

SAWPA

SANTA ANA WATERSHED PROJECT AUTHORITY

11615 Sterling Avenue, Riverside, California 92503 • (951) 354-4220

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This meeting will be conducted in person at the address listed above. As a convenience to the public, members of the public may also participate virtually using one of the options set forth above. Any member of the public may listen to the meeting or make comments to the Committee using the call-in number or Zoom link above. However, in the event there is a disruption of service which prevents the Authority from broadcasting the meeting to members of the public, the meeting will not be postponed or rescheduled but will continue without remote participation. The remote participation option is provided as a convenience to the public and is not required. Members of the public are welcome to attend the meeting in-person.

REGULAR MEETING OF THE PROJECT AGREEMENT 24 COMMITTEE

Inland Empire Brine Line

TUESDAY, OCTOBER 1, 2024 – 10:00 A.M.

(or immediately following the 9:30 a.m. SAWPA Commission meeting)

Committee Members

Eastern Municipal Water District	Inland Empire Utilities Agency
Joe Mouawad, General Manager	Director Jasmin A. Hall
Director David J. Slawson (Alt)	Shivaji Deshmukh, General Manager (Alt)
San Bernardino Valley Municipal Water District	Western Municipal Water District
San Bernardino Valley Municipal Water District Director T. Milford Harrison, Chair	Western Municipal Water District Director Mike Gardner, Vice Chair

AGENDA

1. CALL TO ORDER | PLEDGE OF ALLEGIANCE (T. Milford Harrison, Chair)

2. ROLL CALL

3. PUBLIC COMMENTS

Members of the public may address the Committee on items within the jurisdiction of the Committee; however, no action may be taken on an item not appearing on the agenda unless the action is otherwise authorized by Government Code §54954.2(b).

Members of the public may make comments in-person or electronically for the Committee's consideration by sending them to publiccomment@sawpa.gov with the subject line "Public Comment". Submit your electronic comments by 5:00 p.m. on Monday, September 30, 2024. All public comments will be provided to the Chair and may be read into the record or compiled as part of the record. Individuals have a limit of three (3) minutes to make comments and will have the opportunity when called upon by the Committee.

4. ITEMS TO BE ADDED OR DELETED

Pursuant to Government Code §54954.2(b), items may be added on which there is a need to take immediate action and the need for action came to the attention of the Santa Ana Watershed Project Authority subsequent to the posting of the agenda.

5. CONSENT CALENDAR

All matters listed on the Consent Calendar are considered routine and non-controversial and will be acted upon by the Committee by one motion as listed below.

6. COMMITTEE DISCUSSION/ACTION ITEMS

A. BRINE LINE SOLIDS IMBALANCE AND BILLING FORMULA UPDATE (PA24#2024.20) .9

Presenter: Lucas Gilbert

Recommendation: Authorize the General Manager to issue a General Services Agreement and Task Order No. TRU240-27 to Trussell Technologies, Inc. to provide Professional Services to investigate the Brine Line solids imbalance and update or revise as necessary, the Brine Line Billing Formula in an amount not to exceed \$154,390.

Presenter: David Ruhl

Recommendation: Receive and file.

7. INFORMATIONAL REPORTS

Recommendation: Receive for information.

- - Fresenter. Rateri Williams
- B. FINANCIAL REPORT FOR THE INLAND EMPIRE BRINE LINE ENTERPRISE/CIP FOR THE FOURTH QUARTER ENDING JUNE 30, 202457

Presenter: Karen Williams

C. GENERAL MANAGER REPORT

Presenter: Jeff Mosher

- D. COMMITTEE MEMBERS COMMENTS
- E. CHAIR'S COMMENTS/REPORT

8. COMMITTEE MEMBER REQUESTS FOR FUTURE AGENDA ITEMS

9. CLOSED SESSION

There were no Closed Session items anticipated at the time of the posting of this agenda.

10. ADJOURNMENT

PLEASE NOTE:

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Clerk of the Board at (951) 354-4220. Notification at least 48 hours prior to the meeting will enable staff to make reasonable arrangements to ensure accessibility to this meeting.

Materials related to an item on this agenda submitted to the Committee after distribution of the agenda packet are available for public inspection during normal business hours at the SAWPA office, 11615 Sterling Avenue, Riverside, and available at www.sawpa.org, subject to staff's ability to post documents prior to the meeting.

