck Fuel - 37B	504	-	504	-
15-5057-***.**	Maintenance Equip. & Facilities (Liquids)	149,996	21,827	128,169	14.6%
15-5058-***.**	Maintenance Equip. & Facilities (Common)	23,000	575	22,425	2.5%
15-5060-***.**	Maintenance Equip. & Facilities (AWT)	38,000	3,266	34,734	8.6%
15-5061-***.**	Mileage	500	43	457	8.6%
15-5076-***.**	SCADA Infrastructure	28,952	10,000	18,952	34.5%
15-5077-***.**	IT Direct	264	-	264	-
15-5303-***.**	Group Insurance Waiver	3,600	609	2,991	16.9%
15-5305-***.**	Medicare Tax Payments for Employees	2,160	317	1,843	14.7%
15-5705-***.**	Monthly Car Allowance	4,196	711	3,485	16.9%
15-6500-***.**	IT Allocations in to PC's & Depts.	136,476	14,068	122,408	10.3%
	Total Other Expenses	1,299,696	180,211	1,119,485	13.9%
	Total Expenses	2,997,892	397,186	2,600,706	13.2%

**South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC**

For the Period Ended August 31, 2021
(in dollars)

	FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended	
17 - Joint Regional Wastewater Reclamation and Sludge Handling					
Salary and Fringe					
17-5000-***.**	Regular Salaries-O&M	1,718,916	270,960	1,447,956	15.8%
17-5001-***.**	Overtime Salaries-O&M	49,452	7,127	42,325	14.4%
17-5306-***.**	Scheduled Holiday Work	38,136	5,529	32,607	14.5%
17-5315-***.**	Comp Time - O&M	5,716	2,228	3,488	39.0%
17-5401-***.**	Fringe Benefits IN to PC's & Depts.	890,632	140,393	750,239	15.8%
17-5700-***.**	Standby Pay	26,000	6,110	19,890	23.5%
	Total Payroll Costs	2,728,852	432,347	2,296,505	15.8%
Other Expenses					
17-5002-***.**	Electricity	461,868	83,975	377,893	18.2%
17-5003-***.**	Natural Gas	90,976	29,610	61,366	32.5%
17-5004-***.**	Potable & Reclaimed Water	35,000	2,286	32,714	6.5%
17-5005-***.**	Co-generation Power Credit	(686,000)	(191,395)	(494,605)	27.9%
17-5006-***.**	Chlorine/Sodium Hypochlorite	400,004	89,360	310,644	22.3%
17-5007-***.**	Polymer Products	441,000	70,932	370,068	16.1%
17-5008-***.**	Ferric Chloride	330,004	52,193	277,811	15.8%
17-5009-***.**	Odor Control Chemicals	35,008	7,709	27,299	22.0%
17-5010-***.**	Other Chemicals - Misc.	1,004	-	1,004	-
17-5011-***.**	Laboratory Services	22,996	744	22,252	3.2%
17-5012-***.**	Grit Hauling - 21A	42,000	5,946	36,054	14.2%
17-5013-***.**	Landscaping	85,004	13,175	71,829	15.5%
17-5015-***.**	Management Support Services	9,996	-	9,996	-
17-5017-***.**	Legal Fees	5,004	552	4,452	11.0%
17-5019-***.**	Contract Services Misc.	96,312	-	96,312	-
17-5021-***.**	Small Vehicle Expense	7,000	1,180	5,820	16.9%
17-5022-***.**	Miscellaneous Expense	5,004	77	4,927	1.5%
17-5023-***.**	Office Supplies - All	13,004	1,066	11,938	8.2%
17-5024-***.**	Petroleum Products	20,004	454	19,550	2.3%
17-5025-***.**	Uniforms	28,000	4,804	23,196	17.2%
17-5026-***.**	Small Vehicle Fuel	9,004	553	8,451	6.1%
17-5027-***.**	Insurance - Property/Liability	135,628	10,773	124,855	7.9%
17-5028-***.**	Small Tools & Supplies	30,000	11,430	18,570	38.1%
17-5030-***.**	Trash Disposal	2,504	327	2,177	13.1%
17-5031-***.**	Safety Supplies	41,248	4,712	36,536	11.4%
17-5032-***.**	Equipment Rental	3,004	1,509	1,495	50.2%
17-5033-***.**	Recruitment	728	-	728	-
17-5034-***.**	Travel Expense/Tech. Conferences	8,996	-	8,996	-
17-5035-***.**	Training Expense	15,480	2,717	12,763	17.6%
17-5036-***.**	Laboratory Supplies	24,392	2,633	21,759	10.8%
17-5037-***.**	Office Equipment	9,996	1,391	8,605	13.9%
17-5038-***.**	Permits	10,612	526	10,086	5.0%
17-5039-***.**	Membership Dues/Fees	7,892	881	7,011	11.2%
17-5049-***.**	Biosolids Disposal	850,000	131,765	718,235	15.5%
17-5050-***.**	Contract Services Generators - 29A	13,004	4,145	8,859	31.9%
17-5052-***.**	Janitorial Services	42,000	5,506	36,494	13.1%
17-5054-***.**	Diesel Truck Maint	19,000	1,266	17,734	6.7%
17-5055-***.**	Diesel Truck Fuel	8,000	416	7,584	5.2%
17-5056-***.**	Maintenance Equip. & Facilities (Solids)	211,000	82,776	128,224	39.2%
17-5057-***.**	Maintenance Equip. & Facilities (Liquids)	242,000	24,157	217,843	10.0%
17-5058-***.**	Maintenance Equip. & Facilities (Common)	36,000	6,414	29,586	17.8%
17-5059-***.**	Maintenance Equip. & Facilities (Co-Gen)	461,876	39,562	422,314	8.6%
17-5060-***.**	Maintenance Equip. & Facilities (AWT) 41-E	50,000	422	49,578	0.8%
17-5061-***.**	Mileage	1,004	92	913	9.1%
17-5068-***.**	MNWD Potable Water Supplies & Svcs.	28,000	10,722	17,278	38.3%
17-5074-***.**	Education Reimbursement	1,996	101	1,895	5.1%
17-5076-***.**	SCADA Infrastructure	28,684	10,000	18,684	34.9%
17-5077-***.**	IT Direct	2,624	-	2,624	-
17-5105-***.**	Co-Generation Power Credit - Offset	685,992	191,395	494,597	27.9%
17-5303-***.**	Group Insurance Waiver	7,196	1,218	5,978	16.9%
17-5309-***.**	Operating Leases	-	1,915	(1,915)	-
17-5705-***.**	Monthly Car Allowance	8,396	2,229	6,167	26.6%
17-6500-***.**	IT Allocations in to PC's & Depts.	216,520	22,318	194,202	10.3%
	Total Other Expenses	4,655,964	746,540	3,909,424	16.0%
	Total Expenses	7,384,816	1,178,888	6,205,928	16.0%

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
For the Period Ended August 31, 2021
(in dollars)

	FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended	
21 - Effluent Transmission Main					
Salary and Fringe					
21-5000-***.**	Regular Salaries-O&M	1,088	-	1,088	-
21-5401-***.**	Fringe Benefits IN to PC's & Depts.	564	-	564	-
	Total Payroll Costs	1,652	-	1,652	-
Other Expenses					
21-5019-***.**	Contract Services Misc.	18,336	-	18,336	-
21-5027-***.**	Insurance - Property/Liability	-	-	-	-
	Total Other Expenses	18,336	-	18,336	-
	Total Expenses	19,988	-	19,988	-
23 - North Coast Interceptor					
Other Expenses					
23-5017-***.**	Legal Fees	-	3,367	(3,367)	-
	Total Expenses	-	3,367	(3,367)	-
24 - Aliso Creek Ocean Outfall					
Salary and Fringe					
24-5000-***.**	Regular Salaries-O&M	149,296	15,397	133,899	10.3%
24-5001-***.**	Overtime Salaries-O&M	620	-	620	-
24-5306-***.**	Scheduled Holiday Work	264	44	220	16.6%
24-5401-***.**	Fringe Benefits IN to PC's & Depts.	77,364	7,978	69,386	10.3%
	Total Payroll Costs	227,544	23,418	204,126	10.3%
Other Expenses					
24-5015-***.**	Management Support Services	212,496	948	211,548	0.4%
24-5017-***.**	Legal Fees	2,008	-	2,008	-
24-5027-***.**	Insurance - Property/Liability	8,704	691	8,013	7.9%
24-5031-***.**	Safety Supplies	1,044	-	1,044	-
24-5033-***.**	Recruitment	556	-	556	-
24-5034-***.**	Travel Expense/Tech. Conferences	1,512	-	1,512	-
24-5035-***.**	Training Expense	1,956	-	1,956	-
24-5036-***.**	Laboratory Supplies	30,004	5,928	24,076	19.8%
24-5038-***.**	Permits	216,924	-	216,924	-
24-5039-***.**	Membership Dues/Fees	220	-	220	-
24-5044-***.**	Offshore Monitoring	75,504	4,657	70,847	6.2%
24-5045-***.**	Offshore Biochemistry - 20B	11,512	-	11,512	-
24-5046-***.**	Effluent Chemistry	35,000	1,812	33,188	5.2%
24-5058-***.**	Maintenance Equip. & Facilities (Common) 41-C	1,004	-	1,004	-
24-6500-***.**	IT Allocations in to PC's & Depts.	18,796	1,938	16,858	10.3%
	Total Other Expenses	617,240	15,975	601,265	2.6%
	Total Expenses	844,784	39,393	805,391	4.7%
Total O&M Expenses		18,522,124	2,711,500	15,810,624	14.6%

**South Orange County Wastewater Authority
Budget vs. Actual Comparison - Engineering**

For the Period Ended August 31, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
Salary and Fringe					
01-5000-03-00-00	Regular Salaries-O&M	175,927	22,777	153,150	12.9%
01-5401-03-00-00	Fringe Benefits IN to PC's & Depts.	91,154	11,802	79,353	12.9%
	Total Payroll Costs	267,081	34,579	232,503	12.9%
Other Expenses					
01-5022-03-00-00	Miscellaneous Expense	3,184	84	3,100	2.6%
01-5023-03-00-00	Office Supplies - All	208	-	208	-
01-5031-03-00-00	Safety Supplies	306	-	306	-
01-5034-03-00-00	Travel Expense/Tech. Conferences	6,439	-	6,439	-
01-5035-03-00-00	Training Expense	2,244	-	2,244	-
01-5037-03-00-00	Office Equipment	408	-	408	-
01-5039-03-00-00	Membership Dues/Fees	1,377	-	1,377	-
01-5061-03-00-00	Mileage	510	21	490	4.0%
01-5309-03-00-00	Operating Leases	9,300	-	9,300	-
01-5705-03-00-00	Monthly Car Allowance	4,200	711	3,489	16.9%
01-5802-03-00-00	Shipping/Freight	312	-	312	-
01-6500-03-00-00	IT Allocations in to PC's & Depts.	54,293	5,651	48,643	10.4%
	Total Other Expenses	82,781	6,466	76,315	7.8%
	Total Engineering Expenses	349,863	41,045	308,818	11.7%

**South Orange County Wastewater Authority
Budget vs. Actual Comparison- Administration**

For the Period Ended August 31, 2021

(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
Salary and Fringe					
01-6000-04-00-00	Regular Salaries-Admin or IT	998,424	140,401	858,023	14.1%
01-6001-04-00-00	Overtime Salaries-Admin or IT	10,000	300	9,700	3.0%
01-6315-04-00-00	Comp Time - Admin	5,000	473	4,527	9.5%
01-6401-04-00-00	Fringe Benefits IN to ADMIN or IT	517,316	72,746	444,570	14.1%
	Total Payroll Costs	1,530,740	213,920	1,316,820	14.0%
Other Expenses					
01-6018-04-00-00	Public Notices/Public Relations	3,270	-	3,270	-
01-6101-04-00-00	HR Recruitment & Employee Relations	24,350	3,118	21,232	12.8%
01-6102-04-00-00	Subscriptions	2,081	1,363	718	65.5%
01-6103-04-00-00	Contract Labor	50,000	4,036	45,964	8.1%
01-6200-04-00-00	Management Support Services	90,000	7,416	82,584	8.2%
01-6201-04-00-00	Audit	46,000	15,000	31,000	32.6%
01-6202-04-00-00	Legal	220,000	88,251	131,749	40.1%
01-6204-04-00-00	Postage	1,500	286	1,214	19.1%
01-6223-04-00-00	Office Supplies - Admin	4,500	787	3,713	17.5%
01-6224-04-00-00	Office Equipment Admin or IT	1,200	2,907	(1,707)	242.2%
01-6234-04-00-00	Memberships & Trainings	88,000	7,062	80,938	8.0%
01-6239-04-00-00	Travel & Conference	11,000	2,656	8,344	24.1%
01-6241-04-00-00	Education Reimbursement	1,500	904	596	60.3%
01-6310-04-00-00	Miscellaneous	18,000	5,328	12,672	29.6%
01-6311-04-00-00	Mileage	1,236	38	1,198	3.1%
01-6317-04-00-00	Contract Services Misc	5,722	900	4,822	15.7%
01-6500-04-00-00	IT Allocations in to PC's & Depts.	125,761	12,963	112,798	10.3%
01-6601-04-00-00	Shipping/Freight	3,815	1,721	2,094	45.1%
01-6705-04-00-00	Monthly Car Allowance	12,000	2,031	9,969	16.9%
	Total Other Expenses	709,934	156,766	553,168	22.1%
	Total Admin Expenses	2,240,674	370,686	1,869,989	16.5%

South Orange County Wastewater Authority
Budget vs. Actual Comparison-IT
 For the Period Ended August 31, 2021
 (in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
Salary & Fringe					
01-6000-05-00-00	Regular Salaries-Admin or IT	100,076	14,985	85,091	15.0%
01-6401-05-00-00	Fringe Benefits IN to ADMIN or IT	51,852	7,764	44,088	15.0%
	Total Salary & Fringe	151,928	22,749	129,179	15.0%
Other Expenses					
01-6028-05-00-00	Small Tools & Supplies	1,000	200	800	20.0%
01-6035-05-00-00	Training Expense	3,000	-	3,000	-
01-6224-05-00-00	Office Equipment Admin or IT	600	-	600	-
01-6234-05-00-00	Memberships & Trainings	2,750	-	2,750	-
01-6239-05-00-00	Travel & Conference	1,500	-	1,500	-
01-6300-05-00-00	Software Maintenance Agreements	41,026	3,441	37,585	8.4%
01-6301-05-00-00	Hardware Maintenance Agreements	14,726	-	14,726	-
01-6302-05-00-00	Cloud Subscriptions (Internet)	177,328	11,809	165,519	6.7%
01-6303-05-00-00	Telecommunications	165,582	21,075	144,507	12.7%
01-6305-05-00-00	IT Professional Services	92,400	3,749	88,651	4.1%
01-6306-05-00-00	Small Hardware Purchases (< \$5k)	40,985	1,672	39,313	4.1%
01-6307-05-00-00	Small Software Purchases & Licenses (<\$5k)	28,968	3,928	25,040	13.6%
01-6308-05-00-00	IT Memberships	160	-	160	-
01-6309-05-00-00	Operating Leases	64,173	12,515	51,658	19.5%
01-6310-05-00-00	Miscellaneous	5,000	-	5,000	-
01-6312-05-00-00	Computer & Photocopy Supplies	-	409	(409)	-
	Total Other Expenses	639,198	58,798	580,400	9.2%
	Total Expenses before Allocation	791,126	81,547	709,579	10.3%
IT Allocations (Out) to PC's & Depts					
01-6400-05-00-00	IT Allocations (OUT) to PC's & Depts.	(791,126)	(81,547)	(709,579)	10.3%
	Total IT Allocations (Out) to PC's & Depts	(791,126)	(81,547)	(709,579)	10.3%

Agenda Item

4.H.

Board of Directors Meeting

Meeting Date: November 4, 2021

TO: Board of Directors
FROM: Betty Burnett, General Manager
STAFF CONTACT: Mary Carey, Finance Controller
SUBJECT: Financial Reports for the Month of September 2021

Summary/Discussion

The following selected financial reports are routinely provided monthly to the Finance Committee for recommendation to the Board of Directors to ratify Cash Disbursements and receive and file the remaining documents.

The reports included are as follows:

1. Summary of Disbursements for September 2021 (Exhibit A)
2. Schedule of Funds Available for Reinvestment (Exhibit B)
 - Local Agency Investment Fund (LAIF)
3. Schedule of Cash and Investments (Exhibit C)
4. Capital Schedule (Exhibit D)
 - Capital Projects – Graph (Exhibit D-1)
5. Budget vs. Actual Expenses:
 - Operations and Environmental Summary (Exhibit E-1)
 - Operations and Environmental by PC (E-1.2)
 - Residual Engineering, after transfer to Capital (Exhibit E-2)
 - Administration (Exhibit E-3)
 - Information Technology (IT) (Exhibit E-4)

Fiscal impact

September 2021 cash disbursements were: \$ 2,474,901.

- Monthly disbursements are summarized in the attached Exhibit A.
- The attached Exhibits B, C, D and E are informational reports only.

Recommended Action: The Finance Committee recommends to the Board of Directors to ratify the September 2021 disbursements for the period from September 1, 2021, through September 30, 2021, totaling \$2,474,901, and to receive and file the September 2021 Financial Reports as submitted.

Exhibit A

**South Orange County Wastewater Authority
Summary of Disbursements for September 2021
Staff Recommendation of Fiscal Matters**

	<u>Actual</u>
General Fund	\$ (367,316)
PC 2 - Jay B. Latham Plant	(651,251)
PC 5 - San Juan Creek Ocean Outfall	(34,008)
PC 8 - Pretreatment Program	(9,571)
PC 12 SO - Water Reclamation Permits	(2,270)
PC 15 - Coastal Treatment Plant/AWT	(853,251)
PC 17 - Joint Regional Wastewater Reclamation	(527,027)
PC 21 - Effluent Transmission Main	(6,751)
PC 23 - North Coast Interceptor	(3,367)
PC 24 - Aliso Creek Ocean Outfall	(20,091)
Total	<u>\$ (2,474,901)</u>

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
SCHEDULE OF FUNDS AVAILABLE FOR REINVESTMENT
as of September 30, 2021**

CASH IN BANK: (BEGINNING BAL.)	\$	1,685,647
L.A.I.F. FUNDS: (BEGINNING BAL.)		14,057,365
DEPOSITS, TRANSFERS & ADJUSTMENTS:		219,842
FUND REQUIREMENTS:		
BILLS FOR CONSIDERATION ¹		(2,474,901)
TOTAL CASH IN BANK	\$	13,487,953

¹ GL postings.

In accordance with Government Code 53646(c), since all funds are placed in the State LAIF, staff has included in the Financial Packet, the most current statement from the State LAIF, in lieu of the report required by Government Code 53646(b)(1).

In accordance with requirements of the Government Code and the "SOCWA Investment Policy", I hereby certify that:

- 1). All investment actions executed since the last report have been made in full compliance with the Investment Policy.
- 2). SOCWA does not have sufficient funds currently on hand to meet its expenditure obligations for the next six months (see note) due to the fact that SOCWA bills and receives operational funds on a quarterly basis only.

Betty Burnett
General Manager

Note: Operational funds are collected on a quarterly basis at the beginning of the quarter. Capital funds are collected on a quarterly basis in connection with projected needs. Member agencies have pledged to have funds available to meet all obligations.



PMIA/LAIF Performance Report as of 10/06/21



PMIA Average Monthly Effective Yields⁽¹⁾

Sep	0.206
Aug	0.221
Jul	0.221

Quarterly Performance Quarter Ended 06/30/21

LAIF Apportionment Rate ⁽²⁾ :	0.33
LAIF Earnings Ratio ⁽²⁾ :	0.0000897371743018
LAIF Fair Value Factor ⁽¹⁾ :	1.00008297
PMIA Daily ⁽¹⁾ :	0.22%
PMIA Quarter to Date ⁽¹⁾ :	0.30%
PMIA Average Life ⁽¹⁾ :	291

Pooled Money Investment Account Monthly Portfolio Composition ⁽¹⁾ 08/31/21 \$176.7 billion

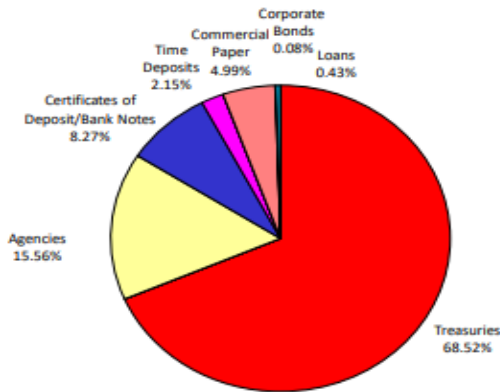


Chart does not include \$8,585,000.00 in mortgages, which equates to 0.004859%. Percentages may not total 100% due to rounding.

Daily rates are now available here. [View PMIA Daily Rates](#)

Notes: The apportionment rate includes interest earned on the CalPERS Supplemental Pension Payment pursuant to Government Code 20825 (c)(1) and interest earned on the Wildfire Fund loan pursuant to Public Utility Code 3288 (a).

Source:

⁽¹⁾ State of California, Office of the Treasurer

⁽²⁾ State of California, Office of the Controller

Exhibit C

**South Orange County Wastewater Authority
Schedule of Cash and Investments
as of September 30, 2021**

MVA	\$ 8,449	(A)
A/P Checking	1,651,041	(B)
Payroll Checking	121,097	(C)
State LAIF	11,707,365	(D)
Total Cash in Bank	\$ 13,487,953	
Petty Cash	1,600	(E)
Total Operating Cash	\$ 13,489,553	
OPEB Trust	6,774,894	(F)
Total Cash and Investments	\$ 20,264,447	

Notes:

- (A) Interest bearing account; all cash receipts are deposited in this account and later moved to the LAIF account.
- (B) Accounts Payable Checks are drawn against this account; money is transferred to this account, as needed, from the LAIF account.
- (C) Payroll including payroll taxes and related liabilities are drawn against this account; money is transferred into this account, as needed, from the LAIF account.
- (D) California State Local Agency Investment Fund (LAIF) balance.
- (E) Cash on hand with GM's office and held by Chief Operators at each Treatment facility.
- (F) OPEB Trust Fund; these funds can only be used for Retiree Health Benefits.

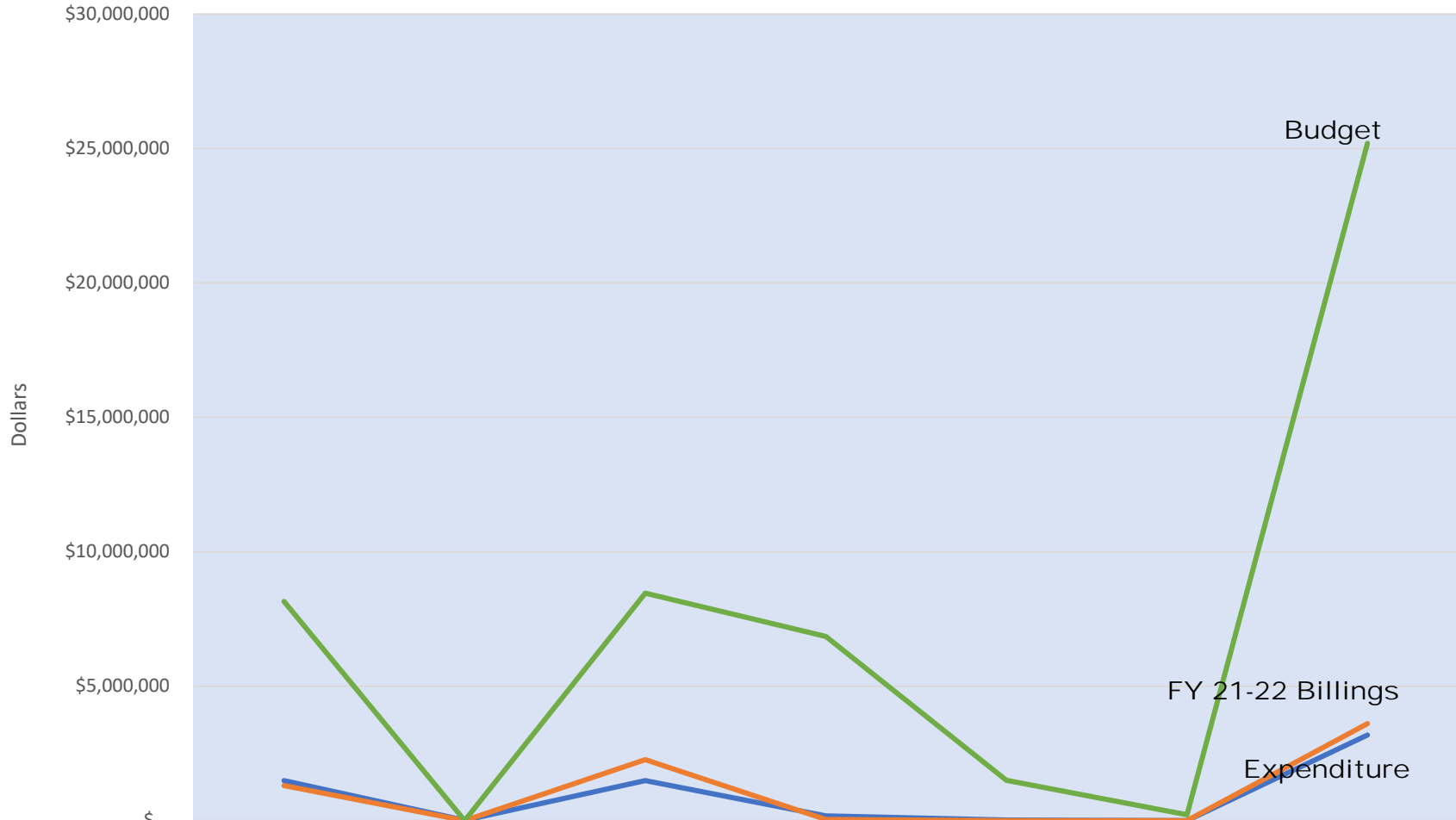
**South Orange County Wastewater Authority
Capital Projects Summaries
For the Period Ended September 30 2021
(in dollars)**

FY 2021-22 Budget vs. Actual Spending								
<u>Description</u>	Capital Budget	Fiscal Year Spending	(Over)/ Under Budget	% Expended	Member Agency Billed	Member Agency Collections	Open Receivables	% Expended vs. Billed
PC 2-JB Latham	\$ 8,153,937	\$ 1,490,462	\$ 6,663,475	18.3%	\$ 1,303,750	\$ 1,303,750	\$ -	114.3%
PC 5-San Juan Creek Outfall ¹	-	12,688	(12,688)		-	-	-	-
PC 15-Coastal	8,464,653	1,484,656	6,979,997	17.5%	2,264,999	2,264,999	-	65.5%
PC 17-Regional	6,851,959	174,170	6,677,789	2.5%	38,249	38,249	-	455.4%
PC 21 Effluent Transmission	1,502,000	21,241	1,480,759	1.4%	-	-	-	-
PC 24 Aliso Creek Outfall	220,000	-	220,000	0.0%	-	-	-	-
Total Large Capital	\$ 25,192,549	\$ 3,183,216	\$ 22,009,333	12.6%	\$ 3,606,998	\$ 3,606,998	\$ -	88.3%
Non-Capital Engineering	405,871	8,307	397,565	2.0%	25,000	25,000	-	33.2%
Non-Capital Misc Engineering	254,500	11,880	242,620	4.7%	6,000	6,000	-	198.0%
Small Internal Capital	2,061,000	349,560	1,711,440	17.0%	515,250	515,250	-	67.8%
Total Capital	\$ 27,913,920	\$ 3,552,964	\$ 24,360,956	12.7%	\$ 4,153,248	\$ 4,153,248	\$ -	85.5%

¹ PC 24 is paid out of Cash on Hand collected in an earlier year.

Large Capital Projects Fiscal Year '21-22 Budget vs. Year-to-Date Expenditures & Billings as of 9/30/2021

Exhibit D-1



	PC 2-JB Latham	PC 5-San Juan Creek Outfall	PC 15-Coastal	PC 17-Regional	PC 21 Effluent Transmission	PC 24 Aliso Creek Outfall	Total Large Capital
Spent - YTD 9/30/21	\$1,490,462	12,688.00	\$1,484,656	\$174,170	\$21,240.78	-	\$3,183,216
FY 21-22 Billings	\$1,303,750	-	\$2,264,999	\$38,249	-	-	\$3,606,998
Capital Budget 21-22	\$8,153,937	-	\$8,464,653	\$6,851,959	\$1,502,000	\$220,000	\$25,192,549

**South Orange County Wastewater Authority
O & M & Environmental Safety Costs Summary**

For the Period Ended September 30, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended	
Salary and Fringe						
-5000--**_**	Regular Salaries-O&M	4,847,168	1,096,710	3,750,458	22.6%	
-5001--**_**	Overtime Salaries-O&M	107,256	25,671	81,585	23.9%	
-5306--**_**	Scheduled Holiday Work	91,000	17,952	73,048	19.7%	
-5315--**_**	Comp Time - O&M	15,980	8,379	7,601	52.4%	
-5401--**_**	Fringe Benefits IN to PC's & Depts.	2,511,460	568,242	1,943,218	22.6%	
-5700--**_**	Standby Pay	67,600	17,161	50,439	25.4%	
	Total Payroll Costs	7,640,464	1,734,115	5,906,349	22.7%	
Other Expenses						
-5002--**_**	Electricity	1,170,780	236,984	933,796	20.2%	
-5003--**_**	Natural Gas	226,008	53,643	172,365	23.7%	
-5004--**_**	Potable & Reclaimed Water	85,000	11,968	73,032	14.1%	
-5005--**_**	Co-generation Power Credit	(686,000)	(248,395)	(437,605)	36.2%	
-5006--**_**	Chlorine/Sodium Hypochlorite	502,008	152,467	349,541	30.4%	
-5007--**_**	Polymer Products	747,004	203,826	543,178	27.3%	
-5008--**_**	Ferric Chloride	588,004	159,058	428,946	27.1%	
-5009--**_**	Odor Control Chemicals	107,016	32,073	74,943	30.0%	
-5010--**_**	Other Chemicals - Misc.	2,004	-	2,004	-	
-5011--**_**	Laboratory Services	65,196	2,439	62,757	3.7%	
-5012--**_**	Grit Hauling	120,000	22,521	97,479	18.8%	
-5013--**_**	Landscaping	219,008	32,911	186,097	15.0%	
-5015--**_**	Management Support Services	475,000	25,501	449,499	5.4%	
-5016--**_**	Audit - Environmental	1,304	-	1,304	-	
-5017--**_**	Legal Fees	48,612	5,513	43,099	11.3%	
-5018--**_**	Public Notices/ Public Relations	6,000	-	6,000	-	
-5019--**_**	Contract Services Misc.	277,016	2,166	274,850	0.8%	
-5021--**_**	Small Vehicle Expense	23,080	5,071	18,009	22.0%	
-5022--**_**	Miscellaneous Expense	16,012	179	15,833	1.1%	
-5023--**_**	Office Supplies - All	46,008	4,484	41,524	9.7%	
-5024--**_**	Petroleum Products	34,008	1,972	32,036	5.8%	
-5025--**_**	Uniforms	70,996	15,707	55,289	22.1%	
-5026--**_**	Small Vehicle Fuel	22,656	2,799	19,857	12.4%	
-5027--**_**	Insurance - Property/Liability	317,684	40,703	276,981	12.8%	
-5028--**_**	Small Tools & Supplies	80,000	13,705	66,295	17.1%	
-5030--**_**	Trash Disposal	8,500	1,044	7,456	12.3%	
-5031--**_**	Safety Program & Supplies	119,344	19,113	100,231	16.0%	
-5032--**_**	Equipment Rental	7,004	1,509	5,495	21.6%	
-5033--**_**	Recruitment	2,500	429	2,071	17.2%	
-5034--**_**	Travel Expense/Tech. Conferences	29,928	360	29,568	1.2%	
-5035--**_**	Training Expense	47,996	8,199	39,797	17.1%	
-5036--**_**	Laboratory Supplies	124,400	24,006	100,394	19.3%	
-5037--**_**	Office Equipment	25,992	4,358	21,634	16.8%	
-5038--**_**	Permits	489,996	18,967	471,029	3.9%	
-5039--**_**	Membership Dues/Fees	17,872	1,958	15,914	11.0%	
-5044--**_**	Offshore Monitoring	151,000	7,911	143,089	5.2%	
-5045--**_**	Offshore Biochemistry - 20B	23,024	-	23,024	-	
-5046--**_**	Effluent Chemistry	70,000	3,866	66,134	5.5%	
-5047--**_**	Access Road Expenses	45,000	-	45,000	-	
-5048--**_**	Storm Damage	21,000	-	21,000	-	
-5049--**_**	Biosolids Disposal	1,470,000	381,371	1,088,629	25.9%	
-5050--**_**	Contract Services Generators - 29A	28,008	16,884	11,124	60.3%	(1)
-5052--**_**	Janitorial Services	101,004	21,953	79,051	21.7%	
-5053--**_**	Contract Serv - Digester Cleaning - 29E	60,000	30,676	29,324	51.1%	(2)
-5054--**_**	Diesel Truck Maint	42,000	1,654	40,346	3.9%	
-5055--**_**	Diesel Truck Fuel	11,500	1,381	10,119	12.0%	

**South Orange County Wastewater Authority
O & M & Environmental Safety Costs Summary**

For the Period Ended September 30, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended	
-5056--**_**	Maintenance Equip. & Facilities (Solids)	366,000	164,719	201,281	45.0%	(3)
-5057--**_**	Maintenance Equip. & Facilities (Liquids)	651,996	96,630	555,366	14.8%	
-5058--**_**	Maintenance Equip. & Facilities (Common)	90,008	34,134	55,874	37.9%	
-5059--**_**	Maintenance Equip. & Facilities (Co-Gen)	738,996	123,481	615,515	16.7%	
-5060--**_**	Maintenance Equip. & Facilities (AWT)	88,000	6,089	81,911	6.9%	
-5061--**_**	Mileage	3,608	304	3,304	8.4%	
-5068--**_**	MNWD Potable Water Supplies & Svcs.	28,000	11,716	16,284	41.8%	(4)
-5074--**_**	Education Reimbursement	1,996	101	1,895	5.1%	
-5076--**_**	SCADA Infrastructure	86,596	30,000	56,596	34.6%	
-5077--**_**	IT Direct	5,508	-	5,508	-	
-5105--**_**	Co-Generation Power Credit - Offset	685,992	248,395	437,597	36.2%	
-5303--**_**	Group Insurance Waiver	14,392	3,655	10,737	25.4%	
-5305--**_**	Medicare Tax Payments for Employees	2,160	470	1,690	21.7%	
-5309--**_**	Operating Leases	26,000	6,519	19,481	25.1%	
-5705--**_**	Monthly Car Allowance	35,396	9,794	25,602	27.7%	
-5799--**_**	Zephyr Wall Costs Share-O&M	(14,000)	(14,000)	0	100.0%	
-6500--**_**	IT Allocations in to PC's & Depts.	610,540	89,931	520,609	14.7%	
	Total Other Expenses	10,881,660	2,134,875	8,746,785	19.6%	
	Total O&M Expenses	18,522,124	3,868,990	14,653,134	20.9%	

(1) Generator services are completed before the rainy season each year and are nearly complete for the Fiscal Year.

(2) Digester cleaning at JBL is well underway for the Fiscal Year.

(3) JBL staff are performing work in solids areas that are usually unavailable during the ongoing Package B Construction Project shutdowns.

(4) Annual laboratory proficiency testing costs for potable water certification. Costs expected to level out.

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
For the Period Ended September 30, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended	
02 - Jay B. Latham Plant						
Salary and Fringe						
02-5000-**-**	Regular Salaries-O&M	1,585,228	374,273	1,210,955	23.6%	
02-5001-**-**	Overtime Salaries-O&M	37,904	11,918	25,986	31.4%	
02-5306-**-**	Scheduled Holiday Work	36,600	6,956	29,644	19.0%	
02-5315-**-**	Comp Time - O&M	8,264	4,033	4,231	48.8%	
02-5401-**-**	Fringe Benefits IN to PC's & Depts.	821,352	193,923	627,429	23.6%	
02-5700-**-**	Standby Pay	25,096	7,085	18,011	28.2%	
	Total Payroll Costs	2,514,444	598,190	1,916,254	23.8%	
Other Expenses						
02-5002-**-**	Electricity	506,564	75,611	430,953	14.9%	
02-5003-**-**	Natural Gas	132,160	23,962	108,198	18.1%	
02-5004-**-**	Potable & Reclaimed Water	25,000	4,767	20,233	19.1%	
02-5006-**-**	Chlorine/Sodium Hypochlorite	8,000	3,259	4,741	40.7%	
02-5007-**-**	Polymer Products	305,000	75,924	229,076	24.9%	
02-5008-**-**	Ferric Chloride	200,000	56,709	143,291	28.4%	
02-5009-**-**	Odor Control Chemicals	21,004	8,337	12,667	39.7%	
02-5010-**-**	Other Chemicals - Misc.	1,000	-	1,000	-	
02-5011-**-**	Laboratory Services	19,000	575	18,425	3.0%	
02-5012-**-**	Grit Hauling	55,000	11,057	43,943	20.1%	
02-5013-**-**	Landscaping	77,004	8,078	68,926	10.5%	
02-5015-**-**	Management Support Services	30,008	3,550	26,458	11.8%	
02-5017-**-**	Legal Fees	4,996	928	4,068	18.6%	
02-5019-**-**	Contract Services Misc.	70,636	-	70,636	-	
02-5021-**-**	Small Vehicle Expense	11,000	1,138	9,862	10.3%	
02-5022-**-**	Miscellaneous Expense	8,000	98	7,902	1.2%	
02-5023-**-**	Office Supplies - All	29,000	1,589	27,411	5.5%	
02-5024-**-**	Petroleum Products	11,004	-	11,004	-	
02-5025-**-**	Uniforms	33,996	7,272	26,724	21.4%	
02-5026-**-**	Small Vehicle Fuel	10,004	1,565	8,439	15.6%	
02-5027-**-**	Insurance - Property/Liability	108,384	14,711	93,673	13.6%	
02-5028-**-**	Small Tools & Supplies	38,000	1,021	36,979	2.7%	
02-5030-**-**	Trash Disposal	3,000	282	2,718	9.4%	
02-5031-**-**	Safety Program & Supplies	41,000	9,380	31,620	22.9%	
02-5032-**-**	Equipment Rental	3,000	-	3,000	-	
02-5033-**-**	Recruitment	348	164	184	47.1%	
02-5034-**-**	Travel Expense/Tech. Conferences	9,012	-	9,012	-	
02-5035-**-**	Training Expense	16,976	2,897	14,079	17.1%	
02-5036-**-**	Laboratory Supplies	21,004	1,949	19,055	9.3%	
02-5037-**-**	Office Equipment	13,000	2,573	10,427	19.8%	
02-5038-**-**	Permits	13,496	17,862	(4,366)	132.4%	
02-5039-**-**	Membership Dues/Fees	4,516	344	4,172	7.6%	
02-5049-**-**	Biosolids Disposal	620,000	134,376	485,624	21.7%	
02-5050-**-**	Contract Services Generators - 29A	10,004	12,739	(2,735)	127.3%	(1)
02-5052-**-**	Janitorial Services	47,000	11,548	35,452	24.6%	
02-5053-**-**	Contract Serv - Digester Cleaning - 29E	60,000	30,676	29,324	51.1%	(2)
02-5054-**-**	Diesel Truck Maint	22,000	203	21,797	0.9%	
02-5055-**-**	Diesel Truck Fuel - 37B	2,996	305	2,691	10.2%	
02-5056-**-**	Maintenance Equip. & Facilities (Solids)	155,000	71,286	83,714	46.0%	(3)
02-5057-**-**	Maintenance Equip. & Facilities (Liquids)	260,000	31,885	228,115	12.3%	
02-5058-**-**	Maintenance Equip. & Facilities (Common)	29,000	23,974	5,026	82.7%	(4)
02-5059-**-**	Maintenance Equip. & Facilities (Co-Gen)	277,120	63,023	214,097	22.7%	
02-5061-**-**	Mileage	2,104	57	2,047	2.7%	
02-5076-**-**	SCADA Infrastructure	28,960	10,000	18,960	34.5%	
02-5077-**-**	IT Direct	2,620	-	2,620	-	
02-5303-**-**	Group Insurance Waiver	3,596	914	2,682	25.4%	
02-5309-**-**	Operating Leases	26,000	4,604	21,396	17.7%	
02-5705-**-**	Monthly Car Allowance	22,804	5,788	17,016	25.4%	
02-5799-**-**	Zephyr Wall Costs Share-O&M	(14,000)	(14,000)	-	100.0%	
02-6500-**-**	IT Allocations in to PC's & Depts.	199,812	29,431	170,381	14.7%	
	Total Other Expenses	3,585,128	752,413	2,832,715	21.0%	
	Total Expenses	6,099,572	1,350,602	4,748,970	22.1%	

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
For the Period Ended September 30, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
05 - San Juan Creek Ocean Outfall					
Salary and Fringe					
05-5000-**-**-**	Regular Salaries-O&M	146,556	28,330	118,226	19.3%
05-5001-**-**-**	Overtime Salaries-O&M	72	-	72	-
05-5306-**-**-**	Scheduled Holiday Work	416	44	372	10.5%
05-5401-**-**-**	Fringe Benefits IN to PC's & Depts.	75,928	14,679	61,249	19.3%
	Total Payroll Costs	<u>222,972</u>	<u>43,052</u>	<u>179,920</u>	<u>19.3%</u>
Other Expenses					
05-5015-**-**-**	Management Support Services	212,500	12,701	199,799	6.0%
05-5017-**-**-**	Legal Fees	2,008	-	2,008	-
05-5026-**-**-**	Small Vehicle Fuel	500	-	500	-
05-5027-**-**-**	Insurance - Property/Liability	9,668	1,201	8,467	12.4%
05-5031-**-**-**	Safety Supplies	1,052	-	1,052	-
05-5033-**-**-**	Recruitment	556	-	556	-
05-5034-**-**-**	Travel Expense/Tech. Conferences	1,512	180	1,332	11.9%
05-5035-**-**-**	Training Expense	1,952	-	1,952	-
05-5036-**-**-**	Laboratory Supplies	35,000	7,575	27,425	21.6%
05-5038-**-**-**	Permits	228,968	-	228,968	-
05-5039-**-**-**	Membership Dues/Fees	216	-	216	-
05-5044-**-**-**	Offshore Monitoring	75,496	1,936	73,561	2.6%
05-5045-**-**-**	Offshore Biochemistry - 20B	11,512	-	11,512	-
05-5046-**-**-**	Effluent Chemistry	35,000	1,053	33,947	3.0%
05-5058-**-**-**	Maintenance Equip. & Facilities (Common)	1,004	336	668	33.5%
05-6500-**-**-**	IT Allocations in to PC's & Depts.	18,464	2,719	15,745	14.7%
	Total Other Expenses	<u>635,408</u>	<u>27,700</u>	<u>607,708</u>	<u>4.4%</u>
	Total Expenses	<u>858,380</u>	<u>70,752</u>	<u>787,628</u>	<u>8.2%</u>
08 - Pre Treatment					
Salary and Fringe					
08-5000-**-**-**	Regular Salaries-O&M	117,772	27,796	89,976	23.6%
08-5401-**-**-**	Fringe Benefits IN to PC's & Depts.	61,016	14,402	46,614	23.6%
	Total Payroll Costs	<u>178,788</u>	<u>42,198</u>	<u>136,590</u>	<u>23.6%</u>
Other Expenses					
08-5011-**-**-**	Laboratory Services	3,200	295	2,905	9.2%
08-5016-**-**-**	Audit - Environmental	1,304	-	1,304	-
08-5017-**-**-**	Legal Fees	2,596	-	2,596	-
08-5018-**-**-**	Public Notices/ Public Relations	6,000	-	6,000	-
08-5021-**-**-**	Small Vehicle Expense - 31A	1,076	-	1,076	-
08-5022-**-**-**	Miscellaneous Expense	2,008	-	2,008	-
08-5026-**-**-**	Small Vehicle Fuel - 37A	1,148	37	1,111	3.2%
08-5027-**-**-**	Insurance - Property/Liability	3,024	376	2,648	12.4%
08-5028-**-**-**	Small Tools & Supplies	3,000	706	2,294	23.5%
08-5034-**-**-**	Travel Expense/Tech. Conferences	2,732	-	2,732	-
08-5035-**-**-**	Training Expense	-	150	(150)	-
08-5038-**-**-**	Permits and Fines	3,132	-	3,132	-
08-6500-**-**-**	IT Allocations in to PC's & Depts.	14,832	2,185	12,647	14.7%
	Total Other Expenses	<u>44,052</u>	<u>3,749</u>	<u>40,303</u>	<u>8.5%</u>
	Total Expenses	<u>222,840</u>	<u>45,947</u>	<u>176,893</u>	<u>20.6%</u>
12 - Water Reclamation Permits					
Salary and Fringe					
12-5000-**-**-**	Regular Salaries-O&M	44,808	13,719	31,089	30.6%
12-5401-**-**-**	Fringe Benefits IN to PC's & Depts.	23,208	7,108	16,100	30.6%
	Total Payroll Costs	<u>68,016</u>	<u>20,827</u>	<u>47,189</u>	<u>30.6%</u>
Other Expenses					
12-5015-**-**-**	Management Support Services	-	-	-	-
12-5017-**-**-**	Legal Fees	2,000	-	2,000	-
12-5027-**-**-**	Insurance - Property/Liability	5,164	641	4,523	12.4%
12-5034-**-**-**	Travel Expense/Tech. Conferences	920	-	920	-
12-5038-**-**-**	Permits	12,044	-	12,044	-
12-5039-**-**-**	Membership Dues/Fees	68	-	68	-
12-6500-**-**-**	IT Allocations in to PC's & Depts.	5,640	831	4,809	14.7%
	Total Other Expenses	<u>25,836</u>	<u>1,473</u>	<u>24,363</u>	<u>5.7%</u>
	Total Expenses	<u>93,852</u>	<u>22,300</u>	<u>71,552</u>	<u>23.8%</u>

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
For the Period Ended September 30, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
15 - Coastal Treatment Plant					
Salary and Fringe					
15-5000-**-**-**	Regular Salaries-O&M	1,083,504	223,881	859,623	20.7%
15-5001-**-**-**	Overtime Salaries-O&M	19,208	4,158	15,050	21.6%
15-5306-**-**-**	Scheduled Holiday Work	15,584	3,315	12,269	21.3%
15-5315-**-**-**	Comp Time - O&M	2,000	810	1,190	40.5%
15-5401-**-**-**	Fringe Benefits IN to PC's & Depts.	561,396	116,000	445,396	20.7%
15-5700-**-**-**	Standby Pay	16,504	2,600	13,904	15.8%
	Total Payroll Costs	<u>1,698,196</u>	<u>350,765</u>	<u>1,347,431</u>	<u>20.7%</u>
Other Expenses					
15-5002-**-**-**	Electricity	202,348	72,088	130,260	35.6%
15-5003-**-**-**	Natural Gas	2,872	71	2,801	2.5%
15-5004-**-**-**	Potable & Reclaimed Water	25,000	3,865	21,135	15.5%
15-5006-**-**-**	Chlorine/Sodium Hypochlorite	94,004	18,178	75,826	19.3%
15-5007-**-**-**	Polymer Products	1,004	-	1,004	-
15-5008-**-**-**	Ferric Chloride	58,000	21,539	36,461	37.1%
15-5009-**-**-**	Odor Control Chemicals	51,004	10,569	40,435	20.7%
15-5011-**-**-**	Laboratory Services	20,000	515	19,485	2.6%
15-5012-**-**-**	Grit Hauling	23,000	3,754	19,246	16.3%
15-5013-**-**-**	Landscaping	57,000	5,070	51,930	8.9%
15-5015-**-**-**	Management Support Services	10,000	-	10,000	-
15-5017-**-**-**	Legal Fees	30,000	666	29,334	2.2%
15-5019-**-**-**	Contract Services Misc.	91,732	1,799	89,933	2.0%
15-5021-**-**-**	Small Vehicle Expense	4,004	1,378	2,626	34.4%
15-5022-**-**-**	Miscellaneous Expense	1,000	-	1,000	-
15-5023-**-**-**	Office Supplies - All	4,004	1,271	2,733	31.7%
15-5024-**-**-**	Petroleum Products	3,000	312	2,688	10.4%
15-5025-**-**-**	Uniforms	9,000	1,711	7,289	19.0%
15-5026-**-**-**	Small Vehicle Fuel	2,000	194	1,806	9.7%
15-5027-**-**-**	Insurance - Property/Liability	47,112	5,851	41,262	12.4%
15-5028-**-**-**	Small Tools & Supplies	9,000	-	9,000	-
15-5030-**-**-**	Trash Disposal	2,996	436	2,560	14.5%
15-5031-**-**-**	Safety Supplies	35,000	4,281	30,719	12.2%
15-5032-**-**-**	Equipment Rental	1,000	-	1,000	-
15-5033-**-**-**	Recruitment	312	-	312	-
15-5034-**-**-**	Travel Expense/Tech. Conferences	5,244	-	5,244	-
15-5035-**-**-**	Training Expense	11,632	2,434	9,198	20.9%
15-5036-**-**-**	Laboratory Supplies	14,000	3,790	10,210	27.1%
15-5037-**-**-**	Office Equipment	2,996	394	2,602	13.1%
15-5038-**-**-**	Permits	4,820	542	4,278	11.2%
15-5039-**-**-**	Membership Dues/Fees	4,960	546	4,414	11.0%
15-5047-**-**-**	Access Road Expenses	45,000	-	45,000	-
15-5048-**-**-**	Storm Damage	21,000	-	21,000	-
15-5049-**-**-**	Biosolids Disposal	-	10,308	(10,308)	-
15-5050-**-**-**	Contract Services Generators - 29A	5,000	-	5,000	-
15-5052-**-**-**	Janitorial Services	12,004	2,899	9,105	24.2%
15-5054-**-**-**	Diesel Truck Maint - 31B	1,000	-	1,000	-
15-5055-**-**-**	Diesel Truck Fuel - 37B	504	-	504	-
15-5057-**-**-**	Maintenance Equip. & Facilities (Liquids)	149,996	27,681	122,315	18.5%
15-5058-**-**-**	Maintenance Equip. & Facilities (Common)	23,000	575	22,425	2.5%
15-5060-**-**-**	Maintenance Equip. & Facilities (AWT)	38,000	5,666	32,334	14.9%
15-5061-**-**-**	Mileage	500	43	457	8.6%
15-5076-**-**-**	SCADA Infrastructure	28,952	10,000	18,952	34.5%
15-5077-**-**-**	IT Direct	264	-	264	-
15-5303-**-**-**	Group Insurance Waiver	3,600	1,108	2,492	30.8%
15-5305-**-**-**	Medicare Tax Payments for Employees	2,160	470	1,690	21.7%
15-5705-**-**-**	Monthly Car Allowance	4,196	1,066	3,130	25.4%
15-6500-**-**-**	IT Allocations in to PC's & Depts.	136,476	20,103	116,373	14.7%
	Total Other Expenses	<u>1,299,696</u>	<u>241,169</u>	<u>1,058,527</u>	<u>18.6%</u>
	Total Expenses	<u>2,997,892</u>	<u>591,934</u>	<u>2,405,958</u>	<u>19.7%</u>

(5)

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
 For the Period Ended September 30, 2021
 (in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
17 - Joint Regional Wastewater Reclamation and Sludge Handling					
Salary and Fringe					
17-5000-**-**-**	Regular Salaries-O&M	1,718,916	400,356	1,318,560	23.3%
17-5001-**-**-**	Overtime Salaries-O&M	49,452	9,594	39,858	19.4%
17-5306-**-**-**	Scheduled Holiday Work	38,136	7,594	30,542	19.9%
17-5315-**-**-**	Comp Time - O&M	5,716	3,535	2,181	61.9%
17-5401-**-**-**	Fringe Benefits IN to PC's & Depts.	890,632	207,438	683,194	23.3%
17-5700-**-**-**	Standby Pay	26,000	7,475	18,525	28.8%
	Total Payroll Costs	2,728,852	635,993	2,092,859	23.3%
Other Expenses					
17-5002-**-**-**	Electricity	461,868	89,285	372,584	19.3%
17-5003-**-**-**	Natural Gas	90,976	29,610	61,366	32.5%
17-5004-**-**-**	Potable & Reclaimed Water	35,000	3,336	31,664	9.5%
17-5005-**-**-**	Co-generation Power Credit	(686,000)	(248,395)	(437,605)	36.2%
17-5006-**-**-**	Chlorine/Sodium Hypochlorite	400,004	131,031	268,973	32.8%
17-5007-**-**-**	Polymer Products	441,000	127,902	313,098	29.0%
17-5008-**-**-**	Ferric Chloride	330,004	80,810	249,194	24.5%
17-5009-**-**-**	Odor Control Chemicals	35,008	13,167	21,841	37.6%
17-5010-**-**-**	Other Chemicals - Misc.	1,004	-	1,004	-
17-5011-**-**-**	Laboratory Services	22,996	1,055	21,941	4.6%
17-5012-**-**-**	Grit Hauling - 21A	42,000	7,710	34,290	18.4%
17-5013-**-**-**	Landscaping	85,004	19,762	65,242	23.2%
17-5015-**-**-**	Management Support Services	9,996	-	9,996	-
17-5017-**-**-**	Legal Fees	5,004	552	4,452	11.0%
17-5019-**-**-**	Contract Services Misc.	96,312	367	95,945	0.4%
17-5021-**-**-**	Small Vehicle Expense	7,000	2,555	4,445	36.5%
17-5022-**-**-**	Miscellaneous Expense	5,004	82	4,922	1.6%
17-5023-**-**-**	Office Supplies - All	13,004	1,624	11,380	12.5%
17-5024-**-**-**	Petroleum Products	20,004	1,660	18,344	8.3%
17-5025-**-**-**	Uniforms	28,000	6,724	21,276	24.0%
17-5026-**-**-**	Small Vehicle Fuel	9,004	1,004	8,000	11.1%
17-5027-**-**-**	Insurance - Property/Liability	135,628	16,843	118,785	12.4%
17-5028-**-**-**	Small Tools & Supplies	30,000	11,978	18,022	39.9%
17-5030-**-**-**	Trash Disposal	2,504	327	2,177	13.1%
17-5031-**-**-**	Safety Supplies	41,248	5,452	35,796	13.2%
17-5032-**-**-**	Equipment Rental	3,004	1,509	1,495	50.2%
17-5033-**-**-**	Recruitment	728	265	463	36.4%
17-5034-**-**-**	Travel Expense/Tech. Conferences	8,996	-	8,996	-
17-5035-**-**-**	Training Expense	15,480	2,717	12,763	17.6%
17-5036-**-**-**	Laboratory Supplies	24,392	3,339	21,053	13.7%
17-5037-**-**-**	Office Equipment	9,996	1,391	8,605	13.9%
17-5038-**-**-**	Permits	10,612	563	10,049	5.3%
17-5039-**-**-**	Membership Dues/Fees	7,892	1,068	6,824	13.5%
17-5049-**-**-**	Biosolids Disposal	850,000	236,688	613,312	27.8%
17-5050-**-**-**	Contract Services Generators - 29A	13,004	4,145	8,859	31.9%
17-5052-**-**-**	Janitorial Services	42,000	7,506	34,494	17.9%
17-5054-**-**-**	Diesel Truck Maint	19,000	1,451	17,549	7.6%
17-5055-**-**-**	Diesel Truck Fuel	8,000	1,076	6,924	13.4%
17-5056-**-**-**	Maintenance Equip. & Facilities (Solids)	211,000	93,433	117,567	44.3%
17-5057-**-**-**	Maintenance Equip. & Facilities (Liquids)	242,000	37,065	204,935	15.3%
17-5058-**-**-**	Maintenance Equip. & Facilities (Common)	36,000	9,249	26,751	25.7%
17-5059-**-**-**	Maintenance Equip. & Facilities (Co-Gen)	461,876	60,458	401,418	13.1%
17-5060-**-**-**	Maintenance Equip. & Facilities (AWT) 41-E	50,000	422	49,578	0.8%
17-5061-**-**-**	Mileage	1,004	204	801	20.3%
17-5068-**-**-**	MNWD Potable Water Supplies & Svcs.	28,000	11,716	16,284	41.8%
17-5074-**-**-**	Education Reimbursement	1,996	101	1,895	5.1%
17-5076-**-**-**	SCADA Infrastructure	28,684	10,000	18,684	34.9%
17-5077-**-**-**	IT Direct	2,624	-	2,624	-
17-5105-**-**-**	Co-Generation Power Credit - Offset	685,992	248,395	437,597	36.2%
17-5303-**-**-**	Group Insurance Waiver	7,196	1,634	5,562	22.7%
17-5309-**-**-**	Operating Leases	-	1,915	(1,915)	-
17-5705-**-**-**	Monthly Car Allowance	8,396	2,940	5,456	35.0%
17-6500-**-**-**	IT Allocations in to PC's & Depts.	216,520	31,892	184,628	14.7%
	Total Other Expenses	4,655,964	1,075,582	3,580,382	23.1%
	Total Expenses	7,384,816	1,711,574	5,673,242	23.2%

(6)

(7)

South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC
For the Period Ended September 30, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
21 - Effluent Transmission Main					
Salary and Fringe					
21-5000-**-**-**	Regular Salaries-O&M	1,088	-	1,088	-
21-5401-**-**-**	Fringe Benefits IN to PC's & Depts.	564	-	564	-
	Total Payroll Costs	1,652	-	1,652	-
Other Expenses					
21-5019-**-**-**	Contract Services Misc.	18,336	-	18,336	-
	Total Other Expenses	18,336	-	18,336	-
	Total Expenses	19,988	-	19,988	-
23 - North Coast Interceptor					
Other Expenses					
23-5017-**-**-**	Legal Fees	-	3,367	(3,367)	-
	Total Expenses	-	3,367	(3,367)	-
24 - Aliso Creek Ocean Outfall					
Salary and Fringe					
24-5000-**-**-**	Regular Salaries-O&M	149,296	28,355	120,941	19.0%
24-5001-**-**-**	Overtime Salaries-O&M	620	-	620	-
24-5306-**-**-**	Scheduled Holiday Work	264	44	220	16.6%
24-5401-**-**-**	Fringe Benefits IN to PC's & Depts.	77,364	14,691	62,673	19.0%
	Total Payroll Costs	227,544	43,090	184,454	18.9%
Other Expenses					
24-5015-**-**-**	Management Support Services	212,496	9,250	203,246	4.4%
24-5017-**-**-**	Legal Fees	2,008	-	2,008	-
24-5027-**-**-**	Insurance - Property/Liability	8,704	1,081	7,623	12.4%
24-5031-**-**-**	Safety Supplies	1,044	-	1,044	-
24-5033-**-**-**	Recruitment	556	-	556	-
24-5034-**-**-**	Travel Expense/Tech. Conferences	1,512	180	1,332	11.9%
24-5035-**-**-**	Training Expense	1,956	-	1,956	-
24-5036-**-**-**	Laboratory Supplies	30,004	7,353	22,651	24.5%
24-5038-**-**-**	Permits	216,924	-	216,924	-
24-5039-**-**-**	Membership Dues/Fees	220	-	220	-
24-5044-**-**-**	Offshore Monitoring	75,504	5,976	69,529	7.9%
24-5045-**-**-**	Offshore Biochemistry - 20B	11,512	-	11,512	-
24-5046-**-**-**	Effluent Chemistry	35,000	2,813	32,187	8.0%
24-5058-**-**-**	Maintenance Equip. & Facilities (Common) 41-C	1,004	-	1,004	-
24-6500-**-**-**	IT Allocations in to PC's & Depts.	18,796	2,770	16,026	14.7%
	Total Other Expenses	617,240	29,423	587,817	4.8%
	Total Expenses	844,784	72,513	772,271	8.6%
Total O&M Expenses		18,522,124	3,868,990	14,653,134	20.9%

**South Orange County Wastewater Authority
O&M Budget vs. Actual Comparison by PC**

For the Period Ended July 31, 2021

- (1) Generator services are completed before the rainy season each year and are nearly complete for the Fiscal Year.
- (2) Digester cleaning at JBL is well underway for the Fiscal Year.
- (3) JBL staff are performing work in solids areas that are usually unavailable during the ongoing Package B Construction Project shutdowns.
- (4) The Administration Building sewer had a failed section requiring extensive repairs.
- (5) Contaminated soils from the May and June sludge lines leaks were dried and disposed of as Biosolids.
- (6) Several failed RTP digester gas valves were isolated and replaced by specialty contractor.
- (7) Annual laboratory proficiency testing costs for potable water certification. Costs expected to level out.