Declaration of Posting

I, Sara Villa, Clerk of the Board of the Santa Ana Watershed Project Authority declare that on September 26, 2024, a copy of this agenda has been uploaded to the SAWPA website at www.sawpa.gov and posted at SAWPA's office, 11615 Sterling Avenue, Riverside, California.

2024 Project Agreement 24 Committee Regular Meetings

Inland Empire Brine Line First Tuesday of Every Month

(Note: All meetings begin at 10:00 a.m., or immediately following the 9:30 a.m. SAWPA Commission meeting, whichever is earlier, unless otherwise noticed, and are held at SAWPA.)

January		February	
1/2/24	Regular Committee Meeting [cancelled]	2/6/24	Regular Committee Meeting
March		April	
3/5/24	Regular Committee Meeting	4/2/24	Regular Committee Meeting
May		June	
5/7/24	Regular Committee Meeting [cancelled]	6/4/24	Regular Committee Meeting
5/14/24	Special Committee Meeting		
July		August	
7/2/24	Regular Committee Meeting	8/6/24	Regular Committee Meeting
Septembe	r	October	
9/3/24	Regular Committee Meeting	10/1/24	Regular Committee Meeting
November	· · · · · · · · · · · · · · · · · · ·	December	
11/5/24	Regular Committee Meeting	12/3/24	Regular Committee Meeting

2025 Project Agreement 24 Committee Regular Meetings

Inland Empire Brine Line First Tuesday of Every Month

(Note: All meetings begin at 10:00 a.m., or immediately following the 9:30 a.m. SAWPA Commission meeting, whichever is earlier, unless otherwise noticed, and are held at SAWPA.)

January		February	
1/7/25	Regular Committee Meeting	2/4/25	Regular Committee Meeting
March		April	
3/4/25	Regular Committee Meeting	4/1/25	Regular Committee Meeting
May		June	
5/6/25	Regular Committee Meeting	6/3/25	Regular Committee Meeting
July		August	
7/1/25	Regular Committee Meeting	8/5/25	Regular Committee Meeting
Septembe	r	October	
9/2/25	Regular Committee Meeting	10/7/25	Regular Committee Meeting
November		December	
11/4/25	Regular Committee Meeting	12/2/25	Regular Committee Meeting

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PROJECT AGREEMENT 24 COMMITTEE

Inland Empire Brine Line

REGULAR MEETING MINUTES September 3, 2024

COMMITTEE MEMBERS PRESENT

T. Milford Harrison, Chair, San Bernardino Valley Municipal Water District Governing Board Joe Mouawad, Eastern Municipal Water District General Manager Jasmin A. Hall, Inland Empire Utilities Agency Governing Board

COMMITTEE MEMBERS ABSENT

Mike Gardner, Vice Chair, Western Municipal Water District Governing Board

ALTERNATE COMMITTEE MEMBERS PRESENT [Non-Voting]

Gil Botello, San Bernardino Valley Municipal Water District Governing Board

STAFF PRESENT

Jeff Mosher, Karen Williams, David Ruhl, Daniel Vasquez, Dean Unger, John Leete, Shavonne Turner, Zyanya Ramirez

OTHERS PRESENT

Derek Kawaii, Western Municipal Water District; Bruce Whitaker, Orange County Water District; Tammie Myers, Monte Vista Water District

1. CALL TO ORDER | PLEDGE OF ALLEGIANCE

The Regular Meeting of the PA 24 Committee was called to order at 10:15 a.m. by Chair T. Milford Harrison on behalf of the Santa Ana Watershed Project Authority, 11615 Sterling Avenue, Riverside, CA 92503.

2. ROLL CALL

3. PUBLIC COMMENTS

There were no public comments: there were no public comments received via email.

4. ITEMS TO BE ADDED OR DELETED

There were no added or deleted items.

5. CONSENT CALENDAR

A. APPROVAL OF MEETING MINUTES: AUGUST 6, 2024

Recommendation: Approve as posted.

MOVED, to approve the Consent Calendar as posted.

Result: Adopted by Roll Call Vote

Motion/Second: Mouawad/Hall

Ayes: Hall, Harrison, Slawson

Nays: None
Abstentions: None
Absent: Gardner

6. COMMITTEE DISCUSSION/ACTION ITEMS

A. REACH IV-B CONDITION ASSESSMENT FINAL REPORT (PA24#2024.18)

Daniel Vasquez provided a presentation titled Reach IV-B Condition Assessment Final Report, contained in the agenda packet on pages 15-25.

On February 6, 2024, SAWPA staff presented a Condition Assessment Draft Report to the PA 24 Committee for Reach IV-B, which had been inspected through manned-entry at three maintenance access structures and CCTV of 3,379 feet of pipe. The report highlighted minor to moderate corrosion throughout the inspected areas, with a moderate failure of the pipeline's coated lining. The condition of the pipe was rated between Level 2 (minor) and Level 3 (moderate) on a five-point scale, indicating minor damage with an estimated remaining useful life of 10 to 20 years. Recommendations included near-term actions, such as bypassing sections for joint repairs and manned-entry inspections, costing \$1.75 million. Mid-term measures over the next 7 to 10 years, estimated at \$3.2 million, involve extensive cleaning, inspections, and evaluation of repair options. In the long term, full rehabilitation of the pipeline is suggested at an estimated cost of \$8.79 million. The report will be incorporated into the Brine Line CIP, and no comments were received from member agency staff.

Committee member Mouawad expressed relief that there were no Level 4 or 5 issues and asked if there are condition assessments for other reaches. Mr. Vasquez confirmed that these are included in the Capital Improvement Plan (CIP) to help project costs.

This item is to receive and file; no action was taken on agenda item no. 6.A.

B. INLAND EMPIRE BRINE LINE 10-YEAR CAPITAL IMPROVEMENT PLAN (PA24#2024.19) David Ruhl provided a presentation titled Inland Empire Brine Line 10-Year Capital Improvement Plan, contained in the agenda packet on pages 67-73.

The Inland Empire Brine Line Capital Improvement Plan (CIP) is essential for the long-term sustainability of the Brine Line, with an estimated cost of \$78 million over the next ten years, through Fiscal Year 2035. This plan is part of a broader 40-year strategy, which has a total estimated build-out cost of \$367 million, prioritizing projects based on criticality assessments.

Significant allocations are planned in years 7 and 10 for offline reliability improvements in brine line reservoirs, enabling them to manage flow during potential failures. A study in the fourth year will assess key locations further. The CIP also incorporates ongoing system inspections to identify necessary repairs and improvements.

Inflation considerations are a focus, with discussions around a potential 3% increase to align with standards, and adjustments will be made based on yearly projections. Improvements in pipe materials are being implemented, with older infrastructure being replaced by more durable options like reinforced fiberglass and thicker HDPE pipes.

Funding for projects will derive from reserves for long-term initiatives, with budget allocations for studies, and larger projects may combine reserves and loans. Additionally, grant opportunities to support watershed improvements are being explored with member agencies. A workshop for member agency staff to review the CIP and Master Plan is scheduled for September.

This item is to receive and file; no action was taken on agenda item no. 6.B.

7. INFORMATIONAL REPORTS

Recommendation: Receive and file the following oral/written reports/updates.

PA24 Committee Regular Meeting Minutes September 3, 2024 Page 3

A. BRINE LINE FINANCIAL REPORT – JUNE 2024

There were no comments/reports from SAWPA staff.

B. GENERAL MANAGER REPORT

Jeff Mosher noted that staff is in the process of scheduling the upcoming SAWPA/OC San Joint Policy Committee meeting for October, and they are currently developing the agenda.

C. COMMITTEE MEMBERS COMMENTS

There were no Committee Member comments.

D. CHAIR'S COMMENTS/REPORT

There were no comments/reports from the Chair.

8. COMMITTEE MEMBER REQUESTS FOR FUTURE AGENDA ITEMS

There were no requests for future Agenda items.

9. CLOSED SESSION

Sara Villa, Clerk of the Board

There was no Closed Session.

10. ADJOURNMENT

There being no further business for review, Committee Chair T. Milford Harrison adjourned the Regular meeting at 10:53 a.m.

Approved at a Regular Meeting of the Project Agreement 24 Committee on October 1, 2024
T. Milford Harrison, Chair
Attest:

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PA 24 COMMITTEE MEMORANDUM NO. 2024.20

DATE: October 1, 2024

TO: Project Agreement 24 Committee

(Inland Empire Brine Line)

SUBJECT: Brine Line Solids Imbalance and Billing Formula Update

PREPARED BY: Lucas Gilbert, Manager of Permitting and Pretreatment

RECOMMENDATION

Authorize the General Manager to issue a General Services Agreement and Task Order No. TRU240-27 to Trussell Technologies, Inc. to provide Professional Services to investigate the Brine Line solids imbalance and update or revise as necessary, the Brine Line Billing Formula in an amount not to exceed \$154,390.