**South Orange County Wastewater Authority
Budget vs. Actual Comparison - Engineering**

For the Period Ended September 30, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
Salary and Fringe					
01-5000-03-00-00	Regular Salaries-O&M	175,927	33,255	142,673	18.9%
01-5401-03-00-00	Fringe Benefits IN to PC's & Depts.	91,154	17,230	73,924	18.9%
	Total Payroll Costs	267,081	50,485	216,597	18.9%
Other Expenses					
01-5022-03-00-00	Miscellaneous Expense	3,184	84	3,100	2.6%
01-5023-03-00-00	Office Supplies - All	208	-	208	-
01-5031-03-00-00	Safety Supplies	306	-	306	-
01-5034-03-00-00	Travel Expense/Tech. Conferences	6,439	-	6,439	-
01-5035-03-00-00	Training Expense	2,244	-	2,244	-
01-5037-03-00-00	Office Equipment	408	-	408	-
01-5039-03-00-00	Membership Dues/Fees	1,377	-	1,377	-
01-5061-03-00-00	Mileage	510	21	490	4.0%
01-5309-03-00-00	Operating Leases	9,300	-	9,300	-
01-5705-03-00-00	Monthly Car Allowance	4,200	1,066	3,134	25.4%
01-5802-03-00-00	Shipping/Freight	312	-	312	-
01-6500-03-00-00	IT Allocations in to PC's & Depts.	54,293	8,075	46,219	14.9%
	Total Other Expenses	82,781	9,246	73,535	11.2%
	Total Engineering Expenses	349,863	59,731	290,132	17.1%

**South Orange County Wastewater Authority
Budget vs. Actual Comparison- Administration**

For the Period Ended September 30, 2021
(in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
Salary and Fringe					
01-5302-04-00-00	Longevity Bonus		-		
01-6000-04-00-00	Regular Salaries-Admin or IT	998,424	235,479	762,945	23.6%
01-6001-04-00-00	Overtime Salaries-Admin or IT	10,000	4,106	5,894	41.1%
01-6315-04-00-00	Comp Time - Admin	5,000	1,100	3,900	22.0%
01-6401-04-00-00	Fringe Benefits IN to ADMIN or IT	517,316	122,010	395,307	23.6%
	Total Payroll Costs	<u>1,530,740</u>	<u>362,694</u>	<u>1,168,046</u>	<u>23.7%</u>
Other Expenses					
01-6018-04-00-00	Public Notices/Public Relations	3,270	-	3,270	-
01-6101-04-00-00	HR Recruitment & Employee Relations	24,350	3,118	21,232	12.8%
01-6102-04-00-00	Subscriptions	2,081	1,527	554	73.4%
01-6103-04-00-00	Contract Labor	50,000	5,294	44,706	10.6%
01-6200-04-00-00	Management Support Services	90,000	12,074	77,926	13.4%
01-6201-04-00-00	Audit	46,000	15,000	31,000	32.6%
01-6202-04-00-00	Legal	220,000	88,251	131,749	40.1%
01-6204-04-00-00	Postage	1,500	286	1,214	19.1%
01-6223-04-00-00	Office Supplies - Admin	4,500	1,178	3,322	26.2%
01-6224-04-00-00	Office Equipment Admin or IT	1,200	2,907	(1,707)	242.2%
01-6234-04-00-00	Memberships & Trainings	88,000	9,525	78,475	10.8%
01-6239-04-00-00	Travel & Conference	11,000	2,656	8,344	24.1%
01-6241-04-00-00	Education Reimbursement	1,500	904	596	60.3%
01-6310-04-00-00	Miscellaneous	18,000	8,138	9,862	45.2%
01-6311-04-00-00	Mileage	1,236	38	1,198	3.1%
01-6317-04-00-00	Contract Services Misc	5,722	1,350	4,372	23.6%
01-6500-04-00-00	IT Allocations in to PC's & Depts.	125,761	18,524	107,237	14.7%
01-6601-04-00-00	Shipping/Freight	3,815	1,838	1,977	48.2%
01-6705-04-00-00	Monthly Car Allowance	12,000	3,046	8,954	25.4%
	Total Other Expenses	<u>709,934</u>	<u>175,653</u>	<u>534,282</u>	<u>24.7%</u>
	Total Admin Expenses	<u>2,240,674</u>	<u>538,347</u>	<u>1,702,327</u>	<u>24.0%</u>

South Orange County Wastewater Authority
Budget vs. Actual Comparison-IT
 For the Period Ended September 30, 2021
 (in dollars)

		FY 2021-22 Budget	Actual	(Over)/Under Budget	% Expended
Salary & Fringe					
01-6000-05-00-00	Regular Salaries-Admin or IT	100,076	26,738	73,338	26.7%
01-6401-05-00-00	Fringe Benefits IN to ADMIN or IT	51,852	13,854	37,998	26.7%
	Total Salary & Fringe	151,928	40,592	111,336	26.7%
Other Expenses					
01-6028-05-00-00	Small Tools & Supplies	1,000	200	800	20.0%
01-6035-05-00-00	Training Expense	3,000	-	3,000	-
01-6224-05-00-00	Office Equipment Admin or IT	600	-	600	-
01-6234-05-00-00	Memberships & Trainings	2,750	-	2,750	-
01-6239-05-00-00	Travel & Conference	1,500	-	1,500	-
01-6300-05-00-00	Software Maintenance Agreements	41,026	4,427	36,599	10.8%
01-6301-05-00-00	Hardware Maintenance Agreements	14,726	-	14,726	-
01-6302-05-00-00	Cloud Subscriptions (Internet)	177,328	15,661	161,667	8.8%
01-6303-05-00-00	Telecommunications	165,582	31,680	133,902	19.1%
01-6305-05-00-00	IT Professional Services	92,400	4,877	87,523	5.3%
01-6306-05-00-00	Small Hardware Purchases (< \$5k)	40,985	2,241	38,744	5.5%
01-6307-05-00-00	Small Software Purchases & Licenses (<\$5k)	28,968	3,928	25,040	13.6%
01-6308-05-00-00	IT Memberships	160	-	160	-
01-6309-05-00-00	Operating Leases	64,173	12,515	51,658	19.5%
01-6310-05-00-00	Miscellaneous	5,000	-	5,000	-
01-6312-05-00-00	Computer & Photocopy Supplies	-	409	(409)	-
	Total Other Expenses	639,198	75,938	563,260	11.9%
	Total Expenses before Allocation	791,126	116,530	674,596	14.7%
IT Allocations (Out) to PC's & Depts					
01-6400-05-00-00	IT Allocations (OUT) to PC's & Depts.	(791,126)	(116,530)	(674,596)	14.7%
	Total IT Allocations (Out) to PC's & Depts	(791,126)	(116,530)	(674,596)	14.7%

Agenda Item

4.I.

Board of Directors Meeting

Meeting Date: November 4, 2021

TO: Board of Directors
FROM: Betty Burnett, General Manager
STAFF CONTACT: Jim Burror, Director of Operations
SUBJECT: September 2021 Operations Report

Summary/Discussion

The following selected operational reports are provided monthly to the Board of Directors. The operational reports included are as follows:

1. Monthly Operational Report

A nine (9) page overview and comparison of owner use of facilities, including influent and recycled water production. The pages include ongoing calculation used by SOCWA for billing the agencies. Other items include important statistics for regulatory compliance, visits by the public to the treatment works, and other vendor interactions. The information is broken down by facility and by member agency.

2. SOCWA Ocean Outfall Discharges by Agency

This data shows how much water is being discharged to the ocean each month and for the last 12 months. This data is presented for the agencies planning reuse projects to better understand the potential to expand water reuse in their service area.

3. Quarterly Report on Key Operational Expenses

A seven (7) page overview of monthly expenses for key operational expenses with estimated projections for the Fiscal Year. The key parameters that are being tracked are Electricity, Odor Control, Polymer, Biosolids, Maintenance expenses (not including SOCWA staff labor), small capital purchases and safety.

4. Beach Ocean Monitoring Report

5. Recycled Water Report

6. Pretreatment Report

Fiscal impact

No change.

Recommended Action: Receive and file the Operational Reports.

Monthly Operational Report

SOCWA Operational Report September, 2021

Excursion, Complaint, and Violation Events

Events	CTP	RTP	JBL	Totals
Odor	0	1(1)	0	1
Noise	1(2)	0	0	1
Spills	0	0	0	0
Violations	0	0	0	0
Others	0	0	0	0

(1) The RTP odor complaint was associated with a portable toilet near RTP. This was not a SOCWA item.

(2) The CTP noise complaint was associated with a failing compressor that has been replaced.

Plant Wastewater Billing Characteristics

Key Parameters	CTP	RTP	JBL TP1	JBL TP2	Totals
Influent (mgd) (1)	2.63	7.46	6.15	1.00	17.24
Effluent (mgd)	1.54	1.61	6.15	2.20	11.49
Peak Flow (mgd)	8.75	17.69	8.99	8.68	44.11
Influent BOD (mg/l)	261	255	281	310	
Influent TSS (mg/l)	559	325	630	325	
Effluent BOD (mg/l)	7.7	4.2	6.9	6.4	
Effluent TSS (mg/l)	8.4	5.7	5.7	10.0	
Effluent Turbidity (NTU)	4.4	4.0	1.8	4.4	

(1) CTP Influent value does not include AWT backwash in this table.

Recycled Water (AWT) Operations

Key Parameters	CTP	RTP	JBL	Totals
Average Flow (mgd)	1.54	5.86		7.40
Days of Operation (days)	30	30		
Total Flow (million gallons)	46.2	175.7		221.9
Plant Irrigation (million gallons)	0.00	0.12	0.28	
AWT Time Online (%)	100.0	96.0		

Wastewater Unit Definitions

mgd = million gallons per day

mg/l = milligram per liter also known as parts per million

NTU = Nephelometric Turbidity Units

SOCWA Operational Report September, 2021 (cont'd)

Biosolids Management

Biosolids Management Site	CTP	RTP	JBL	Totals
Synagro Compost (tons)		762.6	0.0	762.6
Nursery Products (tons)		367.9	1,042.7	1,410.6
Prima Deshecha (tons)		43.6	482.3	525.8
Other: _____ (tons)		0.0	0.0	0.0
Total Processed (tons)		1,174.0	1,525.0	2,699.0

Summary of Maintenance Activities

Task Type	CTP	RTP	JBL	Totals
Preventative Maintenance	50	471	210	731
Corrective Maintenance	45	38	102	185

Site Visitors

Visitor Types	CTP	RTP	JBL	Totals
Regulatory	0	0	2	2
Member Agency	0	0	0	0
Residents	0	0	0	0
Others	4	2	22	28
Tours #/Visitors	0	0	0	0

Grit Disposal Management

Grit & Screenings	CTP	RTP	JBL	Totals
Simi Valley Landfill (tons)	23.2	24.4	24.6	72.2

Chemical and Energy Utilization

Chemical/Utility	CTP	RTP	JBL	Totals
Ferric Chloride (tons)	NA	NA	NA	0.0
Utility Power Purchase (kWh)	187,109	36,426	145,210	368,745
Cogen Power (kWh)		582,616	440,087	1,022,703
Natural Gas (Dth)	3	2,031	1,620	3,654
Digester Gas to Engine (scfm)		8,093,416	5,579,020	13,672,436
Digester Gas to Boiler (scfm)		0		0
Digester Gas to Flares (scfm)		281,950	209,012	490,962
Digester Gas Power Savings		\$95,542		

NA = Not Available at the time this report was generated.

Wastewater Unit Definitions

kWh = kilowatt hours

Dth = Dekatherms

scfm = standard cubic feet per minute

SOCWA Operational Report September, 2021 (cont'd)

Agency Wastewater Flows to SOCWA by Facility (Including Internal Waste Streams Used for Billing)

Agency	CTP (mgd)	CTP (%)	RTP (mgd)	JBL (mgd)	JBL (%)	Total (mgd)
CLB	1.450	52.22%				1.45
EBSO	0.063	2.27%				0.06
SCWD	1.264	45.52%		1.703	23.85%	2.97
MNWD	0.000	0.00%	7.46	1.400	19.60%	8.86
CSJC				2.346	32.85%	2.35
SMWD				1.692	23.70%	1.69
Total	2.777	100.00%	7.46	7.142	100.00%	17.38

Total Agency Outfall Flows by Outfall System-Billing Flows

Agency	SJCOO (mgd)	SJCOO (%)	SJCOO Meter (mgd)	ACOO (mgd)	ACOO (%)	Total (mgd)	Notes
CLB				1.45	25.73%	1.45	
EBSO				0.06	1.12%	0.06	
SCWD	1.89	18.49%		-0.10	-1.76%	1.79	Includes Desalters
MNWD	1.56	15.26%		1.61	28.50%	3.16	
ETWD				1.49	26.39%	1.49	Direct Outfall Only
CSJC	2.75	27.00%				2.75	Includes Desalter
SMWD	1.72	16.85%				1.72	Includes Chiquita
CSC	2.29	22.41%				2.29	Direct Outfall Only
IRWD				1.13	20.02%	1.13	Direct Outfall Only
Total	10.20	100.00%	10.48	5.63	100.00%	15.84	

SOCWA Operational Report September, 2021 (cont'd)

FY Flow/Solids Summary-Billing

Project Committee No. 2 Liquids (JBL)

Agency	Own (mgd)	Own (%)	Budget (mgd)	Budget (%)	Month (mgd)(1)	Month (%)	FY Avg to Date (mgd)	FY Avg to Date (%)
CSJC	4.00	30.77%	2.140	24.41%	2.346	32.85%	2.35	33.11%
MNWD	3.00	23.08%	1.400	15.97%	1.400	19.60%	1.40	19.69%
SCWD	3.75	28.85%	1.805	20.59%	1.703	23.85%	1.72	24.12%
SMWD	2.25	17.31%	3.421	39.03%	1.692	23.70%	1.64	23.08%
Total	13.00	100.00%	8.766	100.00%	7.142	100.00%	7.11	100.00%

Project Committee No. 2 Solids (JBL)

Agency	Own (lbs/d)	Own (%)	Budget (lbs/d)	Budget (%)	Month (lbs/d)	Month (%)	36 Month Rol. Avg. (lbs/d) (2)	36 Month Rol. Avg. (%)
CSJC	11,572	30.00%	6,046	22.86%	7,051	26.14%	6,233	24.86%
MNWD	8,340	21.62%	5,612	21.22%	6,483	24.03%	6,252	24.94%
SCWD	7,715	20.00%	6,238	23.59%	5,604	20.78%	6,060	24.17%
SMWD	10,946	28.38%	8,548	32.32%	7,837	29.05%	6,524	26.03%
Total	38,573	100.00%	26,444	100.00%	26,975	100.00%	25,069	100.00%

Project Committee No. 5 - San Juan Creek Ocean Outfall (SJC00)

Agency	Own (%)	Budget (mgd)	Budget (%)	Month (mgd)	Month (%)	FY Avg to Date (mgd)	FY Avg to Date (%)
CSC	16.63%	13.300	16.63%	2.286	22.41%	2.222	21.92%
CSJC	11.08%	8.860	11.08%	2.754	27.00%	2.802	27.64%
MNWD(3)	15.51%	12.410	15.51%	1.557	15.26%	1.479	14.58%
SCWD	12.46%	9.970	12.46%	1.886	18.49%	1.974	19.47%
SMWD	44.32%	35.460	44.33%	1.719	16.85%	1.662	16.39%
Total	100.00%	80.000	100.00%	10.203	100.00%	10.139	100.00%

(1) Influent billing meter summary:

- a. CSJC is metered daily in the collection system. The area-velocity meter has an accuracy of +/- 20%.
- b. MNWD is assumed to be 1.4 mgd unless Treatment Plant 3A is discharging to the sewer. If other discharges occur, they are estimated.
- c. SCWD flows are the summation of the DPSD and Victoria PS meters. The two metering systems have an accuracy of +/- 10%.
- d. The Oso Trabuco sewer is metered daily in the collection system. The flows from MNWD are subtracted from the metering data collected to determine SMWD's flows. The metering system in the collection system has an accuracy of +/- 20%.

(2) The 36-month average is the average of the past 36 months. The Use Audit is based on the last 3 Fiscal Years versus the average of the past 36 months.

(3) All monthly flow data for 3A is reported as part of MNWD's flow to the ocean outfall.

SOCWA Operational Report September, 2021 (cont'd)

FY Flow/Solids Summary-Billing (cont'd)

Project Committee No. 15 (CTP)

Agency	Own (mgd)	Own (%)	Budget (mgd)	Budget (%)	Month (mgd)	Month (%)	FY Avg to Date (mgd)	FY Avg to Date (%)
CLB	2.54	37.91%	1.599	56.52%	1.450	52.22%	1.523	52.56%
EBSD	0.20	2.99%	0.080	2.83%	0.063	2.27%	0.069	2.38%
SCWD	2.00	29.85%	1.150	40.65%	1.264	45.52%	1.306	45.06%
MNWD	1.96	29.25%	0.000	0.00%	0.000	0.00%	0.000	0.00%
Total	6.70	100.00%	2.829	100.00%	2.777	100.00%	2.898	100.00%

Project Committee No. 17 Liquids (RTP)

Agency	Budget Liquids (mgd)	Budget Liquids (%)	Month Plant Influent (mgd)	Month Centrate (mgd)	Month Total (mgd)(1)	Month Total (%)	FY Avg to Date (mgd)	FY Avg to Date (%)
CLB	0.00776	0.0993%	0.0000	0.0133	0.0133	0.1752%	0.0132	0.1742%
EBSD	0.00001	0.0001%	0.0000	0.0006	0.0006	0.0076%	0.0006	0.0079%
SCWD	0.00345	0.0442%	0.0000	0.0116	0.0116	0.1527%	0.0113	0.1494%
ETWD	0.01472	0.1884%	0.0000	0.0151	0.0151	0.1990%	0.0144	0.1894%
MNWD	7.78597	99.6679%	7.4620	0.0717	7.5337	99.4654%	7.5432	99.4792%
Total	7.81191	100.0000%	7.4620	0.1122	7.5742	100.0000%	7.5827	100.0000%

(1) Month total does not double count MNWD centrate. It is included in the Monthly Plant Influent too.

SOCWA Operational Report September, 2021 (cont'd)

FY Flow/Solids Summary (cont'd)

Project Committee No. 17 Solids (RTP)

Agency	Own (lbs/d)	Own (%)	Budget (lbs/d)	Budget (%)	Total Month (lbs)	Total Month (%)	FY Avg Total to Date (lbs)	FY Avg Total to Date (%)
CLB	5,605	11.22%	5,133	14.82%	129,756	11.83%	141,190	12.33%
EBS	295	0.59%	320	0.92%	5,629	0.51%	6,414	0.56%
SCWD	4,480	8.96%	2,803	8.09%	113,115	10.31%	120,994	10.56%
ETWD	10,200	20.41%	5,282	15.25%	147,380	13.44%	153,971	13.44%
MNWD	29,395	58.82%	21,107	60.92%	700,811	63.90%	722,879	63.11%
Total	49,975	100.00%	34,645	100.00%	1,096,692	100.00%	1,145,449	100.00%

Project Committee No. 24 (ACOO)

Agency	Own (%)	Budget (mgd)	Budget (%)	Month Outfall Flow (mgd)	Month Outfall Flow (%)	FY Avg Outfall Flow (mgd)	FY Avg Outfall Flow (%)
CLB	11.00%	5.500	11.00%	1.450	25.73%	1.523	28.61%
EBS	0.78%	0.390	0.78%	0.063	1.12%	0.069	1.30%
ETWD	16.30%	8.151	16.30%	1.487	26.39%	1.296	24.34%
IRWD	15.76%	7.880	15.76%	1.128	20.02%	1.213	22.78%
MNWD	43.85%	21.924	43.85%	1.606	28.50%	1.263	23.71%
SCWD	12.31%	6.155	12.31%	-0.099	-1.76%	-0.040	-0.75%
Total	100.00%	50.000	100.00%	5.634	100.00%	5.325	100.00%

SOCWA Operational Report September 2021 (cont'd)

Select Critical Equipment Repairs

JBL - PC2

Replaced corroded and leaking ball valve for Digester #3 sample port.
Replaced failed backflow valves and gas traps for Bleach Pump Station.
Troubleshooted the Centrifuge #3 Polymer Feed Pump and replaced failed temperature sensor.
Jetted the Administration Building main sewer line.
Troubleshooted leaking metal gate on Aeration Tank #1.
Prepared for Digester 1 and 2 Manway Project.
Replaced failed TWAS Pump #2 that was beyond its useful life.
Package B Construction support.

CTP - PC15

Replaced failing AWT Low-Pressure Blower/Compressor due to noise complaints.
Replaced failed shaft on the AWT Clearwell Pump.
Staff to JBL to support the Package B Construction Project.

RTP - PC17

Replaced failed 20" AWT Cell #6 backwash water valve.
Fabricated and installed a new Digester 3 Gas Bypass System for future Flame Arrestor improvements.
Replaced failed Digested #2 Sludge Flowmeter.
Replaced failed TSS and Turbidity probes in Secondary Effluent Channel.
Replaced broken feed tube on Centrifuge #1, which had failed and was subject to a manufacturer recall.

Support Services - ALL PC'S

Programmed new TSS and Turbidity Probe that replaced failed units at RTP.
Programmed new 2" flowmeter on Digester #2 Sludge feed line, which had failed due to corrosion at RTP.
Replaced failed ballast on lighting fixture inside RTP maintenance shop.
Replaced failed AWT Cell #2 pulse electronic counter for backwash cycle at RTP.
Troubleshooted Primary Sludge Pump #1 overload at RTP.
Replaced failed 9-Side Bubbler Air Compressor used for influent sewage level indication at JBL.
Replaced failed thermal sensor on Polymer Pump #3 at JBL.
Troubleshooted the Administration Building restroom exhaust fan at JBL.
Recalibrated fouled TWAS flowmeter at JBL.
Replaced Truck Bay PLC OIT, which had shorted out at JBL.
Troubleshooted Solids Scrubber Stage 2/3 Caustic Pump at JBL.
Replaced failed DAF instrument air compressor at CTP.
Replaced failed DAFT recirculation pump motor at CTP.

SOCWA Operational Report September 2021 (cont'd)

Select Critical Equipment Repairs (cont'd)

Support Services - ALL PC'S (cont'd)

Troubleshoot Primary Collector control wiring issue that was preventing automatic operation at CTP.

Troubleshoot Bleach Pump #3 motor, which failed at CTP.

Assisted contractors with replacing failed CEMS analyzer stack NOX analyzer screen at RTP.

Troubleshoot and repaired CEMS inlet CO analyzer at RTP.

Items with a (*) have been identified as preventable repairs.

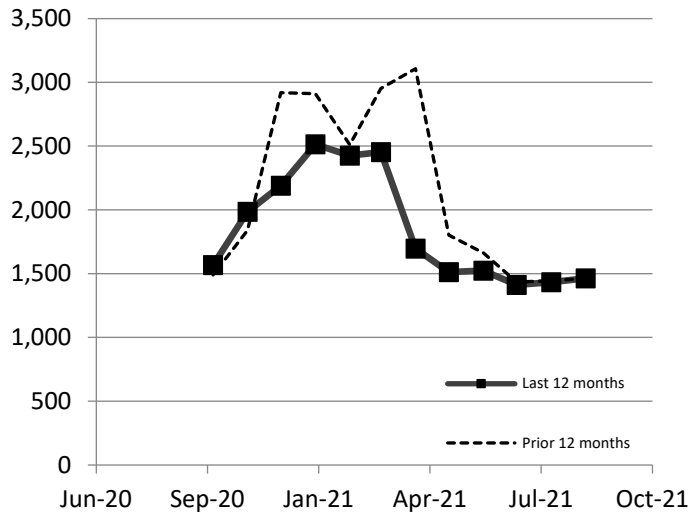
SOCWA Ocean Outfall Discharges by Agency

SOCWA Operational Report September, 2021 (cont'd)

Agency	SJCOO (mgd)	SJCOO (%)	ACOO (mgd)	ACOO (%)	Total (mgd)
CLB			1.45	25.73%	1.45
EBSD			0.06	1.12%	0.06
SCWD	1.89	18.49%	-0.10	-1.76%	1.79
MNWD	1.56	15.26%	1.61	28.50%	3.16
ETWD			1.49	26.39%	1.49
CSJC	2.75	27.00%			2.75
SMWD	1.72	16.85%			1.72
CSC	2.29	22.41%			2.29
IRWD			1.13	20.02%	1.13
Total	10.20	100.00%	5.63	100.00%	15.84
or Acre-Feet per year equivalent					17,738

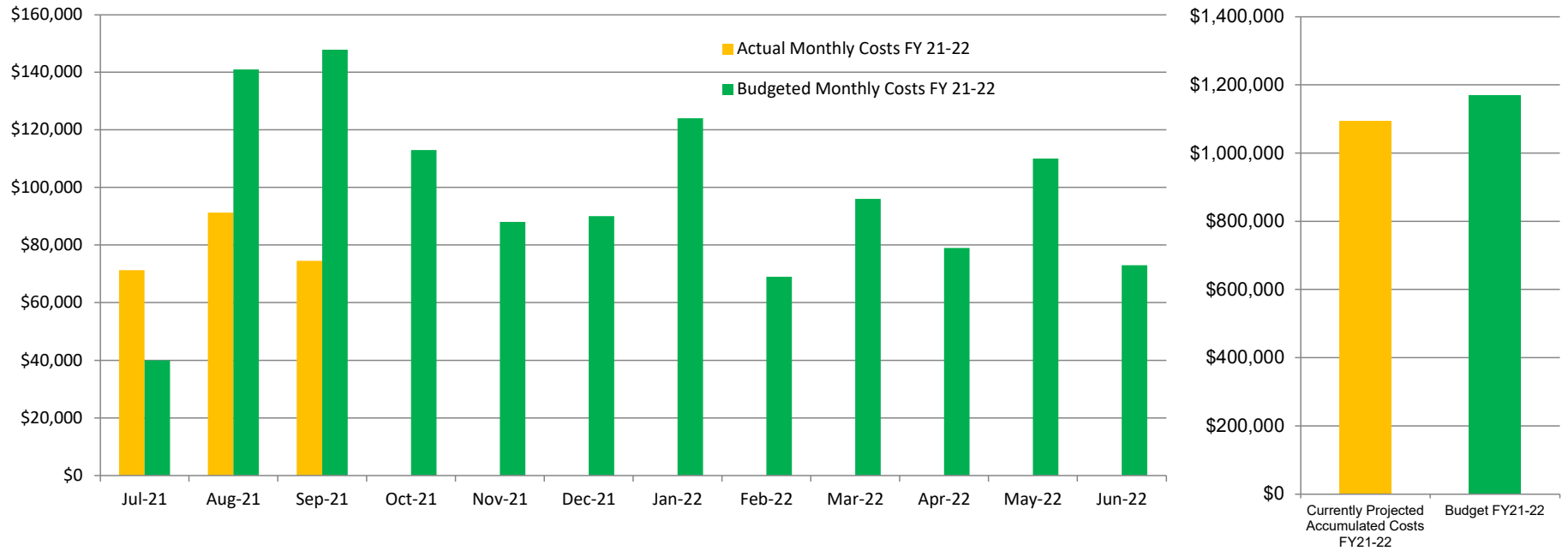
12-Month Running Total Discharge to Ocean Outfalls (AF)

Sep-21	1,464
Aug-21	1,433
Jul-21	1,412
Jun-21	1,523
May-21	1,512
Apr-21	1,696
Mar-21	2,453
Feb-21	2,425
Jan-21	2,514
Dec-20	2,189
Nov-20	1,985
Oct-20	1,567
Total	22,172



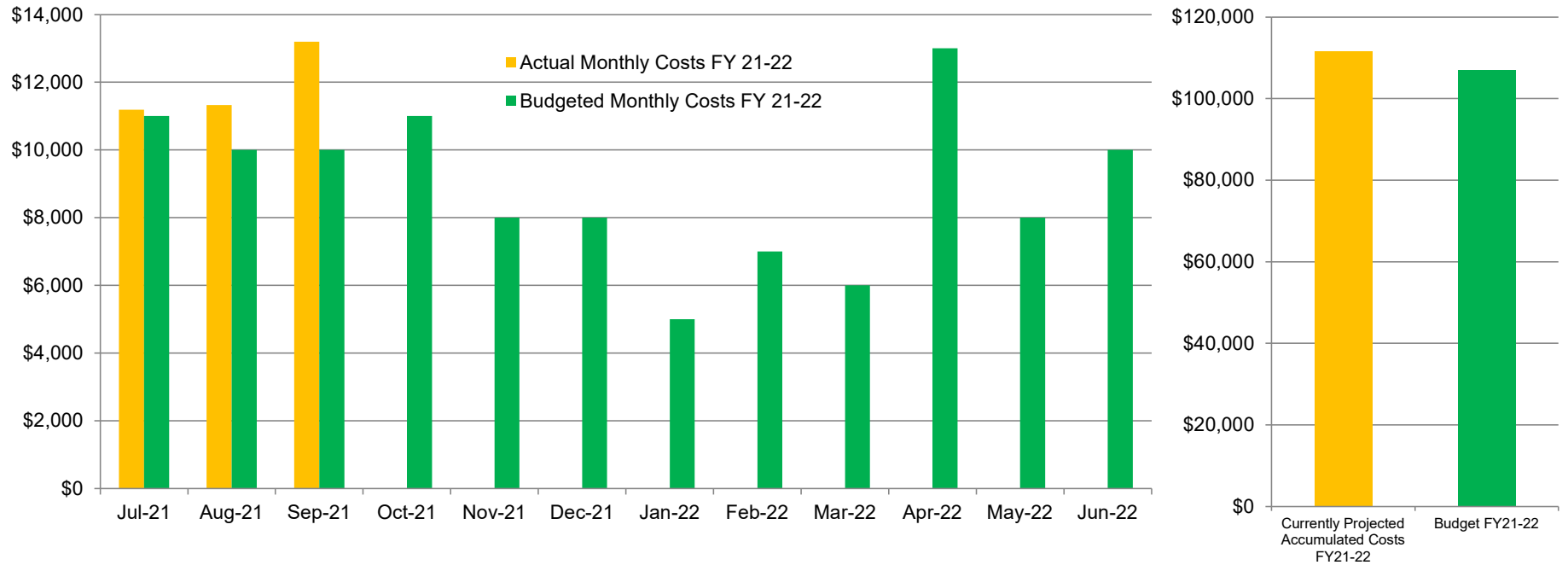
Quarterly Report on Key Operational Expenses

Electricity (5002) Costs



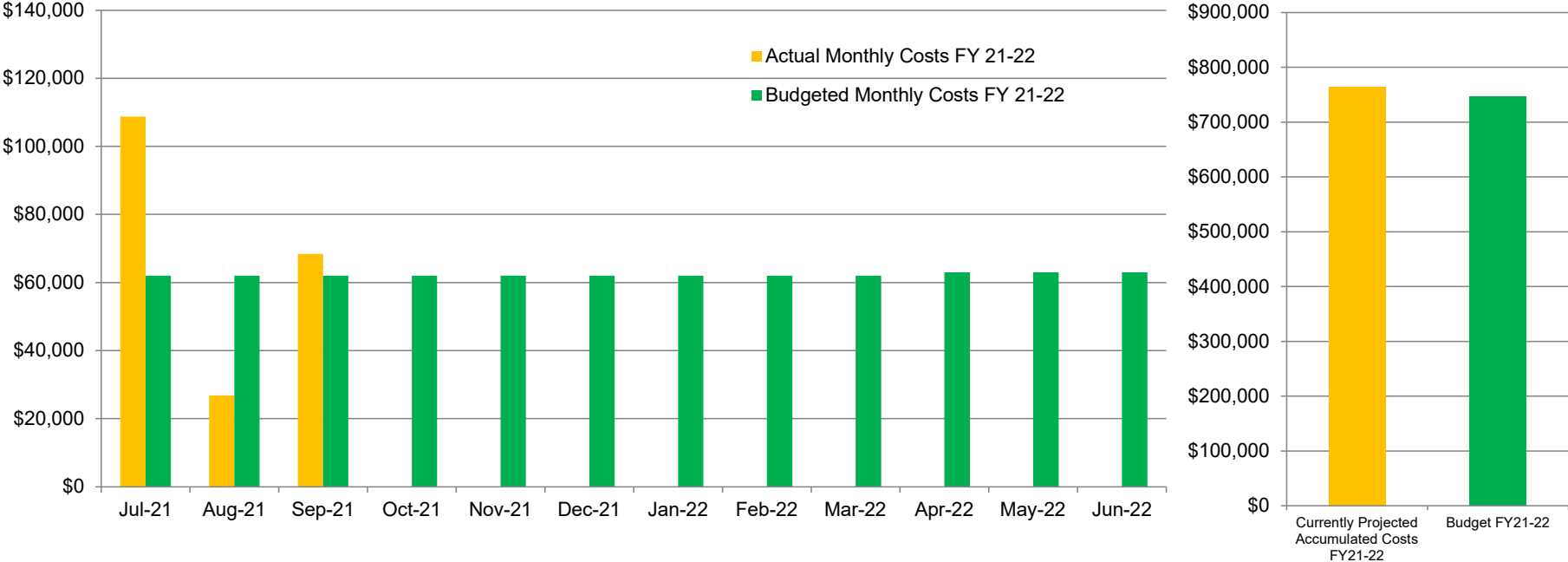
	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Currently Projected Accumulated Costs FY21-22	\$1,093,984
Actual Monthly Costs FY 21-22	\$71,259	\$91,257	\$74,469										Budget FY21-22	\$1,170,780
Budgeted Monthly Costs FY 21-22	\$40,000	\$141,000	\$147,780	\$113,000	\$88,000	\$90,000	\$124,000	\$69,000	\$96,000	\$79,000	\$110,000	\$73,000	Currently Projected Under(+)/Over (-) Budget	\$76,796

Odor Control (5009) Costs



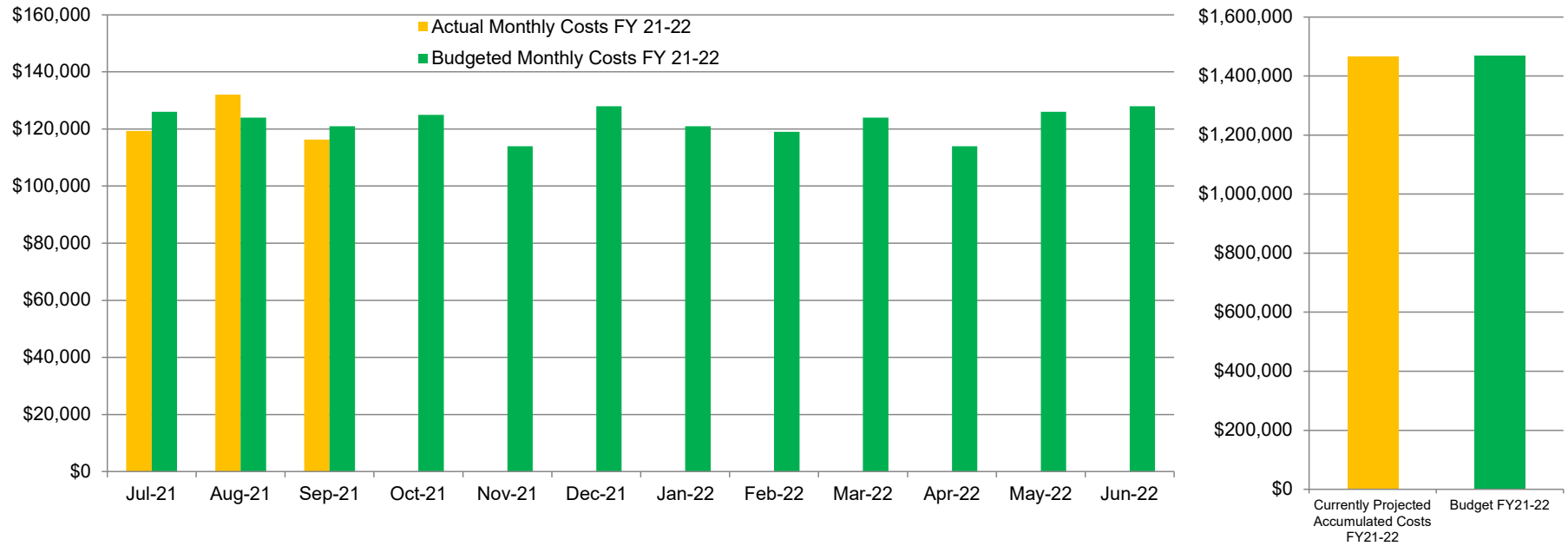
	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Currently Projected Accumulated Costs FY21-22	
Actual Monthly Costs FY 21-22	\$11,185	\$11,319	\$13,196										\$111,701	
Budgeted Monthly Costs FY 21-22	\$11,000	\$10,000	\$10,000	\$11,000	\$8,000	\$8,000	\$5,000	\$7,000	\$6,000	\$13,000	\$8,000	\$10,000	Budget FY21-22	\$107,000
													Currently Projected Under(+)/Over (-) Budget	-\$4,701

Polymer (5007) Costs



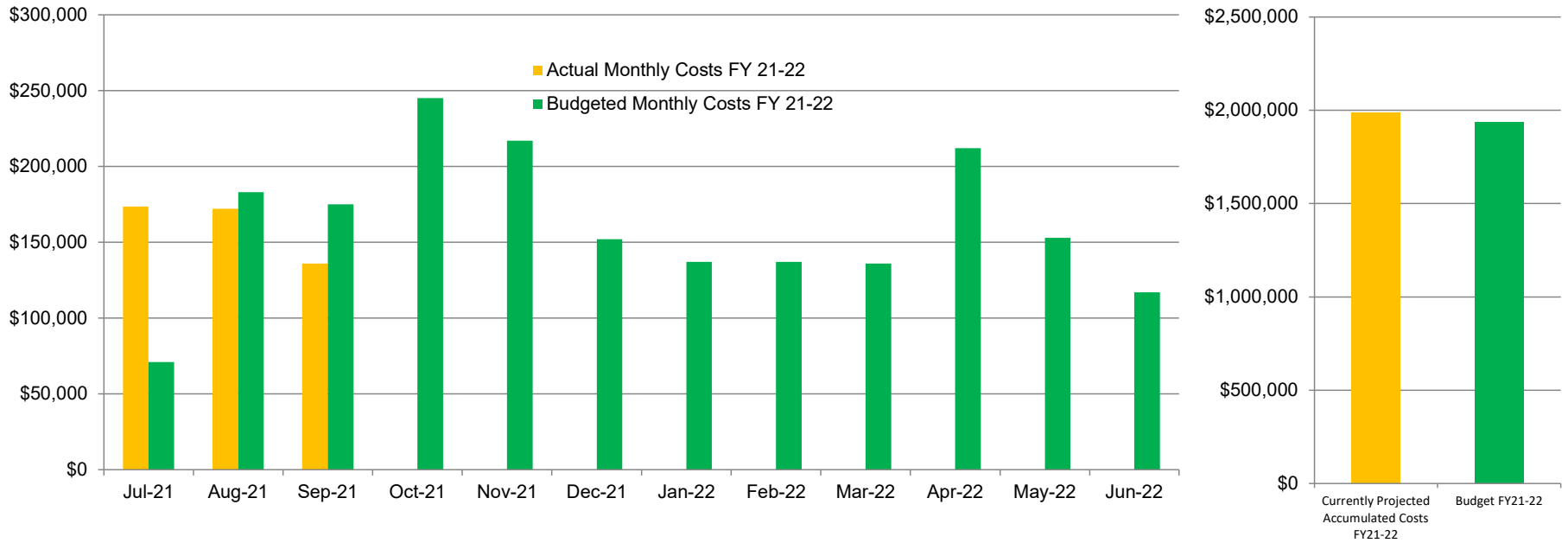
	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Currently Projected Accumulated Costs FY21-22	
Actual Monthly Costs FY 21-22	\$108,707	\$26,765	\$68,354											\$764,826
Budgeted Monthly Costs FY 21-22	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$63,000	\$63,000	\$63,000	Budget FY21-22	\$747,000
													Currently Projected Under(+)/Over (-) Budget	-\$17,826

Biosolids (5049) Costs



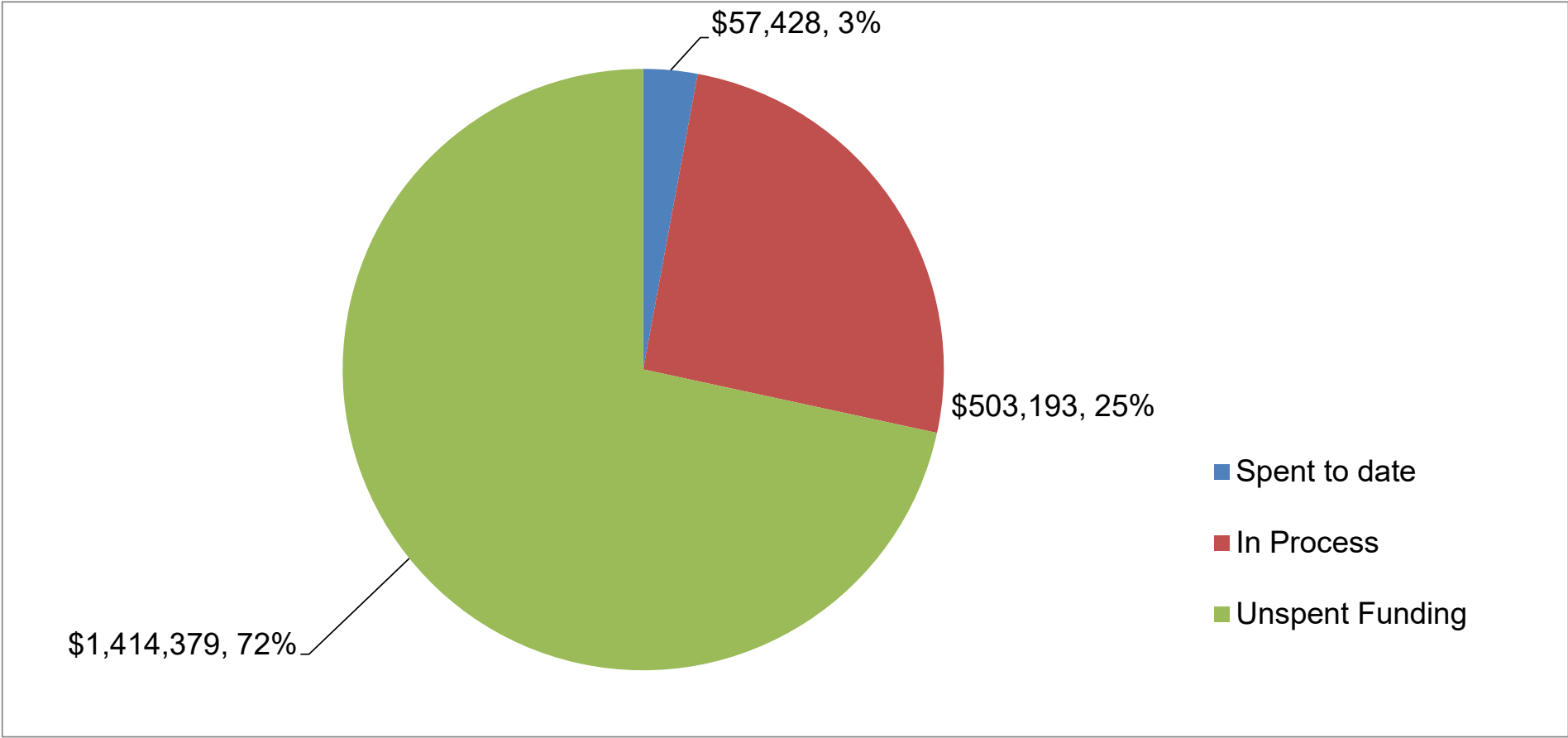
	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Currently Projected Accumulated Costs FY21-22	\$1,466,679
Actual Monthly Costs FY 21-22	\$119,323	\$132,048	\$116,308										Budget FY21-22	\$1,470,000
Budgeted Monthly Costs FY 21-22	\$126,000	\$124,000	\$121,000	\$125,000	\$114,000	\$128,000	\$121,000	\$119,000	\$124,000	\$114,000	\$126,000	\$128,000	Currently Projected Under(+)/Over (-) Budget	\$3,321

Maintenance Repair (5056 to 5060) Costs



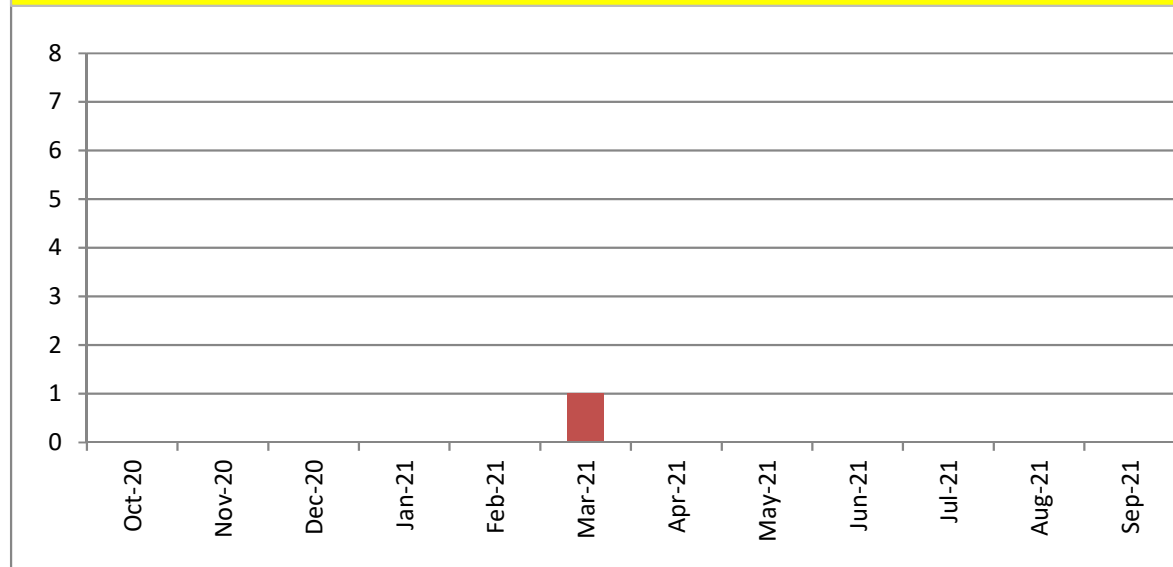
	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Currently Projected Accumulated Costs FY21-22	Budget FY21-22
Actual Monthly Costs FY 21-22	\$173,477	\$172,139	\$135,930										\$1,987,546	\$1,935,000
Budgeted Monthly Costs FY 21-22	\$71,000	\$183,000	\$175,000	\$245,000	\$217,000	\$152,000	\$137,000	\$137,000	\$136,000	\$212,000	\$153,000	\$117,000		
													Currently Projected Under(+)/Over (-) Budget	-\$52,546