DISCUSSION

Trussell Technologies, Inc. (Trussell) first collaborated with SAWPA in 2011 to assess the nature and magnitude of the suspended solids formed in the Brine Line. SAWPA recovers costs paid to OC San using a billing formula to allocate the costs related to solids formation to each discharger. Trussell previously supported SAWPA in developing a monitoring program aimed at characterizing all discharger inputs and downstream water quality. System-wide concurrent monitoring was completed in April 2016, and from the monitoring data, Trussell developed a scientifically-based revision of the billing formula based on known formation mechanisms of the observed solids composition. SAWPA adopted this billing formula in July 2016. Trussell completed subsequent annual reviews of the monitoring data and billing formula parameters in 2017, 2018 and 2019, and no changes to the billing formula were recommended.

Since the last review of the billing formula there have been changes in the flow characteristics of the Brine Line due to new discharges and increased flow. In addition, the solids imbalance has increased since 2019 when the billing formula was last reviewed. Due to these changes in the solids imbalance, SAWPA staff requested Trussel to submit a scope of work and fee to conduct a study of the solids imbalance and review the Billing Formula and make recommendations for changes as necessary.

The attached scope of work includes the professional services to conduct a study that will (a) assess recent suspended solids formation in the Brine Line and (b) develop an updated scientifically-based formula, or other methodology as necessary, for allocating associated formation costs. The scope of work was provided to the Member Agencies for review.

RESOURCE IMPACTS

Funds to cover the Brine Line Billing Formula Update are included in the Fiscal Year 24-25 Budget Fund 240 (Brine Line Enterprise).

Attachments:

- 1. Task Order No. TRU240-27 and Scope of Work
- 2. General Services Agreement
- 3. PowerPoint Presentation

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SANTA ANA WATERSHED PROJECT AUTHORITY TASK ORDER NO. TRU240-27

CONSULTANT: Trussell Technologies, Inc. VENDOR NO.: 1915

224 N. Fair Oaks Avenue, Floor 2

Pasadena, CA 91103

COST: \$154,390.00

PAYMENT: Upon Receipt of Proper Invoice

REQUESTED BY: Lucas Gilbert, Manager of Permitting October 1, 2024

and Pretreatment

FINANCE: _____ Karen Williams, Deputy GM/CFO Date

FINANCING SOURCE: Acct. Coding 240-00-60121-01

Acct. Description Brine Line Consulting

COMMITTEE AUTHORIZATION REQUIRED FOR THIS TASK ORDER: YES (X) NO ()

Authorization: October 1, 2024; PA24#2024.20

This Task Order is issued upon approval and acceptance by the Santa Ana Watershed Project Authority (SAWPA) and Trussell Technologies, Inc. (Consultant) pursuant to the General Services Agreement between SAWPA and Consultant, entered into on October 1, 2024, expiring December 31, 2027.

I. PROJECT NAME OR DESCRIPTION

Brine Line Billing Formula Update Study

II. SCOPE OF WORK / TASKS TO BE PERFORMED

Consultant shall provide labor and materials for a study to update the Inland Empire Brine Line Billing Formula to reflect changes from the past five years in the characterization and magnitude of wastewater discharged to the system, as well the transformation of suspended solids within the system. See attached scope of work and fee.

III. PERFORMANCE TIME FRAME

Consultant shall begin work November 1, 2024, and shall complete performance of such services by **August 31, 2025.**

IV. SAWPA LIAISON

Lucas Gilbert shall serve as liaison between SAWPA and Consultant.

V. COMPENSATION

For all services rendered by Consultant pursuant to this Task Order, Consultant shall receive a total not-to-exceed sum of \$154,390.00. Payment for such services shall be made monthly upon receipt of timely and proper invoices from Consultant, as required by the above-mentioned Agreement. Each such invoice shall be provided to SAWPA by Consultant within 15 days after the end of the month in which the services were performed.

VI. CONTRACT DOCUMENTS PRECEDENCE

In the event of a conflict in terms between and among the contract documents herein, the document item highest in precedence shall control. The precedence shall be:

- **a.** The Agreement for Services by Independent Consultant/Contractor.
- **b.** The Task Order or Orders issued pursuant to the Agreement, in numerical order.
- **c.** Exhibits attached to each Task Order, which may describe, among other things, the Scope of Work and compensation therefore.
- **d.** Specifications incorporated by reference.
- **e.** Drawings incorporated by reference.