FY21-22 Small Internal Capital Costs



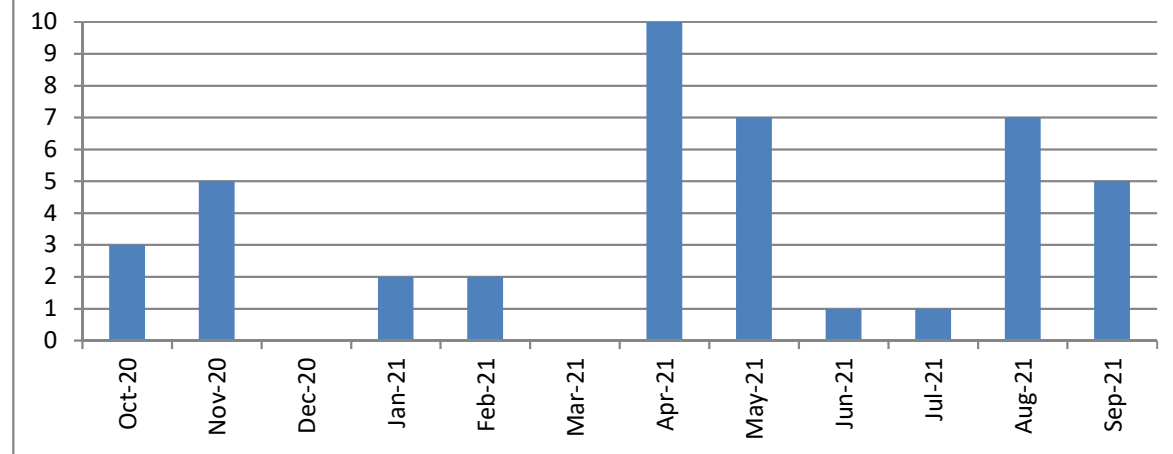
SOCWA SAFETY UPDATE - OCTOBER 1, 2021

OSHA RECORDABLE INJURIES



	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21
OSHA RECORDABLE INJURIES	0	0	0	0	0	1	0	0	0	0	0	0

NEAR MISS REPORTS



	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21
NEAR MISS REPORTS	3	5	0	2	2	0	10	7	1	1	7	5

SAFETY TRAINING

TRAINING TOPIC	ATTENDANCE
Sept '21 - Lifting Safety Do's and Don'ts Training (with CSRMA, completed remotely)	In Progress
Sept '21 - Annual Bloodborne Pathogen Training (Completed remotely)	In Progress
Aug '21 - Initial and Annual Refresher Confined Space Entry Rescue Training	100%
Aug '21 - Electrical Safety in the Workplace Training (Support Services Employees)	100%
July '21 - Annual 8-HR HAZWOPER Refresher Training and Initial CPR/First Aid/AED Training	90%
Feb '21 - Annual Fire Extinguisher Use Training / March '21 Annual Heat Illness Training	95%
Oct/Nov '20 - Forklift Training and Additional ICS Training	95%
Sept '20 - CPR/First Aid/AED Training (Refresher and Initial)	95% (of all SOCWA employees)
Aug '20 - Annual Audiometric Hearing Testing and Training	100%
July '20 - Annual Fire Extinguisher Use Training	90%
June '20 - Annual 8-HR HAZWOPER Refresher Training (Covid-19 ECP Compliant)	95%
Apr '20 - Annual Bloodborne Pathogen Training (Completed remotely)	95% (of all SOCWA employees)
Mar '20 - Annual Heat Illness Training (Make-Up Training May 2020)	100% (including make-up training)
Feb '20 - Active Shooter/Workplace Violence Training	95%
Dec '19 - Annual Defensive Driving/Distracted Driving/DUIs Training (w/ CHP)	100%
Oct '19 - Fall Protection Training, Additional ICS Training, and Spill Training	90%
Sept '19 - Wildland Fire Training and Additional CPR/First Aid/AED Training	90%
Aug '19 - Initial Confined Space Entry Rescue and Additional Active Shooter Training	95%
March '19 - Annual Respirator Fit Testing and PPE Use Training	95%
Feb '19 - Annual Bloodborne Pathogens Training and Additional Arc Flash Training	95%
Dec '18 - Annual Defensive Driving/Distracted Driving/DUIs Training (w/ CHP)	100%
September '18 - Silica Safety Training / October '18 - Crane Safety	100%
Aug '18 - Fire Awareness Safety for Field Personnel and Lockout/Tagout Training	100% (all SOCWA employees)
March '18 - CPR/First Aid/AED Training	100% (all SOCWA employees)
Jan '18 - Respiratory PPE Training/Fit Testing and Additional ICS Training	90%
Sept '17 - Active Shooter/Workplace Violence Training	100%
July/August '17 - Spill Response Training (hands on training)	100%
May '17 - Safety Culture Training	100%
Mar '17 - Fall Protection Training and CPR/First Aid/AED Training	100%
Jan '17 - Lockout/Tagout Training and Confined Space Rescue Practice/Training	100%
Oct '16 - Confined Space Awareness/Entry Rescue Training and Forklift Training	100%
May '16 - Entry Level NIMS/ICS Training and Heat Illness Training	100%
Feb '16 - Biomechanics/Ergonomics Training (CSRMA) and Bloodborne Pathogen Training	100%
Oct '15 and Jan '16 - Initial Confined Space Entry Rescue Training (3-day trainings)	100%
Sept '15 - Pre-Storm Workshop, Arc Flash Training, and Forklift Training	100%
Aug '15 - Fire Prevention for Water Utility Field Staff and Disaster Cost Recovery Training	100%
July '15 - Initiate additional NIMS/ICS Training, Attend Water and Power Resiliency Workshop	Ongoing
June '15 - Initial Confined Space Awareness and Non-Entry Rescue Training	100%

Beach / Ocean Monitoring Report

ALISO CREEK OCEAN OUTFALL MONITORING REPORT

September 2021

DATE	IRWD LOS ALISOS WRP				EL TORO WRP				SOCWA REGIONAL PLANT				SOCWA COASTAL PLANT				IRWD IDP	IRWD SGU	SCWD ACWRF	ACOO FLOW	Rain Fall
	FLOW	TSS	cBOD	SS	FLOW	TSS	cBOD	SS	FLOW	TSS	cBOD	SS	FLOW	TSS	cBOD	SS	FLOW	FLOW	FLOW	MGD	inches
	MGD	mg/L	mg/L	ml/L	MGD	mg/L	mg/L	ml/L	MGD	mg/L	mg/L	ml/L	MGD	mg/L	mg/L	ml/L	MGD	MGD	MGD	MGD	
09/01/21	No Flow				1.011	9.0	2.3	<0.1	1.430	4.2	2.0	<0.1	0.914	5.8	5.0	0.1	0.286	0.361	0.132	4.134	0.00
09/02/21	No Flow				1.386	15.5	3.6	<0.1	1.39	5.1	4.0	0.1	0.492	7.7	8.0	<0.1	0.466	0.361	0.162	4.257	0.00
09/03/21	No Flow				1.322	11.3	2.6	<0.1	2.540	4.1	3.0	0.1	0.102	8.7	6.0	0.2	0.788	0.361	0.123	5.236	0.00
09/04/21	No Flow				1.509	5.8	3.0	<0.1	1.310	4.1	3.0		0.234	8.1	2.0		0.789	0.360	0.139	4.341	0.00
09/05/21	No Flow				1.266	7.0		<0.1	1.480	4.6	3.0	<0.1	1.277	3.3	6.0		0.788	0.360	0.136	5.307	0.00
09/06/21	No Flow				1.785	5.8		<0.1	0.980	6.6	3.0	<0.1	1.399	5.2	6.0	<0.1	0.788	0.360	0.137	5.449	0.00
09/07/21	No Flow				1.644	6.5	3.0	<0.1	2.830	11.9	6.0	<0.1	1.202	13.7	10.0	<0.1	0.789	0.359	0.108	6.932	0.00
09/08/21	No Flow				1.770	7.8	3.0	<0.1	3.760	9.8	6.0	0.2	0.744	12.4	7.0	0.1	0.805	0.360	0.125	7.564	0.00
09/09/21	No Flow				1.636	11.8	4.0	<0.1	1.570	5.8	3.0	<0.1	0.185	8.2	5.0	0.2	0.807	0.359	0.155	4.712	0.00
09/10/21	No Flow				0.925	9.5	3.7	0.1	0.840	6.2	2.0	<0.1	1.882	12.7	7.0	0.2	0.785	0.359	0.149	4.940	0.00
09/11/21	No Flow				1.468	14.2	6.9	<0.1	0.480	5.7	2.0		1.389	12.5	7.0		0.804	0.359	0.123	4.623	0.00
09/12/21	No Flow				1.456	12.7		<0.1	0.460	3.4	2.0	0.1	2.073	8.6	7.0		0.813	0.358	0.116	5.276	0.00
09/13/21	No Flow				2.145	13.3		0.1	3.110	4.5	3.0	0.1	1.454	20.7	10.0	1.0	0.814	0.359	0.119	8.001	0.00
09/14/21	No Flow				1.212	13.3	10.3	0.1	0.580	6.5	3.0	<0.1	2.100	4.2	5.0	0.1	0.813	0.357	0.172	5.234	0.00
09/15/21	No Flow				0.696	10.8	3.7	<0.1	0.240	5.6	2.0	<0.1	1.092	11.2	6.0	<0.1	0.444	0.358	0.128	2.958	0.00
09/16/21	No Flow				1.070	15.3	4.9	<0.1	0.240	3.9	3.0	0.1	1.095	11.7	7.0	0.1	0.531	0.358	0.119	3.413	0.00
09/17/21	No Flow				0.098	10.3	4.2	<0.1	0.400	2.6	4.0	<0.1	1.419	7.4	9.0	0.1	0.854	0.357	0.097	3.225	0.00
09/18/21	No Flow				1.289	13.7	5.4	<0.1	0.380	4.0	4.0		1.749	9.5	42.0		0.863	0.357	0.139	4.777	0.00
09/19/21	No Flow				1.106	13.2		<0.1	1.470	6.9	7.0	<0.1	1.805	4.9	8.0		0.846	0.357	0.122	5.706	0.00
09/20/21	No Flow				2.137	14.3		<0.1	5.170	11.7	14.0	<0.1	1.862	2.4	6.0	0.1	0.864	0.357	0.119	10.509	0.00
09/21/21	No Flow				1.667	15.7	5.4	<0.1	3.970	7.4	7.0	<0.1	1.101	5.6	7.0	<0.1	0.863	0.356	0.169	8.126	0.00
09/22/21	No Flow				1.296	7.7	3.7	<0.1	0.910	6.7	5.0	0.1	1.085	7.5	7.0	0.2	0.659	0.313	0.125	4.388	0.00
09/23/21	No Flow				1.540	7.8	3.5	<0.1	0.440	4.3	4.0	0.1	1.711	8.6	9.0	0.1	0.705	0.331	0.093	4.820	0.00
09/24/21	No Flow				1.389	8.8	4.6	0.1	0.660	4.5	4.0	0.1	2.114	15.9	7.0	0.2	0.723	0.341	0.129	5.356	0.03
09/25/21	No Flow				2.854	10.6	4.8	<0.1	1.020	4.7	4.0		2.557	11.1	8.0		0.814	0.379	0.136	7.760	0.00
09/26/21	No Flow				1.493	8.8		<0.1	1.770	3.5	4.0	0.1	1.919	5.5	7.0		0.814	0.379	0.001	6.376	0.00
09/27/21	No Flow				2.027	8.6		0.1	4.300	6.6	6.0	<0.1	2.083	3.7	4.0	0.2	0.864	0.380	0.112	9.766	0.00
09/28/21	No Flow				1.388	10.6	3.9	0.1	1.560	6.2	4.0	0.4	1.688	3.4	4.0	0.1	0.863	0.378	0.154	6.031	0.00
09/29/21	No Flow				2.564	6.2	2.7	<0.1	1.320	4.9	4.0	0.2	2.011	6.1	4.0	0.1	0.864	0.377	0.132	7.268	0.00
09/30/21	No Flow				1.456	6.4	2.6	<0.1	1.570	3.9	4.0	0.1	1.675	4.5	4.0	0.1	0.851	0.667	0.131	6.350	0.00
AVG	No Flow				1.487	10.4	4.2	<0.1	1.606	5.7	4.2	<0.1	1.414	8.4	7.7	<0.2	0.759	0.369	0.127	5.761	
TOTAL	No Flow				44.61				48.18				42.41				22.76	11.08	3.802	172.84	0.03

Unified Beach Monitoring

#1

South Orange County Wastewater Authority-Aliso Creek Ocean Outfall

REPORT FOR: September 2021
 REPORT DUE: November 1 2021
 SAMPLE SOURCE: Surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: High Tide 1055

Weather: Overcast

COMMENTS:

STA#	DATE	TIME	Total	Fecal	Entero-	Material of Sewage		Oil & Grease	Odor	Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			Coliform CFU/100ml SM9222B	Coliform CFU/100ml SM9222D	coccus CFU/100ml EPA 1600	Onshore	Offshore							
S3	09/08/21	1000	10	<10	<2	None	None	None	None	Green		Clear		
S4	09/08/21	945	10	<10	<2	None	None	None	None	Green		Clear		
S5	09/08/21	930	<10	<10	10	None	None	None	None	Green		Clear		
S6	09/08/21	914	100	<10	<2	None	None	None	None	Green	67	Clear		
WEST	09/08/21	910	<10	<10	10	None	None	None	None	Green	67	Clear		
S7	09/08/21	905	<10	<10	<2	None	None	None	None	Green	67	Clear		
S8	09/08/21	854	<10	<10	<2	None	None	None	None	Green	67	Clear		
S9	09/08/21	842	<10	<10	10	None	None	None	None	Green		Clear		
ACM1	09/08/21	838	<10	<10	<2	None	None	None	None	Green		Clear		30
S10	09/08/21	822	20	<10	<2	None	None	None	None	Green		Clear		
S11	09/08/21	816	<10	<10	<10	None	None	None	None	Green		Clear		
S12	09/08/21	810	<10	10	<2	None	None	None	None	Green		Clear		

RECREATIONAL WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml.

South Orange County Wastewater Authority-Aliso Creek Ocean Outfall

REPORT FOR: September 2021
 REPORT DUE: November 1, 2021
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: Low Tide 0734

Weather: Fog

COMMENTS:

STA#	DATE	TIME	Total	Fecal	Entero-	Material of Sewage		Oil & Grease	Odor	Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			Coliform CFU/100ml SM9222B	Coliform CFU/100ml SM9222D	coccus CFU/100ml EPA 1600	Onshore	Offshore							
S3	09/13/21	7:20	<10	<10	10	None	None	None	None	Green	61	Slightly Turbid		
S4	09/13/21	7:42	<10	20	2	None	None	None	None	Green		Slightly Turbid		5
S5	09/13/21	7:50	<10	<10	<2	None	None	None	None	Green		Slightly Turbid		
S6	09/13/21	7:59	20	<10	<2	None	None	None	None	Green		Slightly Turbid		
WEST	09/13/21	8:02	10	<10	<2	None	None	None	None	Green	63	Slightly Turbid		
S7	09/13/21	8:06	10	<10	2	None	None	None	None	Green		Slightly Turbid		
S8	09/13/21	8:12	20	10	<2	None	None	None	None	Green		Clear		
S9	09/13/21	9:06	<10	10	<2	None	None	None	None	Green	63	Slightly Turbid		
ACM1	09/13/21	9:10	10	<10	18	None	None	None	None	Green		Slightly Turbid		
S10	09/13/21	8:36	<10	<10	2	None	None	None	None	Green		Slightly Turbid		
S11	09/13/21	8:42	20	20	4	None	None	None	None	Green	63	Slightly Turbid		
S12	09/13/21	8:54	30	100	2	None	None	None	None	Green		Slightly Turbid		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml.

South Orange County Wastewater Authority-Aliso Creek Ocean Outfall

REPORT FOR: September 2021
 REPORT DUE: November 1, 2021
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: High Tide 1021
 Weather: Clear
 COMMENTS:

STA#	DATE	TIME	Total	Fecal	Entero-	Material of Sewage		Oil & Grease	Odor	Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			Coliform CFU/100ml SM9222B	Coliform CFU/100ml SM9222D	coccus CFU/100ml EPA 1600	Onshore	Offshore							
S3	09/22/21	0805	<10	<10	<2	None	None	None	None	Green	66	Clear		
S4	09/22/21	1040	<10	<10	2	None	None	None	None	Green		Clear		
S5	09/22/21	1030	<10	<10	<2	None	None	None	None	Green		Clear		
S6	09/22/21	1000	<10	<10	<2	None	None	None	None	Green		Clear		
WEST	09/22/21	0959	<10	<10	<2	None	None	None	None	Green		Clear		
S7	09/22/21	0954	<10	<10	<2	None	None	None	None	Green		Clear		
S8	09/22/21	0949	<10	<10	<2	None	None	None	None	Blue		Clear		
S9	09/22/21	0935	<10	<10	<2	None	None	None	None	Green		Clear		
ACM1	09/22/21	0933	<10	<10	<2	None	None	None	None	Green		Clear		
S10	09/22/21	0859	<10	<10	<2	None	None	None	None	Green		Clear		
S11	09/22/21	0854	<10	<10	2	None	None	None	None	Green		Clear		
S12	09/22/21	0845	<10	<10	10	None	None	None	None	Green		Clear		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml.

South Orange County Wastewater Authority-Aliso Creek Ocean Outfall

REPORT FOR: September 2021
 REPORT DUE: November 1, 2021
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: High Tide 0731

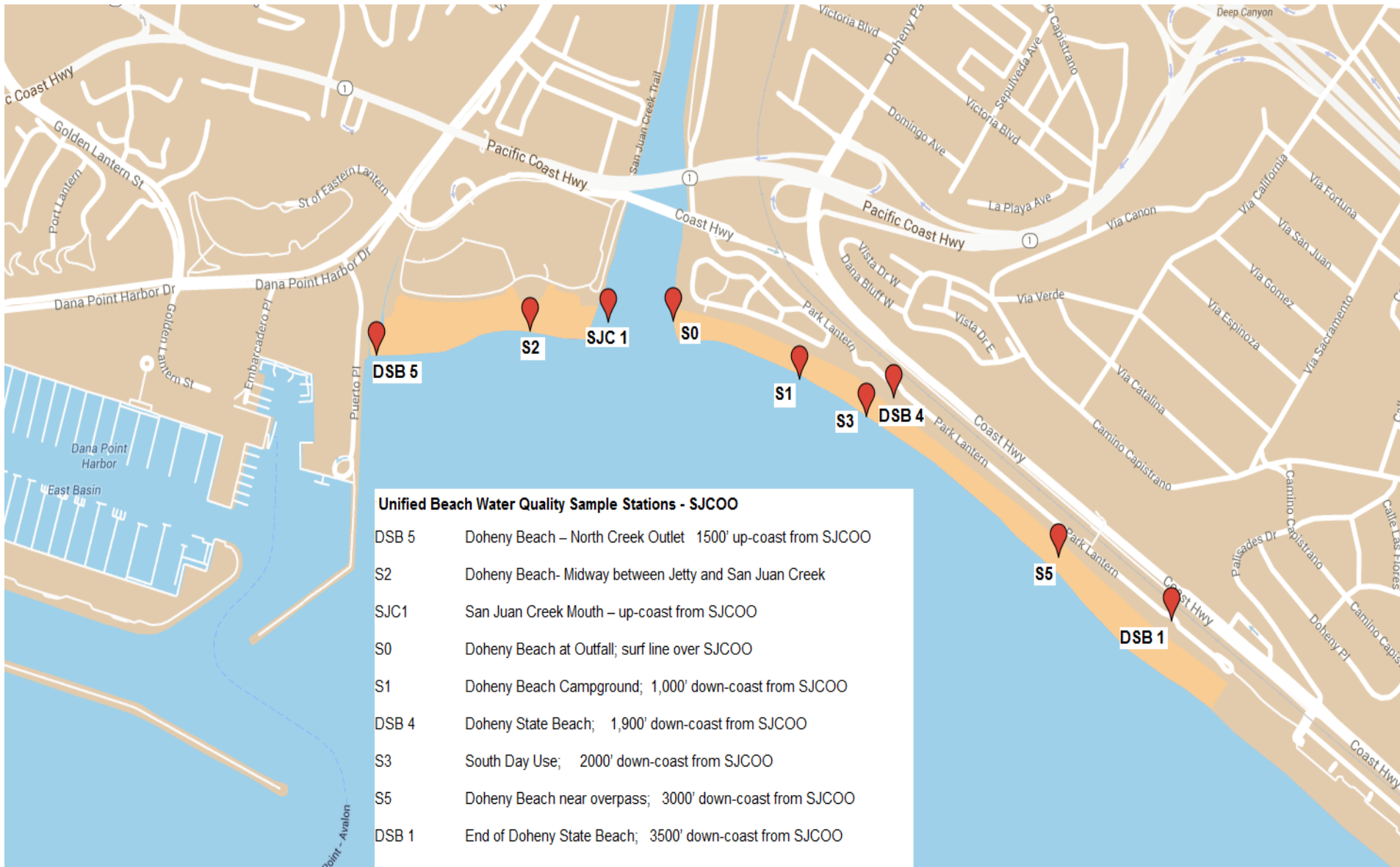
Weather: Clear

COMMENTS:

0.0

STA#	DATE	TIME	Total	Fecal	Entero-	Material of Sewage		Oil & Grease	Odor	Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			Coliform CFU/100ml SM9222B	Coliform CFU/100ml SM9222D	coccus CFU/100ml EPA 1600	Onshore	Offshore							
S3	09/30/21	0805	<10	<10	2	None	None	None	None	Green	62	Clear		
S4	09/30/21	1020	<10	<10	<2	None	None	None	None	Green		Clear		
S5	09/30/21	0955	<10	<10	<2	None	None	None	None	Green		Clear		
S6	09/30/21	0935	<10	<10	<2	None	None	None	None	Green		Clear		
WEST	09/30/21	0930	<10	<10	<2	None	None	None	None	Green		Clear		
S7	09/30/21	0925	<10	<10	<2	None	None	None	None	Green		Clear		
S8	09/30/21	0920	<10	<10	2	None	None	None	None	Blue		Clear		
S9	09/30/21	0905	20	10	10	None	None	None	None	Green		Clear		
ACM1	09/30/21	0855	<10	<10	4	None	None	None	None	Green		Clear		
S10	09/30/21	0840	<10	<10	<2	None	None	None	None	Green		Clear		
S11	09/30/21	0835	<10	<10	<2	None	None	None	None	Green		Clear		
S12	09/30/21	0825	10	10	10	None	None	None	None	Green		Clear		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml.



Aliso Creek Ocean Outfall

Unified Beach Water Quality Monitoring Stations

SOCWA's NPDES discharge permit requires participation in the South Orange County Unified Beach Water Quality Monitoring Program. The monitoring stations below are tested by SOCWA at least once per week for Total and Fecal Coliform and Enterococcus Bacteria.

Station	Location
S3	Three Arch Bay Beach; 10,000' down-coast from ACOO
S4	Ninth Street-1000 Steps; 5,000' down-coast from ACOO
S5	Laguna Lido Beach; 4,000 down-coast from ACOO
West	West Street Drain; 2,000' down-coast from ACOO
S6	Table Rock Beach; 3,000' down-coast from ACOO
S7	Camel Point Beach; 2,000' down-coast from ACOO
S8	Aliso Beach south; 1,000' down-coast from ACOO
S9	Aliso Beach middle; at ACOO
ACM1	Aliso Beach at Aliso Creek Outlet
S10	Aliso Beach north; 1,000' up-coast of ACOO
S11	Treasure Island Beach; 2,000' up-coast of ACOC
S12	Goff Island Beach; 3,000' up-coast of ACOO

MONITORING REPORT

Off Shore Stations

South Orange County Wastewater Authority

DISCHARGE: Aliso Creek Ocean Outfall

REPORT FOR: September 2021

REPORT DUE: November 1, 2021

SAMPLE SOURCE: Receiving water, nearshore and offshore

EXACT SAMPLE POINTS: As specified in permit

SAMPLES COLLECTED BY: Seaventures/SOCWA staff

SAMPLES ANALYZED BY: SOCWA Lab

REPORT FREQUENCY: Monthly

SAMPLING FREQUENCY: Monthly

TYPE OF SAMPLE: Grab

Comments: High Tide 704

Sta No.	Sample Depth	Sample Date	Total Coliform CFU/100ml SM9222B	Fecal Coliform CFU/100ml SM9222D	Enterococcus CFU/100ml EPA 1600	Sample Time	Oil & Grease	Sewage Debris	0 - None 1 - Mild 2 - Moderate 3 - Severe
A-1	Surface	09/15/21	<2	<2	<2	757	0	0	
A-1	Mid depth	09/15/21	<10	10	<10				
A-2	Surface	09/15/21	<2	<2	<2	745	0	0	
A-2	Mid depth	09/15/21	<10	<10	<10				
A-3	Surface	09/15/21	<2	<2	<2	751	0	0	
A-3	Mid depth	09/15/21	<10	<10	<10				
A-4	Surface	09/15/21	<2	<2	<2	801	0	0	
A-4	Mid depth	09/15/21	<10	<10	<10				
A-5	Surface	09/15/21	<2	<2	<2	755	0	0	
A-5	Mid depth	09/15/21	<10	<10	<10				
B-1	Surface	09/15/21	<2	<2	<2	739	0	0	
B-1	Mid depth	09/15/21	<10	<10	<10				
B-2	Surface	09/15/21	<2	<2	<2	806	0	0	
B-2	Mid depth	09/15/21	<10	<10	<10				
N1	Surface	09/15/21	<2	<2	<2	818	0	0	
N2	Surface	09/15/21	2	<2	<2	816	0	0	
N3	Surface	09/15/21	8	<2	<2	815	0	0	
N4	Surface	09/15/21	4	<2	<2	814	0	0	
N5	Surface	09/15/21	2	<2	<2	812	0	0	
N6	Surface	09/15/21	6	6	<2	811	0	0	
N7	Surface	09/15/21	8	2	<2	810	0	0	

REQUIREMENT: (1) Floating particulates and grease and oil shall not be visible. (2) The discharge of wasteshall not cause aesthetically undesirable discoloration of the ocean surface.

**Compliance Summary Report
Aliso Creek Ocean Outfall 2021**

ACOO Permit Order No. R9-2012-0013

Agency - Facility	Violation Date	Constituent	Effluent Limit Violation	Units	Permit Limit	Reported Value	Potential Fine
No violations during this monitoring period.							



**SOCWA and MEMBER AGENCY FACILITIES
ACOO Spill / Overflow Report Log - 2021
Order No. R9-2012-0013 ~ NPDES Permit No. CA0107611**

Reporting Agency	Responsible Agency	Estimated Volume (Gallons)	Type of Discharge	Location/Comments	Receiving Waters	Date Reported To State	Date Resolved
No spills during this monitoring period.							

SAN JUAN CREEK OCEAN OUTFALL MONITORING REPORT

September 2021

DATE	J.B. LATHAM FACILITY				SAN CLEMENTE WRP				SMWD CHIQUITA WRP				3-A PLANT				CSJC	SCWD	SJCOO	Rain
	FLOW MGD	TSS mg/L	cBOD mg/L	SS ml/L	FLOW MGD	TSS mg/L	cBOD mg/L	SS ml/L	FLOW MGD	TSS mg/L	cBOD mg/L	SS ml/L	FLOW MGD	TSS mg/L	cBOD mg/L	SS ml/L	Desalter FLOW MGD	Desalter FLOW MGD	FLOW MGD	Fall inches
09/01/21	6.610	3.6	3.6	<0.1	2.203	5.9	10.0	<0.1	0.019	3.7	4.0	0.3	0.102	9.2	8.1	ND	0.264	0.196	9.920	0.00
09/02/21	6.510	6.3	5.8	0.1	2.545	7.3	9.0	<0.1	0.012	3.8	4.2	0.3	0.169	8.2	7.0	ND	0.144	0.195	9.460	0.00
09/03/21	6.440	6.9	6.4	0.1	2.378	8.8	7.0	<0.1	0.006	3.4	4.0	<0.1	0.101	8.2	6.8	ND	0.461	0.200	9.150	0.00
09/04/21	6.320	10.9	7.1		2.293				0.000				0.097				0.460	0.194	9.380	0.00
09/05/21	6.380	21.1	11.2		2.426				0.000				0.102				0.424	0.195	9.140	0.00
09/06/21	6.100	9.6	8.9	<0.1	2.479	6.4	6.0	<0.1	0.013	4.0	5.2	<0.1	0.099	8.0	6.5	ND	0.446	0.195	9.640	0.00
09/07/21	7.430	9.9	11.3	<0.1	2.511	5.2	8.0	<0.1	0.035	5.8	6.4	0.3	0.128	11.6	9.1	ND	0.444	0.200	9.780	0.00
09/08/21	6.460	6.7	7.6	0.1	2.158	5.4	5.0	<0.1	0.022	5.6	4.3	0.4	0.121	7.2	5.1	ND	0.238	0.194	11.070	0.00
09/09/21	6.930	15.9	9.7	<0.1	2.435	4.6	4.0	<0.1	0.018	4.0	3.5	0.3	0.120	7.8	6.3	ND	0.199	0.195	9.460	0.00
09/10/21	6.940	8.3	7.3	0.1	2.386	4.9	6.0	<0.1	0.011	6.2	3.9	0.1	0.108	7.8	5.6	0.1	0.463	0.198	10.020	0.00
09/11/21	6.480	4.7	7.9		2.056				0.000				0.100				0.462	0.198	9.800	0.00
09/12/21	6.570	8.9	7.4		2.683				0.033				0.133				0.460	0.194	9.020	0.00
09/13/21	6.610	6.8	6.4	0.1	2.275	3.8	8.0	<0.1	0.009	6.3	7.4	<0.1	0.075	7.2	6.2	ND	0.458	0.196	9.650	0.00
09/14/21	6.620	5.1	5.9	0.1	2.446	3.5	7.0	<0.1	0.004	4.5	6.6	<0.1	0.132	8.6	7.2	ND	0.457	0.199	9.860	0.00
09/15/21	6.550	5.0	5.0	0.1	2.950	3.3	3.0	<0.1	0.055	2.7	3.6	0.4	0.008	6.4	5.2	ND	0.456	0.194	9.210	0.00
09/16/21	6.470	5.3	6.4	<0.1	1.963	3.6	4.0	<0.1	0.005	3.0	3.3	0.1	0.018	8.2	6.7	ND	0.459	0.196	9.930	0.00
09/17/21	6.210	5.2	6.3	0.1	2.073	4.5	4.0	<0.1	0.017	3.4	3.1	<0.1	0.014	8.4	6.9	ND	0.459	0.199	9.210	0.00
09/18/21	6.020	6.0	7.0		2.470				0.041				0.038				0.451	0.195	9.100	0.00
09/19/21	6.290	5.7	5.8		2.712				0.017				0.024				0.457	0.195	8.930	0.00
09/20/21	6.270	5.8	5.7	0.2	1.444	3.9	6.0	<0.1	0.015	6.6	7.9	0.3	0.072	13.6	8.0	ND	0.456	0.195	9.060	0.00
09/21/21	6.310	4.9	5.4	<0.1	2.472	4.2	6.0	<0.1	0.014	3.0	6.0	0.1	0.005	9.2	7.8	ND	0.456	0.199	9.590	0.00
09/22/21	6.340	5.6	5.0	0.2	1.914	5.9	8.0	<0.1	0.089	2.7	3.7	0.6	0.271	7.2	5.8	ND	0.456	0.196	8.740	0.00
09/23/21	6.250	6.2	6.0	0.1	1.524	3.0	6.0	<0.1	0.261	6.3	4.5	0.3	0.124	9.8	7.4	ND	0.255	0.195	8.650	0.00
09/24/21	6.230	8.0	6.0	0.1	1.856	4.0	5.0	<0.1	0.012	3.8	4.1	<0.1	0.207	6.0	5.1	ND	0.289	0.199	8.610	0.03
09/25/21	6.260	3.9	3.9		1.733				0.000				0.204				0.454	0.194	8.540	0.00
09/26/21	6.640	7.7	8.0		2.173				0.001				0.236	8.0	6.6	ND	0.454	No Flow	8.610	0.00
09/27/21	6.750	7.5	8.7	0.1	2.128	2.8	8.0	<0.1	0.027	6.6	8.2	0.1	0.191	10.0	8.1	ND	0.454	0.014	9.350	0.00
09/28/21	6.930	6.7	6.0	0.1	2.343	3.3	6.0	<0.1	0.015	5.2	6.8	0.1	0.105	7.4	6.0	ND	0.454	0.178	9.370	0.00
09/29/21	6.750	5.0	5.0	0.1	2.656	4.5	4.0	<0.1	0.039	2.8	3.2	0.3	0.742	9.8	6.8	ND	0.455	0.201	9.460	0.00
09/30/21	6.640	3.5	5.4	0.1	2.900	4.0	4.0	<0.1	0.018	2.7	3.8	<0.1	0.864	9.4	7.5	ND	0.403	0.200	9.920	0.00
AVG	6.510	7.2	6.7	<0.1	2.286	4.7	6.1	<0.1	0.027	4.4	4.9	<0.2	0.157	8.6	6.8	ND0.0	0.408	0.183	9.388	
TOTAL	195.310				68.585				0.808				4.710				12.248	5.499	281.630	0.03

South Orange County Wastewater Authority-San Juan Creek Ocean Outfall

REPORT FOR: September 2021
 REPORT DUE: November 1, 2021
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: High Tide 0814

Weather: Overcast

COMMENTS:

STATION #	DATE	TIME	Total Coliform	Fecal Coliform	Entero-coccus	Material of Sewage Origin		Oil & Grease		Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			CFU/100ml SM9222B	CFU/100ml SM9222D	CFU/100ml EPA 1600	Onshore	Offshore	Grease	Odor					
S0	09/02/21	0749	40	<20	46	None	None	None	None	Green	67	Slightly Turbid		2
S1	09/02/21	0829	<20	<20	8	None	None	None	None	Green		Slightly Turbid		
S2	09/02/21	0741	<20	<20	2	None	None	None	None	Green		Slightly Turbid		5
DSB5	09/02/21	0727	<20	<20	24	None	None	None	None	Green	64	Slightly Turbid		
S3	09/02/21	0838	<20	<20	2	None	None	None	None	Green		Slightly Turbid		5
DSB4	09/02/21	0841	20	<20	2	None	None	None	None	Green		Slightly Turbid		
S5	09/02/21	0848	40	20	8	None	None	None	None	Green		Slightly Turbid		
DSB1	09/02/21	0856	<20	<20	4	None	None	None	None	Green		Slightly Turbid		
SJC1	09/02/21	0755	100	100	10	None	None	None	None	Green	64	Slightly Turbid		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml

South Orange County Wastewater Authority-San Juan Creek Ocean Outfall

REPORT FOR: September 2021
 REPORT DUE: November 1, 2021
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: High Tide 1051

Weather: Overcast

COMMENTS:

STATION #	DATE	TIME	Total Coliform	Fecal Coliform	Entero-coccus	Material of Sewage Origin		Oil & Grease		Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			CFU/100ml SM9222B	CFU/100ml SM9222D	CFU/100ml EPA 1600	Onshore	Offshore	Grease	Odor					
S0	09/08/21	800	20	<20	<2	None	None	None	None	Green		Slightly Turbid		
S1	09/08/21	812	60	<20	<2	None	None	None	None	Green		Slightly Turbid		
S2	09/08/21	740	<20	20	<2	None	None	None	None	Green		Turbid		
DSB5	09/08/21	725	<20	20	40	None	None	None	None	Green	67	Slightly Turbid		
S3	09/08/21	820	<20	<20	<2	None	None	None	None	Green		Slightly Turbid		
DSB4	09/08/21	825	60	20	<2	None	None	None	None	Green		Slightly Turbid		
S5	09/08/21	832	60	<20	<2	None	None	None	None	Green		Slightly Turbid		
DSB1	09/08/21	845	20	<20	4	None	None	None	None	Green	69	Slightly Turbid		
SJC1	09/08/21	745	<100	<100	<10	None	None	None	None	Green	66	Slightly Turbid		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml

South Orange County Wastewater Authority-San Juan Creek Ocean Outfall

REPORT FOR: September 2021
 REPORT DUE: November 1, 2021
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: High Tide 0741
 Weather: Overcast
 COMMENTS:

STATION #	DATE	TIME	Total Coliform	Fecal Coliform	Entero-coccus	Material of Sewage Origin		Oil & Grease	Odor	Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			CFU/100ml SM9222B	CFU/100ml SM9222D	CFU/100ml EPA 1600	Onshore	Offshore							
S0	09/16/21	0935	<20	<20	6	None	None	None	None	Green	67	Turbid		
S1	09/16/21	0940	<20	<20	2	None	None	None	None	Green		Turbid		
S2	09/16/21	0924	<20	<20	2	None	None	None	None	Green		Turbid		
DSB5	09/16/21	0912	<20	<20	6	None	None	None	None	Green		Turbid		
S3	09/16/21	0945	20	<20	2	None	None	None	None	Green		Turbid		
DSB4	09/16/21	0945	<20	<20	2	None	None	None	None	Green		Turbid		
S5	09/16/21	0950	<20	<20	<2	None	None	None	None	Green		Turbid		
DSB1	09/16/21	1000	<20	<20	2	None	None	None	None	Green		Turbid		
SJC1	09/16/21	0935	<100	<100	10	None	None	None	None	Green		Turbid		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml

South Orange County Wastewater Authority-San Juan Creek Ocean Outfall

REPORT FOR: September 2021
 REPORT DUE: November 1, 2021
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: High Tide 0955

Weather: Clear

COMMENTS:

STATION #	DATE	TIME	Total Coliform	Fecal Coliform	Entero-coccus	Material of Sewage Origin		Oil & Grease		Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			CFU/100ml SM9222B	CFU/100ml SM9222D	CFU/100ml EPA 1600	Onshore	Offshore	Grease	Odor					
S0	09/21/21	0826	200	<20	<2	None	None	None	None	Green	68	Turbid		
S1	09/21/21	0830	<20	<20	<2	None	None	None	None	Green		Turbid		
S2	09/21/21	0817	<20	<20	<2	None	None	None	None	Green		Turbid		
DSB5	09/21/21	0812	20	<20	6	None	None	None	None	Green		Turbid		
S3	09/21/21	0833	<20	200	4	None	None	None	None	Green		Turbid		
DSB4	09/21/21	0833	<20	<20	2	None	None	None	None	Green		Turbid		
S5	09/21/21	0840	<20	<20	<2	None	None	None	None	Green		Turbid		
DSB1	09/21/21	0850	<20	<20	<2	None	None	None	None	Green		Turbid		
SJC1	09/21/21	0826	<100	<100	<10	None	None	None	None	Green		Turbid		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml

South Orange County Wastewater Authority-San Juan Creek Ocean Outfall

REPORT FOR: September 2021
 REPORT DUE: November 1, 2021
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

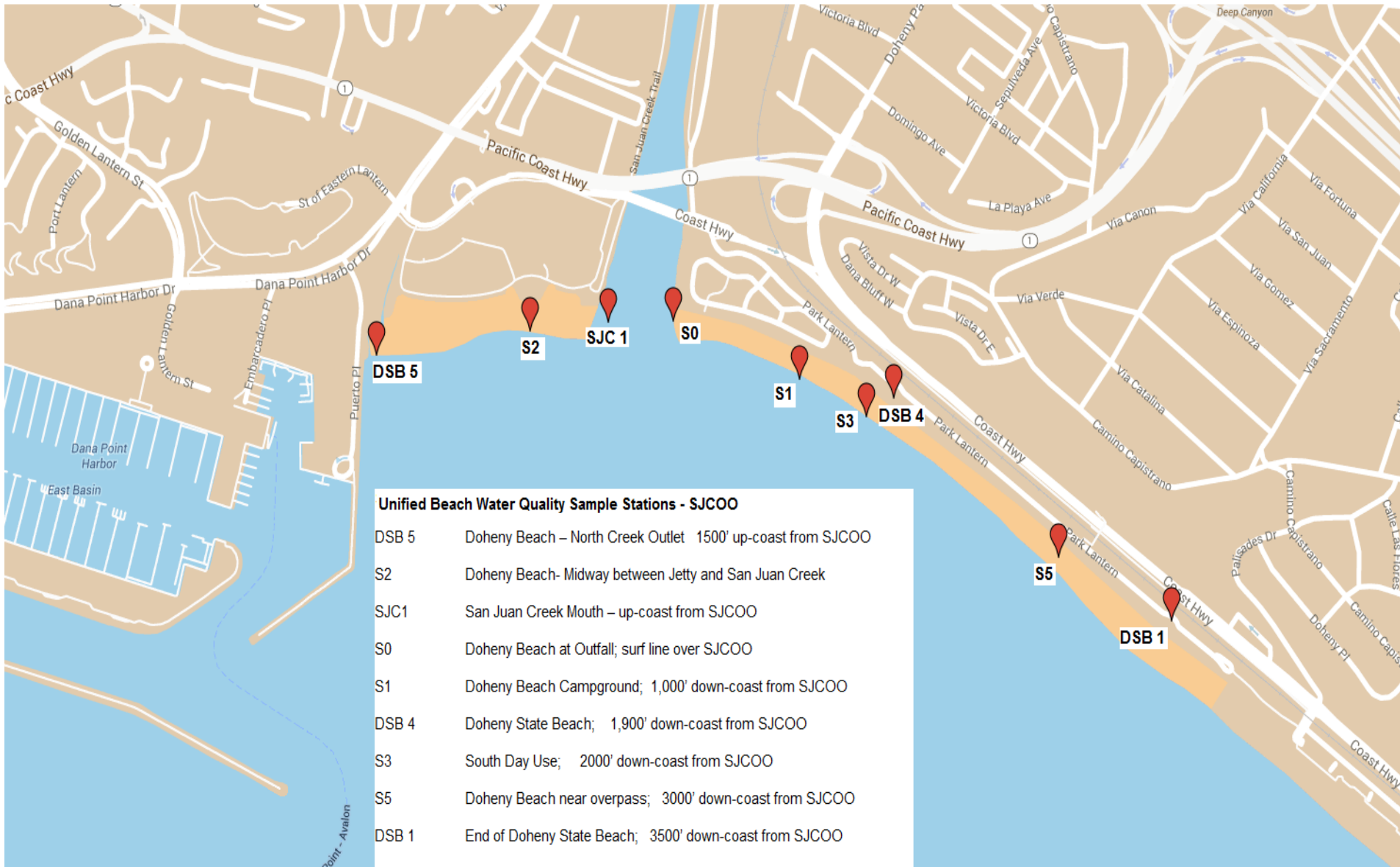
Tidal Condition: Low Tide 0513

Weather: Overcast

COMMENTS:

STATION #	DATE	TIME	Total Coliform	Fecal Coliform	Entero-coccus	Material of Sewage Origin		Oil & Grease		Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			CFU/100ml SM9222B	CFU/100ml SM9222D	CFU/100ml EPA 1600	Onshore	Offshore	Grease	Odor					
S0	09/27/21	0830	<20	<20	2	None	None	None	None	Green	67	Turbid		
S1	09/27/21	0835	<20	<20	<2	None	None	None	None	Green		Turbid		
S2	09/27/21	0820	<20	<20	<2	None	None	None	None	Green		Turbid		
DSB5	09/27/21	0812	<20	<20	6	None	None	None	None	Green		Turbid		
S3	09/27/21	0836	<20	<20	<2	None	None	None	None	Green		Turbid		
DSB4	09/27/21	0836	<20	<20	<2	None	None	None	None	Green		Turbid		
S5	09/27/21	0842	<20	<20	2	None	None	None	None	Green		Turbid		
DSB1	09/27/21	0848	<20	<20	<2	None	None	None	None	Green		Turbid		
SJC1	09/27/21	0830	<100	<100	<10	None	None	None	None	Green		Turbid		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml



San Juan Creek Ocean Outfall

Unified Beach Water Quality Monitoring Stations

SOCWA's NPDES discharge permit requires participation in the South Orange County Unified Beach Water Quality Monitoring Program. The monitoring stations below are tested by SOCWA at least once per week for Total and Fecal Coliform and Enterococcus Bacteria.

Station	Location
DSB 5	Doheny Beach – North Creek Outlet 1500' up-coast from SJCOO
S2	Doheny Beach- Midway between Jetty and San Juan Creek
SJC1	San Juan Creek Mouth – up-coast from SJCOO
S0	Doheny Beach at Outfall; surf line over SJCOO
S1	Doheny Beach Campground; 1,000' down-coast from SJCOO
DSB 4	Doheny State Beach; 1,900' down-coast from SJCOO
S3	South Day Use; 2000' down-coast from SJCOO
S5	Doheny Beach near overpass; 3000' down-coast from SJCOO
DSB 1	End of Doheny State Beach; 3500' down-coast from SJCOO

MONITORING REPORT

Offshore

South Orange County Wastewater Authority

DISCHARGE: San Juan Creek Ocean Outfall

REPORT FOR: September 2021

REPORT FREQUENCY: Monthly

REPORT DUE: November 1, 2021

SAMPLE SOURCE: Receiving water, nearshore and offshore

SAMPLING FREQUENCY: Monthly

EXACT SAMPLE POINTS: As specified in permit

TYPE OF SAMPLE: Grab

SAMPLES COLLECTED BY: Seaventures/SOCWA staff

SAMPLES ANALYZED BY: SOCWA Lab

Comments: High Tide 704

Station No.	Sample Depth	Sample Date	Total Coliform CFU/100ml SM9222B	Fecal Coliform CFU/100ml SM9222D	Enterococcus CFU/100ml EPA 1600	Sample Time	Oil & Grease	Sewage Debris	0 - None 1 - Mild 2 - Moderate 3 - Severe
A-1	Surface	09/15/21	6	<2	<2	918	0	0	
A-1	Mid depth	09/15/21	<10	10	<10				
A-2	Surface	09/15/21	<2	<2	<2	922	0	0	
A-2	Mid depth	09/15/21	<10	<10	<10				
A-3	Surface	09/15/21	4	2	<2	925	0	0	
A-3	Mid depth	09/15/21	40	10	<10				
A-4	Surface	09/15/21	<2	<2	<2	932	0	0	
A-4	Mid depth	09/15/21	20	<10	<10				
A-5	Surface	09/15/21	<2	<2	<2	928	0	0	
A-5	Mid depth	09/15/21	10	10	<10				
B-1	Surface	09/15/21	<2	<2	<2	912	0	0	
B-1	Mid depth	09/15/21	<10	<10	<10				
B-2	Surface	09/15/21	<2	<2	2	941	0	0	
B-2	Mid depth	09/15/21	<10	<10	<10				
N1	Surface	09/15/21	<2	<2	<2	904	0	0	
N2	Surface	09/15/21	<2	<2	<2	859	0	0	
N3	Surface	09/15/21	8	2	<2	858	0	0	
N4	Surface	09/15/21	2	2	<2	854	0	0	
N5	Surface	09/15/21	2	<2	<2	851	0	0	
N6	Surface	09/15/21	4	<2	<2	850	0	0	

REQUIREMENT: (1) Floating particulates and grease and oil shall not be visible. (2) The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.

**Compliance Summary Report
San Juan Creek Ocean Outfall 2021**

SJCOO Permit Order No. R9-2012-0012							
Agency	Violation Date	Constituent	Effluent Limit Violation	Units	Permit Limit	Reported Value	Potential Fine
SJCOO - (M-001) Combined Sample Point	9/21/2021	Toxicity	Quarterly	Tuc	101	200	\$3,000



SOCWA and MEMBER AGENCY FACILITIES
SJCOO Spill / Overflow Report Log - 2021
Order No. R9-2012-0012 ~ NPDES Permit No. CA0107417

Reporting Agency	Responsible Agency	Estimated Volume (Gallons)	Type of Discharge	Location/Comments	Receiving Waters	Date Reported To State	Date Resolved
No spills during this monitoring period.							

Recycled Water Report

**2021 Compliance Summary Report
Recycled Water Permit**

Waste Discharge Requirement Order 97 - 52

Agency - Facility	Violation Date	Constituent	Effluent Limit Violation	Units	Permit Limit	Reported Value	Remarks
SOCWA - RTP	1/7/2021	Manganese	12-Month	mg/L	0.05	0.11	
SOCWA - RTP	1/7/2021	TDS	12-Month	mg/L	1000	1141	
SOCWA - RTP	1/7/2021	Iron	12-Month	mg/L	0.30	0.47	
MNWD - 3A	1/11/2021	Manganese	12-Month	mg/L	0.05	0.07	
MNWD - 3A	1/11/2021	TDS	12-Month	mg/L	1000	1112	
SOCWA - CTP	1/7/2021	Manganese	12-Month	mg/L	0.05	0.07	
SOCWA - RTP	2/2/2021	Manganese	12-Month	mg/L	0.05	0.13	
SOCWA - RTP	2/2/2021	TDS	12-Month	mg/L	1000	1170	
SOCWA - CTP	2/6/2021	Manganese	12-Month	mg/L	0.05	0.09	
SOCWA - RTP	3/2/2021	Manganese	12-Month	mg/L	0.05	0.11	
SOCWA - RTP	3/2/2021	TDS	12-Month	mg/L	1000	1160	
SOCWA - CTP	3/2/2021	Manganese	12-Month	mg/L	0.05	0.05	
SOCWA - CTP	4/6/2021	Manganese	12-Month	mg/L	0.05	0.05	
SOCWA - RTP	4/6/2021	Manganese	12-Month	mg/L	0.05	0.10	
SOCWA - RTP	4/6/2021	TDS	12-Month	mg/L	1000	1160	
MNWD - 3A	4/24/2021	Manganese	12-Month	mg/L	0.05	0.07	
MNWD - 3A	4/24/2021	TDS	12-Month	mg/L	1000	1260	
SOCWA - RTP	4/30/2021	Coliform	30 Day Mean	MPN/100mL	23	25.6	
MNWD - 3A	5/24/2021	TDS	12-Month	mg/L	1000	1130	
MNWD - 3A	5/24/2021	TDS	Daily Maximum	mg/L	1100	1110	
MNWD - 3A	5/24/2021	Manganese	12-Month	mg/L	0.05	0.08	
SOCWA - RTP	5/4/2021	Iron	12-Month	mg/L	0.3	0.34	
SOCWA - RTP	5/4/2021	TDS	12-Month	mg/L	1000	1138	
SOCWA - RTP	5/4/2021	TDS	Daily Maximum	mg/L	1100	1260	
SOCWA - RTP	5/4/2021	Manganese	12-Month	mg/L	0.05	0.11	
MNWD - 3A	5/24/2021	TDS	12-Month	mg/L	1000	1131	
MNWD - 3A	5/24/2021	Manganese	12-Month	mg/L	0.05	0.07	
SOCWA - RTP	6/1/2021	Iron	12-Month	mg/L	0.3	0.36	
SOCWA - RTP	6/1/2021	TDS	12-Month	mg/L	1000	1140	

**2021 Compliance Summary Report
Recycled Water Permit**

SOCWA - RTP	6/1/2021	TDS	Daily Maximum	mg/L	1100	1210	
SOCWA - RTP	6/1/2021	Manganese	12-Month	mg/L	0.05	0.11	
SOCWA - CTP	6/1/2021	Manganese	12-Month	mg/L	0.05	0.07	
TCWD - RRWRP	6/17/2021	Iron	12-Month	mg/L	0.05	0.46	
SOCWA - RTP	7/1/2021	TDS	12-Month	mg/L	1000	1138	
SOCWA - RTP	7/1/2021	TDS	Daily Maximum	mg/L	1100	1140	
SOCWA - RTP	7/1/2021	Manganese	12-Month	mg/L	0.05	0.11	
SOCWA - CTP	7/1/2021	Manganese	12-Month	mg/L	0.05	0.07	
SOCWA - CTP	7/1/2021	TDS	12-Month	mg/L	1000	1138	
MNWD - 3A	7/6/2021	TDS	Daily Maximum	mg/L	1100	1130	
MNWD - 3A	7/6/2021	TDS	12-Month	mg/L	1000	1144	
MNWD - 3A	7/6/2021	Manganese	12-Month	mg/L	0.05	0.08	
SOCWA - RTP	8/12/2021	TDS	12-Month	mg/L	1000	1143	
SOCWA - RTP	8/12/2021	TDS	Daily Maximum	mg/L	1100	1210	
SOCWA - RTP	8/12/2021	Manganese	12-Month	mg/L	0.05	0.11	
SOCWA - CTP	8/12/2021	Manganese	12-Month	mg/L	0.05	0.07	
SOCWA - RTP	8/12/2021	Iron	12-Month	mg/L	0.05	0.36	
MNWD - 3A	8/4/2021	TDS	12-Month	mg/L	1000	1153	
MNWD - 3A	8/4/2021	Manganese	12-Month	mg/L	0.05	0.07	
SOCWA - RTP	9/23/2021	TDS	12-Month	mg/L	1000	1147	
SOCWA - RTP	9/23/2021	TDS	Daily Maximum	mg/L	1100	1160	
SOCWA - RTP	9/23/2021	Manganese	12-Month	mg/L	0.05	0.07	
SOCWA - CTP	9/23/2021	Manganese	12-Month	mg/L	0.05	0.13	
MNWD - 3A	9/6/2021	TDS	12-Month	mg/L	1000	1160	
MNWD - 3A	9/6/2021	Manganese	12-Month	mg/L	0.05	0.07	

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

QUARTERLY RECYCLED WATER MONITORING

Monitoring Period Ending: Sep 30, 2021

Constituent	Units	12-month Avg Maximum Permit Limit	TCWD 12-month Average	SMWD Oso 12-month Average	SMWD Chiquita 12-month Average	SMWD Nichols 12-month Average	MNWD-3A 12-month Average	MNWD-RTP 12-month Average	SCWD-CTP 12-month Average
TDS	mg/L	1000	976	987	903	903	1,156	1,147	1,033
Chloride	mg/L	375	233	218	203	258	223	270	259
Sulfate	mg/L	400	297	288	230	208	329	318	274
Sodium	mg/L	None	160	170	158	193	185	185	156
Alkalinity	mg/L	None	-	-	-	-	-	263	225
Adjusted SAR	Ratio	None	34.83	4.60	4.76	5.94	4.00	4.35	4.25
Iron	mg/L	0.3	0.088	0.034	0.130	0.012	0.14	0.348	0.135
Manganese	mg/L	0.05	0.010	0.029	0.040	0.008	0.07	0.102	0.072
MBAS	mg/L	0.5	ND	ND	ND	0.29	ND	<0.08	<0.10
Boron	mg/L	0.75	0.362	0.365	0.348	0.468	0.38	0.360	0.30
Fluoride	mg/L	None	0.59	0.713	0.50	0.57	0.96	1.02	0.85
Total Organic Carbon	mg/L	None	6.3	13.4	12.5	8.6	2.2	10.7	8.0

*** The CTP 12-month permit limits are listed below:

TDS 1200 mg/L
Chloride 400 mg/L
Sulfate 500 mg/L

SOCWA Service Area
Recycled Water Production (ac-ft)
2021

Agency	Facility or Region	Jan '21	Feb '21	Mar '21	Apr '21	May '21	Jun '21	Jul '21	Aug '21	Sep '21	Oct '21	Nov '21	Dec '21	Annual Totals
CSJC 1	3-A Plant/MNWD	0.00	0.000	1.000	4.000	0.000	1.730	0.000	0.020	0.000				6.75
CSJC 2	Chiquita/SMWD	18.21	22.920	28.950	33.860	33.680	40.390	45.330	45.290	40.890				309.52
CSJC 3	Non-Domestic Wel	0.00	0.000	0.050	15.850	35.830	33.630	43.440	38.390	28.270				195.46
ETWD	Region 8	53.03	75.504	79.892	171.137	198.256	224.633	235.184	241.073	197.658				1,476.37
IRWD														
4	IRWD - 8	66.48	39.897	59.734	129.004	147.619	174.114	200.629	207.973	182.326				1,207.78
4	IRWD - 9	23.71	19.318	36.024	78.542	78.944	97.796	103.783	105.813	103.650				647.58
SCWD	SOCWA CTP	68.702	42.729	52.982	106.271	98.145	114.167	147.378	153.594	141.931				925.90
MNWD	JRP	151.70	275.985	386.649	551.510	567.818	536.902	625.010	589.963	539.142				4,224.67
	3-A Plant	59.99	0.000	0.000	5.831	143.268	142.881	150.428	148.301	135.574				786.27
5	CTP	29.42	2.504	2.915	10.484	6.017	26.073	10.171	20.898	22.136				130.62
SMWD	Oso Creek	148.61	121.979	141.012	126.414	145.296	141.657	149.277	150.228	136.799				1,261.28
	Chiquita	438.61	284.455	285.898	454.134	507.686	472.517	477.734	485.130	463.310				3,869.47
	Nichols	1.61	1.504	1.712	1.666	1.894	2.001	2.240	1.979	1.909				16.51
TCWD	RRWRP	50.41	43.867	52.478	49.007	46.429	43.010	47.153	46.899	44.677				423.93
TOTALS		1,110.5	930.7	1,129.3	1,737.7	2,010.9	2,051.5	2,237.8	2,235.6	2,038.3				15,482.10

- 1 Denotes transfer of recycled water from MNWD (3A Plant) for use in the CSJC service area. Not counted as additional production.
 - 2 Denotes recycled water purchased from SMWD Chiquita-WRP used in the CSJC service area. Not counted as additional production.
 - 3 Denotes nondomestic groundwater produced from wells used for landscape irrigation.
 - 4 IRWD production is from recycled water production, nonpotable water wells, and surface water impoundments
 - 5 Denotes transfer of recycled water from SCWD (SOCWA CTP) for use in the MNWD service area. Not counted as additional production.
- Note: All of ETWD reclaimed water produced and used in Region 8.
NR = No Report

Pretreatment Report

Agenda Item

4.I.