In witness whereof, the parties have executed this Task Order on the date indicated below.

SANTA ANA WATERSHED PROJECT AUTHORITY										
Jeffrey J. Mosher, General Manager	Date									
TRUSSELL TECHNOLOGIES, INC.										
(Signature)	 Date	Print/Type Name and Title								



June 14, 2024

Lucas Gilbert
Manager of Permitting and Pretreatment
Santa Ana Watershed Project Authority
11615 Sterling Avenue, Riverside, CA 92503-4979

Subject: Proposal for Inland Empire Brine Line Billing Formula Update Study

Dear Lucas,

We are pleased to submit the enclosed proposal to support the Santa Ana Watershed Project Authority (SAWPA) with a study to update the Inland Empire Brine Line (Brine Line) Billing Formula to reflect changes from the past five years in the characterization and magnitude of wastewater discharged to the system, as well the transformation of suspended solids within the system.

For this effort, Trussell Technologies, Inc. (Trussell) will leverage our understanding of the Brine Line system gained through our prior collaboration with SAWPA in assessing changes in the suspended solids from the points of discharge to the downstream County Line. The proposed scope of work aims to assess recent suspended solids formation in the Brine Line by reviewing historical water quality data from individual dischargers and the County Line, characterizing the solids in samples representative of the County Line, and developing a scientifically-based billing formula that will allow for equitable recovery of costs related the changes in solids through the Brine Line system.

We look forward to re-engaging with you on this work. We are available to discuss all aspects of this proposal in further detail, as needed.

Sincerely,

Bryan Trussell, P.E., BCEE

Principal Engineer

Trussell Technologies, Inc.

Emily Owens-Bennett, P.E., BCEE Supervising Engineer Trussell Technologies, Inc.



SCOPE OF WORK Santa Ana Watershed Project Authority Inland Empire Brine Line Billing Formula Update Study

The Santa Ana Watershed Project Authority (SAWPA) owns and operates the Inland Empire Brine Line (Brine Line), which conveys a mixture of brine concentrate, domestic, and industrial wastewaters from its upper reaches in Riverside and San Bernardino Counties to Orange County. Upon crossing into Orange County (County Line), ownership of the wastewater is transferred from SAWPA to the Orange County Sanitation District (OCSD). OCSD bills SAWPA for the disposal of the wastewater in the Brine Line at the County Line, based on hydraulic flow and water quality measurements, include suspended solids and biochemical oxygen demand (BOD $_5$).

Trussell Technologies, Inc. (Trussell) first collaborated with SAWPA in 2011 to assess the nature and magnitude of the suspended solids formed in the Brine Line. SAWPA recovers costs paid to OCSD by charging each of the Brine Line dischargers a fee, using a billing formula to allocate the costs related to solids formation. Trussell previously supported SAWPA in developing a monitoring program aimed to characterize all discharger inputs and downstream water quality. System-wide concurrent monitoring was completed in April 2016, and from the monitoring data, Trussell developed a scientifically-based revision of the billing formula based on known formation mechanisms of the observed solids composition. SAWPA adopted this billing formula in July 2016, and Trussell completed subsequent annual reviews of the monitoring data and billing formula parameters in 2017, 2018 and 2019.

This scope of work describes the professional services to be provided by Trussell to support SAWPA in performing a study that will (a) assess recent suspended solids formation in the Brine Line and (b) develop an updated scientifically-based formula for allocating associated formation costs.

Task 1 – Brine Line Water Quality and Solids Formation Update

The first task is to summarize the recent water quality data of the Brine Line, since the last update was completed in 2019. Trussell will request water quality monitoring data generated since April 2019 from all dischargers and the County Line monitoring location to perform a system-wide water quality and solids formation assessment. Based on the results of this analysis, Trussell will provide recommendations regarding additional water quality and solids analyses to obtain sufficient data for updating the Brine Line solids formation and re-evaluating the billing formula, which will lead to the development of a Monitoring Plan as described in Task 2.

Trussell will summarize the water quality and document the updated historical assessment of solids formation in the Brine Line in a technical memorandum (TM). In addition, Trussell will facilitate a workshop for SAWPA to present findings and recommendations related to the updated water quality and solids formation assessment.