Legal Counsel Review: No

Meeting Date: November 4, 2021

TO: Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Katie Greenwood, Source Control Manager

SUBJECT: Monthly Pretreatment Report – September and October 2021
San Juan Creek Ocean Outfall
NPDES Permit #CA0107417 Order #R9-2012-0012
Aliso Creek Ocean Outfall
NPDES Permit #CA0107611 Order #R9-2012-0013

Summary of Program Activities

SOCWA adopted Pretreatment Ordinance 2020-1 on October 1, 2020. Member agencies (MAs) continue the process of amending their individual pretreatment ordinances. CSC Staff confirmed plans to adopt the changes during its November City Council meeting. Once finalized, all SOCWA MAs will have updated Pretreatment Ordinances.

SCWD updated its District Policy of *Acceptance of Dry Weather Diversions (Urban Runoff) into the South Coast Water District Sewer Collection System*. The Policy mirrors SOCWA's *Policy for Acceptance of Interim Dry Weather Nuisance Flow to the Wastewater Collection, Treatment and Disposal System* ("Nuisance Flow Diversion Policy"). SOCWA Staff will be reaching out to other MAs to discuss development and potential adoption of similar individual policies.

On August 13, 2021, SOCWA received a copy of the Report for findings associated with the Pretreatment Compliance Inspection (PCI) performed by video on June 15, 2020. The virtual PCI included an interview and file review. The virtual PCI did not include a half-day of inspections per normal procedures. The Report includes five requirements and five recommendations for program improvement. All requirements are related to permit language and required facility documentation and do not require substantial program changes. Staff provided response to the issued Report on October 20, 2021 (due November 11, 2021, 90-days from issuance) and will distribute copy to MA Staff with the end of the month October 2021 email.

The 2020 PCI report included a recommendation for SOCWA to reach out to dental facilities which have not yet submitted to SOCWA a One-Time Report in compliance with the EPA Dental Amalgam Rule which took effect in July of 2017. Therefore, as of mid-September 2021 SOCWA has dedicated short-term staff to call each surveyed non-compliant dental facility and increase its reporting percentage. As of October 20, 2021, Staff estimates SOCWA has received Reports from 60% (an increase of 40%) of its surveyed dental facilities.

On August 24, 2021, State Staff, and its contractors from PG Environmental performed an in-person PCI. The in-person PCI lasted one day and include a half-day of interview and file review and a half-day of inspections. Which files to review and which sites to inspect are chosen at the

discretion of the Audit Staff inspectors. Additionally, Audit Staff requested to continue to review files electronically beyond the one-day timeframe. The final exit meeting was performed virtually on September 22, 2021. All findings and recommendations relate to required permit language. SOCWA expects to receive the written report 30-days from the exit meeting, October 22, 2021.

Staff continues to utilize the CA Manufacturers Directory, submitted will serve notices, and business licensing data to identify industrial users (IUs) and update each MA industrial waste survey (IWS) spreadsheet. Specifically, Staff is working to cross reference recent licensing information received for City of Laguna Beach and update the related IWS spreadsheet.

Permit Related Activities

The following Wastewater Discharge (WD) Permits, Special Wastewater Discharge (SWD) Permits, Nuisance Water-Special Wastewater Discharge (NSWD) Permits, Non-Industrial Wastewater Discharge (NIWD) forms, and BMP letters were issued or are in the process of being drafted for issuance:

CSJC/SMWD – SWD Permit Nos. CSJC-4-002-09-25 and SOCWA-4-001-08-25 - Two new permits will be issued to SMWD for discharge to sewer facilities associated with the following facilities: 1.) Groundwater Recovery Plant (GWRP) located at 32470 Paseo Adelanto and 2.) North Open Space Pump Station and Settling Basin located at 30291 Camino Capistrano. In anticipation of SMWD annexing CSJC, SOCWA Staff is preparing to terminate existing permits issued to CSJC and to reissue new permits which replace CSJC with SMWD as the new operator and permit holder.

CSJC/SMWD – NSWD Permit No. CSJC-N4-001-08-22 - Alipaz Diversion – Shortly after SMWD annexes CSJC, Staff will terminate the existing Alipaz Diversion permit and will reissue with SMWD replacing CSJC as co-issuer with SOCWA. Under the annexation, SMWD will assume CSJC's rights and obligations under this permit.

CSJC/SMWD – WD Permit No. CSJC-2-001-12-22 Rancho Mission Viejo Riding Park – In anticipation of SMWD annexing CSJC, Staff is in discussion with legal regarding re-issuance of a new permit replacing CSJC with SMWD as the new permit issuer.

CSC – CSC Permit No. CSC-1NS-002-03-25 – Reynard - As required by the 2020 PCI findings related to non-significant categorical industrial users (NSCIUs), Staff modified the permit for Reynard on September 23, 2021 to: 1.) state that categorical limits apply regardless of discharge volume, 2.) correct language on page 8 (item 1) to state “User shall notify of any substantial change in the volume or characteristics” rather than “in the volume of characteristics”, and 3.) that the period of record retention may be extended at the request of EPA and the State.

CSC – CSC Permit No. CSC-2-008-03-22 – SDG&E – Staff modified the permit for the SDG&E facility on September 23, 2021 to add language which: 1.) requires at least 10 days advance notice of any anticipated bypass, 2.) requires immediate notification of any changes at the facility affecting potential for slug discharge and at least 30 days' notice prior to any facility expansion, production increase, or process modifications which may result in new or substantially increased discharges, a change in nature of the discharge, or any change that affects the User's potential for a Slug Discharge, 3.) states that the period of record retention may be extended at the request of EPA and the State, and 4.) updates facility contact information.

CSC – CSC Permit No. CSC-1NS-001-06-24 – Glaukos - As required by the 2020 PCI findings related to NSCIUs, Staff modified the permit for Glaukos on September 23, 2021 to: 1.) state that categorical limits apply regardless of discharge volume, 2.) state that the period of record retention may be extended at the request of EPA and the State, and 3.) include a firm due date for submittal of a WD Permit Application to renew the WD Permit.

IRWD – WD Permit No. IRWD-1NS-001-03-23 – Applied Medical – As required by the 2020 PCI findings related NSCIUs, Staff modified the permit for Applied Medical’s location in Lake Forest on October 19, 2021 to: 1.) state that categorical limits apply regardless of discharge volume, 2.) that the period of record retention may be extended at the request of EPA and the State, and 3.) add metal finishing standards more applicable to operations.

CSC/SMWD – Prima Deshecha Landfill (PDL) – On August 26, 2021, SOCWA received a WD Permit Application submitted on behalf of Orange County Waste & Recycling (OCWR) for proposed discharge from a treatment system for landfill gas condensate stream produced at PDL. Staff provided a response and request for additional information on October 22, 2021.

Trainings and Committee Meetings Attended

SOCWA Staff continues to attend virtual monthly OC Strike Force Meetings to receive and share legal information related to environmental cases and incidents throughout the county.

Staff attended a virtual NACWA Pretreatment Committee meeting on October 5, 2021 to discuss proposed new EPA Rules including effluent guidelines for limitations for Organic Chemicals, Plastics and Synthetic Fibers to address facilities that manufacture PFAS.

Inspections

SOCWA Staff has started the process of conducting its required annual site inspections and monitoring/sampling of all SIU/CIU’s in the SOCWA service area. This is a required activity of the SOCWA pretreatment program. The information and data obtained from these required activities will be incorporated into the SOCWA Pretreatment Annual Report. *There are two remaining annual inspections and sampling events that are required to be performed before the end of the year. The two sites are at Applied Medical facilities located in Santa Margarita (Permit Nos. SMWD-1-003 and SMWD-1-004).*

IRWD – On October 6, 2021, Staff inspected Applied Medical’s Lake Forest facility in anticipation of modifying the permit to list the Metal Finishing Category in addition to listing the applicability of the Plastic Molding Category. Inspection findings confirmed that metal finishing standards apply.

IRWD – On October 7-8, 2021, Staff inspected and sampled Dynacast, Permit No. IRWD-1-001, to verify compliance with permit requirements and limitations. All sampling results were compliant with permit limits. Inspection findings confirmed that the facilities sister site in Tijuana has been closed and processes added to the Lake Forest location. Staff is in process of calculating production-based standards to confirm whether limits can be met should the facility discharge oily mop water subject to categorical standards.

CLB/SCWD – On October 7, 2021, Staff inspected Chevron Environmental Management Co. and Laguna Surf Resort as follow-up to concerns from Arcadis (Chevron consultant) that drainage from Resort is fouling their carbon filter system. Inspection findings require Resort Staff to build

temporary berm to prevent stormwater drainage from entering groundwater sump. Additional actions or requirements are pending confirmation of an agreement between Chevron and Resort.

CLB/SCWD – On October 8, 2021, Staff inspected Mission Hospital in CLB as follow-up to two diesel releases which entered sewer facilities by way of a diversion on May 7, 2020 and September 29, 2021. OC Health Hazardous Materials Specialist and Emergency Response handled the initial response and facility inspection to both incidents. SOCWA and SCWD Staff with assistance from OC District Attorney Investigators additionally inspected the facility to require secondary containment prior to re-opening on sewer diversion on April 15, 2022.

Summary of IWS Activities in SOCWA's Service Area - YTD through October 20, 2021*

MA IUs	Events	Permits	NIWD	BMPs	FSEs	OSes	DSEs	Closed	Enforcement	Total IUs
CLB (S)	2	3	2	5	8	110	25	0	0	128
CSC (S)	6	10	35	18	181	1295	58	0	1	1597
CSJC (S)	1	3	27	59	137	1666	38	0	1	1930
ETWD (M)	2	4	87	0	262	132	84	0	0	568
EBSU (U)	2	1	0	0	0	0	0	0	0	1
IRWD (S)	6	4	51	21	63	937	24	0	1	1100
MNWD (S)	95	4	121	39	632	2093	202	17	0	3089
SMWD (S)	65	6	19	20	210	801	79	9	0	1135
SCWD (S)	2	8	33	7	148	182	27	0	0	405
TCWD (S)	0	11	0	0	0	33		0	0	44
SOCWA (S)	0	8	1	0	0	0		0	0	9
Totals	181	62	376	169	1641	7249	537	26	3	10006

(S) = SOCWA conducts PT program
(M) = MA conducts PT program /w SOCWA
(U) = Urban Diversion Only

NIWD = Non-industrial Waste Discharger
BMP = Best Management Practices
FSE = Food Service Establishment

YTD = Year to Date
OSE = Other Surveyed Establishment
DSE = Dental Surveyed Establishment

*Note, Staff is in process of receiving SOCWA One-Time Compliance Reports from DSEs. Staff has placed a hold on fully updating IWS spreadsheets for each MA until temporary Staff has completed this work. See fourth paragraph from top for more information.

Agenda Item

4.J.

Board of Directors Meeting

Meeting Date: November 4, 2021

TO: Board of Directors
FROM: Betty Burnett, General Manager
STAFF CONTACT: Jason Manning, Director of Engineering
SUBJECT: Capital Improvement Program Status Report

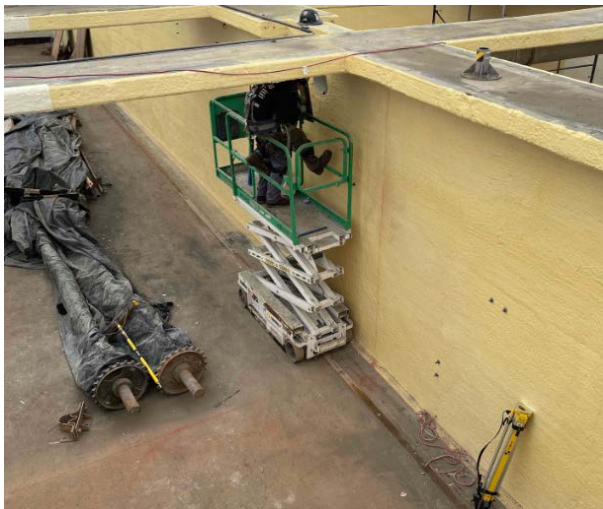
The status of the SOCWA Capital Improvement Program is presented in the tables on the following pages.

Below are photos of the major construction projects currently underway at SOCWA facilities.

JB Latham Package B

Plant 1 Basin Repairs, DAF Rehabilitation, Energy Building seismic retrofit and minor rehabilitation, Digester 4 rehabilitation:

Work continues in the Plant 1 Primary Tanks (left) and new MCC F1 is being installed (right)

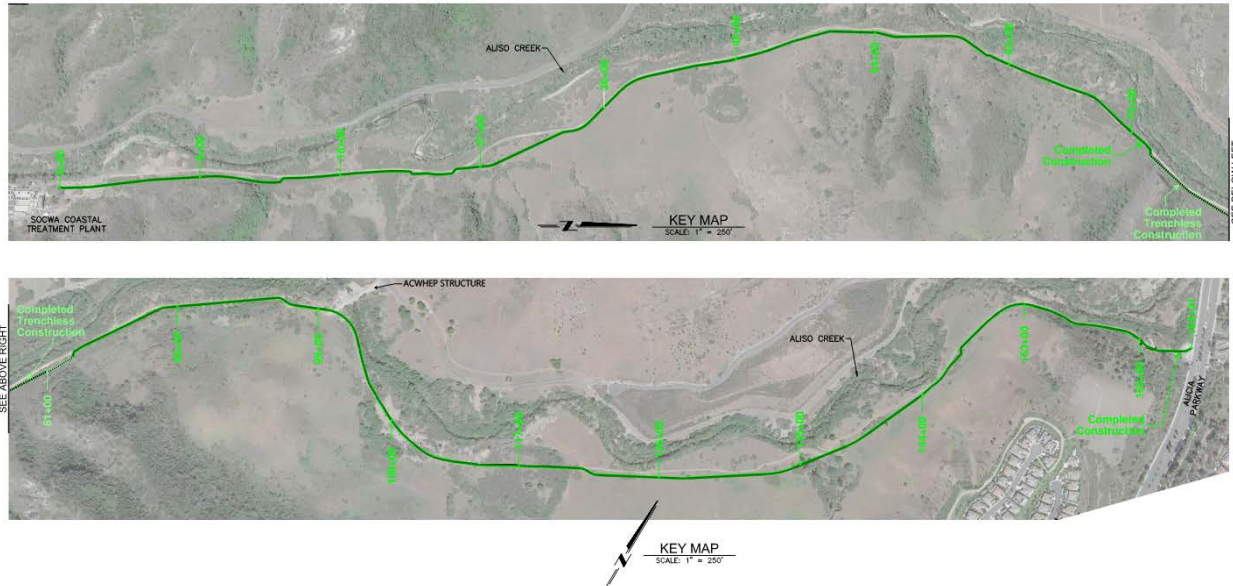


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Coastal Treatment Plant Sludge Force Main Replacement

New 6-inch HDPE force main replacing ageing 4-inch (x2) lines from the Coastal Treatment Plant to the Regional Treatment Plant through Aliso Canyon:

Export Sludge Force Main Construction Progress as of October 19, 2021



The major portions of the new 6" HDPE pipe have been installed. Testing and preparation work continues at the tie-in points. Coastal Treatment Plant Connection point excavation is covered (left). Potholing and preparation work at the Regional Treatment Plant (right).



SOCWA CIP Workplan

Project Number	Project Name	FY 22 Budget	FY 23 Budget	Status	FY 2021/2022				FY 2022/2023			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
PC 2 - J.B. Latham Treatment Plant												
3220/3231/3287	Facility Improvements B	\$ 7,050,000	\$ -	In Construction	C	C	C	C				
32225C/S	Energy Building Upgrades	\$ 1,580,000	\$ 2,370,000	In Design	D	D	D	D	B&A	C	C	C
32226L	Effluent Pump Station Upgrades	\$ 375,000	\$ 2,125,000	In Design	D	D	D	D	B&A	C	C	C
32223C	Drainage Pump Station Reconstruction	\$ 133,937	\$ 44,646			D	C	C	C			
42221C	Site Storage Evaluation	\$ 60,975	\$ -			P	P	P				
42222C	Electrical Conduit and Cable Master Plan	\$ 60,975	\$ -		P	P						
52222C	NFPA 70 Classification Mapping	\$ 30,000	\$ -			P	P					
52223C	DHS Facility Compliance Review	\$ 17,500	\$ 17,500					P	P			
52221C	Arc Flash 5-Year Update	\$ 8,000	\$ -				P					
42232C	Chlorine Building and Storm Water Pump Station Condition Assessment	\$ -	\$ 50,223						CA	CA		
32233L	Plant 1 Grit Handling	\$ -	\$ 50,703								CA	CA
42231L	Influent Flow Metering Evaluation	\$ -	\$ 50,922						CA	CA		
42233C	Buried Utility Master Plan	\$ -	\$ 152,438								P	P
3285-000	Main Plant Drain Line Reconstruction (2018)	\$ -	\$ 223,136							D	D	B&A
32231S	Gas Flare Replacement	\$ -	\$ 263,384									D
32234L	Chlorine Contact Basin Isolation Gates and Structural Rehabilitation	\$ -	\$ 331,471						D	B&A	C	C
PC 5 - San Juan Creek Ocean Outfall												
56221O	Outfall Port Cleaning	\$ 45,000	\$ -			ENV	ENV					
36221O	Surge System Air Valve Replacement	\$ -	\$ 39,062							C		
46211O	Land Outfall Facility Condition Assessment	\$ -	\$ 52,326							CA	CA	
46221O	Marine Outfall Core Sample and Condition Assessment	\$ -	\$ 90,000								CA	CA

SOCWA CIP Workplan

Project Number	Project Name	FY 22 Budget	FY 23 Budget	Status	FY 2021/2022				FY 2022/2023			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
PC 15 - Coastal Treatment Plant												
3541-000	Export Sludge System Construction (2020)	\$ 3,248,233	\$ 1,392,100	In Construction	C	C	C	C	C	C		
3539-000	Facility Construction Improvements	\$ 2,500,000	\$ -	In Construction	C							
35228L	Aeration Blower System Upgrades	\$ 1,600,000	\$ 6,400,000	Diffusers purchased for installation in FY22. Blower design in FY23.	D	B&A	C	C	D	B&A	C	C
3522CL	West Basin Scum Collection System	\$ 400,000	\$ -		D	B&A	C	C				
3522AL	Drainage Pump Station	\$ 175,000	\$ -				CA	CA				
3525-000	Personnel Building Reconstruction	\$ 150,000	\$ -	In Design		B&A	C	C				
3522BL	Headworks Upgrades	\$ 125,000	\$ -		P	P						
35221L	Auxiliary Blower and Maintenance Building Roofs	\$ 100,000	\$ 100,000			P	P	B&A	C	C		
35229L	Foul Air System	\$ 76,422	\$ -			P						
35220L	Fiber Installation to Alicia Parkway	\$ 65,000	\$ -			B&A	C	C				
45212L	Site Storage Evaluation	\$ 50,000	\$ -			P	P	P				
45226L	Consequence of Failure Analysis	\$ 50,000	\$ -			P	P					
55222L	NFPA 70 Classification Mapping	\$ 30,000	\$ -			P	P					
35221A	Contact Basin Gate	\$ 25,000	\$ 225,000					D	B&A	C		
55221L	DHS Facility Compliance Review	\$ 17,500	\$ 17,500					P	P			
35231L	Vehicle Storage Building Mezzanine Upgrades	\$ -	\$ 85,000						C	C		
35232L	South Embankment Protection	\$ -	\$ 175,000							B&A	C	C
35233L/36L	Scum Pump Station and Wet Well	\$ -	\$ 289,284							B&A	C	C
35234L	RAS/WAS Pump Station	\$ -	\$ 83,705						D	D		
35235L	Odor Control Scrubber/Foul Air System Reconstruction	\$ -	\$ 36,719									D
35237L	Electrical Manhole/Cable Project	\$ -	\$ 85,000								CA	CA

SOCWA CIP Workplan

Project Number	Project Name	FY 22 Budget	FY 23 Budget	Status	FY 2021/2022				FY 2022/2023					
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
PC 17 - Regional Treatment Plant														
3758-000	AWT No.2 Reconstruction (2020)	\$ 2,271,932	\$ -			B&A	C	C						
3753-000	Aeration Diffuser Upgrade (2020)	\$ 1,750,000	\$ -	In Construction	C	C								
3722CL	Aeration Basin, Gate, and Blower Upgrades	\$ 710,000	\$ 4,615,000				D	D	B&A	C	C	C		
37222C	SCADA System Upgrade Project	\$ 387,131	\$ -		P	P	C	C						
3759-000	AWT No.2 Electrical Upgrades (2020)	\$ 348,070	\$ -			B&A	C	C						
37227C	Energy Building Upgrades	\$ 312,500	\$ 312,500			CA	CA	D	B&A	C	C			
3773-000	Co-Generation System Modifications (2020)	\$ 290,689	\$ -		P	P	C	C						
3722BL	Mixed Liquor Channel	\$ 284,154	\$ -			D	D	D						
3776	Effluent Pond Gate Replacement	\$ 249,885	\$ -			B&A	C	C						
47212C	Site Storage Evaluation	\$ 81,300	\$ -			P	P	P						
37229C	Laboratory Reconstruction	\$ 76,500	\$ -			P	P	P						
47222L	Secondary Effluent Conveyance Evaluation	\$ 52,621	\$ -		P	P								
37220L	Interstage Pump Station	\$ 52,346	\$ -				D	D						
37228C	West Side Storm Channel Reconstruction	\$ 50,000	\$ 200,000			D	D	B&A	C	C				
47224C	Consequence of Failure Analysis	\$ 50,000	\$ -				P	P						
37221C	West Slope Protection	\$ 39,000	\$ 156,000			D	D	B&A	C	C				
57221C	NFPA 70 Classification Mapping	\$ 30,000	\$ -			P	P							
3756-000	Secondary Clarifier Safety Repairs (2020)	\$ 29,750	\$ 55,250				D	D	B&A	C	C	C		
57222C	DHS Facility Compliance Review	\$ 17,500	\$ 17,500					P	P					
57223C	Arc Flash 5-Year Update	\$ 8,000	\$ -					P						
3722AL/C/S	MCC A, C, G, H Replacement	\$ -	\$ 1,527,741	In Design					B&A	C	C	C		
37230C	Admin. Bldg. Door and Window Repair	\$ -	\$ 132,748							B&A	C	C		
37232L/C	Site Lighting Upgrades	\$ -	\$ 797,923							C	C	C		
37237C	Instrumentation Plan	\$ -	\$ 100,446								P	P		
37233L	Secondary Scum Pump Station Reconstruction	\$ -	\$ 645,542						D	D	B&A	C		
37234L	RAS System Upgrades	\$ -	\$ 55,803							CA	CA			
37235L	Primary Sedimentation Collectors and Gates	\$ -	\$ 100,898									D		
37238L	Grit Handling	\$ -	\$ 63,145						D	D				
37231S	Solids Area Overhaul Plan	\$ -	\$ 100,446							P	P			
37239S	Digester System Condition Assessment	\$ -	\$ 94,865								CA	CA		

SOCWA CIP Workplan

Project Number	Project Name	FY 22 Budget	FY 23 Budget	Status	FY 2021/2022				FY 2022/2023			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
PC 21 - Effluent Transmission Main												
3107-000 (B/C/D)	Air Valve Replacement Construction (D) (2021)	\$ 377,778	\$ -	In Design		B&A	C	C				
31221B	Trail Bridge Crossing (D)	\$ 360,000	\$ 840,000			D	D	D				
31222B	Aliso ETM Reach B/C Techite Replacement	\$ 292,000	\$ 292,000				P	P	P			
3108-000 (E)	Air Valve Replacement Construction (E) (2021)	\$ 472,222	\$ -	In Design		B&A	C	C				
PC 24 - Aliso Creek Ocean Outfall												
3480-000	Internal Seal Replacement	\$ 175,000	\$ -			B&A	C	C				
34222O	Golf Course Road	\$ 45,000	\$ -			CA	CA					
54221O	Outfall Port Cleaning	\$ 45,000	\$ -				ENV	ENV				
34231O	Metering and Sampling	\$ -	\$ 66,964							C	C	
34232O	Creek Section Pipeline Replacement	\$ -	\$ 50,703							P	P	

- P Planning
- CA Condition Assessment
- ENV Environmental/Permitting
- D Design
- B&A Bidding and Award
- C Construction

Agenda Item

4.K.

Board of Directors Meeting

Meeting Date: November 4, 2021

TO: PC-2 & PC-15 Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Jason Manning, Director of Engineering

SUBJECT: Capital Improvement Program Project Financial Status and Change Orders [Project Committees 2 & 15]

Summary/Discussion

The attached CIP Report shows the financial status of the major construction projects as well any potential and Engineering Committee reviewed change orders. Please note that there are two new change orders for PC 2 J.B. Latham Package B project totaling \$15,315 and ten new change orders for PC 15 Coastal Treatment Plant Facility Improvements project totaling \$56,676.

Recommended Action: The Engineering Committee recommends:

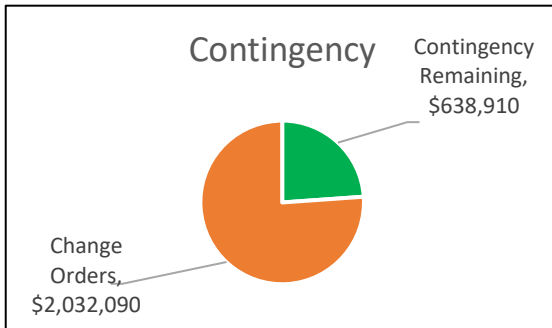
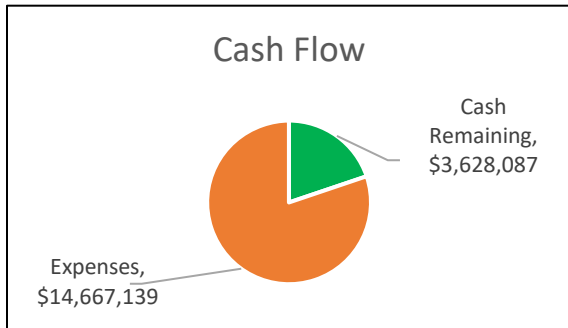
1. PC-2 Board of Directors to approve Olsson Construction Change Order 29 for \$7,269 and Change Order 30 for \$8,045 for a total of \$15,315 and a revised contract price of \$18,516,758 for the JBL Package B Project and;
2. PC-15 Board of Directors to approve PCL Change Order 29 for \$2,638, Change Order 30 for \$12,168, Change Order 31 for \$1,907, Change Order 32 for \$10,294, Change Order 33 for \$3,714 , Change Order 34 for \$2,301, Change Order 35 for \$1,094, Change Order 36 for \$2,547, Change Order 37 for \$9,699, Change Order 38 for \$10,314 for a total of \$56,676 and a revised contract price of \$8,479,237 for the CTP Facility Improvements Project.

Project Financial Status

Project Committee	2
Project Name	Package B
Project Description	Plant 1 basin repairs, DAF rehabilitation, Energy Building seismic retrofit and minor rehabilitation, Digester 4 rehabilitation

Data Last Updated

October 21, 2021



Cash Flow

Collected	\$18,295,226
Expenses	\$14,667,139

Project Completion

Schedule	74%
Budget	64%

Contracts

Company	PO No.	Original	Change Orders	Total	Invoiced
Olsson	13497	\$ 17,325,000	\$ 1,191,758	\$ 18,516,758	\$ 11,336,957
Butier	13647	\$ 895,727	\$ 612,715	\$ 1,508,442	\$ 1,065,205
Carollo	13616	\$ 846,528	\$ 227,617	\$ 1,074,145	\$ 991,551
TetraTech	13605	\$ 94,000	\$ -	\$ 94,000	\$ 83,602
		\$ 19,161,255	\$ 2,032,090	\$ 21,193,345	\$13,477,314

Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3220-000	\$ 916,800	\$ 599,590	\$ 317,210	65.4%
Common	3231-000	\$ 96,800	\$ 67,205	\$ 29,595	69.4%
Solids	3287-000	\$ 1,657,400	\$ 1,365,295	\$ 292,105	82.4%
		\$ 2,671,000	\$ 2,032,090	\$ 638,910	76.1%

Summary of New Change Orders

Change Order No	CSJC	MNWD	SCWD	SMWD	\$ Amount
29	\$2,181	\$1,572	\$1,454	\$2,063	\$7,269
30	\$2,476	\$1,857	\$2,321	\$1,392	\$8,045
Grand Total	\$4,656	\$3,428	\$3,775	\$3,455	\$15,315

Change Orders

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
1	Olsson	3287-000	Addition of Loop Piping to the Existing Hot Water Lines Adjacent to Digester 3	Approved by Board of Directors	12/12/2019	0	\$4,725
2	Olsson	3287-000	Asbestos Gaskets in Boiler hazardous disposal	Approved by Board of Directors	6/4/2020	0	\$6,343
3	Olsson	3287-000	Add Analog Infrastructure and Cabling	Approved by Board of Directors	6/4/2020	11	\$37,970
4	Olsson	3287-000	Digester 4 Coating Additional Sealant	Approved by Board of Directors	6/4/2020	3	\$24,002
5	Olsson	3220-000	Valve Handwheel Ergonomic extension	Approved by Board of Directors	8/6/2020	28	\$16,370
6	Olsson	3287-000	Change to DeZurik Plug Valves to match existing	Approved by Board of Directors	8/6/2020	90	\$41,994

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
7	Olsson	3287-000	Digester 4 Additional Concrete Repair	Approved by Board of Directors	8/6/2020	3	\$7,413
8	Olsson	3287-000	Repair Existing Damaged Electrical Box	Approved by Board of Directors	8/6/2020	0	-\$1,829
9	Olsson	3220-000	Change the Telescoping Valve Boxes and Piping from Carbon Steel to Stainless Steel	Approved by Board of Directors	8/6/2020	0	\$18,678
10	Olsson	3287-000	Duct bank J Interferences	Approved by Board of Directors	12/17/2020	18	\$73,639
11	Olsson	3220-000	Blasting of Existing Influent Pipe Spools	Approved by Board of Directors	12/17/2020	5	\$20,869
12	Olsson	3220-000	Duct bank K Interferences	Approved by Board of Directors	12/17/2020	0	\$15,567
13	Olsson	3287-000	Digester 3/4 PLC Relocation	Approved by Board of Directors	12/17/2020	14	\$41,368
14	Olsson	3287-000	Digester 4 Additional Tank Repair	Approved by Board of Directors	12/17/2020	18	\$33,643
15	Olsson	3220-000	Duct bank O Interferences	Approved by Board of Directors	12/17/2020	0	\$1,687
16	Olsson	3287-000	Digester 3/4 Control Building Roof Replacement	Approved by Board of Directors	2/4/2021	0	\$42,780
17	Olsson	3287-000	MCC-D1 Modifications due to Change in Motor Size	Approved by Board of Directors	5/6/2021	0	\$34,392

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
18	Olsson	3287-000	Integrator Additional Site Visits	Approved by Board of Directors	5/6/2021	0	\$7,572
19	Olsson	3287-000	Multi-zone air conditioning unit in the Cogen MCC Room and Office	Approved by Board of Directors	6/3/2021	0	\$29,417
20	Olsson	3220-000	Overhead Walkway Removal at Plant 1 Secondary Basins 5 through 9	Approved by Board of Directors	6/3/2021	0	\$62,114
21	Olsson	3287-000	Cogeneration PLC Modifications and Integration	Approved by Board of Directors	6/3/2021	0	\$42,923
22	Olsson	3220-000	Plant 1 Secondary Basins UV Rated Wear Strips	Approved by Board of Directors	9/2/2021	0	\$28,965
23	Olsson	3287-000	MCC-F1 Design Change	Approved by Board of Directors	9/2/2021		\$481,290
24	Olsson	3287-000	DAF 2 Investigation Work and Inspection Blast	Approved by Board of Directors	10/7/2021		\$67,839
25	Olsson	3287-000	New Fiber Conduit in West Blower Building	Approved by Board of Directors	10/7/2021		\$4,958
26	Olsson	3220-000	Plant 1 Primary Basin Conduit Obstruction	Approved by Board of Directors	10/7/2021		\$8,444

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
27	Olsson	3220-000	Plant 1 Influent Channel Additional Coating between Primary Basins 5 and 6	Approved by Board of Directors	10/7/2021		\$15,470
28	Olsson	3287-000	MCC-F1 Lighting Changes	Approved by Board of Directors	10/7/2021		\$7,843
29	Olsson	3287-000	Digester 3 Ground Rod	Within Contingency, reviewed by Engineering Committee	10/14/2021		\$7,269
30	Olsson	3220-000	New Fiber Conduits at East Electrical and Storm Water Buildings	Within Contingency, reviewed by Engineering Committee	10/14/2021		\$8,045
1CM Common	Butier	3231-000	CM Change Order No. 1	Approved by Board of Directors	7/13/2021		\$48,995
1CM Liquids	Butier	3220-000	CM Change Order No. 1	Approved by Board of Directors	7/13/2021		\$294,125
1CM Solids	Butier	3287-000	CM Change Order No. 1	Approved by Board of Directors	7/13/2021		\$269,595
1ESDC Common	Carollo	3231-000	ESDC Change Order No. 1	Approved by Board of Directors	6/3/2021		\$18,210
1ESDC Liquids	Carollo	3220-000	ESDC Change Order No. 1	Approved by Board of Directors	6/3/2021		\$109,256

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
1ESDC Solids	Carollo	3287-000	ESDC Change Order No. 1	Approved by Board of Directors	6/3/2021		\$100,151
PCO 002	Olsson	3287-000	Digester 4 Rail Coating. The coating is not needed and resulting in a credit but some rehabilitation work will be needed.	Potential Change	(blank)		-\$1,000
PCO 004	Olsson	3287-000	Digester 4 Control Narrative needed	Potential Change	(blank)		\$5,000
PCO 005	Olsson	3287-000	TWAS Slab Modifications	Potential Change	(blank)		\$50,000
PCO 009	Olsson	3287-000	PLC East Headworks Integration	Potential Change	(blank)		\$10,000
PCO 014	Olsson	3287-000	Digester 4 Compressor Supply Line	Potential Change	(blank)		\$18,146
PCO 018	Olsson	3287-000	Duct bank L Interferences	Potential Change	(blank)		\$10,000
PCO 026	Olsson	3287-000	Gas Hatch Lids Mating Connection	Potential Change	(blank)		\$7,771
PCO 028	Olsson	3287-000	4" Gas Line Routing Modifications	Potential Change	(blank)		\$18,147
PCO 032	Olsson	3287-000	Gas Mixer Conduit Conflict	Potential Change	(blank)		\$12,384
PCO 037	Olsson	3231-000	Energy Building Monorail and Other Conflicts	Potential Change	12/10/2020		\$10,000

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
PCO 039	Olsson	3220-000	Diversion Structure Gate Actuator Power Feed Replacement	Potential Change	8/13/2020		\$5,000
PCO 043	Olsson	3220-000	Telescoping Valve Pipe Support	Potential Change	(blank)		\$3,754
PCO 050	Olsson	3220-000	Telescoping Valves Rework	Potential Change	12/23/2020		\$27,884
PCO 066	Olsson	3287-000	DAFT 1 and 2 Repairs	Potential Change	(blank)		\$232,161
PCO 083	Olsson	3220-000	Plant 1 Primary Basins Additional Repairs and Replacement	Potential Change	(blank)		\$126,000
PCO 088	Olsson	3220-000	Plant 1 Primary Existing Coating Removal	Potential Change	(blank)		\$36,000
PCO 092	Olsson	3287-000	Hot Water System Expansion Tank	Potential Change	8/31/2021		\$5,000
PCO 093	Olsson	3287-000	DAFT Light Change	Potential Change	8/31/2021		\$10,000
PCO 094	Olsson	3287-000	Additional Red Coloring Agent to Concrete	Potential Change	9/1/2021		\$5,000
PCO 095	Olsson	3287-000	Foul Air Rerouting at DAFT 2	Potential Change	9/2/2021		\$5,000
PCO 097	Olsson	3287-000	Digester Hot Water Temperature Gauge Setting	Potential Change	9/15/2021		\$5,000

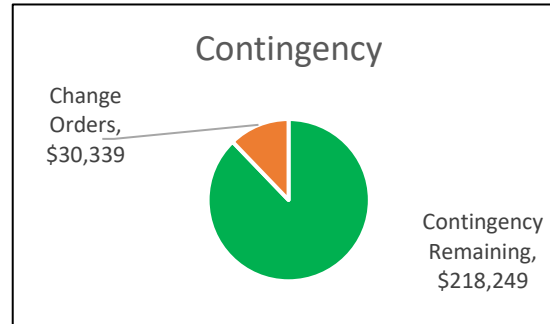
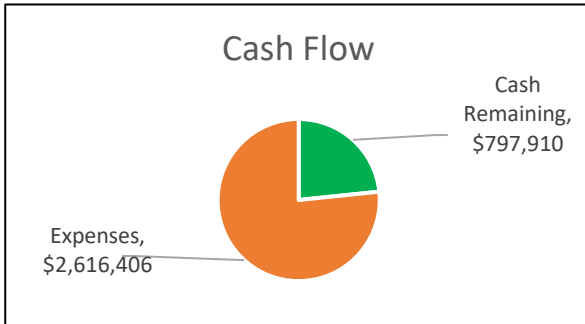
Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
PCO 998	Olsson	3220-000	Effluent Pump Station Descope (A1-A6)	Potential Change	(blank)		-\$800,000
PCO 999	Olsson	3223-000	Energy Building Modifications Descope (F1-F4, G1-G2, & H1-H2)	Potential Change	(blank)		-\$600,000
Grand Total						190	\$1,233,337

Project Financial Status

Project Committee	15
Project Name	Export Sludge Force Main Replacement
Project Description	New 6-inch HDPE force main replacing ageing 4-inch (x2) lines from the Coastal Treatment Plant to the Regional Treatment Plant through Aliso Canyon

Data Last Updated

October 21, 2021



Cash Flow

Collected	\$3,414,316
Expenses	\$2,616,406

Project Completion

Schedule	83%
Budget	60%

Contracts

Company	PO No.	Original	Change Orders	Total	Invoiced
Filanc	15949	\$ 3,107,346	\$ 30,339	\$ 3,137,685	\$ 2,012,827
Butier	16164	\$ 226,100	\$ -	\$ 226,100	\$ 105,105
PSOMAS	15961	\$ 277,368	\$ -	\$ 277,368	\$ 71,596
Dudek	15947	\$ 387,750	\$ -	\$ 387,750	\$ 230,028
Ninyo & Moore	16268	\$ 65,790	\$ 43,166	\$ 108,956	\$ 82,538
		\$ 4,064,354	\$ 73,505	\$ 4,137,859	\$2,502,093

Filanc Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3541-000	\$ 248,588	\$ 30,339	\$ 218,249	12.2%
		\$ 248,588	\$ 30,339	\$ 218,249	12.2%

Summary of New Change Orders

Change Order No	CLB	EBSD	MNWD	SCWD	Amount
Grand Total					

Change Orders

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
1	Filanc	3541-000	Alternative Fiber Optic Conduit Installation at Jack and Bore	Approved by Board of Directors	6/3/2021	0	\$ 5,690
2	Filanc	3541-000	HDPE Pipe Price Adjustment	Approved by Board of Directors	9/2/2021	0	\$ 15,615
3	Filanc	3541-000	Existing 6-Inch Sludge Line Fix for Pressure Test	Approved by Board of Directors	9/2/2021	0	\$ 6,666
4	Filanc	3541-000	18-Inch VCP Sewer Line Conflicts	Approved by Board of Directors	9/2/2021	0	\$ 2,368
PCO 007	Filanc	3541-000	Lost Production with Equipment Movement	Potential Change	(blank)		\$ 21,552
PCO 008	Filanc	3541-000	Abandoned 4" PVC Water Line Interference	Potential Change	(blank)		\$ -
PCO 009	Filanc	3541-000	Wider Trench in Low Cover	Potential Change	(blank)		\$ 36,000
PCO 012	Filanc	3541-000	Jack and Bore Conflict	Potential Change	(blank)		\$ 110,000
PCO 013	Filanc	3541-000	Nesting Bird Restrictions	Potential Change	(blank)		\$ -
PCO 014	Filanc	3541-000	Abandoned 12" PVC Interference	Potential Change	(blank)		\$ 5,462
PCO 015	Filanc	3541-000	18-Inch VCP Sewer Line Conflict at Sta. 96+55	Potential Change	(blank)		\$ 6,199

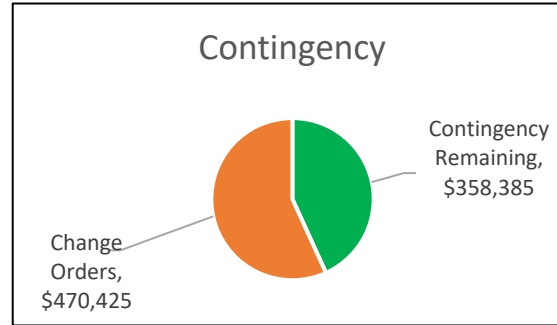
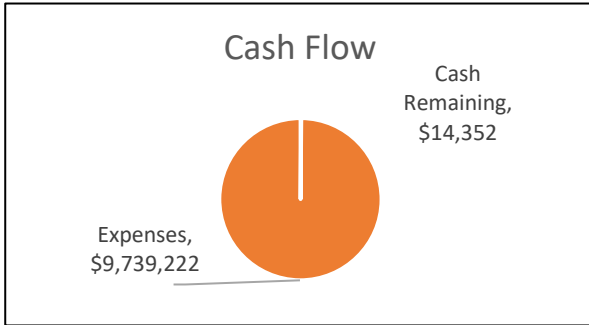
Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
PCO 016	Filanc	3541-000	ACWHEP Unknown Buried Concrete	Potential Change	(blank)		\$ 30,000
PCO 017	Filanc	3541-000	Encasement at Sta. 88+90 to 89+90	Potential Change	(blank)		\$ 3,516
Grand Total						0	\$ 243,068

Project Financial Status

Project Committee	15
Project Name	Facility Improvements
Project Description	New ferric chloride system, new collection equipment in East

Data Last Updated

October 21, 2021



Cash Flow

Collected	\$9,753,574
Expenses	\$9,739,222

Project Completion

Schedule	99%
Budget	96%

Contracts

Company	PO No.	Original	Change Orders	Total	Invoiced
PCL	13751	\$ 9,209,000	\$ (729,763)	\$ 8,479,237	\$ 8,327,943
Butier	13647	\$ 812,288	\$ -	\$ 812,288	\$ 812,228
Hazen & Sawyer	13648	\$ 490,484	\$ -	\$ 490,484	\$ 290,159
		\$ 10,511,772	\$ (729,763)	\$ 9,782,009	\$9,430,330

Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3539-000	\$ 828,810	\$ 470,425	\$ 358,385	56.8%
		\$ 828,810	\$ 470,425	\$ 358,385	56.8%

Summary of New Change Orders

Change Order No	CLB	EBS	MNWD	SCWD	\$ Amount
29	\$1,000	\$79	\$772	\$787	\$2,638
33	\$1,408	\$111	\$1,086	\$1,109	\$3,714
38	\$3,910	\$308	\$3,017	\$3,079	\$10,314
30	\$4,613	\$363	\$3,560	\$3,632	\$12,168
31	\$723	\$57	\$558	\$569	\$1,907
32	\$3,903	\$307	\$3,011	\$3,073	\$10,294
35	\$415	\$33	\$320	\$327	\$1,094
36	\$966	\$76	\$745	\$760	\$2,547
34	\$872	\$69	\$673	\$687	\$2,301
37	\$3,677	\$290	\$2,837	\$2,895	\$9,699
Grand Total	\$21,486	\$1,692	\$16,580	\$16,918	\$56,676

Change Orders

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
1	PCL	3539-000	Additional Potholing	Approved by Board of Directors	8/6/2020	0	\$ 22,936
2	PCL	3539-000	Gas Line Replacement	Approved by Board of Directors	8/6/2020	0	\$ 41,006
3	PCL	3539-000	Main Switchgear Building Underground Conflicts	Approved by Board of Directors	8/6/2020	0	\$ 8,683
4	PCL	3539-000	Mud Valve Bolt Removal	Approved by Board of Directors	8/6/2020	0	\$ 6,577
5	PCL	3539-000	Additional Anchor Bolt Removal	Approved by Board of Directors	8/6/2020	0	\$ 15,271
6	PCL	3539-000	Slide Gate Concrete Repair	Approved by Board of Directors	8/6/2020	0	\$ 3,396
7	PCL	3539-000	Sludge Collector Wear Strips	Approved by Board of Directors	8/6/2020	0	\$ 5,304
8	PCL	3539-000	SCE Transformer Slab Box	Approved by Board of Directors	9/3/2020	0	\$ 4,378
9	PCL	3539-000	Duct Bank 5 Buried Utility Conflicts	Approved by Board of Directors	10/1/2020	0	\$ 32,224
10	PCL	3539-000	Telescoping Valve Modifications	Approved by Board of Directors	10/1/2020	0	\$ 36,067
11	PCL	3539-000	Secondary Effluent Channel Improvements	Approved by Board of Directors	12/17/2020	0	\$ 5,153

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
12	PCL	3539-000	Portable Generator Tap Enclosures in Buildings 2 & 15	Approved by Board of Directors	12/10/2020	0	\$ 18,356
13	PCL	3539-000	Conduit, wiring, and mounting of LL1 fixtures	Approved by Board of Directors	12/10/2020	0	\$ 5,001
14	PCL	3539-000	MCC Feeder Credit	Approved by Board of Directors	2/4/2021	0	\$ (8,803)
15	PCL	3539-000	Switchgear Building Concrete Repair	Approved by Board of Directors	3/11/2021	0	\$ 40,144
16	PCL	3539-000	Sludge Collector Mounting Plate Replacement	Approved by Board of Directors	3/11/2021	0	\$ 10,623
17	PCL	3539-000	Basin Leaking Crack Repair in East Secondaries	Approved by Board of Directors	3/11/2021	0	\$ 1,863
18	PCL	3539-000	Additional Spall Repair - Grit Channels	Approved by Board of Directors	3/11/2021	0	\$ 26,405
19	PCL	3539-000	Mixed Liquor Channel Remobilization	Approved by Board of Directors	3/11/2021	0	\$ 5,323
20	PCL	3539-000	Building 10 Roof Repairs	Approved by Board of Directors	3/11/2021	0	\$ 2,245
21	PCL	3539-000	Building 8 Gas Line Rerouting	Approved by Board of Directors	3/11/2021	0	\$ 717

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
22	PCL	3539-000	Additional Spall Repair - East Secondary Basins	Approved by Board of Directors	6/3/2021	0	\$ 9,722
23	PCL	3539-000	Grit Chamber Conflicts	Approved by Board of Directors	6/3/2021	0	\$ 3,888
24	PCL	3539-000	1/2" Ferric Line Conflicts	Approved by Board of Directors	6/3/2021	0	\$ 784
25	PCL	3539-000	Helical Skimmer Wiring	Approved by Board of Directors	8/5/2021	0	\$ 1,072
26	PCL	3539-000	MCC 15 Unmarked Wire Chasing	Approved by Board of Directors	8/5/2021	0	\$ 6,138
27	PCL	3539-000	Unilateral Descope of Drainage Pump Station, East Basin RAS Channel, and West Secondary Sludge Collection Equipment	Approved	6/11/2021	0	\$ (1,200,188)
28	PCL	3539-000	Unilateral for 21 calendar days for weather and COVID-19 delays	Approved	6/16/2021	21	\$ -
29	PCL	3539-000	Building 10 Wall Repair	Within Contingency, reviewed by Engineering Committee	10/14/2021		\$ 2,638

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
30	PCL	3539-000	West Telescoping Valve Improvements	Within Contingency, reviewed by Engineering Committee	10/14/2021		\$ 12,168
31	PCL	3539-000	RAS Box Leaks	Within Contingency, reviewed by Engineering Committee	10/14/2021		\$ 1,907
32	PCL	3539-000	West Grit Channel Unforeseen Conflicts	Within Contingency, reviewed by Engineering Committee	10/14/2021		\$ 10,294
33	PCL	3539-000	Extra Work in Generator Building	Within Contingency, reviewed by Engineering Committee	10/14/2021		\$ 3,714
34	PCL	3539-000	Power for Bldg 15 HVAC	Within Contingency, reviewed by Engineering Committee	10/14/2021		\$ 2,301
35	PCL	3539-000	Additional Ferric Area Work	Within Contingency, reviewed by Engineering Committee	10/14/2021		\$ 1,094
36	PCL	3539-000	Ferric Tank LIT	Within Contingency, reviewed by Engineering Committee	10/14/2021		\$ 2,547

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
37	PCL	3539-000	PLC-TC1 Upgrades	Within Contingency, reviewed by Engineering Committee	10/14/2021		\$ 9,699
38	PCL	3539-000	Aeration Channel Conflicts	Within Contingency, reviewed by Engineering Committee	10/14/2021		\$ 10,314
PCO 013.1	PCL	3539-000	Ferric Containment Foundation	Potential Change	(blank)		\$ 53,876
PCO 048	PCL	3539-000	West Secondary Effluent Channel Concrete Repair	Potential Change	(blank)		\$ 26,000
PCO 061	PCL	3539-000	Headworks bypass	Potential Change	(blank)		\$ 11,371
PCO 065	PCL	3539-000	SCE XFMR Slab Box	Potential Change	(blank)		\$ 18,029
Grand Total						21	\$ (729,763)

Agenda Item

4.L.