Deliverables:

- Request for information summarizing water quality data needs for monitoring results since 2019
- Draft Brine Line Water Quality and Solids Formation Update TM for SAWPA review



- Final Brine Line Water Quality and Solids Formation Update TM reflecting comments from SAWPA
- Powerpoint presentation and virtual workshop for SAWPA staff summarizing Water Quality and Solids Formation Update

Assumptions:

• Following the initial water quality summary and assessment of solids formation, Trussell will determine additional sampling and monitoring recommendations (see Task 2).

Task 2 – Additional Water Quality Monitoring and Solids Characterization

This task is the continuation of Task 1 to supplement the historical data with additional water quality and characterization of the solids present at the County Line in order to update the billing formula. Up to three sampling events will be completed to fill the data gaps identified through the Task 1 water quality assessment. Trussell will prepare a monitoring plan defining sampling parameters, location, and schedule. It is expected that samples will be collected from the County Line and processed to isolate and analyze the solid fraction, however there may be a need to collect additional discharger samples (e.g., significant temporal variability for a single discharger, insufficient data) pending findings from Task 1. Trussell will coordinate with SAWPA to complete the identified sampling. If targeted solids characterization is recommended from the County Line, Trussell will assist with sample allocation of a larger volume sample at the Canyon RV Park SMS, transport samples to the Trussell Lab, and process the liquid sample to concentrate the solids for analysis of the solid fraction. Previously, the solids were sent to two third party labs (Babcock Laboratories and Camet Research) for targeted analysis of particulate organic carbon, as well as thermogravimetric analysis, electron microscopy/x-ray spectroscopy (SEM/EDX), and x-ray diffraction (XRD). If additional discharger samples are recommended to fill data gaps, SAWPA will collect these samples and have them analyzed at their contract lab (costs are outside of the scope of the project).

Deliverables:

- Meeting with SAWPA to discuss recommended monitoring and plan
- Monitoring plan identifying water quality parameters, sampling locations, and monitoring frequency

Assumptions:

- Summary of Task 2 results and discussion of findings and recommendations will be incorporated into the Task 3 Brine Line Billing Formula Update TM. Budget for these efforts is accounted for under Task 3.
- SAWPA will need to collect large volume samples (approximately 10L, to be confirmed) from the County Line (Canyon RV Park SMS) to facilitate the solids characterization monitoring and analysis.
- Trussell will assist with sample allocation at the County Line and processing in the Trussell Lab to isolate solids for up to 3 sampling events for solids characterization.
- SAWPA will collect additional discharger samples, as needed based on data gaps identified from Task 1.
- External laboratory costs (e.g., Camet Research and Babcock Laboratories) for the asneeded water quality analyses and solids characterization are not included in this budget and it is expected that SAWPA will pay the labs, directly.

Task 3 – Billing Formula Update

Building on the prior methodology, as well as the findings from Task 1 and Task 2, Trussell will develop an updated scientifically-based billing formula to allocate the identified solids formation. This billing formula will be based on known formation mechanisms, as well as the observed water quality (Task 1) and solids composition (Task 2). Recommendations will also be provided for on-going monitoring used to inform this billing formula and implement it in real time. Trussell will prepare a TM documenting the solids characterization (Task 2), historical solids characterization and formation, as well as the recommended billing formula approach. These findings and recommendations will be presented to SAWPA in a workshop.

Deliverables:

- Draft Brine Line Billing Formula Update TM for SAWPA review
- Final Brine Line Billing Formula Update TM reflecting comments from SAWPA
- Powerpoint presentation and virtual workshop for SAWPA staff summarizing Brine Line Billing Formula Update

Assumption:

 Data from Task 2 analyses will be summarized in the Brine Line Billing Formula Update TM, along with a discussion of the associated solids formation findings and proposed billing formula methodology.

Task 4 – Project Management

Throughout the study, Trussell staff will communicate closely with SAWPA to provide updates on project activities, coordinate data requests and as-needed sampling events, and schedule progress meetings, and workshops. A kickoff meeting will be convened at the beginning of the project to review the project approach, communicate data needs, and provide additional background information. Following completion of the study, Trussell will prepare a presentation summarizing the findings and recommendations for the SAWPA Board of Commissioners.