Board of Directors Meeting

Meeting Date: November 4, 2021

TO: Board of Directors
FROM: Betty Burnett, General Manager
SUBJECT: Passage of AB 361 – Allowing for Virtual Meetings - Findings and Approval to continue virtual meetings

BACKGROUND

On March 4, 2020, the Governor declared a state of emergency arising from the Covid-19 pandemic. Pursuant to Government Code 54953(e)(1), if a state of emergency exists, and state or local officials have imposed or recommended measures to promote social distancing, or if a majority of the Board determines that meeting in person would present imminent risks to the health and safety of attendees, then the Board can utilize telephonic or virtual meetings without compliance with the telephonic agenda provisions of the Brown Act found in Government Code 54953(b)(3). Consistent with findings made and the action taken at the October Board meeting, the SOCWA Board held its October Board, committee and PC meetings virtually under AB 361, and the Board's 30-day findings expire November 6, 2021. Government Code 54953(e)(3) requires that the SOCWA Board of Directors make the findings recommended below by majority vote every 30 days if it desires to continue meeting virtually. Therefore, if the SOCWA Board desires to continue holding virtual board, special, committee, and PC meetings over the next 30 days, it must reconsider the circumstances of the state of emergency and make the findings recommended below.

DISCUSSION

AB 361 amends the Brown Act and allows for public organizations to continue using virtual meetings through January 1, 2024 if any of the following circumstances are met:

- (A) The legislative body holds a meeting during a proclaimed state of emergency, and state or local officials have imposed or recommended measures to promote social distancing.
- (B) The legislative body holds a meeting during a proclaimed state of emergency for the purpose of determining, by majority vote, whether as a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees.
- (C) The legislative body holds a meeting during a proclaimed state of emergency and has determined, by majority vote, that, as a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees.

In accordance with AB No. 361, when a board wants to continue holding virtual meetings because a state of emergency continues, the board must make findings every 30 days that 1) the Board has reconsidered the circumstances of the state of emergency and 2) the state of emergency continues to directly impact the ability of the members to meet safely in person or state or local officials continue to impose or recommend measures to promote social distancing.

The data and information provided below and attached to this Staff report is posted on the Orange County Health Care Agency's website as of 10/27/2021. Local officials continue to recommend that persons who are not vaccinated maintain at least 6 feet of physical distance from persons of different households. The County of Orange Health Officer's Orders and Strong Recommendations, revised October 12, 2021 (attached), contain a strong recommendation that vulnerable populations, including older persons, take preventive measures for Covid-19 including social distancing and mask-wearing when around people from different households.

- Cumulative Cases: 304,054
- Daily Cases: 355
- Cumulative Deaths: 5,588
- Daily (new) Deaths: 4
- Cumulative PCR Tests: 5,403,591
- Daily PCR Tests: 11,934
- Recovered Cases: 292,640
- Average Daily Case Rate per 100K: 6
- Testing Positivity Rate: 2.3%
- Tests per 100K: 357.4
- Health Equity Quartile Positivity Rate: 2.3%

The most recent Orange County Covid-19 related information is available on the OCHCA website, and can be found at <https://occovid19.ochealthinfo.com/coronavirus-in-oc> (the link updates as information changes).

THEREFORE, STAFF RECOMMENDS THE BOARD OF DIRECTORS APPROVE THE FOLLOWING FINDINGS AND ACTIONS:

1. The Board hereby FINDS AND DECLARES that it has reconsidered the circumstances of the proclaimed state of emergency declared by the Governor on March 4, 2020 relating to the Covid-19 pandemic;
2. Based on the information provided in this staff report and pursuant to the information and discussion presented in the November 4, 2021 Board meeting, the Board hereby FINDS AND DECLARES that the state of emergency continues to directly impact the ability of the members to meet safely in person; and/or that state and/or local officials continue to impose or recommend measures to promote social distancing;
3. The Board hereby makes these findings and approves for the upcoming 30-day period, November 4, 2021 to December 2, 2021, regular and special meetings of the SOCWA Board and its Standing Committees and Project Committees will continue to be virtual meetings held in accordance with AB 361'S Public Notice and Public Participation requirements.
4. Staff is hereby directed to notice the December 9, 2021 board meeting as a virtual meeting if the proclaimed state of emergency remains, and to place AB 361 findings on the agenda for consideration at that meeting so that the Board can at that point in time make a determination regarding whether as a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees. Note that if the Board does not make this finding by majority vote at the December 9th meeting, it will have to conclude the meeting and re-notice the meeting as an in-person meeting no less than 72 hours later.



CLAYTON CHAU, MD PhD
DIRECTOR/COUNTY HEALTH OFFICER

REGINA CHINSIO-KWONG, DO
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**COUNTY OF ORANGE HEALTH OFFICER'S
ORDERS AND STRONG RECOMMENDATIONS**
(Revised October 12, 2021)

In light of the new and recent guidance on COVID-19 isolation and quarantine issued by California Department of Public Health (CDPH), the following **Orders and Strong Recommendations** shall revise and replace the prior Orders and Strong Recommendations of the County Health Officer that were issued on September 28, 2021. The Orders and Strong Recommendations issued on September 28, 2021, are no longer in effect as of October 12, 2021.

Pursuant to California Health and Safety Code sections 101030, 101040, 101470, 120175, and 120130, the County Health Officer for County of Orange orders and strongly recommends the following:

ORDERS

Effective immediately, and continuing until further notice, the following shall be in effect in unincorporated and incorporated territories of Orange County, California:

I. Self-Isolation and Self-Quarantine Orders

• **Self-isolation of Persons with COVID-19.**

Persons with COVID-19 symptoms. All Orange County residents and visitors *with COVID-19 who are symptomatic* (as defined below) shall immediately isolate themselves in their home or another residence. They may discontinue self-isolation under the following conditions:

- At least 10 days have passed since symptom onset; AND
- At least 24 hours have passed since resolution of fever without the use of fever-reducing medications; AND

- Other symptoms have improved (except that loss of taste and smell may persist for weeks or months after recovery and need not delay the end of isolation).

Persons without COVID-19 symptoms. All Orange County residents and visitors *with COVID-19 who are asymptomatic* (i.e., they do not have any symptom(s), as defined below) shall isolate themselves immediately in their home or another residence. They may discontinue self-isolation under the following conditions:

- At least 10 days have passed since the first positive COVID-19 PCR or rapid antigen laboratory test.

Additional Considerations.

- A Person who is self-isolated may not leave his or her place of isolation except to receive necessary medical care.
- If a more specific and individualized isolation order is issued by the County Health Officer for any county resident, the resident shall follow the specific order instead of the order herein.
- People who are severely ill with COVID-19 might need to stay in self-isolation longer than 10 days and up to 20 days after symptoms first appeared. People with weakened immune systems may require testing to determine when they can be around others. Talk to your healthcare provider for more information. Your healthcare provider will let you know if you can resume being around other people based on the results of your testing.

This self-isolation order DOES NOT in any way restrict access by first responders to an isolation site during an emergency.

Definition.

- A person is considered to “*with COVID-19*” if the person has:
 - Received a positive COVID-19 PCR or rapid antigen laboratory test result; and/or
 - Exhibits symptoms (as defined below).
- People with COVID-19 have had a wide range of symptoms reported – ranging from mild symptoms to severe illness. Symptoms may appear 2-14 days after exposure to the virus. Anyone can have mild to severe symptoms. People with these symptoms may have COVID-19:
 - Fever or chills
 - Cough

- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- New loss of taste or smell
- Sore throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

The list above does not include all possible symptoms.

- **Self-Quarantine of Persons Exposed to COVID-19 and Exemptions.**

All Orange County residents and visitors who know that they have been in close contact (within 6 feet of someone for a cumulative total of 15 minutes or more over a 24-hour period) with a person who has, or is suspected to have, COVID-19 and who do not have any symptoms (as defined above) shall take the following actions:

Not Fully Vaccinated Persons

- Stay in their home or another place of residence:
 - For at least 10 days from the date of last contact with a person who has COVID-19 without testing; OR
 - For at least 7 days with a negative COVID-19 diagnostic test result. Diagnostic specimen shall be collected on Day 5 or later from the date of last contact with person with COVID-19.
- The following persons shall quarantine themselves in their home or another place of residence for 14 days from the from the date of last contact with a person who has COVID-19:
 - All persons who reside or work in a high-risk congregate living setting (e.g., skilled nursing facilities, prisons, jails, shelters).
 - All persons who reside or work with severely immunosuppressed persons (e.g., Bone marrow or solid organ transplants, chemotherapy)

All persons who are required to self-quarantine, as specified above, shall also take the following additional actions:

- Self-monitor for COVID-19 symptoms through Day 14 from the date of last contact with a person who has COVID-19 and if any symptoms

develop during 14 days after the last date of close contact with a person with COVID-19, they shall immediately self-isolate themselves and contact the Orange County Health Care Agency or their healthcare provider and seek COVID-19 testing.

- Wear face coverings at all times through Day 14 and adhere to the face covering order specified in Section II, below, after Day 14;
- Perform frequent hand hygiene; and
- May not leave their place of quarantine during their quarantine period except to receive necessary medical care or to obtain such other goods or services necessary for their basic subsistence.

Exemptions:

- 1) **Asymptomatic Fully Vaccinated Persons.** Persons who are fully vaccinated for COVID-19 prior to their close contact with a person with COVID-19 and have not developed any symptoms (as defined above) since their exposure are not required to quarantine.
 - People are considered fully vaccinated for COVID-19:
 - 14 days or more after they have received the second dose in a 2-dose series (Pfizer-BioNTech or Moderna); or
 - 14 days or more after they have received a single-dose vaccine (Johnson and Johnson/Janssen).
- 2) **Asymptomatic Persons Previously Infected.** If an exposed person tested positive for COVID-19 before their new, recent close contact with a person with COVID-19 and it has been less than 3 months since they started having symptoms from that previous infection (or since their first positive COVID-19 test if asymptomatic), they do not need to quarantine, as long as they have not had any new symptoms since their recent exposure to COVID-19.

All individuals who fall under any of the Exemptions, above, shall also take the following additional actions:

- Test for COVID-19 3-5 days after last date of exposure (note: this requirement does not apply to *Asymptomatic Previously Infected Individuals*).
 - If they test positive, they shall immediately self-isolate, as ordered above, and contact their healthcare provider with any questions regarding their care.

- If they test negative, they shall continue monitoring their symptoms.
- Self-monitor for COVID-19 symptoms through Day 14 and if symptoms occur, immediately isolate as ordered above, they shall immediately self-isolate themselves and contact the Orange County Health Care Agency or their healthcare provider and seek COVID-19 testing.

3) **Quarantine Exemption for Students in both Private and Public Transitional Kindergarten through Grade 12.**

Quarantine Duration for *Unvaccinated* Students:

- A. The following students shall quarantine, as stated under (2), below, if *any* of the following occur EITHER in the community OR in any indoor or at outdoor school settings, including on buses operated by public and private school systems:
- Either the student or person with COVID-19 (or both) was (were) NOT wearing face covering when they were within 6 feet of each other for a cumulative total of 15 minutes or more over a 24-hour period.
 - Both student and person with COVID-19 were wearing face covering when they were within 6 feet of each other for a cumulative total of 15 minutes or more over a 24-hour period.
- B. If the student (as defined in Paragraph (A), above) remains asymptomatic (meaning they have NOT had any COVID-19 symptoms, as defined in this Order, above), the student may discontinue self-quarantine under the following conditions:
- i. Quarantine can end after Day 10 from the date of last exposure without testing for COVID-19; OR
 - ii. Quarantine can end after Day 7 if a test specimen (i.e., antigen diagnostic test, PCR/molecular diagnostic test, or pooled PCR/molecular test) is collected on or after Day 5 from the date of last exposure and the result is negative.
- C. All quarantined students from Day 1 through Day 14 shall:
- Continue daily self-monitoring for symptoms through Day 14 from last known exposure; AND

- Follow all recommended non-pharmaceutical interventions (e.g., wearing a mask when around others, hand washing) through Day 14 from the Day of last known exposure.
- If any symptoms develop during this 14-day period, the exposed student shall immediately isolate as stated in this Order, above, get tested, and contact his or her healthcare provider with any questions regarding their care.

Exemption for Attending In-Person Instruction for Quarantined Unvaccinated Students – i.e., Modified Quarantine

If unvaccinated student and person with COVID-19 were wearing face covering when they were within 6 feet of each other for a cumulative total of 15 minutes or more over a 24-hour period, the exposed student may continue to attend school for in-person instruction during the duration of his or her quarantine period as specified in Paragraph (B), above, if the following conditions are met:

- The exposed student is asymptomatic; and
- The exposed student continues to appropriately wear face covering; and
- The exposed student undergoes at least twice weekly testing during his or her quarantine period (as specified in Paragraph (B), above); and
- The exposed student refrains from participation in all extracurricular activities at school, including sports, and activities within the community setting for the duration of his or her quarantine period (as stated in (B), above). The exposed student may participate in all required instructional components of the school day, except activities where a mask cannot be worn, such as while playing certain musical instruments. The exposed student may also eat meals on campus; and
- The exposed student complies with the conditions specified in Paragraph C, above.

- 4) **Acute Care Hospital Staff Shortage**. Acute care hospitals in collaboration with human resources and occupational health services that determine they are experiencing staff shortage and therefore are unable to provide safe patient care at their facilities may allow the following health care providers to continue to work onsite at their facilities throughout their 14-day exposure period: Asymptomatic health care providers, who are not fully vaccinated for COVID-19 and who have had a higher-risk exposure to COVID-19 but are not known to be infected. These health care providers shall be monitored for symptoms for COVID-19 and shall immediately isolate as consistent with the isolation order above if any symptoms develop (as defined above).

The above self-quarantine orders and exemptions DO NOT in any way restrict access by first responders to a quarantine site during an emergency.

II. Face-Covering Order:

- 1) **Wear a Cloth Face-Covering.** To help prevent the spread of droplets containing COVID-19, all County residents and visitors shall wear face coverings in accordance with and as required by the *Guidance for the Use of Face Coverings* issued by CDPH, effective July 28, 2021. The Guidance is attached herein as Attachment “A” and can be found at:
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/guidance-for-face-coverings.aspx>. The Guidance orders, as follows:

Masking Requirements.

Masks are required for **all individuals** in the following indoor settings, regardless of vaccination status:

- On public transit (examples: airplanes, ships, ferries, trains, subways, buses, taxis, and ride-shares) and in transportation hubs (examples: airport, bus terminal, marina, train station, seaport or other port, subway station, or any other area that provides transportation)
- Indoors in K-12 schools, childcare
- Emergency shelters [4] and cooling centers

Masks are required for **all individuals**, in the following indoor settings, regardless of vaccination status (and surgical masks are recommended):

- Healthcare settings
- State and local correctional facilities and detention centers
- Homeless shelters
- Long Term Care Settings & Adult and Senior Care Facilities

Additionally, masks are required for unvaccinated individuals in indoor public settings and businesses (examples: retail, restaurants, theaters, family entertainment centers, meetings, state, and local government offices serving the public).

Guidance for Businesses, Venue Operators or Hosts.

In settings where masks are required only for unvaccinated individuals, businesses, venue operators or hosts may choose to:

- Provide information to all patrons, guests and attendees regarding vaccination requirements and allow vaccinated individuals to self-attest that they are in compliance prior to entry.
- Implement vaccine verification to determine whether individuals are required to wear a mask.
- Require all patrons to wear masks.

No person can be prevented from wearing a mask as a condition of participation in an activity or entry into a business.

Exemptions to masks requirements.

The following individuals are exempt from wearing masks at all times:

- Persons younger than two years old. Very young children must not wear a mask because of the risk of suffocation.
- Persons with a medical condition, mental health condition, or disability that prevents wearing a mask. This includes persons with a medical condition for whom wearing a mask could obstruct breathing or who are unconscious, incapacitated, or otherwise unable to remove a mask without assistance.
- Persons who are hearing impaired, or communicating with a person who is hearing impaired, where the ability to see the mouth is essential for communication.
- Persons for whom wearing a mask would create a risk to the person related to their work, as determined by local, state, or federal regulators or workplace safety guidelines.

Face shields may be considered for members of the public who cannot wear a face covering due to a medical condition or other exemption, although they may not work as well as face coverings in their ability to prevent the spread of COVID-19 to others. A cloth “drape” should be attached to the bottom edge of the face shield and tucked into the shirt to minimize gaps between the face and face shield.

III. Vaccination and Testing for COVID-19 Orders:

- 1) **COVID-19 Vaccination for Workers and Service Providers of Certain Facilities.**
To help prevent transmission of COVID-19, all workers who provide services or

work in facilities described below shall comply with the vaccination requirements as set forth in the August 5, 2021, State Health Officer Order. A copy of the State Health Officer Order is attached herein as Attachment “B” and can be found at the following link:

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Order-of-the-State-Public-Health-Officer-Health-Care-Worker-Vaccine-Requirement.aspx>

The State Health Officer Order orders, as follows:

All workers who provide services or work in facilities described below shall have their first dose of a one-dose regimen or their second dose of a two-dose regimen by September 30, 2021:

- General Acute Care Hospitals
- Skilled Nursing Facilities (including Subacute Facilities)
- Intermediate Care Facilities
- Acute Psychiatric Hospitals
- Adult Day Health Care Centers
- Program of All-Inclusive Care for the Elderly (PACE) and PACE Centers
- Ambulatory Surgery Centers
- Chemical Dependency Recovery Hospitals
- Clinics & Doctor Offices (including behavioral health, surgical)
- Congregate Living Health Facilities
- Dialysis Centers
- Hospice Facilities
- Pediatric Day Health and Respite Care Facilities
- Residential Substance Use Treatment and Mental Health Treatment Facilities

Two-dose vaccines include Pfizer-BioNTech or Moderna or vaccine authorized by the World Health Organization. The one-dose vaccine is Johnson and Johnson [J&J]/Janssen.

"Worker" refers to all paid and unpaid individuals who work in indoor settings where (1) care is provided to patients, or (2) patients have access for any purpose. This includes workers serving in health care or other health care settings who have the potential for direct or indirect exposure to patients or SARS-CoV-2 airborne aerosols. Workers include, but are not limited to, nurses, nursing assistants, physicians, technicians, therapists, phlebotomists, pharmacists, students and trainees, contractual staff not employed by the health care facility, and persons not directly involved in patient care, but who could be exposed to infectious agents that can be transmitted in the health care setting (e.g., clerical, dietary, environmental services, laundry,

security, engineering and facilities management, administrative, billing, and volunteer personnel).

Exemption from Vaccination. Workers may be exempt from the vaccination requirements under only upon providing the operator of the facility a declination form, signed by the individual stating either of the following: (1) the worker is declining vaccination based on Religious Beliefs, or (2) the worker is excused from receiving any COVID-19 vaccine due to Qualifying Medical Reasons.

Eligibility for Qualified Medical Reasons Exemption. To be eligible for a Qualified Medical Reasons exemption, the worker must also provide to their employer a written statement signed by a physician, nurse practitioner, or other licensed medical professional practicing under the license of a physician stating that the individual qualifies for the exemption (but the statement should not describe the underlying medical condition or disability) and indicating the probable duration of the worker's inability to receive the vaccine (or if the duration is unknown or permanent, so indicate).

Condition of Entry into Facility for Exempted Workers. If an operator of facility deems a worker to have met the requirements of an exemption, the unvaccinated exempt worker must meet the following requirements when entering or working in such facility:

- Test for COVID-19 with either PCR or antigen test that either has Emergency Use Authorization by the U.S. Food and Drug Administration or be operating per the Laboratory Developed Test requirements by the U.S. Centers for Medicare and Medicaid Services. Testing must occur twice weekly for unvaccinated exempt workers in acute health care and long-term care settings, and once weekly for such workers in other health care settings.
- Wear a surgical mask or higher-level respirator approved by the National Institute of Occupational Safety and Health (NIOSH), such as an N95 filtering facepiece respirator, at all times while in the facility.

- 2) **Requirements for COVID-19 Vaccination Status Verification, COVID-19 Testing, and Masking for Certain Facilities.** To help prevent transmission of COVID-19, all facilities described below shall comply with the State Health Officer Order, effective August 9, 2021. A copy of the State Health Officer Order is attached herein as Attachment "C" and can be found at the following link:

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Order-of-the-State-Public-Health-Officer-Unvaccinated-Workers-In-High-Risk-Settings.aspx>

Acute Health Care and Long-Term Care Settings:

- General Acute Care Hospitals
- Skilled Nursing Facilities (including Subacute Facilities)
- Intermediate Care Facilities

High-Risk Congregate Settings:

- Adult and Senior Care Facilities
- Homeless Shelters
- State and Local Correctional Facilities and Detention Centers

Other Health Care Settings:

- Acute Psychiatric Hospitals
- Adult Day Health Care Centers
- Adult Day Programs Licensed by the California Department of Social Services
- Program of All-Inclusive Care for the Elderly (PACE) and PACE Centers
- Ambulatory Surgery Centers
- Chemical Dependency Recovery Hospitals
- Clinics & Doctor Offices (including behavioral health, surgical)
- Congregate Living Health Facilities
- Dental Offices
- Dialysis Centers
- Hospice Facilities
- Pediatric Day Health and Respite Care Facilities
- Residential Substance Use Treatment and Mental Health Treatment Facilities

- 3) **Requirements for COVID-19 Vaccine Status Verification and COVID-19 Testing for School Workers in Transitional Kindergarten through Grade 12.** To prevent the further spread of COVID-19 in K-12 school settings, all public and private schools serving students in transitional kindergarten through grade 12 shall comply with the State Health Officer Order, effective August 12, 2021, regarding verification of COVID-19 vaccination status and COVID-19 testing of all workers. A copy of the State Health Officer Order is attached herein as Attachment “D” and can be found at the following link:

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Order-of-the-State-Public-Health-Officer-Vaccine-Verification-for-Workers-in-Schools.aspx>

This Order does not apply to (i) home schools, (ii) child care settings, or (iii) higher education.

- 4) **Local Correctional Facilities and Detention Centers Health Care Worker Vaccination Requirement.** To prevent the further spread of COVID-19 in local

correctional facilities and detention centers, all individuals identified in the State Health Officer Order, effective August 19, 2021, regarding obtaining COVID-19 vaccination shall comply with the State Health Officer's Order. A copy of the State Health Officer Order is attached herein as Attachment "E" and can be found at the following link:

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Order-of-the-State-Public-Health-Officer-Correctional-Facilities-and-Detention-Centers-Health-Care-Worker-Vaccination-Order.aspx>

IV. **Visiting Acute Health Care and Long-Term Care Setting Order:**

- **Requirements for Visiting Acute Health Care and Long-Term Care Settings.** To help prevent transmission of COVID-19, all acute health care and long-term care settings shall comply with the indoor visitation requirements set forth in the State Health Officer, effective August 11, 2021. A copy of the State Health Officer Order is attached herein as Attachment "F" and can be found at the following link:

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Order-of-the-State-Public-Health-Officer-Requirements-for-Visitors-in-Acute-Health-Care-and-Long-Term-Care-Settings.aspx>

V. **Seasonal Flu Vaccination Order:**

- 1) **Seasonal Flu Vaccination for Certain County Residents.** All individuals who reside or work in Orange County and fall under one of the following categories, shall obtain the seasonal flu vaccination unless a medical or religious exemption applies: (i) current providers for congregate settings; (ii) current health care providers; and (iii) current emergency responders. However, nothing herein shall be construed as an obligation, on the part of employers, public or private, to require employees obtain the seasonal flu vaccination as a term or condition of employment.
 - *Emergency responder* shall mean military or national guard; law enforcement officers; correctional institution personnel; fire fighters; emergency medical services personnel; physicians; nurses; public health personnel; emergency medical technicians; paramedics; emergency management personnel; 911 operators; child welfare workers and service providers; public works personnel; and persons with skills or training in operating specialized equipment or other skills needed to provide aid in a declared emergency; as well as individuals who work for such facilities employing these individuals and whose work is necessary to maintain the operation of the facility.
 - *Health care provider* shall mean physicians; psychiatrists; nurses; nurse practitioners; nurse assistants; medical technicians; any other person who is employed to provide diagnostic services, preventive services, treatment services or other services that are integrated with and necessary to the provision of patient care and, if not provided, would adversely impact patient care; and employees who directly assist or are supervised by a direct provider of diagnostic,

preventive, treatment, or other patient care services; and employees who do not provide direct health care services to a patient but are otherwise integrated into and necessary to the provision those services – for example, a laboratory technician who processes medical test results to aid in the diagnosis and treatment of a health condition. A person is not a health care provider merely because his or her employer provides health care services or because he or she provides a service that affects the provision of health care services. For example, IT professionals, building maintenance staff, human resources personnel, cooks, food services workers, records managers, consultants, and billers are not health care providers, even if they work at a hospital of a similar health care facility.

STRONG RECOMMENDATIONS

Effective immediately, and continuing until further notice, the following shall be in effect in unincorporated and incorporated territories in Orange County, California:

1. **For Vulnerable Population.** In general, the older a person is, the more health conditions a person has, and the more severe the conditions, the more important it is to take preventive measures for COVID-19 such as getting vaccinated, social distancing and wearing a mask when around people who don't live in the same household, and practicing hand hygiene. For more information, see <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>.
2. **COVID-19 Vaccination for County Residents.** All Orange County residents should receive COVID-19 vaccination in accordance with the Federal Food and Drug Administration (FDA) and CDC guidance unless a medical contraindication applies. Minors, who are eligible to receive COVID-19 vaccination in accordance with the applicable CDC guidelines, should be vaccinated in the presence of their parent or legal guardian.
3. **Seasonal Flu Vaccination for County Residents.** All County residents who are six months of age or older should obtain the seasonal flu vaccination unless a medical or religious exemption applies.
4. **COVID-19 Vaccination and Testing for Emergency Medical Technicians, Paramedics and Home Healthcare Providers.** To help prevent transmission of COVID-19, it is strongly recommended that all Emergency Medical Technicians, Paramedics, and Home Healthcare Providers (including In Home Supportive Services Program workers) are fully vaccinated by September 30, 2021.

Furthermore, it is strongly recommended that all unvaccinated Emergency Medical Technicians, Paramedics, and Home Healthcare Providers (including In Home Supportive Services Program workers) undergo at least twice weekly testing for COVID-19 until such time they are fully vaccinated.

GENERAL PROVISIONS

1. The Orders and Strong Recommendations, above, shall not supersede any conflicting or more restrictive orders issued by the State of California or federal government. If any portion of this document or the application thereof to any person or circumstance is held to be invalid, the remainder of the document, including the application of such part or provision to other persons or circumstances, shall not be affected and shall continue in full force and effect. To this end, the provisions of the orders and strong recommendations are severable.
2. The Orders contained in this document may be enforced by the Orange County Sheriff or Chiefs of Police pursuant to California Health and Safety Code section 101029, and California Government Code sections 26602 and 41601. A violation of a health order is subject to fine, imprisonment, or both (California Health and Safety Code section 120295).

REASONS FOR THE ORDERS AND STRONG RECOMMENDATIONS

1. On February 26, 2020, the County of Orange Health Officer declared a Local Health Emergency based on an imminent and proximate threat to public health from the introduction of COVID-19 in Orange County.
2. On February 26, 2020, the Chairwoman of the Board of Supervisors, acting as the Chair of Emergency Management Council, proclaimed a Local Emergency in that the imminent and proximate threat to public health from the introduction of COVID-19 created conditions of extreme peril to the safety of persons and property within the territorial limits of Orange County.
3. On March 2, 2020, the Orange County Board of Supervisors adopted Resolutions No. 20-011 and No. 20-012 ratifying the Local Health Emergency and Local Emergency, referenced above.
4. On March 4, 2020, the Governor of the State of California declared a State of Emergency to exist in California as a result of the threat of COVID-19.
5. As of October 12, 2021, the County has reported a total of 299,041 recorded confirmed COVID-19 cases and 5,499 COVID-19 related deaths.
6. Safe and effective authorized COVID-19 vaccines are recommended by the CDC. According to CDC, anyone infected with COVID-19 can spread it, even if they do NOT have symptoms. The novel coronavirus is spread in 3 ways: 1) Breathing in air when close to an infected person who is exhaling small droplets and particles that contain the virus. 2) Having these small droplets and particles that contain virus land on the eyes, nose, or mouth, especially through splashes and sprays like a cough or sneeze. 3) Touching eyes, nose, or mouth with hands that have the virus on them. See <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html>.

7. CDC requires face coverings on planes, buses, trains, and other forms of public transportation traveling into, within, or out of the United States and in U.S. transportation hubs such as airports and stations. See <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html>.
8. The CDPH issued a revised Guidance for the Use of Face Coverings, effective July 28, 2021, available at:
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/guidance-for-face-coverings.aspx>
9. According to the CDC and CDPH, older adults, individuals with medical conditions, and pregnant and recently pregnant persons are at higher risk of severe illness when they contract COVID-19. See <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/index.html>; see also <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/PublicHealthGuidanceSelfIsolationforOlderAdultsandThoseWhoHaveElevatedRisk.aspx>.
10. The Orders and the Strong Recommendations contained in this document are based on the following facts, in addition to the facts stated under the foregoing paragraphs: (i) Safe and effective FDA authorized COVID-19 vaccines have become widely available, but many Orange County residents have not yet had the opportunity to be vaccinated, or have not completed their vaccination series to be fully vaccinated; (ii) there are currently limited therapeutic options proven effective that consistently prevents the severe illness associated with COVID-19; (iii) the current consensus among public health officials for slowing down the transmission of and avoiding contracting COVID-19 is for unvaccinated persons to avoid gathering and practice social distancing, frequently wash hands with soap, wearing face covering and get vaccinated; (iv) some individuals who contract COVID-19 have no symptoms or have only mild symptoms and so are unaware that they carry the virus and are transmitting it to others; (v) current evidence shows that the novel coronavirus can survive on surfaces and can be indirectly transmitted between individuals; (vi) older adults and individuals with medical conditions are at higher risk of severe illness; (vii) sustained COVID-19 community transmission continues to occur; (viii) the age, condition, and health of a significant portion of Orange County's residents place them at risk for serious health complications, including hospitalization and death, from COVID-19; (ix) younger and otherwise healthy people are also at risk for serious negative health outcomes and for transmitting the novel coronavirus to others.
11. The orders and strong recommendations contained in this document are necessary and less restrictive preventive measures to control and reduce the spread of COVID-19 in Orange County, help preserve critical and limited healthcare capacity in Orange County and save the lives of Orange County residents.
12. The California Health and Safety Code section 120175 requires the County of Orange Health Officer knowing or having reason to believe that any case of a communicable

- disease exists or has recently existed within the County to take measures as may be necessary to prevent the spread of the disease or occurrence of additional cases.
13. The California Health and Safety Code sections 101030 and 101470 require the county health officer to enforce and observe in the unincorporated territory of the county and within the city boundaries located with a county all of the following: (a) Orders and ordinances of the board of supervisors, pertaining to the public health and sanitary matters; (b) Orders, including quarantine and other regulations, prescribed by the department; and (c) Statutes relating to public health.
 14. The California Health and Safety Code section 101040 authorizes the County of Orange Health Officer to take any preventive measure that may be necessary to protect and preserve the public health from any public health hazard during any “state of war emergency,” “state of emergency,” or “local emergency,” as defined by Section 8558 of the Government Code, within his or her jurisdiction. “Preventive measure” means abatement, correction, removal, or any other protective step that may be taken against any public health hazard that is caused by a disaster and affects the public health.
 15. The California Health and Safety Code section 120130 (d) authorizes the County of Orange Health Officer to require strict or modified isolation, or quarantine, for any case of contagious, infectious, or communicable disease, when such action is necessary for the protection of the public health.

IT IS SO ORDERED:

Date: October 12, 2021

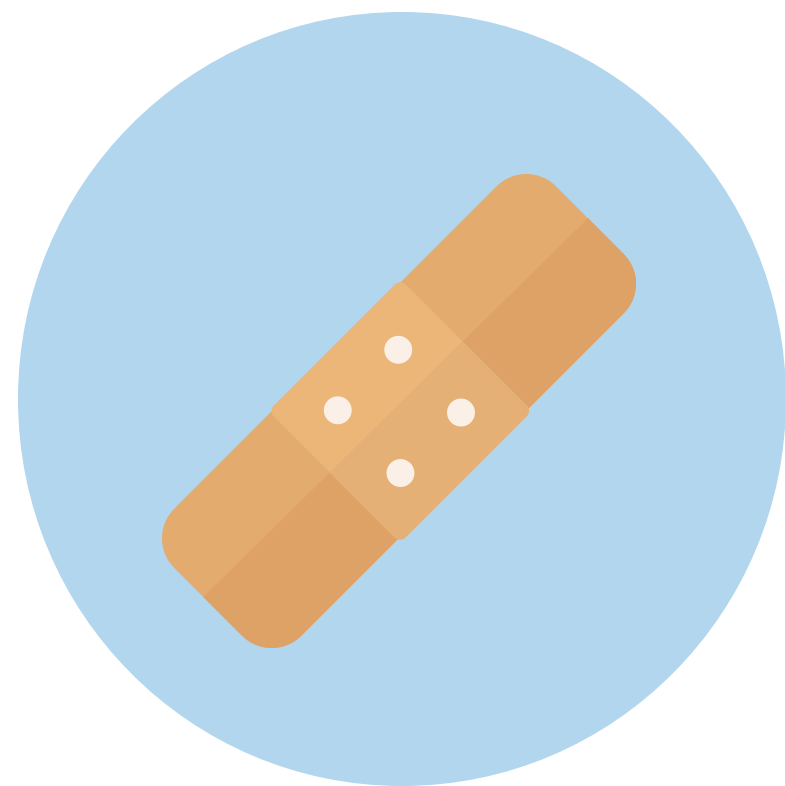


Clayton Chau MD, PhD
County Health Officer
County of Orange

HOW TO PROTECT YOURSELF AND OTHERS

GUIDANCE FOR UNVACCINATED PEOPLE

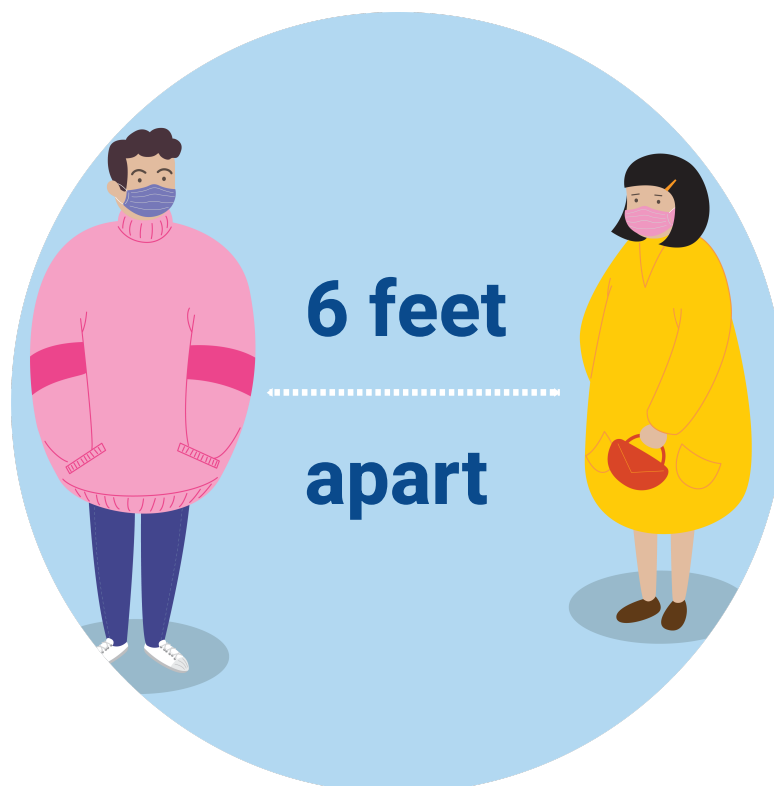
If you are not fully vaccinated from COVID-19, you can help protect yourself and others from COVID-19 with these steps.



Get vaccinated against COVID-19. Authorized COVID-19 vaccines are safe and effective.



Wear a face cover in indoor public places, crowded outdoor settings, and when in close contact with unvaccinated people.



Stay at least 6 feet apart from people who don't live in your household. Avoid close contact with people who are sick in your home (at least 6 feet).



Avoid crowds and poorly ventilated spaces. If indoors, open windows and doors to bring in fresh air if possible.



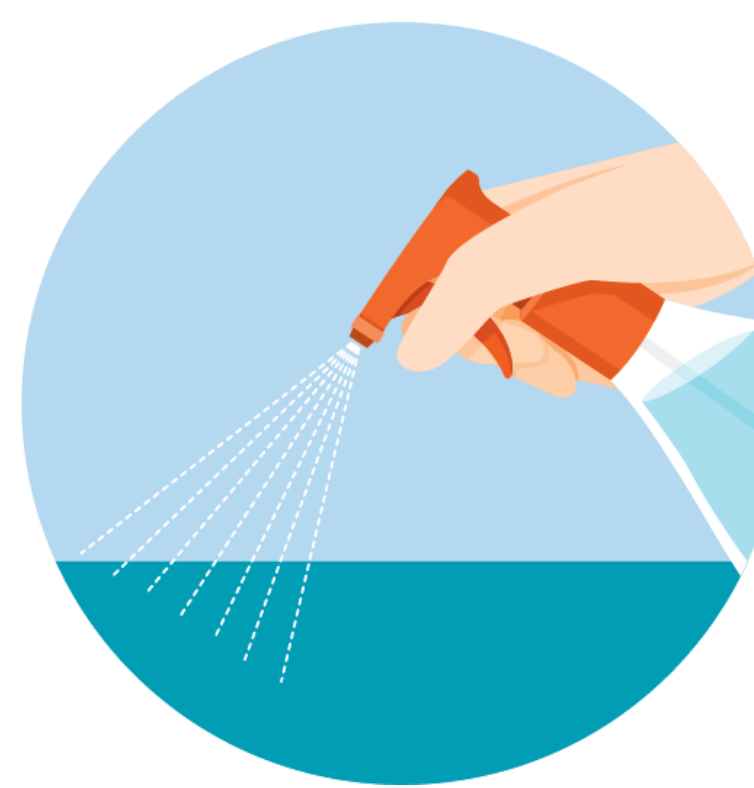
Get tested for COVID-19 before/after travel or attending large gatherings with people of unknown COVID-19 or vaccination status.



Wash your hands often with soap and water for at least 20 seconds.



Cover coughs and sneezes with your arm or use a tissue. Throw used tissue into trash.



Clean and disinfect often, especially "high-touch" surfaces like phones, counters, and doorknobs.



Monitor your health. Be alert for COVID-19 symptoms like fever, cough, or shortness of breath. Take your temperature if symptoms develop.



COVID-19 VACCINES

COVID-19 vaccines are safe and effective. Everyone 12 years of age and older is now eligible to get a COVID-19 vaccination. Visit www.othena.com or <https://myturn.ca.gov> to find a COVID-19 vaccine near you. For more information about COVID-19 vaccines in Orange County, please visit COVIDVaccineFacts.com.

Call the OC COVID-19 Hotline at (714) 834-2000 for questions about vaccine-related issues, including booking appointments, location selection, or assistance with transportation. Live operators are available Monday-Friday from 8 a.m. to 5 p.m.

FREE COVID-19 TESTING

If you want to get tested for COVID-19, a test kit can be delivered to you for free, visit ohealthinfo.com/covidtest to order a test kit.



COVID-19 RESOURCES

For more information on help with getting food, losing a job, trouble paying rent, or getting medical care, visit covid19info.ocgov.com.

For more COVID-19 information, please visit www.ohealthinfo.com/novelcoronavirus or call the OC Health Care Agency's Health Referral Line at (800) 564-8448.



[Home](#) / [Preventing COVID-19 – A Guide for Unvaccinated People](#)

- [Prevention for Unvaccinated individuals](#)
- [Prevention for Vaccinated individuals](#)
- [Questions? General FAQs](#)
- [Testing is Prevention](#)
- [Monoclonal Antibody Therapy](#)

Preventing COVID-19 – A Guide for Unvaccinated People

Individuals who are not fully vaccinated from COVID-19 can still help prevent transmission of COVID-19.

Here are some ways you can protect yourself and your family:

Get vaccinated. COVID vaccines are safe and effective.

Wear a face cover in indoor public places, crowded outdoor settings, and when in close contact with unvaccinated people.

Stay at least 6 feet apart from people you do not live with in your household. **Avoid close contact** with people who are sick in your home.

Avoid crowds and if indoors, open windows or doors to bring in fresh air.

Wash your hands often with soap and water for at least 20 seconds.

Clean and disinfect frequently touched surfaces.

Get tested before and after travel or when attending events with crowds. A test kit can be sent to individuals living in Orange County at no cost. **Add link**

Protect Yourself and Others



HOW TO PROTECT YOURSELF AND OTHERS
GUIDANCE FOR UNVACCINATED PEOPLE

If you are not fully vaccinated from COVID-19, you can help protect yourself and others from COVID-19 with these steps.

- Get vaccinated against COVID-19.** Authorized COVID-19 vaccines are safe and effective.
- Wear a face cover** in indoor public places, crowded outdoor settings, and when in close contact with unvaccinated people.
- Stay at least 6 feet apart** from people who don't live in your household. Avoid close contact with people who are sick in your home (at least 6 feet).
- Avoid crowds and poorly ventilated spaces.** If indoors, open windows and doors to bring in fresh air if possible.
- Get tested for COVID-19** before travel or attending large gatherings with people of unknown COVID-19 or vaccination status.
- Wash your hands often** with soap and water for at least 20 seconds.
- Cover coughs and sneezes** with your arm or a tissue. Throw used tissue into trash.
- Clean and disinfect often,** especially "high-touch" surfaces like phones, counters, and door knobs.
- Monitor your health.** Be alert for COVID-19 symptoms like fever, cough, or shortness of breath. Take your temperature if symptoms develop.

COVID-19 VACCINES
COVID-19 vaccines are safe and effective. Everyone 12 years of age and older is now eligible to get a COVID-19 vaccination. Visit www.ochealthinfo.com or info@ochealthinfo.com to find a COVID-19 vaccine near you. For more information about COVID-19 vaccines in Orange County, please visit www.ochealthinfo.com.

Call the OC COVID-19 Hotline at (714) 834-2000 for questions about vaccine-related issues, including booking appointments, location selection, or assistance with transportation. Live operators are available Monday-Friday from 8 a.m. to 5 p.m.

FREE COVID-19 TESTING
If you want to get tested for COVID-19, a test kit can be delivered to you for free. Visit www.ochealthinfo.com to order a test kit.

COVID-19 RESOURCES
For more information help with getting food, losing a job, trouble paying rent, or getting medical care, visit www.ochealthinfo.com.

For more COVID-19 information, please visit www.ochealthinfo.com/novelcoronavirus or call the OC Health Care Agency Health Referral Line at (800) 564-8448.

[Click for additional languages](#)

Get tested if you develop COVID-19 symptoms.

If you test positive for COVID-19, **stay home and let close contacts know.** A close contact is someone you were within 6 feet of for at least 15 minutes during the infectious period.

Learn more about the [COVID-19 Vaccine](#)

Additional Resources



COVID-19 in California



Centers for Disease Control and Prevention



World Health Organization





County Directory Assistance
855.886.5400



Popular Topics

- Drive-Thru, Self-Collect or In-Person
- Health Care Equity Initiatives
- Health Providers Resources



Agenda Item

5.A.

Board of Directors Meeting

Meeting Date: November 4, 2021

TO: PC-2, PC-15, & PC-17 Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Jason Manning, Director of Engineering

SUBJECT: Consequence of Failure Analysis Overview and J.B. Latham Report
[Project Committees 2, 15, and 17]

Overview

Please see attached presentation and results of the J.B. Latham Consequence of Failure Analysis.

Recommended Action: Information item.

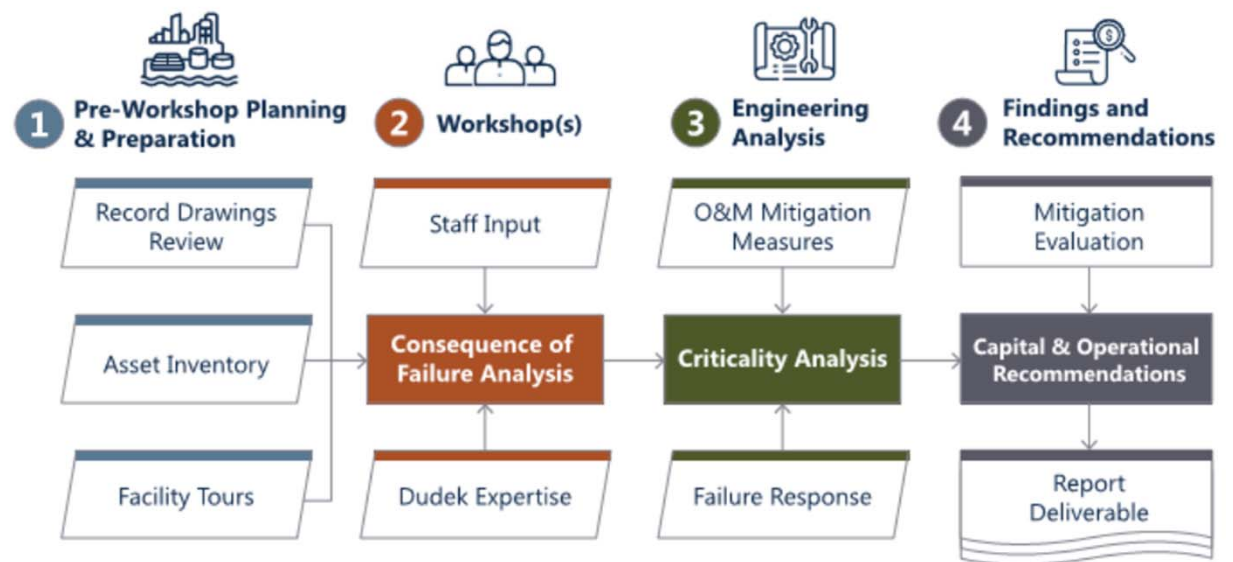


Consequence of Failure Analysis

November 4, 2021

Consequence of Failure Analysis (CoFA)

- Risk-based evaluation of major assets/process areas
- Will be used to prioritize projects in SOCWA's Ten Year Plan
- Provides an organized approach to receive internal staff ideas and information related to asset needs
- Third-party involvements helps provide balance and additional insight



CoFA Process

1. Identify asset/process areas for the analysis
2. Score the consequence of failure from 1 to 5 based on the chart to the right
3. Define the category of the failure and assign the appropriate weight factor

CoF Category	Weight Factor	CoF Score				
		1	2	3	4	5
Health & Safety	7	Negligible Injury	Minor injury, medical attention required	Serious injury hospitalization required	Serious injury, extensive hospitalization and/or permanent health impacts	Loss of Life
Treatment Performance/Regulatory	5	Insignificant loss of treatment performance	Minor loss of treatment performance, impacts on multiple processes. No regulatory violations.	One-time regulatory violation.	Major loss of treatment performance, extended violation or multiple violations, regulatory sanctions	Plant-wide catastrophic failure, treatment process uncontrollable for 48 hrs+ regulatory sanctions.
Economic/Personnel Resources	5	<\$5,000	<\$25,000	<\$50,000	<\$250,000	>\$250,000
Public Image & Board Concerns	3	Insignificant effect or community/Board concern	Minor community/Board interest or complaints	Public community discussion and local paper coverage	Loss of confidence by community/Board. Public agitation for action.	Public investigation, news coverage, management changes demanded.

CoFA Process

4. Estimate the probability of failure from A to F

- Age, condition, past maintenance records, and staff input used as basis of probability

PoF	Likelihood of Occurrence	Current Probability of Condition Based Occurrence
A	Rare	3+ years
B	Unusual	Within 1 - 3 years
C	Annual	Within 6 - 12 months
D	Occasional	Within 1 - 6 months
E	Common	Within 1 month
F	Certain - Ongoing	Daily

CoFA Process

- Combine the weighted consequence of failure score and the probability of failure to calculate a risk designation for each asset/process area

PoF	Criticality							
	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100
A	L	L	L	L	L	M	M	M
B	L	L	L	M	M	H	H	H
C	L	L	M	M	H	H	H	E
D	L	M	M	H	H	E	E	E
E	L	M	H	H	E	E	E	E
F	L	M	H	H	E	E	E	E

L=Low
M=Medium
H=High
E=Extra High

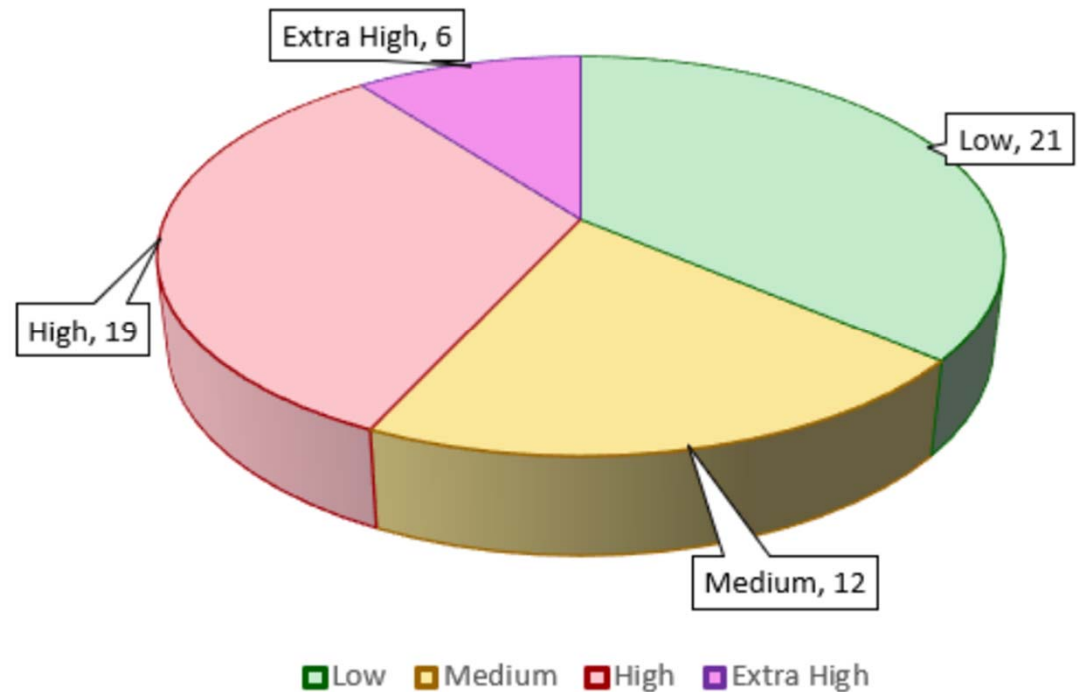
CoFA Process

6. The Risk Exposure Designation assigns a relative level of risk

Risk Designation		Strategy for Risk Mitigation
L	Low	Reactive strategy is acceptable. The risk level does not suggest proactive monitoring strategies or capital improvement projects are necessary. Recommend that applicable CIP projects are maintained for current budget year or deferred.
M	Medium	Proactive strategy for monitoring performance and condition may be recommended. Mix of proactive and reactive strategies may also apply. Capital Improvement projects may be recommended to mitigate risk where applicable. Recommend that applicable CIP projects are maintained for current budget year.
H	High	Proactive planning and risk mitigation strategy is required. Capital Improvement projects will be recommended if operations and maintenance strategies are insufficient to mitigate risk to an acceptable level. Recommend that applicable CIP projects are maintained for current budget year or expedited where practical.
E	Extra High	Proactive planning and risk mitigation strategy is required immediately. Capital Improvement projects and operations and maintenance strategies must be developed and implemented as soon as possible to mitigate risk to an acceptable level. Recommend that applicable CIP projects are expedited where practical.

JB Latham CoFA Results

- 24 of the 25 extra high and high risk results are addressed in the Ten Year Plan (most in the next several years)
- Ops is addressing several of the extra high risks through the small capital program
- The remaining items will be prioritized in the coming capital planning cycle



JB Latham CoFA Results

- Extra High Risk

Failure Mode / Scenario	Criticality	Probability of Failure (PoF)	Risk Designation
Plant 2 Primary Clarifiers Cover Failure / Fall Hazard	85	F	E
Truck Bay Load Cell Failure	84	D	E
Gas Line to Flare Failure	81	F	E
MCC M Failure	73	D	E
Chlorine Contact Control Failure / Process Water System Failure	66	F	E
Lack of Sludge Storage	64	F	E

FINAL

Consequence of Failure Analysis

For J.B. Latham Wastewater Treatment Plant

Prepared for:

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August 2021

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Executive Summary

The South Orange County Wastewater Authority contracted Dudek to prepare a Consequence of Failure Analysis (CoFA) for select process areas and facilities within the J. B. Latham Wastewater Treatment Plant (JBL plant). The CoFA is intended to identify and prioritize risk within these facilities to guide strategic O&M and CIP planning and scheduling for SOCWA in the short-term to mid-term future.



J. B. Latham WWTP

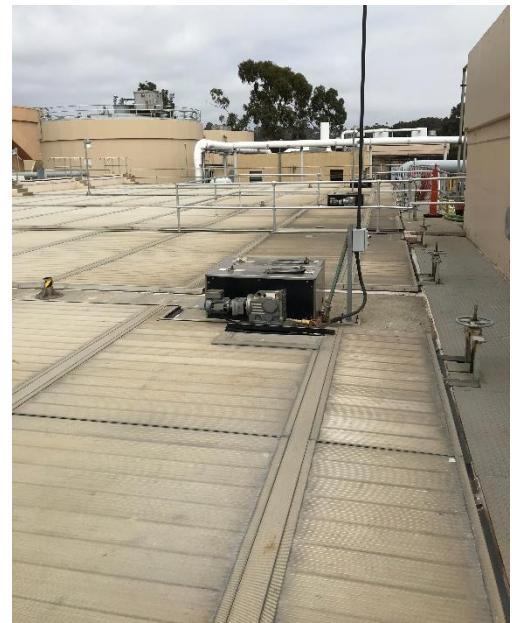
Summary of Findings

The analysis found that the JBL plant has several top priority project needs for capital investment to mitigate risk (i.e. consequences and probability of failure) within the facility. Current near-term budgeted CIP projects address some of these project needs, however, there are a few top priority project needs that are not addressed with near-term CIP projects. The majority of secondary and tertiary priority projects are addressed in SOCWA's current ten-year CIP, however, additional project needs and recommendations are made to either improve current budgeted project effectiveness or address a project need that is not currently identified in the CIP.

Summary of Recommendations

It is recommended that SOCWA proceed quickly with capital project planning, design, and construction of top priority projects. Where practical, it is recommended to implement Operations and Maintenance (O&M) recommendations made herein to mitigate risk of critical systems. Top priority capital project needs are identified below. Current CIP projects and/or recommendations to change priority and scope of CIP projects are summarized in **(bold parentheses)**.

- Replacement of hauling truck load cells with alternative weight measurement equipment. The equipment must address current deficiencies with the existing load cells including routine failure and calibration requirements, sensitivity to wash-down water, and difficulty of finding spare parts. **(Capital Improvements Program)**.
- Replace Plant 2 primary clarifier covers with new safe-to-walk on covers and include upgrades to provide sufficient fall protection and safety measures. **(Capital Improvements Program)**
- Replace existing corroded gas line to flare with a new permanent line. Project can be done prior to or in conjunction with replacement of existing flare. **(Included in Project No. 2096 Plant 1 Liquids Buried Piping Reconstruction scheduled for FY 2030)**. Recommend re-prioritizing this project for near-term implementation.



Plant 2 Primary Clarifier Covers

- MCC M Replacement. Recommend relocation of MCC M to indoor, climate-controlled environment to protect the equipment from weather and animals. **(Capital Improvements Program)**
- Complete a storage needs assessment and replace the existing storage shed with a modern facility that is practical for staff spare parts and equipment storage needs. Solution may also include various locations for equipment storage around the plant site. **(Included in Project No. 2344 and 2346 Storage Building Replacement scheduled for FY 2027). Recommend re-prioritizing this project for near-term implementation.**
- Reconfigure chlorine contact basin and process water system to create a fully isolated process water side stream that can be appropriately chlorinated to protect the process water system from snails and organic growth, minimize vector control issues in the CCB, and protect staff from exposure to undisinfected secondary effluent during routine wash-down operations. At SOCWA's option, consider construction of an approved Title 22 recycled water system to increase beneficial uses of the recycled water. **(Included in part with Project No. 2082 and 2083 Chlorine Contact Basin Isolation Gates and Structural Rehabilitation scheduled for FY 2023). Recommend additional scope of project to allow staff the ability to consistently chlorinate water without risking putting a chlorine residual out the outfall.**
- Construct sludge storage facilities (i.e. silos). Include facilities in the upgrades to allow for truck washing and septage receiving if possible. **(Not included in any current CIP project). Recommend including sludge storage and reconfiguration of solids handling facilities to improve reliability.**

It is recommended that slight adjustments are made to SOCWA's 10-year CIP implementation schedule and scope of projects to consider recommendations made herein. Top priority projects (i.e. projects that address one or more extra high risk failure modes) are recommended for expedited design and implementation. SOCWA's schedule for secondary priority and tertiary priority projects is suitable based on the project needs and associated risk designation. Tertiary priority projects may be candidate projects for deferred implementation if necessary. Refer to **Appendix A** for more information and detailed summary of each process area and failure mode assessed as part of this Consequence of Failure Analysis.

1 Introduction

The South Orange County Wastewater Authority (SOCWA) contracted Dudek to prepare a Consequence of Failure Analysis (CoFA) for select process areas and facilities at the J. B. Latham WWTP. The CoFA is intended to identify and prioritize risk within these facilities to guide strategic O&M and capital investments for SOCWA in the short-term to mid-term future.

J. B. Latham WWTP Facility Overview

The J. B. Latham WWTP (JBL plant) is a secondary treatment facility in Data Point, CA. The JBL plant is regulated by the State of California Regional Water Quality Control Board (RWQCB) San Diego Region, according to Waste Discharge Requirements Order No. R9-2012-0012 as Amended by Orders Nos. R9-2014-0105 and R9-2017-0013 NPDES No. CA0107417. Currently, the WWTP is permitted to treat and discharge 13 million gallons per day (mgd). The SOCWA JBL plant is a conventional activated sludge treatment facility providing wastewater treatment for four SOCWA member agencies Moulton Niguel Water District (MNWD), Santa Margarita Water District (SMWD), South Coast Water District (SCWD), and the City of San Juan Capistrano. There are two treatment trains: 9-side (Plant 1) and 4-side (Plant 2). All effluent from the JBL plant is discharged to the Pacific Ocean through the San Juan Creek Ocean Outfall (SJC00).

Background description, function, and major equipment in each process area assessed as part of this CoFA are summarized in Table 1-1, which also served as the outline to the workshops for the JBL plant. Not all equipment in identified areas were considered in this analysis.

Table 1-1. JBL Plant CoFA Unit Process and Major Equipment Summary

Process Area	Description	Assets
Plant 1 Influent Sewer	Functions to convey raw sewage influent from the diversion structure into the Plant 1 headworks. Consists of a single 42" VCP pipeline.	<ul style="list-style-type: none"> Plant 1 Influent sewer Plant 1 Influent flow measurement
Bypass Sewer	Functions as an interconnecting 36" pipeline between Plant 2 influent and diversion structure to provide a bypass for either Plant 1 or Plant 2. Flow control gates are used to provide full plant bypass as necessary for maintenance activities.	<ul style="list-style-type: none"> Bypass sewer Influent gates
Plant 1 Headworks	Functions to remove rags and other large materials from the influent wastewater before entering downstream processes. Influent flow through the headworks is by gravity through a mechanical bar screen housed in the headworks building.	<ul style="list-style-type: none"> Headworks building Bar Screens Screenings conveyor Screenings compactor
Plant 1 Grit Handling	Functions to remove grit (fast-settling inorganic solids) from the influent wastewater before entering downstream processes. Grit removal is accomplished in an aerated grit chamber, and grit pumps pump the grit to a classifier and disposal dumpster.	<ul style="list-style-type: none"> Grit conveyor Grit chamber
Plant 1 Raw Sewage Pump Station	Functions to pump raw influent into the primary clarifiers. Grit effluent is collected in a wet well adjacent to the Plant 1 blower building. Raw sewage pumps are located in a dry well area in the basement of the Plant 1 blower building.	<ul style="list-style-type: none"> Raw sewage wet well Raw sewage pumps Raw sewage VFDs
Plant 1 Primary Clarifiers	Functions to remove organic solids from the influent wastewater prior to secondary treatment and reduce aeration treatment requirements for the secondary process.	<ul style="list-style-type: none"> Primary clarifier tanks Sludge/scum collectors

Table 1-1. JBL Plant CoFA Unit Process and Major Equipment Summary

Process Area	Description	Assets
Plant 2 Primary Clarifiers	Functions to remove organic solids from the influent wastewater prior to secondary treatment and reduce aeration treatment requirements for the secondary process.	<ul style="list-style-type: none"> • Primary clarifier tanks • Scum drives • Covers • Troughs/scum collectors
Plant 1 Blower Building	Functions as a building to house backup blowers, raw sewage pumps, primary sludge pumps, RAS and WAS pumps and electrical equipment.	<ul style="list-style-type: none"> • Blower building • Plant 1 backup blowers
Plant 1 Mixed Liquor Channel	Functions to convey mixed liquor to the Plant 1 aeration basins.	<ul style="list-style-type: none"> • Channel concrete • Agitation air piping
Plant 1 RAS and WAS Pump Station	Return Activated Sludge (RAS) and Waste Activated Sludge (WAS) function to recycle secondary sludge to the aeration basins (RAS) or waste the sludge (WAS) to the digesters for SRT and biomass control.	<ul style="list-style-type: none"> • Plant 1 RAS Pumps • Plant 1 WAS Pumps
Scum Pump Station	Functions to collect and remove scum from process and waste to the digesters. Pump station force main ties into primary sludge force main en route to digesters.	<ul style="list-style-type: none"> • Scum Pump Station
Digesters	Anaerobic Digesters function to stabilize and destroy volatile solids in a heated, anaerobic environment. Digesters rely on heat and mixing to maintain performance. Digester gas produced is sent to co-generation system or flared.	<ul style="list-style-type: none"> • Heat exchangers • Hot water supply piping
Centrifuge System	Functions to dewater anaerobically digested sludge using a centrifuge to increase total solids concentration in the sludge to 20% dry solids or better. Dewatered sludge cake is conveyed to hauling trucks via screw conveyors and diverter gates.	<ul style="list-style-type: none"> • Centrifuges • Centrate piping • Diverter gates • Sludge conveyors
Truck Loading Bay	Functions to facilitate hauling truck loading and weighing. Hauling trucks are parked on load cells and dewatered sludge cake is loaded into the trucks until the weight threshold is met.	<ul style="list-style-type: none"> • Truck load cells • Ventilation system • Sludge storage
Flare	Functions to transport and flare excess digester gas that is not used for the cogeneration system. Includes gas piping to flare and flare itself.	<ul style="list-style-type: none"> • Gas line • Flare
Chlorine Contact Basin / Process Water System	Process water system functions to provide secondary effluent throughout the plant for various uses such as wash-down, equipment seal water, etc. Staff rely on process water heavily for routine duties. Chlorine contact basin is a tank intended for chlorine disinfection of secondary effluent, however, it is not used for chlorination due to restrictions on chlorine residual in the ocean outfall.	<ul style="list-style-type: none"> • Chlorine contact tank • Process Water system
Storage Shed	Functions to provide equipment and spare part storage. Storage shed is approximately 1,000 square foot prefabricated metal with a 12' clearance.	<ul style="list-style-type: none"> • Storage Shed
Drainage Systems	Drainage systems consist of the flood control pump station which captures and pumps out stormwater from the neighboring apartment complex, as well as the plant drainage sump which collects plant site runoff and pumps it back into the headworks.	<ul style="list-style-type: none"> • Flood control pump station • Plant drain system
Plant 1 Emergency Generator	Functions to provide emergency backup power to certain Plant 1 MCC's in the event of a utility power outage.	<ul style="list-style-type: none"> • Plant 1 Emergency Generator
MCC's	Motor Control Centers (MCC's) provide power, motor control, and circuit breakers for mechanical equipment throughout the plant.	<ul style="list-style-type: none"> • MCC M • MCC CF • MCC 2 • MCC A-1

Table 1-1. JBL Plant CoFA Unit Process and Major Equipment Summary

Process Area	Description	Assets
Main Circuit Breakers	Main circuit breakers and meters function to provide utility power and disconnect to the plant as well as meters for power usage. The JBL plant contains 6 main circuit breakers.	<ul style="list-style-type: none"> • Plant 2 breaker • Effluent pump station breaker • ECP building breaker • Main office breaker • Co-gen breaker • Storm water PS breaker

1.1 Methodology

CoFA is a process that facilitates deliberate discussion and analysis of the criticality of process systems, drilling down to the component-level failure modes that may occur. Each process area identified for upgrade in the CIP is analyzed through the major assets and functions of that process and further by the failure modes of those assets. Through a workshop format, critical operations staff input is captured to expeditiously define a consequence of failure score and probability of failure score. **Figure 1-1** presents the CoFA flowchart.

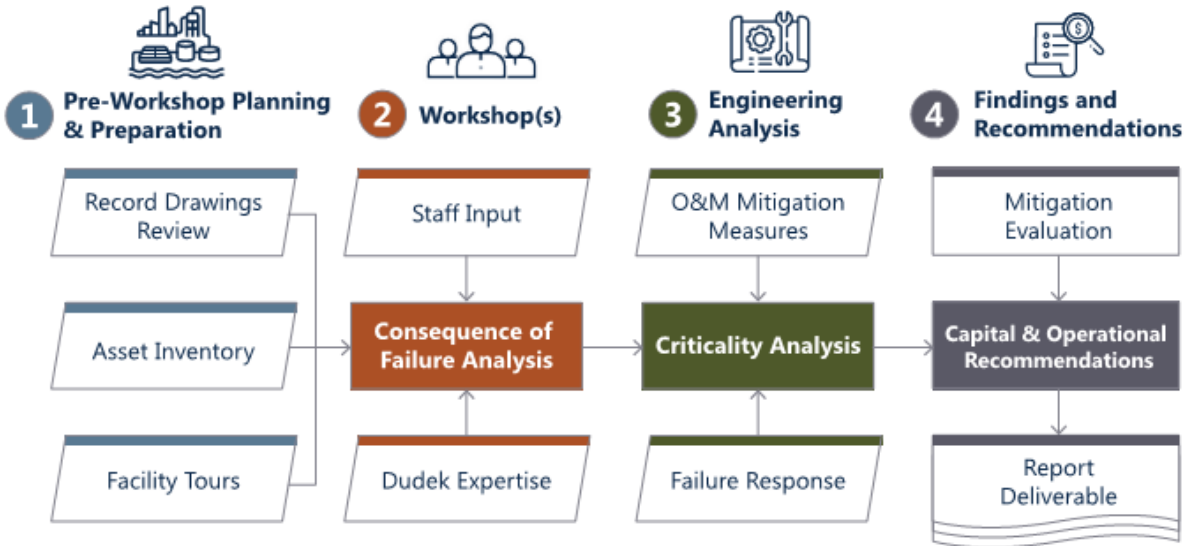


Figure 1-1. Consequence of Failure Analysis Flow Chart

Through the CoFA process, the project team establishes a risk profile of the facilities evaluated and provides conclusions and recommendations related to each process area and/or project. The outcomes of the CoFA process include:

- Prioritized list of CIP project needs based on mitigated risk vs. do-nothing alternative.
- Documentation of complete CoFA analysis and notes.
- O&M recommendations to mitigate risk, which may include process management adjustments, small projects, etc.
- Recommendations for adjusting scope of CIP projects, if applicable.

The Consequence of Failure (CoF) and Probability of Failure (PoF) are used to establish a risk designation that allows for the prioritization of risk-based strategic planning. Depending on the risk designation and the nature of

the defined failure mode, operational-based and/or capital-based recommendations are made to mitigate the risk by either reducing the defined consequence and/or probability of failure.

1.1.1 Consequence of Failure

Consequence of Failure (CoF) is a scoring metric to provide context to the effect of a failure and are conventionally focused on capacity, level of service, and mortality. The effects of a failure are categorized among four distinct categories: Health and Safety, Treatment Performance/Regulatory, Economic/Personnel Resources, and Public Image. Each CoF category is weighted to align with the SOCWA’s risk management priorities and philosophies. The CoF categories, weight factors, and descriptions are summarized in **Table 1-2**.

Table 1-2. Description of Consequence of Failure Categories

CoF Categories	Weight Factor	Description
Health & Safety	7	Failure results in potential health and safety risk for Operations staff or visitors on WWTP site.
Treatment Performance/Regulatory	5	Failure results in treatment performance impacts and potential regulatory violations, penalties, fines, etc.
Economic/Personnel Resources	5	Failure results in economic resources cost and/or major staff time and resource allocation.
Public Image & Board Concerns	3	Failure results in potential negative public attention and scrutiny.

Each CoF category receives a numerical score, 1 to 5, for each failure mode based on the tolerance of failure of the process or equipment. The CoF scores for each category generally apply as follows:

1. Insignificant Consequence
2. Minor Consequence
3. Moderate Consequence
4. Major Consequence
5. Catastrophic Consequence

After the CoF score is determined for each category, the category scores are multiplied by the corresponding weight factor and summed (i.e., a sum-product is performed) to produce a comprehensive score defined as “criticality”. The criticality of each unit process or asset is established by the criticality score(s) associated with its failure mode(s). The guidelines used to score each CoF category in detail are presented in **Table 1-3**. Using these weight factors the highest possible criticality score is 100 and the lowest possible criticality score is 20.

The baseline (existing conditions) CoF scores were defined given the assumption that no activity is performed to mitigate the consequence of failure to the process. The baseline CoF score is important for prioritizing recommendations for O&M mitigation measures. Additional O&M and/or CIP recommendations have considered existing mitigation and/or activities that reduce the risk potential of a given failure mode.

Table 1-3. Consequence of Failure Scoring Guideline

CoF Category	Weight Factor	CoF Score				
		1	2	3	4	5
Health & Safety	7	Negligible Injury	Minor injury, medical attention required	Serious injury hospitalization required	Serious injury, extensive hospitalization and/or permanent health impacts	Loss of Life
Treatment Performance/Regulatory	5	Insignificant loss of treatment performance	Minor loss of treatment performance, impacts on multiple processes. No regulatory violations.	One-time regulatory violation.	Major loss of treatment performance, extended violation or multiple violations, regulatory sanctions	Plant-wide catastrophic failure, treatment process uncontrollable for 48 hrs+ regulatory sanctions.
Economic/Personnel Resources	5	<\$5,000	<\$25,000	<\$50,000	<\$250,000	>\$250,000
Public Image & Board Concerns	3	Insignificant effect or community/Board concern	Minor community/Board interest or complaints	Public community discussion and local paper coverage	Loss of confidence by community/Board. Public agitation for action.	Public investigation, news coverage, management changes demanded.

1.1.2 Probability of Failure

While Consequence of Failure evaluates the effects of failure modes it lacks the context of defining the likelihood of the failure scenario actually happening. Therefore, it is equally important to evaluate the probability of the failure mode to complete a comprehensive risk assessment. Probability of Failure (PoF) is qualitatively assessed by assigning a relative probability level derived primarily upon input from Operations staff regarding past failures, current condition assessment, and current operational procedures. Probability of Failure is ranked according to the system described in **Table 1-4**.

The baseline (existing conditions) PoF scores were defined given the assumption that no activity is performed to mitigate the probability of failure to the process or equipment (i.e. routine maintenance, preventative maintenance, condition assessment, etc.). The baseline PoF score is important for justifying current O&M practices and identifying needs for additional mitigation measures to reduce the risk of a given failure.

Table 1-4. Probability of Failure Scoring Guideline

PoF	Likelihood of Occurrence	Current Probability of Condition Based Occurrence
A	Rare	3+ years
B	Unusual	Within 1 – 3 years
C	Annual	Within 6 – 12 months
D	Occasional	Within 1 – 6 months
E	Common	Within 1 month
F	Certain - Ongoing	Daily

1.1.3 Risk Exposure Designation

Following the workshop from which CoF and PoF scores are established for each failure mode, a risk exposure designation is assigned by combining the two scores. The risk exposure designation represents the relative level of risk associated with the failure mode evaluated. Risk exposure is designated according to four levels described in **Table 1-5**.

Table 1-5. Risk Exposure Designations

Risk Designation		Strategy for Risk Mitigation
L	Low	Reactive strategy is acceptable. The risk level does not suggest proactive monitoring strategies or capital improvement projects are necessary. Recommend that applicable CIP projects are maintained for current budget year or deferred.
M	Medium	Proactive strategy for monitoring performance and condition may be recommended. Mix of proactive and reactive strategies may also apply. Capital Improvement projects may be recommended to mitigate risk where applicable. Recommend that applicable CIP projects are maintained for current budget year.
H	High	Proactive planning and risk mitigation strategy is required. Capital Improvement projects will be recommended if operations and maintenance strategies are insufficient to mitigate risk to an acceptable level. Recommend that applicable CIP projects are maintained for current budget year or expedited where practical.
E	Extra High	Proactive planning and risk mitigation strategy is required immediately. Capital Improvement projects and operations and maintenance strategies must be developed and implemented as soon as possible to mitigate risk to an acceptable level. Recommend that applicable CIP projects are expedited where practical.

These levels of risk designations are assigned to each failure mode according to the PoF ranking and criticality score generated through workshop discussion according to the matrix presented in **Figure 1-2**.

PoF	Criticality							
	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100
A	L	L	L	L	L	M	M	M
B	L	L	L	M	M	H	H	H
C	L	L	M	M	H	H	H	E
D	L	M	M	H	H	E	E	E
E	L	M	H	H	E	E	E	E
F	L	M	H	H	E	E	E	E

Figure 1-2 – Risk Exposure Designation Matrix

Recommendations for risk mitigation are prioritized based on the resulting risk designations. Mitigation measures are categorized as O&M procedural adjustments or as recommended CIP projects. Depending on the risk designation, the recommendations can be prioritized over the planning horizon. Items with significant risk potential that cannot be adequately mitigated by O&M measures are recommended for CIP projects which could supersede programmed replacement scheduling.

1.1.4 Analysis and Recommendations

Each unit process and asset failure mode is categorized and ranked according to the risk designation that it received. Failure modes designated to result in high-to-extra high exposure to risk are prioritized and mitigation measures aimed to reduce the probability or consequence of failure are identified to mitigate risk to an acceptable level. Capital project recommendations identified through the CoFA process should be prioritized according to their risk designation and the criticality score within the designation. In most cases, medium risk is acceptable for critical assets and unit processes, and a low risk designation may not be achievable.

If a number of failure modes are designated to be high-risk, the priority of capital projects should be made to address the highest criticality scores as a first measure of priority and probability of failure ranking should be a secondary measure of priority.

2 Results

In total, 58 unique failure mode scenarios were identified and analyzed through the workshop process for the JBL plant. Of these 59 failure mode scenarios, 6 were identified as “Extra High” risk, 19 were identified as “High” risk, 12 were identified as “Medium” risk, and 21 were identified as “Low” risk. This breakdown is depicted in **Figure 2-1**.

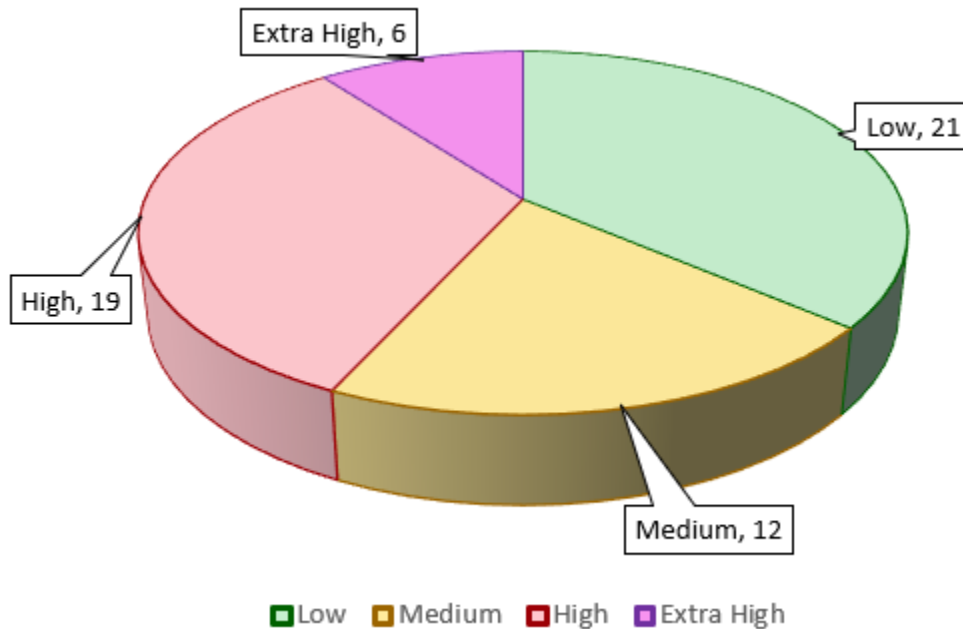


Figure 2-1. Risk Designations by Failure Mode

SOCWA faces a variety of treatment challenges as a result of aging infrastructure and equipment, limited space on the property for facility expansion, and changing conditions such as hauling and biosolids disposal reliability, air quality regulations, supply chain disruption, and energy reliability. Staff have taken appropriate and proactive measures to mitigate the consequences and probability of failure to critical process systems. Despite best efforts, failure events continue to stress critical process systems required to maintain compliance and safety.

Notes, scoring, and complete documentation of the workshops and recommendations are provided in full in **Appendix A** to this report. Appendix A documents all of the notes from the workshop, including current system performance and condition, current operations and maintenance mitigation measures, potential operational and maintenance adjustments that could be implemented by staff, as well as potential capital projects that could be used to mitigate risk and reduce consequences or probability of failure occurrence for each failure mode. Refer to the specific failure mode in **Appendix A** for more information.

The prioritized summary of Extra High, High, and Medium risk failure modes are summarized in **Table 2-1**.

Table 2-1. Prioritized Summary of Extra High, High, and Medium Risk Failure Modes

Failure Mode / Scenario	Criticality	Probability of Failure (PoF)	Risk Designation
Plant 2 Primary Clarifiers Cover Failure / Fall Hazard	85	F	E
Truck Bay Load Cell Failure	84	D	E
Gas Line to Flare Failure	81	F	E
MCC M Failure	73	D	E
Chlorine Contact Control Failure / Process Water System Failure	66	F	E
Lack of Sludge Storage	64	F	E
Plant 1 Headworks Building Odor Control System Failure	93	B	H
Flare Failure	70	B	H
MCC CF Failure	80	C	H
MCC 2 Failure	80	C	H
MCC A-1 Failure	80	C	H
Plant 1 Primary Clarifiers Concrete Failure/Degradation	55	F	H
Plant 2 Primary Clarifiers Concrete failure / degradation	55	F	H
Plant 1 Grit Chamber Performance Failure	51	F	H
Storage Shed Functionality and Useability Failure	50	F	H
Scum Pumping Control Failure	50	F	H
Diverter Gate Failure	48	E	H
Centrifuge Mechanical Failure	45	E	H
Plant 2 Primary Clarifiers Trough/Scum Beach Failure	44	F	H
Raw Sewage Wet Well Concrete Failure	43	F	H
Plant 1 Screenings Conveyor Mechanical Failure	43	E	H
Plant 1 Blower Building Area Classification Failure	42	F	H
Plant Drain Sump Pump Capacity Failure	42	F	H
Plant 1 Bar Screens Performance Failure	41	F	H
Centrate Piping hydraulic capacity failure	41	F	H
Plant 2 Main Breaker Failure	82	A	M
Sludge Conveyor Mechanical Failure	55	C	M
Plant 1 Emergency Generator Mechanical Failure	40	D	M
Digester Heat Exchangers Piping Failure	40	C	M
Plant 1 RAS Pumps Valves Failure	37	F	M
Plant 1 WAS Pumps Mechanical Failure	37	E	M
Plant 1 Mixed Liquor Channel Concrete failure / degradation	35	F	M
Plant 1 ML Channel Agitation Air Piping Failure	35	F	M
Plant 1 Blower Building Panel-mounted AC Unit Failure	40	D	M
Raw Sewage Pumps Valve Failure (Check Valve and Isolation Valve)	35	D	M
Plant 1 Screenings Compactor Mechanical failure	31	D	M
Plant 1 Grit Conveyor Mechanical Failure	31	D	M

3 Conclusions & Recommendations

The following **Table 3-1** summarizes the current O&M mitigation measures, recommendations for O&M best practices, and associated capital improvement projects with additional considerations aimed to mitigate risk to an acceptable level at the JBL plant.

Table 3-1. Summary of GVWWTP Mitigation Measures and Recommendations

Risk	Failure Mode/Scenario	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
E	Plant 2 Primary Clarifiers Cover Failure / Fall Hazard	Staff encourage everyone to not walk on covers, but the main issue is moving covers. Caution tape and cones are used when the covers are removed. Staff report unwritten policy to get help when moving covers so that at least two people are lifting the covers.	Prepare written SOP for moving primary clarifier covers to address safety risks with current covers.	Recommend replacement of existing covers. New covers should be installed and designed to include sufficient fall protection and safety features.
E	Truck Bay Load Cell Failure	Staff intentionally fill trucks light to mitigate the risk of overfilling the trucks and putting drivers safety at risk. Intentionally filling light leads to compounded additional costs for disposing less biosolids than what is being paid for.	No additional O&M mitigation measures are identified to mitigate this failure.	Storage and Truck Loading Rehabilitation project scheduled for FY 22. Recommend installation of alternative truck scales that are suitable and require less calibration than existing equipment.
E	Gas Line to Flare Failure	Operations plans to construct a new gas "high line" to bypass the corroded existing gas line to temporarily address the issue. The corroded gas line would then need to be replaced by a new permanent line installed by a contractor. Currently, staff manage this issue by reducing digester mixing and heating to minimize gas production during times when the flare is used, meaning that operations intentionally impairs digester performance due to this failure, actively hurting the overall process as a mitigation measure.	No additional O&M mitigation measures are identified to mitigate this failure.	Gas Flare Replacement scheduled for FY 23. Recommend ensuring that a permanent new gas line to flare is included in this project.

Risk	Failure Mode/Scenario	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
E	MCC M Failure	Conceptual design is in the works for rebuilding/relocating this MCC. Rat traps installed to mitigate rats. Arc Flash assessments done every 5 years for MCC and Electrical Safety Plan has detail on how to work on electrical gear whether live or deenergized. Agency has general written plans for how to work on gear. Lock-out/Tag-out procedures standard for 480V equipment.	No additional O&M mitigation measures are identified to mitigate this failure.	MCC-M Replacement scheduled for FY 22. Recommend replacement of this MCC is prioritized and relocated to an indoor location.
E	Chlorine Contact Control Failure / Process Water System Failure	Staff utilize low chlorine dose for a day to try to affect snails and growth in process water system. Staff feel their hands are tied because they cannot risk putting a chlorine residual out the outfall.	Recommend inspection of the CCB structure for any damage or corrosion. Structure serves as the foundation for Building 90 and hasn't been inspected in a long time.	Recommend project to create a fully isolated process water side stream that can be appropriately chlorinated to protect the process water system from snails and organic growth. Benefits for upgrade would mitigate issues with vector control at the CCB, mitigate staff exposure to undisinfectated secondary effluent in the process water, improve equipment life relying on process water for seal water, and restore process water pressure at hose bibs. Also recommend consideration of on-site Title 22 recycled water treatment to provide recycled water uses around the plant.
E	Lack of Sludge Storage	Current O&M mitigation measures consist of performing critical, emergency repairs to equipment as quickly as possible. Biosolids is hauled outside the service area.	Perform sludge management review of solids facility upgrades to ensure that adequate sludge storage is provided in the design. Additionally, ensure that truck cleaning and biosolids management is included in long-term solids facilities management plan.	Storage and Truck Loading Rehabilitation project scheduled for FY 22. Recommend including sludge storage facilities in the upgrade project, as well as potentially truck washing and biosolids receiving facilities.

Risk	Failure Mode/Scenario	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
H	Plant 1 Headworks Building Odor Control System Failure	Operations project in progress to install a system to alarm from the outside when the H2S concentration inside is at a dangerous level. There is an active H2S monitor inside the headworks building and staff test H2S levels once per week.	Consider keeping critical spare parts for main fan on the shelf in case of a failure to the main fan.	Odor control scrubber is scheduled.
H	Flare Failure	Staff mitigate the amount of gas being fed to the flare to the extent possible. Staff report that the flare is run about 120 hours per year.	No additional O&M mitigation measures are identified to mitigate this failure.	Gas Flare Replacement scheduled for FY 23. The current project includes only one flare. It may be beneficial to construct a redundant flare for reliability, space permitting. New flares to comply with SCAQMD requirements have a larger footprint and require offsets from buildings and property lines. Recommend coordinating location for new flare with other projects to avoid utility and space conflicts.
H	MCC CF, 2 and A-1 Failures (Consolidated)	Arc Flash assessments done every 5 years for MCC and Electrical Safety Plan has detail on how to work on electrical gear whether live or deenergized. Agency has general written plans for how to work on gear. Lock-out/Tag-out procedures standard for 480V equipment.	No additional O&M mitigation measures are identified to mitigate this failure.	MCC CF, 2 and A-1 Project Scheduled for FY 27.
H	Plant 1 Primary Clarifiers Concrete Failure/Degradation	Staff installed custom rock traps in the primary sludge line to capture concrete chunks and protect pumps.	No additional O&M mitigation measures are identified to mitigate this failure.	Recommend replacement of liner and concrete repair within the primary clarifier structures.
H	Plant 2 Primary Clarifiers Concrete failure / degradation	Staff installed custom rock traps in the primary sludge line to capture concrete chunks and protect pumps.	No additional O&M mitigation measures are identified to mitigate this failure.	Recommend replacement of liner and concrete repair within the primary clarifier structures.

Risk	Failure Mode/Scenario	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
H	Plant 1 Grit Chamber Performance Failure	None. Grit that passes through the chamber will ultimately settle out in the primary clarifiers.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Grit Handling Upgrade scheduled for FY 24. Recommend engineering study to investigate grit removal system performance deficiencies and classify grit gradation coming into the plant based on micron size. Combination of flow conditions and grit gradation and load can be used to size additional grit chambers or otherwise design modifications to the grit removal system to improve performance.
H	Storage Shed Functionality and Useability Failure	Staff report plan to have a storage needs assessment and planning done at both JBL and Regional plants.	No additional O&M mitigation measures are identified to mitigate this failure.	Complete storage needs and planning assessment and replace existing storage shed or reconfigure storage at the plant per assessment recommendations.
H	Scum Pumping Control Failure	Staff have scum pumping control issue but have not been able to find a permanent fix. Issue thought to be because the line connects with Primary Sludge pumps.	No additional O&M mitigation measures are identified to mitigate this failure.	Recommend CIP project to replace existing scum line with dedicated scum line to the digesters that does not connect with the primary sludge line.
H	Diverter Gate Failure	Staff have programmed auto-shutdown of centrifuge if the cake backs up due to the gate closing. Takes 2-4 hours to mitigate the issue and clean the unit and get it back and running again. Affects the dewatering/hauling schedule.	Replace and/or troubleshoot diverter gates to prevent unexpected closing of gates.	Reconfiguration and upgrade of solids handling facilities is required in near-term future. Considerations for improvement include silos for storage of sludge, reconfiguration of sludge conveyors for redundancy, and upgrading equipment which is approaching the end of its useful life.

Risk	Failure Mode/Scenario	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
H	Centrifuge Mechanical Failure	Staff keep all manufacturer recommended spare parts on the shelf due to frequent wear part failure. Staff are present during operation full-time to respond to failures and system needs. Staff time perform all maintenance in house except for high speed balancing. Staff have sent centrifuge 3 out to Texas for full rebuild. When one of the larger units goes down, things get uncomfortable for staff because they know it may take up to 20 weeks to get it back up and running, and need to make up dewatering by running smaller centrifuge longer hours to catch up.	No additional O&M mitigation measures are identified to mitigate this failure.	Reconfiguration and upgrade of solids handling facilities is required in near-term future. Considerations for improvement include silos for storage of sludge, reconfiguration of sludge conveyors for redundancy, and upgrading equipment which is approaching the end of its useful life.
H	Plant 2 Primary Clarifiers Trough/Scum Beach Failure	Rehab work is done in-house saving capital costs, but the work is difficult. Some health and safety risk due to the nature of the work.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 2 Primary Sedimentation Upgrade scheduled for FY 21. Plant 2 Primary Sludge Pumping Upgrade scheduled for FY 29.
H	Raw Sewage Wet Well Concrete Failure	Failure response time is very small due to the small size of the wet well. Pumps are run on VFD in attempt to maintain a water level in the wet well.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Raw Sewage Pump Station upgrade scheduled for FY 21. Project incorporates wet well concrete repair and new liner installation.
H	Plant 1 Screenings Conveyor Mechanical Failure	Routine preventative maintenance. Failure requires manual cleaning and screenings transfer performed by staff.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Headworks condition assessment project scheduled for FY 22. Subsequent Plant 1 Headworks upgrade scheduled for FY 26.
H	Plant 1 Blower Building Area Classification Failure	Staff wear personal gas monitors while working right now. Staff are working on installing permanent gas detectors in the buildings. Staff bring in a fan and force ventilate room when performing maintenance. Clean up any residual sludge on the ground from the maintenance.	Perform a detailed area classification study to clearly define all of the classified areas throughout the plant in accordance with NFPA 820.	Plant 1 Blower Building Structural and Infrastructure Upgrade scheduled for FY 23 Recommend project (O&M or capital) to clearly define area classifications throughout the plant.
H	Plant Drain Sump Pump Capacity Failure	Mitigation measures include setting up a temporary trash pump to help keep up with flows or send flows to the Plant 1 headworks in the event of a pump failure.	No additional O&M mitigation measures are identified to mitigate this failure.	Buried Drainage Pipe Reconstruction scheduled for FY 30

Risk	Failure Mode/Scenario	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
H	Plant 1 Bar Screens Performance Failure	None. Staff report rags are passing through the screens, indicating that screen bar spacing is too wide.	Operate the screen with finer bar spacing as a full-time duty screen and switch over to larger spacing screen during maintenance and repair of finer screen.	Plant 1 Headworks condition assessment project scheduled for FY 22. Subsequent Plant 1 Headworks upgrade scheduled for FY 26.
H	Centrate Piping hydraulic capacity failure	Staff have added water lines to the centrate piping to flush the lines and keep them clear of struvite, to the extent possible. Staff have also coordinated with centrifuge equipment manufacturer and verified polymer dosing to confirm issue is not operational, it is a plumbing issue.	Can identify struvite formation without disassembling piping by using an infrared gun on exposed piping to identify "cold" spots on the piping. Presence of "cold" spots on piping indicates struvite buildup within the pipe at that location.	Redesign in progress to replace piping and mitigate struvite issue.
M	Plant 2 Main Breaker Failure	Failure would result in an emergency situation - all hands. Portable generators would need to be hard-wired in to provide emergency power.	No additional O&M mitigation measures are identified to mitigate this failure.	No current Capital Improvement Project budgeted.
M	Sludge Conveyor Mechanical Failure	Staff keep spare parts on hand for emergency repair, including an extra screw. Repair takes about 6 hours. Would lead to overtime for ops to make up for lost dewatering time.	Recommend development of an action plan if one or all of the conveyors should happen to fail.	Solids Conveyor Replacement scheduled for FY 22
M	Plant 1 Emergency Generator Mechanical Failure	Exercised regularly. Maintenance and oil changes annually. Portable generator connection is available in the event generator does not start. Staff have done this in the past to mitigate failure. Currently adding a fiber loop that will connect all the PLCs in a loop as opposed to a daisy chain. Will make communication between the PLCs and SCADA system continuous and more reliable. The Co-Gen system would then be able to continue running through a blackout to help with power failure. Staff battery backup OIT's and PLC's because they drain the UPS quickly.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Emergency Generator scheduled for FY 23. The existing generator is over 30 years old. Recommend upsizing the generator to handle a greater portion of the plant 1 load.

Risk	Failure Mode/Scenario	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
M	Digester Heat Exchangers Piping Failure	3 way valve will get clogged from time to time. Water side of piping needs to be addressed. Currently no pressure gauges on the sludge and hot water lines. Monitor temp only. Most of the piping is thermal covered. Piping has not been rehabilitated since installation in 1990.	No additional O&M mitigation measures are identified to mitigate this failure.	Recommend condition assessment of digester heat exchangers. Uncertainty remains in future overall digester needs depending on the fallout of SB 1383 and availability of facilities to take sub class B biosolids. Recommend closely monitoring regulatory developments and updating biosolids management plan over time.
M	Plant 1 RAS Pumps Valves Failure	Valves part of exercise program, however, have become more and more difficult to operate.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 RAS and WAS Pump Station upgrade scheduled for FY 23.
M	Plant 1 WAS Pumps Mechanical Failure	Routine preventative maintenance.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 RAS and WAS Pump Station upgrade scheduled for FY 23
M	Plant 1 Mixed Liquor Channel Concrete failure / degradation	None. Staff report exposed aggregate and degradation of the top surface and exterior of channels. Structural rebar is exposed and corroding in some areas.	No additional O&M mitigation measures are identified to mitigate this failure.	Recommend channel rehabilitation project to address concrete degradation and damage to exterior channel walls.
M	Plant 1 ML Channel Agitation Air Piping Failure	Repair air leaks in agitation air piping when needed. Work is done by isolating the segment of pipe and pulling it out of the channel for repair.	No additional O&M mitigation measures are identified to mitigate this failure.	Replace agitation air. Staff have received a contractor quote for approximately \$57,000.
M	Plant 1 Blower Building Panel-mounted AC Unit Failure	Serviced by third party HVAC technician annually, change filters. Staff do rounds and looking at the unit. Not a whole lot of maintenance on the unit.	No alarm or signal if A/C fails. Recommend installing a signal for A/C failure to mitigate risk of PLC overheating.	Plant 1 Blower Building Structural and Infrastructure Upgrade scheduled for FY 23.
M	Raw Sewage Pumps Valve Failure (Check Valve and Isolation Valve)	All valves in the raw sewage pump gallery are included in the monthly valve exercise program.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Raw Sewage Pump Station upgrade scheduled for FY 21. Project incorporates replacement of existing raw sewage pump gallery piping and valves.

Risk	Failure Mode/Scenario	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
M	Plant 1 Screenings Compactor Mechanical failure	Routine preventative maintenance. Rags are looking pretty dry with the new compactor. If the Vulcan compactor were to fail, one of the conveyors can be run in reverse to allow screen to continue to operate.	Test water content of screenings discharge from washer/compactor to determine if it meets local landfill requirements.	Plant 1 Headworks condition assessment project scheduled for FY 22. Subsequent Plant 1 Headworks upgrade scheduled for FY 26. Consider installation of a second washer/compactor for redundancy.
M	Plant 1 Grit Conveyor Mechanical Failure	Staff report that grit is wet on the conveyor indicating the classifier is not functioning efficiently. Routine preventative maintenance on conveyor.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Grit Handling Upgrade scheduled for FY 24.

SOCWA’s Ten Year Capital Improvement Program (dated August 5, 2019) defines a robust capital improvement project list. Many of the considerations and recommendations made as part of the CoFA are addressed within the scope of the currently budgeted CIP projects. The results of the CoFA are intended to prioritize current CIP projects and where applicable, recommend adjustments to their scope to address deficiencies and mitigate risk.

In summary, the following capital improvement project needs are identified by priority for consideration in SOCWA’s Capital Improvement Program. Project recommendations are separated by priority based on risk designation and where practical, lower priority projects are integrated with higher priority projects for synergy to consider practical implementation. Where applicable, current CIP projects that address the project need and comments on priority are included in **(bold parentheses)**.

Top Priority Projects (Address Extra High Risk Failure Modes)

- Replacement of hauling truck load cells with alternative weight measurement equipment. The equipment must address current deficiencies with the existing load cells including routine failure and calibration requirements, sensitivity to wash-down water, and difficulty of finding spare parts. **(Capital Improvements Program)**.
- Replace Plant 2 primary clarifier covers with new safe-to-walk on covers and include upgrades to provide sufficient fall protection and safety measures. **(Capital Improvements Program)**
- Replace existing corroded gas line to flare with a new permanent line. Project can be done prior to or in conjunction with replacement of existing flare. **(Included in Project No. 2096 Plant 1 Liquids Buried Piping Reconstruction scheduled for FY 2030). Recommend re-prioritizing this project for near-term implementation.**
- MCC M Replacement. Recommend relocation of MCC M to indoor, climate-controlled environment to protect the equipment from weather and animals. **(Capital Improvements Program)**
- Complete a storage needs assessment and replace the existing storage shed with a modern facility that is practical for staff spare parts and equipment storage needs. Solution may also include various locations for equipment storage around the plant site. **(Included in Project No. 2344 and 2346 Storage Building Replacement scheduled for FY 2027). Recommend re-prioritizing this project for near-term implementation.**
- Reconfigure chlorine contact basin and process water system to create a fully isolated process water side stream that can be appropriately chlorinated to protect the process water system from snails and organic growth, minimize vector control issues in the CCB, and protect staff from exposure to undisinfected

secondary effluent during routine wash-down operations. At SOCWA's option, consider construction of an approved Title 22 recycled water system to increase beneficial uses of the recycled water. **(Included in part with Project No. 2082 and 2083 Chlorine Contact Basin Isolation Gates and Structural Rehabilitation scheduled for FY 2023). Recommend additional scope of project to allow staff the ability to consistently chlorinate water without risking putting a chlorine residual out the outfall.**

- Construct sludge storage facilities (i.e. silos). Include facilities in the upgrades to allow for truck washing and septage receiving if possible. **(Not included in any current CIP project). Recommend including sludge storage and reconfiguration of solids handling facilities to improve reliability.**

Secondary Priority Projects (Address High Risk Failure Modes)

- Plant 1 Headworks Building Odor Control System Upgrade. **(Included in Project No. 2054 and 2055 Plant 1 Headworks Upgrade scheduled for FY 2022/2026).**
- MCC CF Replacement. **(Included in Project No. 2536 MCC 2 and CF Replacement scheduled for FY 2022).**
- MCC 2 Replacement. **(Included in Project No. 2536 MCC 2 and CF Replacement scheduled for FY 2022).**
- MCC A-1 Replacement. **(Included in Project No. 2065 MCC A-1 Replacement scheduled for FY 2023).**
- Repair Plant 1 and Plant 2 Primary Clarifier structural concrete above the water surface and replace existing failed liner with new liner. **(Plant 2 Included in Project No. 2098 Plant 2 Primary Sedimentation Upgrade scheduled for FY 2022. Plant 1 Primary Sedimentation Upgrade not included in current CIP). Recommend including Plant 1 concrete repair as part of Project No. 2098.**
- Perform engineering study to classify grit, identify, and address grit removal system deficiencies. Perform grit removal system upgrade to address needs identified in study. **(Included in Project No. 2057 and 2068 Plant 1 and Plant 2 Headworks Upgrades). Recommend including additional scope to classify grit and performance evaluation on the aerated grit chambers in addition to mechanical upgrades.**
- Construct new dedicated scum pipeline to the digesters that does not interconnect with primary sludge. Dedicated scum pipeline will address pumping issues and corrosion concerns with the existing pipeline. **(Partially addressed in Project No. 2078 Scum Pump Station Upgrade). Recommend including scope of project to include scum pipeline replacement.**
- Reconfigure and replace biosolids dewatering facilities. Ideally, upgrades would reconfigure and replace existing centrifuges, screw conveyors, diverter gates, centrate piping, and associated equipment in a manner that allows better reliability and operational flexibility to respond to a failure. Capacity of dewatering equipment should be increased to handle current and future solids loads. **(Included in Project No. 2530 Dewatering System Reconstruction scheduled for FY 2022).**
- Replace Plant 2 primary clarifier troughs and scum beaches. **(Included in Project No. 2098 Plant 2 Primary Sedimentation Upgrade scheduled for FY 2022).**
- Rehabilitate Plant 1 Raw Sewage Pumps Wet Well and replace raw sewage pumps and valves. **(Included in Project No. 2060 Plant 1 Raw Sewage Pump Station Upgrade scheduled for FY 2023).**
- Perform Plant 1 headworks condition assessment and upgrade existing screenings conveyor, mechanical bar screens, screenings compactor, and grit conveyor. Recommend installing finer spaced bar screens for better screenings capture and protection of downstream process equipment. **(Included in Project No. 2054 Plant 1 Headworks Condition Assessment scheduled for FY 2022).**
- Have a professional area classification study performed to define classified areas throughout the plant in accordance with current NFPA 820 guidelines. Where upgrades are scheduled to mechanical and electrical equipment, it is recommended to address any area classification deficiencies over time to meet current NFPA 820 guidelines. **(Included in FY 2022).**

- Upsize the plant drainage sump and replace the plant drain sump pump with a larger pump capable of keeping up with site stormwater capture flows. Consider a second sump pump for reliability. **(Not included in any current CIP project).**

Tertiary Priority Projects (Address Medium Risk Failure Modes)

- Address electrical code compliance deficiencies in Plant 1 blower building MCC lineup. **(Needs should be addressed in Project No. 2058 Plant 1 Blower Building Condition Assessment, scheduled for FY 2020).**
- Replace Plant 1 Emergency Generator. Consider upsizing the new generator to power a greater portion of the plant 1 load. **(Included in Project No. 2066 Plant 1 Emergency Generator, scheduled for FY 2023).**
- Perform condition assessment and associated replacement of digester heat exchanger piping. **(Not included in any current CIP project).**
- Replace Plant 1 WAS pumps and RAS pump valves (i.e. isolation and check valves). **(Included in Project No. 2062 Plant 1 RAS and WAS Pump System Upgrade, scheduled for FY 2023).**
- Repair concrete degradation and exposed aggregate on the top corners of the Plant 1 mixed liquor channel. **(Not included in any current CIP project).**
- Replace Plant 1 agitation air piping (for mixed liquor channel). **(Not included in any current CIP project).**
- Replace existing Flare when SCAQMD requires a new flare to meet more stringent air quality requirements. **(Capital Improvements Program)**

In conclusion, it is recommended that slight adjustments are made to SOCWA's 10-year CIP implementation schedule and scope of projects to consider recommendations made herein. Top priority projects (i.e. projects that address one or more extra high risk failure modes) are recommended for expedited design and implementation. SOCWA's schedule for secondary priority and tertiary priority projects is suitable based on the project needs and associated risk designation. Tertiary priority projects may be candidate projects for deferred implementation if necessary. Refer to **Appendix A** for more information and detailed summary of each process area and failure mode assessed as part of this Consequence of Failure Analysis.

Appendix A

Complete CoFA Tables

CoFA - South Orange County Water Authority

JB Latham Treatment Plant

Unit Process Asset Failure Mode/Scenario	Consequence of Failure (CoF)				Criticality	Probability of Failure (PoF)	Risk Designation	General Notes	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
	Health & Safety	Treatment Performance/ Regulatory	Economic/ Personnel Resources	Public Image							
	7	5	5	3							
Plant 1 Influent Sewer											
Influent Sewer								One (1) 42" VCP line from diversion structure to Plant 1 headworks. Dana point influent goes directly to Plant 2 and does not go through this line, unless Plant 2 is fully bypassed.			
Influent Sewer Pipe failure (Debris/Blockage)	1	2	3	3	41	B	L	Influent Sewer was CCTV'd in October 2018. Grit found to accumulate in the influent line. Staff report no historical blockage of the line that has led to a sewage backup and spill.	Pipe was CCTV'd for defects in October 2018.	CCTV the pipe every 3-5 years to check for defects.	Plant 1 Influent Sewer Condition Assessment scheduled for FY 21.
Influent Flow Meter								Plant #1 does not have an influent flow meter. Influent flow measurement for billing purposes is made in the collection system.			
Lack of Influent Flow Meter Measurement	1	2	1	1	25	F	L	Staff currently track Plant 1 influent flow via three flow meters: Oso Trabuco, San Juan creek, and south coast on discharge side of Victoria lift station. South cost side send a report once a month. Alternatives to a Parshall flume flow meter would include magnetic flow meter on the discharge side of the Raw Sewage Pumps, but staff report there is not enough space to fit the meter in the room. Long-term goal for Operations staff to see a flow meter put in, but make do with system currently in place.	Pull data from Oso trabuco sewer, san Juan creek sewer, and south coast via the Victoria lift station. Not ideal but works.	Consider alternative locations for a flow meter to capture Plant 1 flow. For example, could a flume be put in the primary effluent channel feeding the aeration basins? That flow + PS flow would give a close proxy to influent flow.	Plant 1 Headworks condition assessment scheduled for FY 22.
Plant 1 Bypass Sewer											
Bypass Sewer								36" line from diversion structure to Plant 2. Line can be used to divert full Plant 1 flow to Plant 2 or visa versa.			
Bypass Sewer Pipe Failure (Debris/Blockage)	1	2	3	2	38	B	L	Condition of the line is unknown, no recent CCTV done to the staff's knowledge. Original line was relocated when solids building was constructed. Valves and gates on the bypass line in the diversion structure are exercised monthly. Staff use the line 2 or more times per year on average to facilitate cleaning and rehabilitation projects at one of the two plants.	New smart cover and alarm sensor provide level monitoring and alarms in case there is a flow backup.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Bypass Sewer Condition Assessment scheduled for FY 21
Influent Gates								Influent gates function to allow for flow control and diversion between the two plants utilizing the bypass sewer.			
Diversion Structure Gates Failure (Plant 2)	3	2	3	1	49	B	L	Two gates are utilized in the diversion structure and two in the plant 2 headworks. The gates are currently manually operated. Routinely used to bypass Plant 1 or Plant 2 approximately 5 times per year. Failure would lead to an emergency repair.	Staff exercise gates monthly.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Bypass Sewer Condition Assessment scheduled for FY 21
Plant 1 Raw Sewage Pump Station											
Raw Sewage Wet Well								Small cast-in-place concrete wet well constructed in 1964.			
Raw Sewage Wet Well Concrete Failure	1	1	5	2	43	F	H	There is no liner in the raw sewage wet well. Concrete has degraded and aggregate is visible in the wet well above the waterline. There needs to be some corrosion mitigation. Staff report no odor issues, sewage is being moved quickly through the wet well and into the primary clarifiers. No forced ventilation in the wet well. Sealed off and one access point of entry.	Failure response time is very small due to the small size of the wet well. Pumps are run on VFD in attempt to maintain a water level in the wet well.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Raw Sewage Pump Station upgrade scheduled for FY 21. Project incorporates wet well concrete repair and new liner installation.

CoFA - South Orange County Water Authority
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Unit Process Asset Failure Mode/Scenario	Consequence of Failure (CoF)				Criticality	Probability of Failure (PoF)	Risk Designation	General Notes	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
	Health & Safety	Treatment Performance/ Regulatory	Economic/ Personnel Resources	Public Image							
	7	5	5	3							
Raw Sewage Pumps							Centrifugal, 100 HP pumps located in Plant 1 Blower Building. Three (3) pumps installed in 1989. Lead-Lag-Standby configuration.				
Raw Sewage Pumps Mechanical Failure	1	1	3	1	30	B	L	Pumps are rebuilt every 2 years in addition to normal PM's. Motors are also rebuilt every three years. 50% installed redundancy plus full shelf unit so effectively 100% redundancy. Critical spare parts are kept on the shelf including a backup drive shaft. Can and have hard wired a portable generator in the event of power failure. Full system is backed up by 2 diesel-driven Godwin emergency pumps capable of pumping the full influent flow.	Existing system is highly robust to mitigate system failure. No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Raw Sewage Pump Station upgrade scheduled for FY 21. Project incorporates replacement of existing raw sewage pumps.	
Raw Sewage Pumps Valve Failure (Check Valve and Isolation Valve)	1	2	3	1	35	D	M	Two of three discharge check valves have recently been replaced. Third is scheduled for replacement. Staff report that suction side isolation valves are difficult to maintain but can and has been done. Staff report that discharge isolation valves are in good condition.	All valves in the raw sewage pump gallery are included in the monthly valve exercise program.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Raw Sewage Pump Station upgrade scheduled for FY 21. Project incorporates replacement of existing raw sewage pump gallery piping and valves.
Raw Sewage Pump VFDs								Raw Sewage Pump VFDs function to adjust speed of pumps to maintain a water level in the influent wet well. One VFD for each pump housed in a NEMA 3X panel.			
Raw Sewage Pumps VFD Failure	1	1	3	1	30	B	L	Staff report the drives are older than 5 years. VFD's are housed in a NEMA 3X panel and controlled to maintain a water level in the influent wet well. Level instrumentation signaling VFD consists of a transducer and a bubbler which are rotated regularly to confirm operability. Calibration of level instrumentation is done every year, and recalibrated as necessary.	Proline does infrared testing every year on the breakers and VFDs. Level control redundancy between transducer and bubbler mitigates failure. There are float alarms in the wet well but these are not wired to control pumps.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Raw Sewage Pump Station upgrade scheduled for FY 21. Project incorporates replacement of all three VFD's.
Plant 1 Headworks											
Headworks Building								Headworks building houses bar screens, influent channels, and screenings wash-press and grit classifier. Building underwent some rehabilitation in 2009.			
Plant 1 Headworks Building Odor Control System Failure	4	5	5	5	93	B	H	Existing ventilation and odor control system for Plant 1 headworks building is flawed. Staff report that forced ventilation over pressurized the building and caused escape of odors. Now, staff only utilize scrubber feed fan to maintain negative pressure in the building. This system works to prevent odors from escaping but do not effectively mitigate odors within the building. Primary scrubber feed fan is a custom unit with a lead time of 22 weeks. Failure of odor control system could result in unsafe work environment within the building and escape of odors violating permit. Staff test for H2S levels once per week as well as test air flow. Current system meets ACPH requirements for class 1, div 1 area.	Operations project in progress to install a system to alarm from the outside when the H2S concentration inside is at a dangerous level. There is an active H2S monitor inside the headworks building and staff test H2S levels once per week.	Consider keeping critical spare parts for main fan on the shelf in case of a failure to the main fan.	Odor control scrubber is scheduled.

CoFA - South Orange County Water Authority

JB Latham Treatment Plant

Unit Process Asset Failure Mode/Scenario	Consequence of Failure (CoF)				Criticality	Probability of Failure (PoF)	Risk Designation	General Notes	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
	Health & Safety	Treatment Performance/ Regulatory	Economic/ Personnel Resources	Public Image							
	7	5	5	3							
Bar Screens								Existing: Two (2) Vulcan climber screens 1.5 HP, brake motor, SST construction. Year of install: 1999, one replaced in 2005. Vulcan has suffered past mechanical and structural damage. Need a backup motor for the Vulcan. Bar spacing tighter for screen 1 vs screen 2.			
Plant 1 Bar Screens Mechanical Failure (Wear Part)	1	2	2	3	36	C	L	Existing screens have been rebuilt and numerous parts have been replaced. Failure results in screen being taken offline for maintenance while flow is diverted to redundant screen. Differential level control is used to trigger the climber rake to remove screenings.	Climber rake has a backup timer such that the rake will activate after a certain period of time. Screens and instrumentation are maintained about once a week.	Operate the screen with finer bar spacing as a full-time duty screen and switch over to larger spacing screen during maintenance and repair of finer screen.	Plant 1 Headworks condition assessment project scheduled for FY 22. Subsequent Plant 1 Headworks upgrade scheduled for FY 26.
Plant 1 Bar Screens Performance Failure	1	2	3	3	41	F	H	Staff report that rags are getting through the screens which impact downstream processes, although not expected to cause any regulatory violations. Rag pass-through is an indication that bar screen spacing is too wide and that finer screens are required for better removal of rags and debris.	None.	Operate the screen with finer bar spacing as a full-time duty screen and switch over to larger spacing screen during maintenance and repair of finer screen.	Plant 1 Headworks condition assessment project scheduled for FY 22. Subsequent Plant 1 Headworks upgrade scheduled for FY 26.
Screenings Conveyor								Two belt conveyors in Plant 1 capture screenings discharge and convey to singular washer/compactor unit. Conveyors installed in 2005. One was failed at the time of field visit.			
Plant 1 Screenings Conveyor Mechanical Failure	2	2	2	3	43	E	H	Staff report and Dudek observed excessive wear on the conveyors and indications of corrosion. The screenings have a tendency to spill onto the floor and/or spill on the emergency shutoff cable trigger which stops the conveyor. The conveyor has also failed mechanically resulting in screenings build up onto the failed conveyor. Failure requires manual cleaning and screenings transfer by staff.	Routine preventative maintenance. Annual manual cleaning and screenings transfer performed by staff.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Headworks condition assessment project scheduled for FY22. Subsequent Plant 1 Headworks upgrade scheduled for FY26.
Screenings Compactor								Staff replaced old compactor with new Vulcan 900EWP washer/compactor last year.			
Plant 1 Screenings Compactor Mechanical failure	1	1	2	3	31	D	M	With old washer/compactor unit, the resulting water content in the screenings is too high to be sent to any other landfill in the state other than one. Staff replaced the unit with new unit with hopes to reduce water content of the screenings and make it possible to send the screenings to a local landfill and reduce disposal costs. Failure results in wet, unwashed screenings being sent to dumpster until unit is back online.	Routine preventative maintenance. Rags are looking pretty dry with the new compactor. If the Vulcan compactor were to fail, one of the conveyors can be run in reverse to allow screen to continue to operate.	Test water content of screenings discharge from washer/compactor to determine if it meets local landfill requirements.	Plant 1 Headworks condition assessment project scheduled for FY22. Subsequent Plant 1 Headworks upgrade scheduled for FY26. Consider installation of a second washer/compactor for redundancy.
Plant 1 Grit Handling											
Grit Conveyor								Existing unit: Wemco Model 1000C Belt Conveyor - 1 HP Motor, installed in 2005. Single-duty unit. Conveyor takes grit from classifier and transfers to bin.			
Plant 1 Grit Conveyor Mechanical Failure	1	1	2	3	31	D	M	Plant 1 grit and screenings get put into the same bin for disposal. Staff report that grit is fairly wet on the conveyor. If conveyor fails, staff put a bin underneath the classifier auger and manually transport grit to main disposal bin.	Staff report that grit is fairly wet on the conveyor. Routine preventative maintenance.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Grit Handling Upgrade scheduled for FY 24.
Grit Chamber								Aerated grit chamber is designed to remove grit from the screened influent.			
Plant 1 Grit Chamber Performance Failure	1	2	5	3	51	F	H	Staff report that the grit chamber is too small and doesn't adequately remove grit from the influent. There has been discussions about a combined headworks and engineering analysis of grit system but currently there is no explicit plan to upgrade the grit removal system. Grit passing through to downstream process causes abrasion to DS mechanical equipment such as clarifier and solids facility pumps and equipment.	None. Grit that passes through the chamber will ultimately settle out in the primary clarifiers.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Grit Handling Upgrade scheduled for FY 24. Recommend engineering study to investigate grit removal system performance deficiencies and classify grit gradation coming into the plant based on micron size. Combination of flow conditions and grit gradation and load can be used to size additional grit chambers or otherwise design modifications to the grit removal system to improve performance.

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	Health & Safety	Treatment Performance/ Regulatory	Economic/ Personnel/ Resources	Public Image							
	7	5	5	3							
Plant 1 Primary Clarifiers											
Primary Clarifier Tanks								Primary clarifiers are earmarked for rehabilitation as part of the Package B upgrades. Not included in those upgrades are concrete rehabilitation for the primary clarifier tanks themselves.			
Plant 1 Primary Clarifiers Concrete Failure/Degradation	2	2	5	2	55	F	H	Staff report that concrete degradation and spalling exist within the tanks. The area above the water level is lined, but the liner is failing. Staff report that concrete spalling and degradation end up in the primary sludge and affect primary sludge pumps.	Staff installed custom rock traps in the primary sludge line to capture concrete chunks and protect pumps.	No additional O&M mitigation measures are identified to mitigate this failure.	Recommend replacement of liner and concrete repair within the primary clarifier structures.
Scum Drives								Skimmers and beaches are being replaced as part of the Package B upgrades. The scum drives themselves are not included as part of Package B.			
Plant 1 Primary Clarifiers Scum Drive Mechanical Failure	1	1	1	1	20	C	L	Staff report that the scum drives on the Plant 1 side are the same age and appear to be in similar condition to the Plant 2 side, but they haven't had any problems with them on the Plant 1 side. No attention has been given to them.	Routine preventative maintenance.	Recommend keeping a shelf spare unit in the event of a drive failure.	Recommend replacement of scum drives as they are nearing the end of their useful life.
Plant 2 Primary Clarifiers											
Primary Clarifier Tanks								Primary clarifiers are earmarked for rehabilitation as part of the Package B upgrades. Not included in those upgrades are concrete rehabilitation for the primary clarifier tanks themselves.			
Plant 2 Primary Clarifiers Concrete failure / degradation	2	2	5	2	55	F	H	Staff report that concrete degradation and spalling exist within the tanks. The area above the water level is lined, but the liner is failing. Staff report that concrete spalling and degradation end up in the primary sludge and affect primary sludge pumps.	Staff installed custom rock traps in the primary sludge line to capture concrete chunks and protect pumps.	No additional O&M mitigation measures are identified to mitigate this failure.	Recommend replacement of liner and concrete repair within the primary clarifier structures.
Scum Drives								Skimmers and beaches are being replaced as part of the Package B upgrades. The scum drives themselves are not included as part of Package B.			
Plant 2 Primary Clarifiers Scum Drive Mechanical failure	1	2	1	1	25	C	L	Staff report that the scum drives on the Plant 1 side are the same age and appear to be in similar condition to the Plant 2 side, but they haven't had any problems with them on the Plant 1 side. No attention has been given to them.	Routine preventative maintenance.	Recommend keeping a shelf spare unit in the event of a drive failure.	Recommend replacement of scum drives as they are nearing the end of their useful life.
Covers								Plant 1 primary clarifier covers are being replaced as part of the Package B upgrades. Plant 2 primary clarifier covers are not included as part of Package B. Includes full primary clarifier covers and covers over the scum troughs.			
Plant 2 Primary Clarifiers Cover Failure / Fall Hazard	5	2	5	5	85	F	E	Staff report that there is no fall protection in place when the covers are taken off which is a significant health and safety hazard. Staff feel reasonably comfortable walking on the covers but do not feel safe moving covers.	Staff encourage everyone to not walk on covers, but the main issue is moving covers. Caution tape and cones are used when the covers are removed. Staff report unwritten policy to get help when moving covers so that at least two people are lifting the covers.	Prepare written SOP for moving primary clarifier covers to address safety risks with current covers.	Recommend replacement of existing covers. New covers should be installed and designed to include sufficient fall protection and safety features.
Troughs/Scum Beaches								Plant 1 primary clarifier troughs/scum beaches are being replaced as part of Package B upgrades. Remaining old Plant 2 troughs and scum beaches are not included as part of Package B.			
Plant 2 Primary Clarifiers Trough/Scum Beach Failure	3	1	3	1	44	F	H	One old scum beach needs to be replaced. Staff have considered doing the replacement in-house but the work is very difficult to do. Units are fiberglass so the measurements have to be exact and the walls have blistered creating uneven surfaces. Weight was an issue for installation crew.	Rehab work is done in-house saving capital costs, but the work is difficult. Some health and safety risk due to the nature of the work.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 2 Primary Sedimentation Upgrade scheduled for FY 21. Plant 2 Primary Sludge Pumping Upgrade scheduled for FY 29.

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	Health & Safety	Treatment Performance/ Regulatory	Economic/ Personnel Resources	Public Image								
	7	5	5	3								
Plant 1 Blower Building												
Blower Building								Blower building constructed in 1965. Houses backup blowers, Raw sewage pumps, primary sludge pumps, RAS and WAS pumps and electrical equipment.				
Plant 1 Blower Building Area Classification	2	2	3	1	42	F	H	Building was built prior to NFPA 820 and new projects will need to meet new standards. Lower part of the building is Class 1 Div 1 area because it is common for two to three inches of sludge or raw sewage when maintenance is being performed. Staff note that there are not clear records or defined area classifications for the plant.	Staff wear personal gas monitors while working right now. Staff are working on installing permanent gas detectors in the buildings. Staff bring in a fan and force ventilate room when performing maintenance. Clean up any residual sludge on the ground from the maintenance.	Perform a detailed area classification study to clearly define all of the classified areas throughout the plant in accordance with NFPA 820.	Plant 1 Blower Building Structural and Infrastructure Upgrade scheduled for FY 23 Recommend project (O&M or capital) to clearly define area classifications throughout the plant.	
Plant 1 Blower Building Panel-mounted AC Unit Failure	1	4	2	1	40	D	M	3 ton AC for 9 MGD VFD Panel 461. Installed in 1995. Failure results in PLC heating up and failing, requiring RAS, WAS, and RSP equipment to be run in hand.	Serviced by third party HVAC technician annually, change filters. Staff do rounds and looking at the unit. Not a whole lot of maintenance on the unit.	No alarm or signal if A/C fails. Recommend installing a signal for A/C failure to mitigate risk of PLC overheating.	Plant 1 Blower Building Structural and Infrastructure Upgrade scheduled for FY 23.	
Plant 1 Backup Blowers												
Plant 1 Backup Multistage Blower Failure	1	1	3	1	30	B	L	Three (3) 300 HP Hoffman blowers with a capacity of 7,000 scfm each. These blowers are used as backup/additional capacity. At time of 2012 Facility Plan, it was estimated that the blowers have 10 years of useful remaining life.	Hoffman blowers provide backup and supplemental air for redundancy and peak flows. Staff report that since new Aerzen blowers were put in, they've never needed to run more than one Hoffman blower. The Hoffman blowers are original and do need both running if the whole aerzen system is down. Hoffman blower #3 has reached the end of its useful life and will be removed. Blowers are positive displacement style, not very energy efficient. Cost over \$50,000 to replace.	Hoffman blowers themselves are a mitigation measure for Aerzen blowers going down. Staff exercise blowers once a month to listen to them and verify performance.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Blower Building Structural and Infrastructure Upgrade scheduled for FY 23
Plant 1 RAS and WAS Pump Station												
Plant 1 RAS Pumps												
Plant 1 RAS Pumps Mechanical Failure	2	2	2	1	37	C	L	RAS pump located outside secondary #1 is never used. Pumps 2 through 4 are used two at a time, with one as a backup. Pumps run 24/7 on VFD. Staff run pump #2 and #3 as lead pump with #4 acting as a lag pump. Designed to prevent the wet well from pumping down too quickly.	Able to close suction side valve on pump #4. Difficult to close valves #2 and #3 are the hardest. #4 is ran as the lag pump, with #2 and #3 alternating as the lead pump. Intentional design so that the plant is not pumping down the wet well too quickly.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 RAS and WAS Pump Station upgrade scheduled for FY 23.	
Plant 1 RAS Pumps Valves Failure	2	2	2	1	37	F	M	Staff report suction side valving is prone to sticking and needs to be replaced. Valve failure has similar consequences as a pump failure.	Valves part of exercise program, however, have become more and more difficult to operate.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 RAS and WAS Pump Station upgrade scheduled for FY 23.	
Plant 1 RAS Flow Meter Failure	2	3	3	1	47	B	L	12" Magnetic Flow Meter, 0-3000 gpm range located in Plant 1 blower room. Flow meter is used to adjust RAS pump VFDs. Staff report that lead time for new mag meter is approximately 20 weeks or so given the current COVID affects on supply chains.	Flow meter is calibrated regularly.	Recommend procurement of shelf-spares mag meter in case of a failure to existing meter. Meter is critical for process control.	Plant 1 RAS and WAS Pump Station upgrade scheduled for FY 23.	

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	7	5	5	3							
Plant 1 WAS Pumps								Screw Centrifugal Hidrostral style pumps. 7.5 HP, Two (2) pumps, 460 V. 1999 year of install.			
Plant 1 WAS Pumps Mechanical Failure	2	2	2	1	37	E	M	Staff report numerous issues with WAS pumps including long lead time and poor availability of parts. Staff report that new WAS pumps are needed. Other issues include seal failure. Historically have had issues with rocks and debris getting into the pumps, thought to be concrete aggregate from tanks.	Installed rock trap to mitigate the effect of concrete aggregate affecting the pumps.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 RAS and WAS Pump Station upgrade scheduled for FY 23
Plant 1 Mixed Liquor Channel											
Channel Concrete								Mixed liquor concrete channel functions to convey mixed liquor to the aeration basins.			
Plant 1 Mixed Liquor Channel Concrete failure / degradation	1	1	4	1	35	F	M	Staff report exposed aggregate and degradation on the top surface and exterior of the channels. Structural rebar is exposed and corroding in some areas. The concrete within the channel is in good condition, the mixed liquor is oxidized and is typically not a risk to create a corrosive environment. Isolating the mixed liquor channel would be tricky, and likely require installation of gates to isolate tanks depending on where the repairs need to be made.	None.	No additional O&M mitigation measures are identified to mitigate this failure.	Recommend channel rehabilitation project to address concrete degradation and damage to exterior channel walls.
Agitation Air Piping								Agitation air is fed to the channels to keep mixed liquor in suspension and solids from settling in the channel.			
Plant 1 ML Channel Agitation Air Piping Failure	1	1	4	1	35	F	M	There are broken pipes on the bottom of the channel and air leaks are common in the pipe. It is unknown if there is settling at the bottom of the channel because the channel is never taken offline. Main issue is that it's wasted air and energy when the piping fails.	Repair air leaks in agitation air piping when needed. Work is done by isolating the segment of pipe and pulling it out of the channel for repair.	No additional O&M mitigation measures are identified to mitigate this failure.	Replace agitation air. Staff have received a contractor quote for approximately \$57,000.
Chlorine Contact Basin / Process Water System											
Chlorine Contact Tank Isolation Gates / Process Water System								CCB isolation gates consist of two 24" Sluice Gates, 304 Stainless Steel, Manual, Rising Stem. Installed in 1988. Process water system functions to provide plant water to hose bibs, seal water to pumps, and other miscellaneous uses throughout the plant. Staff rely on process water heavily for routine duties and needs.			
Chlorine Contact Control Failure / Process Water System Failure	2	4	4	4	66	F	E	Staff report mosquito issues when gates are closed. They have since opened the gates and kept water flowing, which mitigates the mosquito issues. Vector control comes out to inspect as much as twice a month and adds HTH tablets. Staff report concerns about the condition of the concrete structure which has not been inspected. Biggest staff concern is about chlorinating the process water for employee safety concerns and then de-chlorinating before discharging through the outfall. Staff report that without chlorination snails and slime growth becomes a major issue in process water system. Lines will get plugged up with snail shells, worms, and organic growth and kill water pressure at hose bibs and affect seal water and equipment relying on that seal water. Cannot put chlorine out the outfall, so any chlorination of process water is a very low dose and not done overnight. No permit requirement to chlorinate and dechlorinate.	Staff utilize low chlorine dose for a day to try to affect snails and growth in process water system. Staff feel their hands are tied because they cannot risk putting a chlorine residual out the outfall.	Recommend inspection of the CCB structure for any damage or corrosion. Structure serves as the foundation for Building 90 and hasn't been inspected in a long time.	Recommend project to create a fully isolated process water side stream that can be appropriately chlorinated to protect the process water system from snails and organic growth. Benefits for upgrade would mitigate issues with vector control at the CCB, mitigate staff exposure to undisinfected secondary effluent in the process water, improve equipment life relying on process water for seal water, and restore process water pressure at hose bibs. Also recommend consideration of on-site Title 22 recycled water treatment to provide recycled water uses around the plant.

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	Health & Safety	Treatment Performance/ Regulatory	Economic/ Personnel Resources	Public Image							
	7	5	5	3							
Storage Shed											
Storage Shed								1,025 square feet metal prefab (Butler) Building. 12' tall. Approximate year of install 1990.			
Storage Shed Functionality and Useability Failure	2	2	4	2	50	F	H	Staff report safety issues with existing storage shed. Issues include that it's not well lit, stormwater runs through the shed, animals live inside, drainage issues exist, tripping hazards exist, and it is difficult to use so staff often do not utilize the storage shed and equipment is stored in scattered locations around the site. Lack of functional storage space affects the treatment performance because staff will not purchase certain spare equipment because it cannot be stored effectively. COVID-related supply chain issues exacerbate storage issues with lead times being 20-25 weeks for certain critical equipment.	Staff report plan to have a storage needs assessment and planning done at both JBL and Regional plants.	No additional O&M mitigation measures are identified to mitigate this failure.	Complete storage needs and planning assessment and replace existing storage shed or reconfigure storage at the plant per assessment recommendations.
Scum Pump Station											
Scum Pump Station								Scum pump is a single-duty, recessed impeller, 7.5 HP; pump located in scum pit. Year of install: 1979. Unknown condition, staff have observed corrosion in line.	Scum pump, recessed impeller, 7.5 HP; (located in scum pit) Year of install: 1979. Quantity: One (1)		
Scum Pumping Control Failure	2	2	4	2	50	F	H	Staff report major issues with controlling scum pumping. The scum line to the digesters combines with primary sludge, creating system curve pumping issues. Failure is major challenge for staff. Staff also report concerns about scum line condition, which has not been inspected and was installed in the late 70s. Staff report that they have observed corrosion on the exterior of the scum line.	Staff have scum pumping control issue but have not been able to find a permanent fix. Issue thought to be because the line connects with Primary Sludge pumps.	No additional O&M mitigation measures are identified to mitigate this failure.	Recommend CIP project to replace existing scum line with dedicated scum line to the digesters that does not connect with the primary sludge line.
Digesters (all 4)											
Heat Exchangers								Four (4) Heat exchangers designed and constructed as part of the 1990 Anaerobic Digester project. Heat exchangers function to provide heat to digesters and maintain performance. Current solids contract doesn't guarantee class B biosolids, however, Agency's goal is to meet Class B.			
Digester Heat Exchangers Piping Failure	1	2	4	1	40	C	M	If the piping failed, Digesters would lose heat and the Digester would be out of service. Only three out of four digesters are currently available, Digester 4 is currently down for rehabilitation. If another digester went down right now, they would not have enough digester capacity. If all four are available and one goes down they are still okay. Staff report no issue with digester heat exchanger performance, only concern about external condition.	3 way valve will get clogged from time to time. Water side of piping needs to be addressed. Currently no pressure gauges on the sludge and hot water lines. Monitor temp only. Most of the piping is thermal covered. Piping has not been rehabilitated since installation in 1990.	No additional O&M mitigation measures are identified to mitigate this failure.	Recommend condition assessment of digester heat exchangers. Uncertainty remains in future overall digester needs depending on the fallout of SB 1383 and availability of facilities to take sub class B biosolids. Recommend closely monitoring regulatory developments and updating biosolids management plan over time.
Hot Water Supply Piping								Digester hot water supply piping provide hot water to heat exchangers. Piping consists of one main insulated supply line and one main return line.			
Digester Heating Hot Water Piping Failure	1	2	3	1	35	C	L	Failure would temporary result in loss of ability to provide heat to digesters, but staff have the ability to quickly respond with bypass piping from boilers and keep facilities in operation. Staff report some concern about the piping because condition is unknown.	Piping is insulated to retain heat. Staff report that bypassing could be set up within 6 hours if piping failure occurs.	No additional O&M mitigation measures are identified to mitigate this failure.	Buried Digester Piping Reconstruction Scheduled for FY 24

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	Health & Safety	Treatment Performance/ Regulatory	Economic/ Personnel Resources	Public Image							
	7	5	5	3							
Centrifuge System											
Centrate piping								Centrate piping functions to collect and convey centrate water back to the headworks. Recently, condition assessment has been completed on centrate drainage piping.			
Centrate Piping hydraulic capacity failure	1	2	3	3	41	F	H	Staff report opening up centrate piping and observing struvite buildup on the 90 degree bends (approx. 10% of cross sectional area). Struvite formation in the centrate piping restricts the flow and can cause a backup into the centrifuge, adding wear and tear to the centrifuge. Struvite buildup also causes foaming of the centrate due to the added roughness in the piping.	Staff have added water lines to the centrate piping to flush the lines and keep them clear of struvite, to the extent possible. Staff have also coordinated with centrifuge equipment manufacturer and verified polymer dosing to confirm issue is not operational, it is a plumbing issue.	Can identify struvite formation without disassembling piping by using an infrared gun on exposed piping to identify "cold" spots on the piping. Presence of "cold" spots on piping indicates struvite buildup within the pipe at that location.	Redesign in progress to replace piping and mitigate struvite issue.
Centrifuges								Three (3) Andritz Centrifuges. (1) installed in 1999 with a capacity of 110 GPM, (2) and (3) installed in 2003 with individual capacities of 170 GPM. All units have varying levels of corrosion on the spring isolators. Centrate piping backs up into Centrifuges, possibly due to the high amount of 90 degree bends in the centrate piping. Single unit installed in 1999. Centrifuge (1) is the least used Centrifuge and is in relatively good condition (as of 2017). Some minor leaking around the units which could indicate worn out seals. Some struvite build up, and the elastic band above the cake discharge is cracked.			
Centrifuge Mechanical Failure	2	2	3	3	48	E	H	Staff report that centrifuge performance is good, they have more issues with the equipment mechanically. Staff report getting support for D5LL units is getting difficult. Parts are going obsolete. 6-18 week lead times and costs are going up. Customer support is not helpful when parts fail. Better luck with D5L, but D5LL are bigger and get run more time. Limited on operating ability because staff need to be present and trailer needs to be on-site while running. Run times are typically 5 hours a day, 7 days a week. Mechanical issues include bearings, high vibration, out of balance units. Run 2 out of 3 centrifuges, rotate 1 in from time to time. One trailer a day for a couple days, and then need to run 2 trailers a day for a day to catch up. Have in-house trucking and one is 3rd party (synagro). There have been times where driver is late or doesn't show. In-house truck or trucker has either broken down or failed. Overtime cost incurred due to hauling issues. Wind/Heat/Weather conditions can prevent sludge hauling to local landfill. Staff report that typically three truck loads sent to the landfill a day and \$20,00-\$40,000 a year in extra hauling costs are incurred due to hauling and disposal uncertainties.	Staff keep all manufacturer recommended spare parts on the shelf due to frequent wear part failure. Staff are present during operation full-time to respond to failures and system needs. Staff time perform all maintenance in house except for high speed balancing. Staff have sent centrifuge 3 out to Texas for full rebuild. When one of the larger units goes down, things get uncomfortable for staff because they know it may take up to 20 weeks to get it back up and running, and need to make up dewatering by running smaller centrifuge longer hours to catch up.	No additional O&M mitigation measures are identified to mitigate this failure.	Reconfiguration and upgrade of solids handling facilities is required in near-term future. Considerations for improvement include silos for storage of sludge, reconfiguration of sludge conveyors for redundancy, and upgrading equipment which is approaching the end of its useful life.
Diverter Gates								Flapper style gate on the cake discharge end of each centrifuge.			
Diverter Gate Failure	2	2	3	3	48	E	H	Staff report that the diverter gate will close randomly when the unit is running. This causes major issues because the cake backs up into the unit and has potential to damage the bearings/other parts. Failure affects the dewatering/hauling schedule for the Agency and requires staff overtime. Failure gets worse if occurs when 1 centrifuge is already down for maintenance and/or if occurs during a weekend or holiday when only 2 operators are on site. Cleaning and restart of centrifuge is labor intensive process. Staff report failure occurs approximately 8-10 times per year.	Staff have programmed auto-shutdown of centrifuge if the cake backs up due to the gate closing. Takes 2-4 hours to mitigate the issue and clean the unit and get it back and running again. Affects the dewatering/hauling schedule.	Replace and/or troubleshoot diverter gates to prevent unexpected closing of gates.	Reconfiguration and upgrade of solids handling facilities is required in near-term future. Considerations for improvement include silos for storage of sludge, reconfiguration of sludge conveyors for redundancy, and upgrading equipment which is approaching the end of its useful life.

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	Health & Safety 7	Treatment Performance/ Regulatory 5	Economic/ Personnel Resources 5	Public Image 3							
Sludge Conveyors								Four (4) conveyors in total. Rated 5, 6, 7, and 8 HP. Two are located in the solids building and two are located in the truck bays. Units were installed in 1999. Function to transport dewatered sludge cake to truck loading bays.			
Sludge Conveyor Mechanical Failure	3	2	3	3	55	C	M	Conveyor system not ideally designed for reliability. Critical conveyor of the system is conveyor 2, which is relied upon by all 3 centrifuges and all 3 truck loading bays. System can function with limitations if one of the other 3 conveyors are offline. Two of the conveyors are mounted on the ceiling of the truck bay approximately 12 feet in the air, creating a difficult work environment for staff attempting to make repairs.	Staff keep spare parts on hand for emergency repair, including an extra screw. Repair takes about 6 hours. Would lead to overtime for ops to make up for lost dewatering time.	Recommend development of an action plan if one or all of the conveyors should happen to fail.	Solids Conveyor Replacement scheduled for FY 22
Truck Loading Bay											
Truck Load Cells								Truck load cells installed in 2001. Function to weigh the hauling trucks to determine when they are full and track overall biosolids load trucked to landfill.			
Truck Bay Load Cell Failure	5	3	5	3	84	D	E	Previous assessment was completed on load cells. Assessment found that current load cells are not appropriate for this application. Cells routinely fail and lose calibration. Staff report consistent need to recalibrate load cells. Load cells are also affected by washdown water to clean the truck loading bays. Staff report that load cell parts are available. Failure results in safety concerns for the driver if the weight is too high, cost, etc. Safety concerns for driver if weight is too high. No billing being done at the facility. Staff report that 80% of failures are because of the vibration of the truck, which bends feet and throws off reading of the load cell.	Staff intentionally fill trucks light to mitigate the risk of overfilling the trucks and putting drivers safety at risk. Intentionally filling light leads to compounded additional costs for disposing less biosolids than what is being paid for.	No additional O&M mitigation measures are identified to mitigate this failure.	Storage and Truck Loading Rehabilitation project scheduled for FY 22. Recommend installation of alternative truck scales that are suitable and require less calibration than existing equipment.
Ventilation System								System consists of ducting and fresh air supply fans and foul air fan feeding scrubber. Fresh air fan is not run as it will lead to positive building pressure and push odors outside to neighbors. System functions to remove nuisance odors and protect staff health in case ammonia gas levels get too high.			
Truck Loading Bay Odor Control/Ventilation Failure	1	1	1	3	26	F	L	2017 Assessment found that building was not in accordance with NFPA 820. Recommendation was made to install gas monitoring and alarm system. Staff report odors are a nuisance within the building but odors do not get out unless roll up doors are left open. No permanent gas monitor is installed in the building but the staff have portable gas detectors that are used. Staff report there has never been a situation where ammonia levels in the building have reached levels that pose a health risk to employees. Existing forced ventilation system is not run, only scrubber fan is run to maintain negative pressure in the building. Bad odors can come from trucks returning to plant from the landfill that have not been cleaned out.	Staff use personal gas detectors, however, would prefer to see a permanent building gas detector installed. Odors are most prevalent when trucks are entering/exiting.	Install permanent gas detector with alarm system.	Storage and Truck Loading Rehabilitation project scheduled for FY 22. Recommend including provisions for a truck washing station to clean out odorous trucks that return to the plant from the landfill.

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	7	5	5	3							
Sludge Storage								Existing facilities do not have any dewatered sludge cake storage. Sludge cake storage provides ability for staff to adjust dewatering schedule while maintaining consistent hauling operations.			
Lack of Sludge Storage	1	4	5	4	64	F	E	Staff report there have been times where freeways were closed due to wildfires, which limited options for biosolids disposal. Other weather circumstances can create similar problems where biosolids disposal is limited or challenging. In these situations not having biosolids storage creates a big problem for staff in managing disposals. Current storage consists of simply what can be stored in a trailer (approximately 1 day). Staff report that having biosolids storage would improve operational flexibility substantially. Additionally, staff report that there is no septage receiving facilities in the service area, which creates issues when cleaning of wastewater facilities is performed, the waste has to be hauled outside the service area. Having an on-site receiving station would provide broad support for the SOCWA service area.	Current O&M mitigation measures consist of performing critical, emergency repairs to equipment as quickly as possible. Biosolids is hauled outside the service area.	Perform sludge management review of solids facility upgrades to ensure that adequate sludge storage is provided in the design. Additionally, ensure that truck cleaning and biosolids management is included in long-term solids facilities management plan.	Storage and Truck Loading Rehabilitation project scheduled for FY 22. Recommend including sludge storage facilities in the upgrade project, as well as potentially truck washing and biosolids receiving facilities.
Flare											
Gas Line to Flare								Gas line to flare allows excess digester gas to be flared off if not being used by Cogen system. Gas line and flare is critical to operations.			
Gas Line to Flare Failure	3	5	4	5	81	F	E	Staff report that typically the gas flare stays off because the digester gas is fed to the Cogen. However, digester dome pressure will still sometimes get high enough and call the flare to light and burn off excess gas, especially when the Cogen engine is down for maintenance. Staff report that gas is restricted in the pipe to the flare, and instead gas is venting out of the digester dome relief valves instead of going to the flare. Staff report that repairs have been made to the flare itself, however, this did not address the issue. Staff also report that segments of gas line have been pulled and found that over 50% of the line is full of corroded material.	Operations plans to construct a new gas "high line" to bypass the corroded existing gas line to temporarily address the issue. The corroded gas line would then need to be replaced by a new permanent line installed by a contractor. Currently, staff manage this issue by reducing digester mixing and heating to minimize gas production during times when the flare is used, meaning that operations intentionally impairs digester performance due to this failure, actively hurting the overall process as a mitigation measure.	No additional O&M mitigation measures are identified to mitigate this failure.	Gas Flare Replacement scheduled for FY 23. Recommend ensuring that a permanent new gas line to flare is included in this project.
Flare Failure	3	4	4	3	70	B	H	Staff report that the flare has been repaired and replaced in pieces over time, such that all components have been replaced at different periods of time. The flare is not expected to meet upcoming South Coast AQMD regulations and will need to be replaced when that time comes.	Staff mitigate the amount of gas being fed to the flare to the extent possible. Staff report that the flare is run about 120 hours per year.	No additional O&M mitigation measures are identified to mitigate this failure.	Gas Flare Replacement scheduled for FY 23. The current project includes only one flare. It may be beneficial to construct a redundant flare for reliability, space permitting. New flares to comply with SCAQMD requirements have a larger footprint and require offsets from buildings and property lines. Recommend coordinating location for new flare with other projects to avoid utility and space conflicts.

CoFA - South Orange County Water Authority

JB Latham Treatment Plant

Unit Process Asset Failure Mode/Scenario	Consequence of Failure (CoF)				Criticality	Probability of Failure (PoF)	Risk Designation	General Notes	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
	Health & Safety	Treatment Performance/ Regulatory	Economic/ Personnel Resources	Public Image							
	7	5	5	3							
Drainage Systems											
Flood Control Pump Station								Flood control pump station functions to pump floodwaters from neighboring areas out to the creek. There is only one pump at this time.			
Flood Control Pump Station Capacity/Mechanical Failure	2	1	1	2	30	B	L	Staff report that it would be nice to have some sort of screen to alleviate debris. Also, would be nice to have a larger containment area with a lead and lag pump for redundancy. If the wet well backs up, the neighbors get flooded.	Pump is typically able to keep up with stormwater flows. If necessary, bypass pump can be set up to pump water out of the wet well.	No additional O&M mitigation measures are identified to mitigate this failure.	Non-Potable Water Pump Station Reconstruction scheduled for FY 28
Plant Drain System								Plant drain system is plumbed by gravity to plant sump in corner of the property. There is a single pump in the sump controlled by a float to pump drainage water to the Plant 1 headworks.			
Plant Drain Sump Pump Mechanical Failure	2	1	1	1	27	B	L	Pumping issues have arisen when trash and debris gets into the sump. Maintenance staff installed a screen in the sump to try to protect the pump from trash and debris. When area is flooded, staff cannot access the pump to pull it in the event that it fails.	Mitigation measures include setting up a temporary trash pump to help keep up with flows or send flows to the Plant 1 headworks in the event of a pump failure.	No additional O&M mitigation measures are identified to mitigate this failure.	Buried Drainage Pipe Reconstruction scheduled for FY 30
Plant Drain Sump Pump Capacity Failure	2	1	4	1	42	F	H	Staff report that the pump is undersized and does not keep up during heavy rain events, single duty pump means single point of failure. System has flooded before both when the pump is running and cannot keep up with flows. The area around the sump is graded back to the sump so that when flooding does occur, it does not flow to another area of the plant, but still creates a flooded area that is a risk to staff safety and access in that area.	Mitigation measures include setting up a temporary trash pump to help keep up with flows or send flows to the Plant 1 headworks in the event of a pump failure.	No additional O&M mitigation measures are identified to mitigate this failure.	Buried Drainage Pipe Reconstruction scheduled for FY 30
Plant 1 Emergency Generator											
Plant 1 Emergency Generator								Installed in 1989. Class 1 Div 1 area. Caterpillar, Natural Gas;415 kW 600 HP input rpm=1800; (located outside 9 MGD Blower Room)	Will run equipment automatically. Shuts off on its own.		
Plant 1 Emergency Generator Mechanical Failure	2	2	2	2	40	D	M	Staff report there is a study to replace the equipment in progress. Generator does not run full plant, only enough equipment to keep the emergency equipment running. Staff report that sometimes there are issues switching from emergency power back to regular power and have to be manually reset. Other than this issue transfer and return/shut down is automatic. Controls were replaced last year as well as the ATS. The generator feeds E MCC B, E MCC AR, and MCC EA1. MCC D, MCC B, MCC C, and MCC F all shut off when the generator is running. When generator runs it handles raw sewage pumps, control panel for generator, A/C for raw sewage pumps, ATS, and headworks building and odor scrubber.	Exercised regularly. Maintenance and oil changes annually. Portable generator connection is available in the event generator does not start. Staff have done this in the past to mitigate failure. Currently adding a fiber loop that will connect all the PLCs in a loop as opposed to a daisy chain. Will make communication between the PLCs and SCADA system continuous and more reliable. The Co-Gen system would then be able to continue running through a blackout to help with power failure. Staff battery backup OIT's and PLC's because they drain the UPS quickly.	No additional O&M mitigation measures are identified to mitigate this failure.	Plant 1 Emergency Generator scheduled for FY 23. The existing generator is over 30 years old. Recommend upsizing the generator to handle a greater portion of the plant 1 load.

CoFA - South Orange County Water Authority
JB Latham Treatment Plant

Unit Process Asset Failure Mode/Scenario	Consequence of Failure (CoF)				Criticality	Probability of Failure (PoF)	Risk Designation	General Notes	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
	Health & Safety	Treatment Performance/ Regulatory	Economic/ Personnel Resources	Public Image							
	7	5	5	3							
MCC's											
MCC M								MCC main circuit breaker rating: 480/277 V, 3 Ph, 1200 A; Supplies power to effluent pump station and related equipment. Installed in 1991.			
MCC M Failure	2	5	5	3	73	D	E	Staff report that MCC M is the biggest concern for MCC's in the plant. Staff report there are rats living in the MCC, presence of rat urine and feces on the bus bar and all around the inside of the cabinet, some corrosion is present. The MCC is located outdoors and is exposed to elements and rodents. Response to failure would be "all hands" emergency response to get critical equipment back on line.	Conceptual design is in the works for rebuilding/relocating this MCC. Rat traps installed to mitigate rats. Arc Flash assessments done every 5 years for MCC and Electrical Safety Plan has detail on how to work on electrical gear whether live or deenergized. Agency has general written plans for how to work on gear. Lock-out/Tag-out procedures standard for 480V equipment.	No additional O&M mitigation measures are identified to mitigate this failure.	MCC-M Replacement scheduled for FY 22. Recommend replacement of this MCC is prioritized and relocated to an indoor location.
MCC CF								MCC main circuit breaker Rating: 480/277V, 3 ph, 600 A; Supplies power to centrifuges and all related equipment, (located Odor Control Bldg. Upstairs) Installed in 2003			
MCC CF Failure	3	5	5	3	80	C	H	MCC CF feeds all of the Centrifuges, MCC 2 and MCC D. MCC is located indoors and in a classified area, however, the MCC is not designed to be located in a classified area. Typical things seen for MCC in classified area will result in corrosion to bus bar, stabs on back of buckets get pitted and arcing. Staff report that a condition assessment is planned but unsure if equipment can be de-energized to inspect bus bar. Response to failure would be "all hands" emergency response to get critical equipment back on line.	Arc Flash assessments done every 5 years for MCC and Electrical Safety Plan has detail on how to work on electrical gear whether live or deenergized. Agency has general written plans for how to work on gear. Lock-out/Tag-out procedures standard for 480V equipment.	No additional O&M mitigation measures are identified to mitigate this failure.	MCC 2 and MCC CF Project Scheduled for FY 27.
MCC 2								MCC main circuit breaker rating: 480/277 V, 3 Ph, 600 A; located in Odor Bldg. : MCC 1 downstairs supplies power to equipment on lower half of Odor Control Bldg./dewatering bldg., MCC 2 (upstairs) supplies power to the equipment on the upper floor of the Odor Control Bldg./dewatering bldg. Installed in 1985			
MCC 2 Failure	3	5	5	3	80	C	H	MCC 2 feeds odor scrubber for the solids building, which is a critical requirement for safety and compliance. MCC is located indoors and in a classified area, however, the MCC is not designed to be located in a classified area. Typical things seen for MCC in classified area will result in corrosion to bus bar, stabs on back of buckets get pitted and arcing. Response to failure would be "all hands" emergency response to get critical equipment back on line.	Arc Flash assessments done every 5 years for MCC and Electrical Safety Plan has detail on how to work on electrical gear whether live or deenergized. Agency has general written plans for how to work on gear. Lock-out/Tag-out procedures standard for 480V equipment.	No additional O&M mitigation measures are identified to mitigate this failure.	MCC 2 and MCC CF Project Scheduled for FY 27.
MCC A-1								MCC and Switchgear: Main Circuit breaker Rating: 400/277 V 3 Ph, 800A; 9 MGD Blower Room: Supplies power to various 9 MGD plant equipment. Installed in 1997.			
MCC A-1 Failure	3	5	5	3	80	C	H	MCC A-1 feeds blower building and critical systems. MCC is located indoors and in a classified area, however, the MCC is not designed to be located in a classified area. Typical things seen for MCC in classified area will result in corrosion to bus bar, stabs on back of buckets get pitted and arcing. Response to failure would be "all hands" emergency response to get critical equipment back on line.	Arc Flash assessments done every 5 years for MCC and Electrical Safety Plan has detail on how to work on electrical gear whether live or deenergized. Agency has general written plans for how to work on gear. Lock-out/Tag-out procedures standard for 480V equipment.	No additional O&M mitigation measures are identified to mitigate this failure.	MCC A-1 Replacement Project scheduled for FY 27.

CoFA - South Orange County Water Authority
JB Latham Treatment Plant

Unit Process Asset Failure Mode/Scenario	Consequence of Failure (CoF)				Criticality	Probability of Failure (PoF)	Risk Designation	General Notes	Current O&M Mitigation Measures	O&M Recommendations	Capital Improvement Project
	Health & Safety	Treatment Performance/ Regulatory	Economic/ Personnel Resources	Public Image							
	7	5	5	3							
Main Circuit Breakers											
Main Circuit Breakers								Main circuit breakers and meters function to provide utility power to the plant and meter power consumption. The JBL plant contains 6 main circuit breakers: The 4 side breaker, Effluent pump station breaker, ECP building breaker, main office breaker, Co-Gen breaker, and storm water PS breaker.			
Plant 2 Main Breaker Failure	4	5	4	3	82	A	M	4 side breaker is four years old, was factory and field tested after installation. Failure would result in an emergency situation - all hands. Critical for permanent generator and process equipment.	Failure would result in an emergency situation - all hands. Portable generators would need to be hard-wired in to provide emergency power.	No additional O&M mitigation measures are identified to mitigate this failure.	No current Capital Improvement Project budgeted.
Effluent Pump Station Main Breaker Failure	1	1	4	1	35	C	L	Eff PS breaker is oldest main breaker at the plant installed in 1991. Staff report that the breaker is obsolete and hasn't been tested in 4-5 years. Reason for not testing is that staff run the risk of shutting it down and it not coming back online.	Staff keep a spare breaker on the shelf in case of a failure to this main breaker. Since the breaker is obsolete it will eventually need to be replaced completely. Effluent pump station has a natural gas system that can provide 100% backup for extended time.	No additional O&M mitigation measures are identified to mitigate this failure.	No current Capital Improvement Project budgeted.
ECP Building Main Breaker Failure	1	1	4	1	35	B	L	Staff report that the ECP building breaker is a smaller breaker in moderate condition. Not sure of exact installation date but thought to be in the 90s.	Failure would result in an emergency situation. Natural gas system can provide 100% backup for extended period of time.	No additional O&M mitigation measures are identified to mitigate this failure.	No current Capital Improvement Project budgeted.
Main Office Main Breaker	2	1	2	1	32	B	L	Main office breaker is a residential-type breaker with a generator backup. Staff report that it is a non-standard meter for SCE, because it needs to be read by opening up the cabinet. Failure would affect facilities for staff such as showers, locker rooms, etc. but mostly consequences would lead to non-ideal operating conditions but nothing catastrophic.	All office data is cloud-hosted and data is backed up off-site so that data and information is not compromised.	No additional O&M mitigation measures are identified to mitigate this failure.	No current Capital Improvement Project budgeted.
Co-Gen Main Breaker	1	1	2	1	25	A	L	Sub-meter to the 4-side breaker. Used for co-gen net metering. Failure not as serious as 4 side breaker. Would need to flare gas and buy power, but rest of consequences are minor.	No current O&M mitigation measures discussed.	No additional O&M mitigation measures are identified to mitigate this failure.	No current Capital Improvement Project budgeted.
Storm Water PS Main Breaker	1	1	3	4	39	A	L	Provides power service to the storm water pump, which affects the neighbors.	No current O&M mitigation measures discussed.	No additional O&M mitigation measures are identified to mitigate this failure.	No current Capital Improvement Project budgeted.

Agenda Item

6.A.

Budgeted: No

Budget amount: Indirect Cost

Legal Counsel Review: No

Meeting Date: November 4, 2021

TO: Board of Directors

FROM: Betty Burnett, SOCWA General Manager

STAFF CONTACT: Amber Baylor, Director of Environmental Compliance

SUBJECT: RESOLUTION NO. 2021-07: A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY REGARDING BASIN PLAN AMENDMENT, to accomplish an extension related to the Triennial Review

Summary

SOCWA is the lead agency on behalf of the Santa Margarita Water District and the Moulton Niguel Water District regarding the Triennial Review Project. On August 17, 2021, SOCWA and Santa Margarita Water District provided two combined comment letters in support of Project 5 of the San Diego Water Quality Control Board's Triennial Review. This support provides focused SDRWQCB resources to complete the evaluation of compliance with water quality objectives in the Basin Plan. However, the current contract will expire within the following six months and action is currently needed to avoid the contract expiration to continue the staff support resource to the Regional Board to complete the required Basin Plan amendment process.

A new SOCWA resolution is required by the SDRWQCB to extend the current contract. The existing scope of the contract remains, and the only change is the term of the agreement. The contract shall not exceed \$250,000 per year. The contract supports the work of Regional Board staff including a Senior Environmental Scientist with additional hours allocated to oversight of findings by a Senior Water Resources Control Engineer and a Senior Environmental Scientist at the supervisory level.

Advisory Committee Review

SOCWA PC12 members met in August 2021 to review the final SNMP and seek agreement on the additional triennial review work costs. The PC 12 members supported the extension to the Agreement on the triennial review project.

Fiscal impact

To date, SMWD and MNWD have spent approximately \$42,130.13 which is split between the two agencies at 75% to SMWD and 25% to MNWD. Costs are not to exceed \$250,000 per year with

costs billed to agencies as pass through costs in alignment with SOCWA Uniform Purchasing Policy.

Recommended Action: Staff recommends the Board to approve:

1. Adoption Resolution 2021-07: A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY REGARDING BASIN PLAN AMENDMENT, to accomplish an extension related to the Triennial Review.
2. The additional work on the Triennial Review to be funded by Santa Margarita Water District and Moulton Niguel Water District in the amount of not to exceed \$250,000 per fiscal year (extension to original contract August 14, 2019, of \$750,000) with a term not to exceed three additional years.

RESOLUTION NO. 2021-07

**A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY REGARDING
BASIN PLAN AMENDMENT**

WHEREAS, the Salt and Nutrient Management Plan (SNMP) was submitted to the San Diego Regional Water Quality Control Board (SDRWQCB) on August 17, 2021 in conformance with the 2018 Recycled Water Policy for the use and distribution of recycled water in the SOCWA Service Area.

WHEREAS, the SDRWQCB has previously concluded that a basin plan amendment is required to support expanded recycled water use within the SOCWA service area.

WHEREAS, the San Diego Regional Water Quality Control Board (SDRWQCB) has prioritized revision of water quality objectives for Total Dissolved Solids (TDS) in the Middle San Juan and Middle Trabuco groundwater basins for expanded recycled water uses in the SOCWA service area through the triannual Basin Plan Amendment process (hereinafter referred to as the "WQO Project").

WHEREAS, the SDRWQCB requires additional staff resources to complete the technical, administrative, and procedural elements of the WQO Project for the timely completion of the basin plan amendment.

WHEREAS, SOCWA will work closely with Santa Margarita Water District and the Moulton Niguel Water District (the affected member agencies) to complete technical studies, conduct public workshops, and coordinate with the SDRWQCB staff person assigned to complete the WQO Project for the basin plan amendment work.

WHEREAS, SOCWA will coordinate with the SDRWQCB and affected member agencies in the WQO Project for the basin plan amendment process.

WHEREAS, SOCWA will provide support to SDRWQCB for completion of the WQO Project from previously agreed to contributions from the affected member agencies Moulton Niguel Water District and Santa Margarita Water District within Project Committee 12.

WHEREAS, SOCWA'S pending Master Recycled Water Permit requirements are predicated on in the initiation of the WQO Project for the basin plan amendment.

WHEREAS, the previous contract for a basin plan amendment will expire prior to the completion of the triennial review process and this resolution provides an additional three years to complete the project.

NOW, THEREFORE, the Board of Directors of the South Orange County Wastewater Authority does hereby **RESOLVE, DETERMINE AND ORDER** as follows:

Section 1: SOCWA, upon approval of the affected member agencies identified above, will contract with the SDRWQCB to provide the necessary resources to complete the WQO Project for the basin plan amendment.

Section 2: SOCWA shall thereafter coordinate efforts to complete the WQO Project for the Basin Plan amendment.

ADOPTED, SIGNED, and APPROVED by the Board of Directors of the SOUTH ORANGE COUNTY WASTEWATER AUTHORITY, County of Orange, State of California on the 4th day of November 2021.

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

(Seal)

Matt Collings, Chairman

Betty Burnett, General Manager and Board Secretary

STATE OF CALIFORNIA)
) ss.
COUNTY OF ORANGE)

I, BETTY BURNETT, Secretary of the Board of Directors of the SOUTH ORANGE COUNTY WASTEWATER AUTHORITY (“SOCWA”), do hereby certify that the foregoing is a full, true and correct copy of **Resolution No. 2021-07** of said Board and that the same has not been amended or repealed.

Dated this **4th** day of **November 2021**.

Betty Burnett, Board Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

Agenda Item

6.B.

Budgeted: No

Legal Counsel Review: No

Meeting Date: November 4, 2021

TO: Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Amber Baylor, SOCWA Director of Environmental Compliance

SUBJECT: Update Regional Science Forum Proposal

Summary

As provided in the discussion at the October 7, 2021, SOCWA would provide an updated needs assessment and goals of the proposed Science Forum at the November 4, 2021 SOCWA Board meeting. The goals of the Science Forum include addressing gaps in scientific assessments that are driving policy and associated regulatory costs. The associated needs assessment and research pipeline are included as an attachment to augment discussions at the Board level. The assessment highlights:

- Strategize scientific studies to address developing public policy decisions in a cost-effective manner.
- Coordinate scientific research with the EPA's Office of Research and Development and the National Research Program.
- Discussion of the goal for economic certainty related to permit driven research requirements.

Prior Related Project Committee or Board Action(s)

On November 5, 2020, SOCWA staff presented the science and regulatory actions that are driving recycled water and NPDES permitting costs to the SOCWA Board of Directors. At that November 5, 2020 SOCWA Board meeting, SOCWA staff presented to the Board the following developing initiatives that were driving budget costs in the upcoming years:

- Salt and Nutrient Management Plan (2018 SWRCB Recycled Water Policy),
- Plume tracking (NPDES Permit renewal),
- HF183 (San Diego Regional Water Quality Control Board Investigative Order),
- PFAS (SWRCB Investigative Order),
- Biological Quality Objectives (San Diego Regional Water Quality Control Board Basin Plan Amendment),
- Laboratory Accreditation Standards (SWRCB Policy for Accreditation standards),
- Wastewater based epidemiology (developing public health metric),
- SOCWA Natural Bacteria project (TMDL Compliance in NPDES permit),
- AB2588 Implementation (CARB Air Toxics Hot Spot program).

SOCWA budgeted approximately \$300,000 for FY 21-22 to begin to address the new special studies that are likely to come with the new NPDES permits for the outfalls. Those costs are in alignment with the draft NPDES permit costs and are projected to continue for the next 3 fiscal years to meet time step study requirements in the permits. This information was provided to the SOCWA Finance Committee in preparation of the FY 21-22 budget.

Fiscal impact

There are approximately \$300,000 in increased permit costs for FY 21-22 with a similar increase in costs in FY 22-23 through FY 23-24.

Recommended Action: Staff recommends Board of Directors lend support to formation of the Regional Science Forum in cooperation with Santa Margarita Water District and San Juan Basin Authority and directs staff to return to SOCWA Board with estimated supporting information and costs.

Purpose:

The purpose of the Science Forum is to support the development of water quality management with sound scientific research and engineering principles, appropriate environmental regulatory context, and supporting financial assessments. The proposed Science Forum would evaluate planned or proposed projects with impacts across the South Orange County region and promote science based decisions toward the selection of projects that will meet defined and specific goals ensuring the best use of available public resources. Cities and Water Agencies in Orange County have met compliance requirements in an independent manner across the watersheds; however, coordination of all entities is needed to effectively protect and enhance water quality in this region. This document provides the landscape of entities that drive policies in California and suggests a pipeline of advancing research to support project development. The document requests input from broad entities to support robust evidence based policy for regional coordination of shared local projects.

Goals:

- Strategize scientific studies to address developing public policy decisions in a cost-effective manner.
- Coordinate scientific research with the EPA’s Office of Research and Development and the National Research Program.
- Provide more economic certainty related to permit driven research requirements.

Standing Briefings:

The sponsors of the Forum are the Santa Margarita Water District and the San Juan Basin Authority. It is proposed, to include a public input mechanism through the governance structures of the two organizations using quarterly briefings on related research through the Water Quality and Technology Committee with parallel briefings to the South Orange County Wastewater Authority Board or committees. It is also proposed that an annual meeting to discuss research priorities, report on significant findings, and to provide a summary of significance be included in the set of standing briefings.

Regulatory Oversight:

The State Water Resources Control Board and the associated nine regional Boards (herein referred to as the Water Boards) through discretionary spending and associated resolutions require local responsive actions. Regulatory mandated spending trends over time range from several hundreds of thousands annually to proposed millions in required studies and participations. A gap exists between mandates and practical policy and local utility management to achieve effective outcomes. A hyper local, science based Science Forum is needed to connect regional and state policies to local needs, remove barriers related to permitting, and ensure there are evidence based policies appropriate to local priorities and on the ground conditions.

Within the Porter Cologne Act, which established the Water Boards, is Section 13161 which directs “(T)he [S]tate board to annually determine state needs for water quality research and recommend projects to be conducted”. While no formal public process or document exists to determine all research projects, the State Board’s 2021 Strategic Plan¹ summarizes the related research efforts. The Waterboards conduct

¹ https://www.waterboards.ca.gov/board_info/agendas/2021/mar/workplan_2021.pdf

business through regulatory fees and allocations from the State Budget. Allocation of funding for program management is through legislative mandate and management discretion allows up to \$750,000 per contract². Achievement of related research priorities in California is accomplished through monitoring activities placed into permit requirements. California Water Code §13181 tasks the California Monitoring Council with the making of recommendations to the Secretaries of the CalEPA and the California Natural Resource Agency for comprehensive monitoring strategies that in turn are developed into associated policy initiatives.

Locally, the South Orange County region is governed by the San Diego Regional Water Quality Control Board (SDRWQCB). The SDRWQCB governs program activities through the Practical Vision which focuses on Strategizing for Healthy Waters, Monitoring and Assessment, Recovery of Stream, Wetlands, and Riparian Systems, Proactive Public Outreach and Communication, and a Strategy for Achieving a Sustainable Local Water Supply. The Practical Vision directs the SDRWQCB staff in their focus of direction and utilization of staff resources through administration of NPDES permits, WDR permits, and implementation of state policies. Research projects are also accomplished through supplemental environmental projects as coordinated by the SDRWQCB with SCCWRP³.

In the South Orange County region, the South Orange County Wastewater Authority (SOCWA) is the responsible party for two point source NPDES permits for discharge of wastewater and brine to the Aliso Creek Ocean Outfall (No. CA0107611) and the San Juan Creek Ocean Outfall (No. CA 0107417). SOCWA also manages the waste discharge permit for nine of the recycled water production facilities in South Orange County. The County of Orange, in connection with the Orange County Flood Control District, manages the non-point NPDES permit (CAS0109266) for the municipal separate stormwater system for permittees in South Orange County. There exist gaps in approaches between point and non-point source compliance and practical constraints that can pre-empt compliance strategies based on incomplete oversight within these activities. The Science Forum would afford local agencies the benefit of oversight from accelerated coordination, the identification of roadblocks and development of shared objectives for project support. The Science Forum would allow local agencies to be in front of decisions that impact compliance, protection of public health and property, and protection of environmental resources.

Needs Assessment:

The regulated community is focused on the delivery of public services and meeting permitting requirements. Quality research is, however, the heartbeat of sound policy decisions. Over the last five years, many questions related to the impact of utility services have been dramatic in increasing the costs of permit renewals and mandated special studies. Those research questions are currently being identified and fueled through development of strategic priorities in Southern California at the Southern California Water Research Project (SCCWRP) and the San Francisco Estuary Institute (SFEI) which have SFEI is focused on water quality research needs in Northern California. These two agencies work with a variety of partners and employ approximately one hundred scientists, engineers, analysts, and other technologists that are focused on the aquatic research needs in California. Research is driven by the quality of the

² SWRCB Resolution: 2015-0022.

https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/rs2015_0022.pdf

³ https://www.waterboards.ca.gov/sandiego/board_info/agendas/2020/aug/item15/EOSR_Item_15.pdf

hypothesis and the related skills to deliver on the merit of the findings. Input to the research questions can be limited due to a lack of utility based stakeholder engagement.

For example, the research driven by SCCWRP is focused on the needs of SCCWRP member agencies only with farther reaching policies that diffuse to the regulated treatment facilities. The four founding joint power authority SCCWRP member agencies are the City of Los Angeles Bureau of Sanitation, Sanitation Districts of Los Angeles County, Orange County Sanitation District, and City of San Diego Public Utilities Department. Each of the founding member agencies contribute \$500,000 for development of research priorities and commission seats to direct research activities. Associate members include representatives of the following stormwater agencies: Los Angeles County Flood Control District, Orange County Public Works, San Diego County Watershed Protection Program, and the Ventura County Watershed Protection District. The associate member cost is \$125,000 per year which includes technical advisory membership and a commission seat to direct research activities. SCCWRP also provides commission seat representation to water quality regulatory agencies including the U.S. Environmental Protection Agency, Region 9, California State Water Resources Control Board, Los Angeles Regional Water Quality Control Board, San Diego Regional Water Quality Control Board, and the California Ocean Protection Council. The water quality regulatory agencies provide funding to SCCWRP for specific projects in coordination with the founding and associate members. The budget for this organization was approximately \$9.8M in FY 20-21.

In contrast, SFEI is a non-profit corporation governed by a Board of directors that include Bay area scientists, environmentalists, regulators, and representatives from government. SFEI administers the Aquatic Science Center, a joint powers authority established by the Bay Area Clean Water Agency and the State Water Resources Control Board⁴. The Board of SFEI is composed of regulatory agencies, non-profit environmental organizations, and private consulting firms. There are two classes of membership in SFEI: Members (SWRCB and BACWA) and Associate Members (Low Cost of Entry). California Environmental Protection Agency, Region 9, is also a Member, with no ability to cast a vote on research priorities. The budget for this organization was approximately \$4.0M for their Regional Monitoring Program.

The SFEI broad representation of research strategies represented by the diversity of membership in SFEI as compared to SCCWRP demonstrates key differences. Both regional coordinating organizations work collaboratively with natural resource agencies through formal and informal relationships providing scientific leadership and development of research priorities. Non-governmental organizations, commercial entities and other group related efforts are excluded from voting on research priorities that matter at a local level.

The California University system and the State University systems drive many of the key technology and business cases for utility management. In Northern California, Stanford University is funded by the National Science Foundation's Re-Inventing the Nation's Urban Water Infrastructure (ReNUWit) in partnership with the University of California-Berkeley, Colorado School of Mines, and New Mexico State University to form an Engineering Research Center with thrust lead research groups. The Industrial Membership Program of ReNUWit is a low cost of entry program with additional funding opportunities that is supported by industry memberships based on a size of the industry organization. The cost of

⁴ Resolution Adopting the Joint Powers Agreement Creating the Aquatic Science Center. Resolution No. 10,855. State Water Resources Control Board and the Bay Area Clean Waters Association. December 21, 2006.

membership. The thrust area of Urban Systems Integration and Institutions develops research to support the identification of developing barriers, technical advancements, and diffusion of technologies across barriers in step with the other research thrusts in the urban environment.

In Southern California, UCI Water focuses on development of the Industry-University Research Center with utility agencies supporting their work. Quarterly and ad hoc meetings direct research endeavors “to advance policy solutions to critical water problems facing the state, nation and world⁵.” Funding for scientific support is provided by in-kind services, national science foundation awards, and project proponent financial agreements. Pending and potential future work is articulated below.

While this analysis is not intended to be exhaustive as to all other academic institutions that support the utility research needs outside of California, the University of Arizona West Center is a magnet institution for civil and environmental engineering and science. The West Center operates in an academic-commercial fashion with zero overhead through backing by the University of Arizona. Thus, academic, and commercial activities are priced competitively through direct academic project investigator leadership. The West Center brings a variety of stakeholders together to foster collaboration between industry, government, and academia⁶.

Shifting to industry representations, the Clean Water Summit Partners (Central Valley Clean Water Association, CASA, CWEA, Bay Area Clean Water Association and SCAP) mobilize on specific research needs through policy level advocacy to raise research funds for specific support through partnership with consulting firms. This type of research fills needs as they relate to developing regulatory questions on interpretation of legal mandates in the state of California or through activities that have a potential to develop into important terms in regulatory permitting. WateReuse California is also an important advocacy organization focused on California specific needs through the advancement of recycled water as an available, local, resource option for watershed management.

At a National level, the Water Research Foundation (WRF) has developed a research pipeline with seven funding groups that can generate funds on pressing needs and provides long-term research support for generally large scale projects. WRF administers funding through membership dues and state and National funding. WRF has administered approximately \$4M in SWRCB directed funding for a variety of drinking water and sanitation related practical projects.

There are also consulting firms who provide technical support to assist policy makers in understanding the proposed pollutant stream, pathogen risk tolerance, technology implementation, treatability of emerging pollutants, design assistance, and compliance plans with regulations and policies. For example, Brown and Caldwell has created a Treatability and Testing Laboratory that is focused on optimizing client needs related to capital improvement programs, saving millions of dollars. These firms compete openly in the market, undertake agreements with universities, and offer a vast, untapped potential for additional industry partnership in Southern California. Appendix A contains a list of potential industry representatives to be included in the panel of contributors.

At a national level, the U.S. Environmental Protection Agency has developed national priorities in water innovation, science, and engagement to advance water reuse through the National Water Reuse Action

⁵ <https://water.uci.edu/#:~:text=Our%20Mission%20Statement,state%2C%20nation%2C%20and%20world>.

⁶ The West Center. <https://west.arizona.edu/about-west-center>

Plan (WRAP)⁷. WRAP has developed a set of actionable items through strategic focus and local leadership to complete these tasks. There remains a set of undeveloped actions in the WRAP which the EPA has solicited open invitations to help solve and this forum is well positioned to lead. The developed and undeveloped set of actions are included in the evaluation of applicable projects in the reclaimed water matrix in the key research focus areas in the next section.

The EPA's Office of Research and Development (ORD) has six research programs: Air and Energy Research Program, Chemical Safety for Sustainability Research Program, Health and Environmental Risk Assessment, Homeland Security Research Program, Safe and Sustainable Water Resources Research Program, and the Sustainable and Healthy Communities Research Program. These programs develop national research priorities and work with academic and other affiliates at the regional level to accomplish the goals of the program. The Safe and Sustainable Water Resources Research Program is very active in Region 9 with a considerable development related to the use of molecular markers for public health protection. SOCWA is already working in step with the developments of this program through coordinated research work at a local level.

Utility agencies rely on this formal or informal relationship to make business decisions on the procuring of financial instruments to assure business continuity. A systematic approach to align developing regulatory needs with industry experience and public needs is needed at a local level to address our unique local circumstances. Framing the water quality research needs between the land and ocean interface in the Southern Orange County region will further advance the priority of projects and response needs in these watersheds.

Key Research Focus:

The suggested Science Forum would offer a focus on the development of a regulatory research pipeline for project development applicable to current or pending regulatory compliance requirements for five matrices: wastewater discharge, brine discharge, recycled water, stormwater, and receiving waters. The following represent current and proposed research projects related to those matrices, identifies associated funded studies, connects the SWRCB 2021 Strategic Work Plan focus areas where applicable, and includes associated monitoring efforts relevant to achieving potential Science Forum goals. Additional information about funding, where applicable, is also included in the proposed projects.

1. Wastewater

New Technology Evaluation

Goal: Evaluate Potentially Lower Best Available Control Technology limits in NPDES Permits.

Current National Work:

- SWRCB/Water Research Foundation (WRF Project 4961) - \$300k (Project completion date 2023). The Use of Next Generation Sequencing (NGS) Technologies and Metagenomics Approaches to Evaluate Water and

⁷ <https://www.epa.gov/waterreuse/national-water-reuse-action-plan-collaborative-implementation-version-1>

Wastewater Quality Monitoring and Treatment Technologies. P.I. Amy Pruden – Virginia Tech, completion 2023

- Regulatory Implication – Potential Lower Best Available Control Technology limits in NPDES Permits.

Current SOCWA and Member Agency Work:

- SOCWA/Project Committee 2 – NGS Anaerobic Digester Methane Production Project – \$10k (Project completion date 2022). This project evaluates the methane recovery and reduce purchased electricity due to a commercial bioaugmentation product. P.I. Phillip Gedalanga – CSUF
 - Regulatory Implication – Potential Lower Best Available Control Technology limits in NPDES Permits.
- Santa Margarita Water District Membrane Bioreactor Pilot Project
 - Oso Creek Water Reclamation Plant evaluation to increase water recovery and treat urban flows at the facility.
 - Regulatory Implication – Potential Lower Best Available Control Technology limits in WDR Permits.

Discharge to the Pacific Ocean

Goal: Address discharge limitations due to SWRCB mandated beneficial reuse

Current National Work:

- SWRCB/Water Research Foundation (WRF Project 4962) - \$105k (Project completion date 2022). Identifying the Amount of Wastewater That is Available and Feasible to Recycle in California.
 - Regulatory Implication – Address discharge limitations due to SWRCB mandated beneficial reuse.

Proposed SOCWA Work:

- SOCWA Proposed Project – Report on the amount of flow to the San Juan Creek Ocean Outfall (SJCOO) and the Aliso Creek Ocean Outfall (ACOO) over period from 2001 to present to assist in communication strategies with the SDRWQCB and SWRCB. Included in the analysis would be mass emissions loading to evaluate the reduction due to reclamation activities over the ten year period. Also included is the amount of realistic flow that can be recycled due to impoundment considerations.
 - Regulatory Implication – Address discharge limitations due to SWRCB mandated beneficial reuse.
- SOCWA Proposed/Planned Projects for Committees 5 and 24 – Mass emission reduction comparison from 2001 to present to determine the reduction of nutrients to marine systems over time. Overlaying the data with available monitoring programs related to Kelp

monitoring, plume tracking, and required permit monitoring to assess the overall reduction of nutrients on a cumulative basis.

- Regulatory Implication – Discharge limitations due to SWRCB mandated beneficial reuse, flow restrictions in NPDES permits, lower mass emission limits.
- Plume Tracking: The ability to track plumes is a key research priority for the SDRWQCB. There remains a gap in ability to detect the plume and the practical considerations related to this type of effort. In addition, there remains a question as to the discharge of plume as it interacts with the shoreline for beach water quality standards. As flows decrease, the ability to detect the plume will also diminish. Structured evaluation to mitigate further compliance demands is needed. SOCWA is required to perform this work for both NPDES permits.
 - Regulatory Implication – Address discharge limitations due to SWRCB mandated beneficial reuse, increased monitoring costs over time, and Rec-1 standard exceedance.
- Ocean Acidification Model development: Current efforts are evaluating the use of the ROMS-BEC model for compliance with the California Ocean Plan. A SCCWRP-SFEI led Uncertainty Series evaluated a suite of model performances used in academic, regulatory, and associated management oversight. An attribution study is needed to differentiate background versus anthropogenic inputs. The boundary conditions of the models leave considerable uncertainty in the practical application of the ROMS-BEC model.
 - Regulatory Implication – Address potential nutrient limits on upcoming NPDES permits, misuse of a model not ready for practical use.

Emerging Contaminants/ Non-regulated contaminant monitoring

Goal: Prepare to address potential limits or monitoring requirements in upcoming NPDES permits

Current SOCWA Work

- Per- and polyfluoroalkyl substances. SWRCB 2021 Strategic Plan Section 1.1.3. PFAS: CWC 13267 investigations. Utility funded investigations. SOCWA facilities spent approximately \$75k in FY 20-21.
 - Regulatory Implication – Potential limits or monitoring requirements in upcoming NPDES permits.
- Wastewater based epidemiology. State of California public health laboratory coordination and sewer-shed surveillance in the South Coast Water District boundaries.

- Public health tool for outbreak evaluation.
- Microplastics evaluation in wastewater streams discharged to the ocean. Current study is underway in step with the Ocean Protection Council's Ocean Litter Reduction strategy and potable water analysis methods as required by the Legislature. Significant work has been accomplished in Region 2 evaluating the input from stormwater and wastewater. This SOCWA special study is evaluating the emerging method and feasibility of practical implementation.
 - Regulatory Implication – A true data set of what is occurring in this watershed to ascertain the potential future limits.

Current Local Work

- UCI Water - Residential Sources of PFAS. Investigation to the sources of PFAS in homes related to pretreatment strategies. Work in coordination with OCSD.
 - Regulatory Implication – Potential limits on upcoming NPDES permits.

Proposed SOCWA Work

- Total organic precursor (TOP) analysis for increasing understanding related to higher concentration of PFAS in the effluent compared to the effluent at facilities in in South Orange County. Approximate cost \$50k.
 - Regulatory Implication – Potential limits on upcoming NPDES permits due to educational gap on the concentration of PFAS in wastewater and recycled water.
- Ecological risks associated with discharge of PFAS to sensitive species, *Macrocystis pyrifera*. SWRCB 2021 Strategic Plan 2.4: Protect, and where feasible, restore aquatic and marine habitat.
 - Regulatory Implication – Potential limits on upcoming NPDES permits.

2. Brine Discharge

Salt Balance

Goal: Address potential exceedance of the salinity requirements related to the Ocean Plan

SOCWA Proposed Work:

- Watershed based potential discharge in compliance with Ocean Plan limits threshold not to exceed 2ppt above ambient. Utilize monitoring data on the M-001 sampler location to provide combined salt loading to the ocean from reclamation activity.

- Regulatory Implication – Potential exceedance of the salinity requirements related to the Ocean Plan.

3. Recycled Water

Goal: Address potential inability of recycled water to meet the risk based threshold limits / exceedance of REC-1 standard.

REC-1 Standards

Current SOCWA Work

- Application and validation of microbial source tracking biomarkers as indicators of fecal pollution in natural and engineered environments throughout South Orange County, CA. Work of methodology is complete. Interlaboratory validation studies needed for update to the EPA approved methodology. Additional application of the methodology to ddPCR would allow for incorporation of new technology consistent with the industry trend.
 - Regulatory Implication – Potential inability of recycled water to meet the risk based threshold limits.
- Can the Hf183 marker be reliably utilized to determine live versus dead cells for human health risk in REC-1 category waters? A small data set collected thus far. A data gap exists between input of recycled water and the confluence with urban water runoff and other discharges into the MS4 system.
 - Regulatory Implication – Potential inability of recycled water to meet the risk based threshold limits.
- Elucidation of background bacterial species at locations with exceedances of TMDLs. What is the concentration of background naturalized bacteria species of enterococcus?
 - Regulatory Implication – Exceedance of REC-1 standards attributed to recycled water.

SOCWA Proposed Project

- Evaluation of PMA treatment on various matrices compared to EPA approved methods. Can the qPCR 1609 enterococci method concentrations an accurate representation of the health risk when PMA treatment is applied? City of San Diego incorporating qPCR into enterococcus testing.
 - Regulatory Implication – Potential inability of recycled water to meet risk based threshold limits.

Salt and Nutrient Management Plan Updates

Goal: Address Compliance with 2018 SWRCB Recycled Water Policy, Basin Plan Compliance, and update to waste discharge permitting

Proposed SOCWA Work

- With the development of the Salt and Nutrient Management Plan and salt credit offsets, further explore geologic contributions based on relative overall production in the San Juan Basin compared to salt offset credits. Utilization of monitoring data to integrate with technical limitations of precipitation, applied water, and surface water interaction.
 - Regulatory Implication – Compliance with 2018 SWRCB Recycled Water Policy, Basin Plan Compliance, and update to waste discharge permitting.

Current State Work

- SWRCB/Water Research Foundation (WRF Project 4963 - \$200k): Developing a New Foundational Understanding of SAR Soil Structure Interactions to Provide Management Options for Recycled Water in Agriculture.
 - Regulatory Implication: Master reclamation activities utilize sodium adsorption ratio as a basis for the turf application rate. Use of method when published locally to ascertain the correct limits based on soil type and agronomic rate.

Scientific and Engineering Leadership in Alignment with National Priorities

Goal: Address potential regulatory costs related to abatement of recycled water runoff.

Proposed SOCWA Work

- Incorporate Water Reuse and Capture Concepts into Integrated Planning Efforts at the Local Level (WRAP Action 1.3). Leverage existing GIS tools to estimate mass emission loading reduction from current urban runoff capture projects from recycled water. Identify legal constraints related to urban runoff classifications for load reduction regulatory credit. Moulton Niguel Water District in partnership with the Orange County Public Works Department has a “Drool Tool” that can be utilized in this fashion.
 - Regulatory Implication – Potential regulatory costs related to abatement of recycled water runoff.

Policy Coordination

Goal: Address effectiveness of regulatory costs.

SOCWA Proposed Projects

- Incorporate Stormwater Capture Considerations in Assessment of Stormwater Finance Needs and Opportunities (WRAP Action 2.11). Obtain cost of diversion information from agencies in Orange County with existing diversions. Obtain water quality information at each diversion, assess against pretreatment pollution local limit standards and developing CECs to determine /efficacy of diverted water for reuse. Assess cost per mgd

captured, funding mechanisms, and public health protection metrics with installation of diversions. Identify locations within the watersheds in South County where existing diversions can be developed with funding mechanisms evaluated through the IRWM group.

- Regulatory Implication – Potential regulatory costs related to abatement of recycled water runoff.
- Investigate institutional barriers to interagency recycled water projects and recommend solutions to facilitate their implementation (Undeveloped WRAP Action). Articulation of legal frameworks and regulatory compliance requirements that interplay between point and non-point sources of pollution in Regional Water Quality Control Board, Region 9. Determine business case for investment in reducing and or controlling non-point sources of pollution by enterprise resource agencies.
 - Regulatory Implication – Potential regulatory costs related to abatement of recycled water runoff.
- Establish guidance, tools, and/or regulations for water reuse and treatment standards, including consistent terminology (Undeveloped WRAP Action). Evaluation of the use of environmental impact bonds to meet credit mechanisms within the watershed based on measures to reduce pollutant loads into the watershed.
 - Regulatory Implication – TMDL exceedance of 303d listed analytes may pose a risk to proposed projects due to associated loadings.

Science and Specifications

Goal: Address developing monitoring requirements and potential pretreatment strategies to reduce input into treatment systems.

SOCWA Proposed Project

- Develop Frameworks for Public and Environmental Health Risk-Based Targets (WRAP Action 3.2). Contaminants developed from the amendments to the Safe Drinking Water Act, 1996 Amendment, are currently termed the Contaminant Candidate List 5 (CCL 5). The list includes chemicals, chemical biproducts, and microbial contaminants. These contaminants may be present in the runoff through recycled water and potable water supplies. The development of a framework for coordination of the CCL5 with runoff within the watershed in a tiered approach should be considered.
 - Regulatory Implication – Proposed new contaminants theorized to occur in wastewater treatment and recycling.

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Technology Development and Validation

SOCWA Proposed Project

- Integrate, Coordinate, and Enhance Technology Demonstration and Validation Programs to Provide Reliable Performance Information to Support Water Reuse (WRAP Action 4.1). Comparative treatment plant performance evaluation studies based on HF18/3 and Title 22 treatment facilities. Expand data set to 30 days (at least 2 solids retention times) at 3 treatment facilities.
 - Regulatory Implication – Reduce exposure to tentative risk based thresholds.

4. Stormwater

Goal: Address relationship of Stormwater requirements to water reuse and compliance strategies.

SOCWA Current Project

- General Permit Diversion Evaluation. Modeling exercises to capture first inch in 24 hour storm in alignment with the 2018 amendment to the Stormwater Industrial Permit.
 - Regulatory Implication – Reduced liability on public facing sites related to runoff exceedances, many times due to environmental detritus in TMDL impaired water bodies.

SOCWA Proposed Project

- SOCWA Facility Precipitation Data Evaluation. Micro storms result in unintended consequences related to facility hazards and potential to spills. Potential Project coordination with Daniel Swain, UCLA
 - Regulatory Implication – FEMA designated 100 year facilities are predicated on per year storm assumption tables based on duration of the storm. Potential changes to NPDES permits.

5. Receiving water

Goal: Proper evaluation of REC-1 exceedances at monitoring locations at the beach based on limits of the model.

SOCWA Proposed Project

- Mesocosm studies for HF183
 - How long does HF183 last in the environment? SOCWA research provided insight to how Bacteroides lasts in the lab scale anaerobic

chambers. Literature provides various rates of decay. Proposed experiment will evaluate the use of the marker in beach sands.

- Regulatory Implication – Rec-1 exceedances at monitoring locations at the beach.
- QMRA paired viral study with HF183. Work with project partners to elucidate if live and dead HF183 signals contribute to differences in the correlations between norovirus and other etiologic agents in the lab setting and within the QMRA models.
 - Regulatory Implication – Rec-1 exceedances at monitoring locations at the beach based on limits of the model.
- Beach Water Quality Monitoring. Work with MS4 copermittees on the use of paired data sets between HF183 and FIB.
 - Regulatory Implication – Rec-1 exceedances at monitoring locations at the beach based on perceived health risk.

Conclusion

The SWRCB’s strategic plan cites coordination with the Office of Research and Planning related to research (Number 4.4.8). In addition, California, Region 9 EPA is leading many of the focused studies that are then apprised to the SWRCB. Coordination with the SWRCB and the SDRWQCB on locally led research through the Water Quality Coordinating Committee that convenes members of each Water Quality Control Board on an annual basis to roll up important issues⁸ is an important communication tool to further strengthen many of these local efforts. Local leadership can help drive scientifically based policy by inclusion of standing research discussions to be included in the SWRCB’s strategic plan to systemize the research pipeline for inclusion of more broad stakeholders than have been traditional in the past. Due to the overlap in the regulatory matrices and associated differing government entities, Appendix B contains a review of structures that can aid in the efficient development of this locally driven research need.

⁸ https://www.waterboards.ca.gov/board_reference/

Appendix A

Consulting Firms

- Kennedy Jenks
- Brown and Caldwell
- Carollo
- Hazen and Sawyer
- Jacobs Engineering
- West Yost
- AECOM
- Tetrattech
- Stantech
- Yorke Engineering
- ARCADIS
- Woodward and Curran
- Black and Veatch
- GHD
- Michael Baker International
- Geosyntec
- WESTON
- Trussell Technologies
- EOA Analytical

Appendix B

Frameworks Available:

There are many types of frameworks that the Forum can look to as the model for development is moved forward. Included below are two such models: The Santa Monica Bay Restoration Commission and the draft MOU of the Lost Angeles County MS4 with associated permittees. Brief sections of each of the relevant guiding principle or contract language are included below for reference.

- Santa Monica Bay Restoration Commission – Management Conference of the National Estuary Program
 - *To restore and enhance Santa Monica Bay through actions and partnerships that improve water quality, conserve and rehabilitate natural resources, mitigate the impacts of climate change and sea level rise, and protect Santa Monica Bay's benefits and values.*
- Los Angeles County Municipal Stormwater Sewer System General NPDES Permit Memorandum of Understanding (MOU) –
 - Regulatory driven by LA Regional Water Quality Control Board's mandate to protect beneficial use designations and Clean Water Act 303(d) listings. In addition, federal CWA (40 C.F.R. Section 122.26(2)(i)(D) which encourage interagency agreements in conjunction with the May 2004 "Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program".
- San Francisco Regional Water Quality Control Board coordination with SFEI and San Francisco Bay dischargers.
 - Regulatory driven with regulators, commercial interests, and SFEI. Dischargers pay annual fees with regulators deciding on the ultimate projects conducted.

Agenda Item

6.C.

Budgeted: Yes
Budget amount: \$68,000
Line Items: 01-6302-05, 01-6305-02, 01-6307-05
Legal Counsel Review: No
Meeting Date: November 4, 2021

TO: Board of Directors

FROM: Betty Burnett, SOCWA General Manager

STAFF CONTACT: Matt Clarke, IT Administrator

SUBJECT: Contract Award to NexusTek for Information Technology Services

Summary

NexusTek firm provides monthly hosting services, emergency back-up services, and associated licenses to support the business network. This agenda item reviews the list of associated monthly services provided by NexusTek. Included in this review are additional services that have been provided by NexusTek in conformance with the Uniform Purchasing Policy.

Discussion/Analysis

The following items are provided by NexusTek:

- Cloud infrastructure at Tier IV data center and hosting services,
- Customer support of business infrastructure,
- Monthly E1 and E5 enterprise licensing,
- Veeam Backup repository for emergency response,
- Microsoft Defender for O365 licensing,
- Azure Site replication, and
- Power BI licensing.

Additional as needed services provided by NexusTek in past fiscal years:

- Help desk for advanced engineering configurations,
- Seismic bracing services for server rack migration,
- After hours back-up support,
- In person support for staff vacations,
- Vendor hardware and software renewals, and
- Software upgrades.

Fiscal Impact: Distribution to Member Agencies is by Department and by PC based on budgeted labor distribution.

Recommended Action: Staff recommends award of a multi-year contract to NexusTek for Information Technology/Hosting Monthly Services in an amount not to exceed \$68,000 in annual costs.

Agenda Item

6.D.

Budgeted: Yes
Budget amount: \$107,000
Line Item: PC2, 15 &17 Lines 5009
Legal Counsel Review: No
Meeting Date: November 4, 2021

TO: Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Jim Burror, Director of Operations

SUBJECT: Contract Extension Award to Northstar Chemical for Sodium Hydroxide
[Project Committees Nos. 2, 15, and 17]

Summary

The initial 2-year term of the sodium hydroxide chemical contract with Northstar Chemical ends on December 1, 2021. There are up to 3 annual renewals available with the contract. This chemical is necessary to maintain compliance with air quality regulation for hydrogen sulfides in the foul air discharges from the foul air scrubbers within the wastewater treatments.

Because of the substantial proposed increases ranging from 10.3% to 19.5% by Northstar Chemical, Staff will continue to evaluate options in the coming year. At this time, the SOCWA Board is being requested to approve the 1-year contract extension with Northstar Chemical for sodium hydroxide as shown below, plus applicable fees and taxes, including applicable charges for split load deliveries:

Product	Delivery Volume	Unit	Current Price	Future Price	Increase %
Sodium Hydroxide - 50%	(1-500 gals)	per gallon	\$3.25	\$3.63	11.692%
Sodium Hydroxide - 50%	(501-1000 gals)	per gallon	\$2.70	\$3.08	14.074%
Sodium Hydroxide - 50%	(1001-2000 gals)	per gallon	\$2.40	\$2.78	15.833%
Sodium Hydroxide - 50%	(2001-3900 gals)	per gallon	\$2.30	\$2.68	16.522%
Sodium Hydroxide - 50%	(>3900 gals) Full Load	per gallon	\$1.95	\$2.33	19.487%
Sodium Hydroxide - 30%	(1-500 gals)	per gallon	\$1.94	\$2.14	10.309%
Sodium Hydroxide - 30%	(501-700 gals)	per gallon	\$1.73	\$1.93	11.561%
Sodium Hydroxide - 30%	(701-1000 gals)	per gallon	\$1.44	\$1.64	13.889%

Sodium Hydroxide - 30%	(1001-2000 gals)	per gallon	\$1.34	\$1.54	14.925%
Sodium Hydroxide - 30%	(2001-4900 gals)	per gallon	\$1.26	\$1.46	15.873%
Sodium Hydroxide - 30%	(>4900 gals) Full Load	per gallon	\$1.26	\$1.46	15.873%
Sodium Hydroxide - 25%	(501-1500 gals)	per gallon	\$1.27	\$1.47	15.748%

Discussion/Analysis

The proposed increase from Northstar Chemical for this 1-year extension is an increase ranging from 10.3% to 19.5% over the current contract pricing. The primary driver for the proposed increase in the costs is associated with the transportation of the chemicals due to the nationwide truck driver shortage.

SOCWA operated plants do not use less than full loads and will be impacted by a 19.5% increase.

Prior Related Project Committee or Board Action(s)

None

Fiscal impact

The impact on each of the three Project Committees will be a 19.5% increase over last year's expenses for sodium hydroxide.

Recommended Action: Staff recommends award of a 1-year contract extension to Mile Chemical, Inc. for sodium hydroxide at the following rates, plus applicable fees and taxes, including applicable charges for split load deliveries:

Product	Delivery Volume	Unit	Current Price	Future Price	Increase %
Sodium Hydroxide - 50%	(1-500 gals)	per gallon	\$3.25	\$3.63	11.692%
Sodium Hydroxide - 50%	(501-1000 gals)	per gallon	\$2.70	\$3.08	14.074%
Sodium Hydroxide - 50%	(1001-2000 gals)	per gallon	\$2.40	\$2.78	15.833%
Sodium Hydroxide - 50%	(2001-3900 gals)	per gallon	\$2.30	\$2.68	16.522%
Sodium Hydroxide - 50%	(>3900 gals) Full Load	per gallon	\$1.95	\$2.33	19.487%
Sodium Hydroxide - 30%	(1-500 gals)	per gallon	\$1.94	\$2.14	10.309%
Sodium Hydroxide - 30%	(501-700 gals)	per gallon	\$1.73	\$1.93	11.561%
Sodium Hydroxide - 30%	(701-1000 gals)	per gallon	\$1.44	\$1.64	13.889%

Sodium Hydroxide - 30%	(1001-2000 gals)	per gallon	\$1.34	\$1.54	14.925%
Sodium Hydroxide - 30%	(2001-4900 gals)	per gallon	\$1.26	\$1.46	15.873%
Sodium Hydroxide - 30%	(>4900 gals) Full Load	per gallon	\$1.26	\$1.46	15.873%
Sodium Hydroxide - 25%	(501-1500 gals)	per gallon	\$1.27	\$1.47	15.748%

Agenda Item

6.E.

Budgeted: JBL Solids
Line Item: PC-2 Line 5059
Legal Counsel Review: No
Meeting Date: November 4, 2021

TO: Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Jim Burror, Director of Operations

SUBJECT: Unison Solutions, Inc. Service Agreement/Renewal in the amount of \$44,770.00 for a three-year service cycle ([Project Committee No. 2])

Summary

This agenda item provides a recommendation for awarding a contract/renewal for gas scrubber services with Unison Solutions, Inc. at the JB Latham Plant (JBL) as the current contract is nearing expiration. The new contract is priced at \$44,770, which will pay for services delivered over the coming three-year period.

Discussion/Analysis

The digester gas scrubbing system that cleans the digester gas used in the cogen engines requires annual servicing to help SOCWA comply with its SCAQMD permits. Unison Solutions, Inc. is the only authorized vendor allowed to service Unison Solutions, Inc. equipment. Therefore, this vital services can only be obtained from Unison Solutions, Inc.

Under the existing Uniform Purchasing Policy and Procedure the General Manager may authorize annual spending within a \$50,000 limit. Since Unison has served as a long-term supplier to SOCWA, if cumulated over multiple years the value paid by SOCWA to Unison for its past and future service will exceed \$50,000. The services provided by Unison are budgeted with related cogen expenses in the Cogen budget line item under Project Committee No. 2 (JBL).

Prior Related Project Committee (PC) or Board Action(s)

None

Fiscal impact

The allocation by Member Agency is presented below:

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PC-2 Solids O&M Allocations

Agency	% Allocation	Costs
CSJC	22.86%	\$10,234.42
MNWD	21.22%	\$9,501.54
SCWD	23.59%	\$10,562.59
SMWD	32.32%	\$14,471.01
Total	100.00%	\$44,770.00

Allocations shown above are presented on Page 59 of the FY2021-22 Budget Book.

Recommended Action: Staff recommends the Board of Directors authorize the General Manager to execute the new three (3) year JBL Gas Skid Service Agreement with Unison Solutions, Inc. in the amount of \$44,770.00.

Agenda Item

6.F.

Budgeted: RTP Cogen
Line Item: PC-02 Line 5059
Legal Counsel Review: No
Meeting Date: November 4, 2021

TO: Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Jim Burror, Director of Operations

SUBJECT: Unison Solutions, Inc. 2-Year Budget Authorization for Carbon Media Purchases \$150,000.00 [Project Committee No. 2]

Summary

This agenda item provides a recommendation to authorize the General Manager to purchase carbon media included in the Cogen Budget line from Unison Solutions, Inc. at the JB Latham Treatment Plant (JBL PC-2).

Discussion/Analysis

The digester gas scrubbing system at JBL cleans the digester gas used in the cogen engines. This allows SOCWA to offset power demands by creating power from the digester gas and helps SOCWA comply with its SCAQMD permits for sulfide emissions. The carbon gas scrubbing systems media is replaced one (1) to two (2) times per year at JBL.

SOCWA staff tested four (4) different carbon media options since 2018. It was determined that only a wood-based carbon media functions with digester gas. The wood-based media at JBL lasts up to 18 months, and all other media forms fail in under two (2) months.

Unison Solutions, Inc. is the only known vendor that supplies wood-based carbon media in the United States. Therefore, this vital material can only be attained from Unison Solutions, Inc.

Lastly, when sulfur starts to break through the media in the first vessel, the vessel requires an immediate media replacement in order for the cogen system to stay in compliance. Therefore, SOCWA staff is requesting the General Manager be authorized to procure the needed carbon media as needed, when needed, to maintain uninterrupted operations.

The carbon media provided by Unison is budgeted with related cogen expenses in the Cogen budget line item under Project Committee No. 2 (JBL).

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Prior Related Project Committee (PC) or Board Action(s)

Project Committee 17 (PC-17) approved a similar authorization for the General Manager to allow for two (2) years of media replacements at a Special PC-17 Meeting held on October 1, 2021.

Fiscal impact

The allocation by Member Agency is presented below:

PC2 O&M Solids Allocation

Agency	Budget Allocation % (1)	Cost
CSJC	30.08%	\$45,120
MNWD	20.34%	\$30,510
SCWD	22.26%	\$33,390
SMWD	27.32%	\$40,980
Total	100.00%	\$150,000

(1) FY2021-22 Budget Book

Recommended Action: Staff recommends the Board of Directors authorize the General Manager purchasing authority for JBL PC-2 to procure wood-based carbon media as budgeted over the next two (2) years in the amount not to exceed \$150,000.00.

Agenda Item

6.G.

Budgeted: NA

Line Item: 5002 – Electricity

Legal Counsel Review: No

Meeting Date: November 4, 2021

TO: Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Jim Burror, Director of Operations

SUBJECT: Enrollment in Southern California Edison's Emergency Load Reduction Program [Project Committee Nos. 15 and 17]

Summary

This agenda item provides a recommendation to authorize the General Manager to execute an enrollment agreement in Southern California Edison (SCE) Emergency Load Reduction Program (ELRP) for Project Committee Nos. 15 (CTP) and 17 (RTP).

Discussion/Analysis

The State of California's Public Utilities Commission (CPUC) created a pilot program designed to allow the state's investor-owned utilities (IOUs) and the California Independent System Operator (CAISO), which manages the state's electric grid, to rely on additional reductions in electric demand during times of peak usage when there may be limited generation available. The program helps eliminate the need for rotating outages while minimizing costs to ratepayers associated with building additional standby resources that are seldom used.

If SOCWA were to participate in the program, SOCWA would turn on standby generators at CTP and RTP to reduce loads to the power grid. The standby generators would reduce SOCWA's load on SCE by 350 kWh and allow SCE to ensure power to about 300 residents during power emergencies. The estimated net benefit to SOCWA would be about \$500 per event after expenses charges to operate the standby generators. The actual compensation will be based on the actual reduction in load for SOCWA's baseline utilization for the period of the emergency event. The event will be triggered by the proclamation by the Governor of California or the CAISO.

The ELRP program parameters include the following:

Program availability May – October; seven days a week; 4 p.m. – 9 p.m.

Event duration 1-hour minimum; 5-hour maximum

Annual dispatch limit Up to 60 hours

Consecutive day dispatches No constraints

Penalties: No penalties for SOCWA for non-performance

Compensation Rate: \$1 per kilowatt-hour (\$1/kWh) for verified load shed

CTP shed baseline: 275 kWh

RTP shed baseline: 75 kWh

Prior Related Project Committee (PC) or Board Action(s)

None

Fiscal impact

The estimated net benefit to SOCWA would be about \$500 per event after expenses for fuel and overtime charges to operate the standby generators. The actual value of the compensation to SOCWA will be in the form of a credit on the following month's electricity bill. The by PC estimated net benefit is \$400 for PC15 and \$100 for PC17 per event.

Recommended Action: Staff recommends the Board of Directors authorize the General Manager to execute the Agreement for Customers Enrolling Multiple Services Accounts in the Emergency Load Reduction Program with Southern California Edison.

Agenda Item

6.H.

Budgeted: Yes

Budget amount: \$277,000

Line Item: PC2, 15 & 17 Lines 5019

Meeting Date: November 4, 2021

TO: Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Jim Burror, Director of Operations

SUBJECT: Contract Award to Sunset Property Services for Street Sweeping Services [Project Committee Nos. 2, 15, and 17]

Summary

Staff recommends awarding a contract to Sunset Property Services for bi-weekly plant street sweeping services.

Discussion/Analysis

SOCWA operates three wastewater treatment plants and access roads that require street sweeping services to maintain cleanliness and control dust.

SOCWA staff issued RFP 21-002 on Planet Bids for companies to respond to SOCWA's request for street sweeping services. The following are the milestones for the effort:

Issue RFP: May 17, 2021

Pre-Proposal Meeting: May 26, 2021 @ 8:30 AM

Deadline for Questions June 9, 2021 @ 11:00 AM

Proposals Due June 16, 2021 @ 11:00 AM

Questions and other documents like the pre-proposal meeting were posted on Planet Bids for vendors to have equal access to the proposal information. The result was that two Proposals were submitted for review and consideration: Bill's Street Sweeping Services and Clean Street

Non-Compliant Proposals (Phase 1) Review Results

Both proposals were determined to be compliant and provided all the required documents and information required in the RFP.

Initial Proposal (Phase 2) Review Results

The proposals were rated by SOCWA staff with a maximum score of 100. The result of the review are as follows:

Criteria/Vendor	Bill's	CleanStreet
Company Qualifications	15	20
Schedule	20	5
Pricing Approach	20	9
Contract Terms	15	15
Staff Experience	15	20
Total (of 100)	85	69

The current vendor for street sweeping at SOCWA is Bill's Street Sweeping, and they are in good standing with SOCWA.

The Proposals annual costs are summarized below:

Vendor	1-Year Cost
Bill's Street Sweeping Services (dba Sunset Property Services as of August 17, 2021)	\$15,420.00
Clean Street	\$29,668.62

After the proposals were received, reviewed, and rated, Sunset Property Services and Bill's Street Sweeping Services merged companies. Because the merged company will be doing business as Sunset Property Services, staff worked with the new company to confirm that the Bill's Street Sweeping proposal would be honored at the proposed fee. SOCWA staff also worked with the merged company to update all the submitted insurance and tax documents for verification. The effort to confirm and verify the merged company's information took several months.

Post RFP Process Public Comments

No protests were received.

SOCWA staff recommends Sunset Property Services for Street Sweeping Services with the highest overall proposal rating.

Prior Related Project Committee or Board Action(s)

None

Fiscal impact

None

Recommended Action: Staff recommends 1) the award of a contract to Sunset Property Services for two (2) years for a not to exceed the amount of \$30,840.00, and 2) the approval of up to 3 annual optional renewals upon mutual agreement of both parties.

Agenda Item

6.I.

Board of Directors Meeting

Meeting Date: November 4, 2021

TO: Board of Directors

FROM: Betty Burnett, General Manager

CONTACT: SOCWA Department Directors – Jim Burror, Amber Baylor, Jason Manning and Mary Carey

SUBJECT: Conferences and Training Year to Date

Summary / Discussion

At the October 19, 2021 Finance Committee meeting Director Ferons expressed an interest in reviewing SOCWA conferences and training expenditures. In order to update the Board on the budgeted amounts and accrued spending for the current fiscal year, beginning July 1, 2021 the following information is provided. The conferences and training budgets are set by department for O&M/Environmental/Safety, Engineering, IT and Administration. The proposed spending for conferences and training is included in the draft budgets reviewed at the level of the Finance Committee when the budget is prepared each year. The amounts are presented to the Board as information within the line item in each Department Budget. The following Table 1 lists the possible conferences to be attended. Consistent with current policy attendance is based on availability and General Manager/Director approval in alignment with the level of purchasing authority in the Uniform Purchasing Policy and Procedures.

Table 1

Department	Conference Type
Operations/Env/Safety	
- Tri-State	- Operator Training
- CASA Annual	- State Industry
- SCAP Annual	- Regional Industry
- WEF/WEFTEC	- National Industry
- HACH/WIMS	- Operating Systems
- Watereuse	- Reuse Industry
- GE Jenbacher	- Co-Gen Eng/Systems
- SARB/CWEA	- State Industry/Training
- Cert Adv Seminars	- Req'd Training
- CSDA	- Req'd Training
Engineering	
- Tri-State	- Eng'r Training
- CWEA	- Req'd Training
- WEFTEC	- National Industry
Administration	
- CSRMA/CASA	- Insurer/State Industry
- CalPERS	- Compliance/Training - Employee Benefits
- CSDA Bd Secretary	- Compliance/Training – Board Requirements
- CSMFO	- Compliance/Training – Accounting & Finance

Department Continued	Conference Type Continued
- CAPO	- Compliance/Training – Contracting & Procurement
- NCMA	- Compliance/Training – Contracting & Procurement
- PARMA	- Compliance/Training – Risk Management
- SCAP	- Regional Industry
- WEFTEC	- National Industry
IT	
- Disaster Recovery	- Recovery Preparation & Training
- Cyber Security	- Security Preparation & Training
- CBT Nuggets / Pluralsight	- IT Opportunities & Tools

Authorized Spending in the current fiscal year budget and level of expenditures YTD for current fiscal year are in Table 2 below:

Table 2

Department	Budget	YTD Expenditure
O&M/Environmental/Safety	\$29,928	\$360
Engineering	\$6,439	0
Administration	\$11,000	\$2,656
IT	\$1,500	0

Recommended Action: Information Item and Direction as the Board may determine.

Agenda Item

6.K.

Board of Directors Meeting

Meeting Date: November 4, 2021

TO: Board of Directors
FROM: Betty Burnett, General Manager
SUBJECT: General Manager's Status Report

Operations

Jim Burror will provide an update re: Ocean Outfall Flows Inception to Date.

Environmental Compliance

Amber Baylor will provide an update re: Recycled Water – Wastewater Supply vs. Production Report

Administration

Review of Proposed Meeting Calendar beginning January 2022 – Asst Secretary to Board, Danita Hirsh. See Attachment.

Safety and Emergency Response

County Alert OC System Agreement

This Agreement has been provided to SOCWA and executed by the General Manager. This Agreement allows for authorization of the South Orange County Wastewater Authority to execute and manage a Memorandum of Understanding with South Orange County Wastewater Authority and the County of Orange to allow SOCWA use of the County's Countywide Mass Notification System under the terms and conditions of the County's Countywide Mass Notification System Operating Guidelines and vendor-provided agreements, commencing on July 1, 2021, through December 30, 2024.

There is no cost in participation for SOCWA.

800 MHZ Radio System – Agreement with OC Sheriff

An updated Agreement for the utilization of the 800 MHZ radio system operated by the OC Sheriff has been provided to SOCWA and executed by the General Manager. The 800MHZ radio system provides designated SOCWA employees with access to a coordinated communication system. The 800MHZ radio system is used exclusively by local, regional, and state public safety agencies under guidelines adopted by the National Public Safety Planning Advisory Committee. There are 55 nationwide regional public safety planning committee. The OC Sherriff oversees Region 5 for Orange County and Los Angeles. The agreement provides access to the public safety channel for public safety notification communication.

There a nominal cost for the 800 MHZ radio system paid quarterly to the County of Orange in the amount of \$300.

Grant Opportunities

SOCWA has received the draft 2021 Urban and Multi-benefit Drought Relief Grant Program Guidelines and Proposal Solicitation Package (September 2021). The South County IRWM Participants will be briefed on the opportunity at the upcoming IRWM Management Committee meeting scheduled for Monday, November 1, 2021 from 1:30 to 3:30 p.m. Contact for attendance to that meeting can be made to Maria Tamez or Jenna Voss at the County (Jenna.Voss@ocpw.ocgov.com). At that Management Committee meeting the County will brief participants as well on the Prop 1 – Round 2 IRWM Implementation Grant funding. County staff is anticipating sending out a survey to inform the IRWM Management Committee discussion.

Of interest to SOCWA specifically is the Drought Relief grant as the draft proposal notes funding available for “recycled water projects that support immediate relief to potable water supplies.” \$95 million is available for locations within Urban Water Management Plan areas. \$95 million is open to communities of all sizes. Minimum Grant is \$2 million. Project construction required by 2026. Money is also available for drought resiliency planning.

Member agencies may wish to consider working with SOCWA to make application for a regionally beneficial project. Concepts for a project could include:

- Repurposing the existing MNWD sewer to route effluent from CTP to Regional Plant to supplement recycled water supplies until small project DPR becomes feasible at CTP.
- Addition/rehab of recycled water storage at CTP – replace existing aging storage tank and/or enlarge it for more storage.
- Develop a small package recycled water plant at JBL to jump start delivery of recycled water to nearby parks, ball fields and common area landscapes in Dana Point and adjacent areas of San Juan Capistrano contiguous to Del Obispo.

South Orange County Wastewater Authority
Proposed
2022 Board Meeting Calendar

January							February							March							April						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
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2	3	4	5	6	7	8	6	7	8	9	10	11	12	6	7	8	9	10	11	12	3	4	5	6	7	8	9
9	10	11	12	13	14	15	13	14	15	16	17	18	19	13	14	15	16	17	18	19	10	11	12	13	14	15	16
16	17	18	19	20	21	22	20	21	22	23	24	25	26	20	21	22	23	24	25	26	17	18	19	20	21	22	23
23	24	25	26	27	28	29	27	28						27	28	29	30	31			24	25	26	27	28	29	30
30	31																										

May							June							July							August						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7				1	2	3	4						1	2		1	2	3	4	5	6
8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13
15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20
22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27
29	30	31					26	27	28	29	30			24	25	26	27	28	29	30	28	29	30	31			
														31													

September							October							November							December						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
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11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17
18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22		24	25	26	18	19	20	21	22	23	24
25	26	27	28	29	30		23	24	25	26	27	28	29	27	28	29	30				25	26	27	28	29	30	31
							30	31																			

2022 Conference Dates:

CASA Winter Conference	January 19-21, 2022	Palm Springs, CA
AWWA/WEF Utility Mgmt. Conf	February 21-24, 2022	San Antonio, TX
Water Reuse Conference	March 5-9, 2022	Sacramento, CA
CWEA Annual Conference	April 11-14, 2022	Sacramento, CA
ACWA Spring Conference	May 3-6, 2022	Sacramento, CA
CAJPA Conference	September 13-16, 2022	Lake Tahoe Resort
WEFTEC Annual Conference	October 8-12, 2022	New Orleans, LA
CRWUA Annual Conference	December 14-16, 2022	TBD

- | | |
|---|---|
| <p> Board Regular Meeting (8:30 a.m.)
 <i>(1st Tuesday of the month)</i></p> <p> Finance Special Committee (10:30 a.m.)
 <i>(3rd Tuesday of the month)</i>
 <small>(Monthly meetings as directed on February 20, 2020)</small></p> <p> Executive Regular Committee (9:00 a.m.)
 <i>(2nd Tuesday in May & November)</i></p> | <p> Board Budget Workshop (8:30 a.m.)</p> <p> Finance Special Committee (10:30 a.m.)
 <i>(Special Budget Review Meetings)</i></p> <p> Engineering Regular Committee (8:30 a.m.)
 <i>(2nd Thursday of the Month)</i></p> |
|---|---|

SOCWA Meetings are held virtually via Zoom until further notice
34156 Del Obispo Street, Dana Point, California

Red numbered dates indicate SOCWA holidays and weekends