Deliverables:

- Virtual kickoff meeting (agenda, powerpoint presentation, meeting minutes)
- Up to 3 virtual project progress meetings (agenda, powerpoint presentation, meeting minutes)
- In-person presentation for SAWPA Board of Commissioners reviewing study findings and recommendations

Schedule

The proposed project schedule is presented in the following figure, assuming receipt of notice to proceed by July 1, 2024. Overall, a 9-month timeline is expected to complete the project.

Brine Line Billing Formula Update Study

Project Schedule
SAWPA - Brine Line Billing Formula Update Study

	Marker Indication	Month										
Task Description	warker indication	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	March		
Brine Line Water Quality & Solids Formation Update	TM, Workshop			••								
Water Quality Monitoring & Solids Characterization	Monitoring Plan, 3 Sampling Events					ling sched Monitori		ermined				
Billing Formula Update	TM, Workshop									••		
Project Management	Kickoff Meeting, Progress Meetings, Board Presentation	•			to 3 prog eded	ress meet	ngs as			•		



Budget

Our proposed engineering consultant fee for the scope of work outlined above is \$154,390. The budget breakdown by labor hours and other direct costs (ODCs) is shown below and Trussell's current rate sheet is attached. Note that external laboratory costs are not included in the Trussell budget and it is expected that SAWPA will pay the labs directly.

	Trussell Technologies											
Task No.	Staff Classification C		Prin Eng II	Sup Eng III	Sen Eng I	Assoc Eng II		Cost	c	DCs*	٦	otal Costs
	Hourly Billing Rate	\$400	\$360	\$320	\$230	\$180						
1	Brine Line Water Quality and Solids Formation Update	7	18	42	36	92	\$	47,560	\$	-	\$	47,560
1.1	Water quality data analysis and solids formation assessment	2	4	16	8	32	\$	14,960			\$	14,960
1.2	Draft Technical Memorandum	4	12	16	16	40	\$	21,920			\$	21,920
1.3	Final Technical Memorandum, incorporating comments	1	2	6	8	16	\$	7,760			\$	7,760
1.4	Workshop on Water Quality and Solids Formation Update			4	4	4	\$	2,920			\$	2,920
2	Water Quality Monitoring and Solids Characterization	1	3	10	28	27	\$	15,980	\$	717	\$	16,733
2.1	Monitoring plan	1	1	2	8		\$	3,240			\$	3,240
2.2	Meeting with SAWPA to review recommended monitoring and plan		2	4	8		\$	3,840			\$	3,840
2.3	Sampling support and and Trussell Lab solids processing (up to 3 bulk samples at SMS)			4	9	24	\$	7,670	\$	717	\$	8,423
2.4	Coordination with external Lab				3	3	\$	1,230			\$	1,230
3	Billing Formula Update	11	36	62	88	56	\$	67,520	\$	•	\$	67,520
3.1	Solid Characterization and Formation Analysis	6	18	24	48		\$	27,600			\$	27,600
3.2	Draft Technical Memorandum	4	12	24	24	40	\$	26,320			\$	26,320
3.3	Final Technical Memorandum	1	2	6	8	16	\$	7,760			\$	7,760
3.4	Meetings and Workshops		4	8	8		\$	5,840			\$	5,840
4	Project Management	1	14	29	23	11	\$	21,990	\$	559	\$	22,577
4.1	Commuincation of project progress with SAWPA, general project management		2	12	6	5	\$	6,840			\$	6,840
4.2	Project Progress Meetings (up to three)		6	9	9	6	\$	8,190			\$	8,190
4.3	Presentation for Board of Commissioners	1	6	8	8		\$	6,960	\$	559	\$	7,547
	TOTAL	20	71	143	175	186	\$	153,050	\$	1,276	\$	154,390

^{*}Total costs include 5% markup for ODCs. ODCs related to external laboratory costs are not included in the Trussell budget and it is expected that SAWPA will pay the lab directly



SANTA ANA WATERSHED PROJECT AUTHORITY GENERAL SERVICES AGREEMENT FOR SERVICES BY INDEPENDENT CONSULTANT

This Agreement is made this 1st day of October, 2024 by and between the Santa Ana Watershed Project Authority ("SAWPA") located at 11615 Sterling Avenue, Riverside, CA 92503 and Trussell Technologies, Inc. ("Consultant") whose address is 224 N. Fair Oaks Avenue, Floor 2, Pasadena, CA 91103.

RECITALS

This Agreement is entered into on the basis of the following facts, understandings, and intentions of the parties to this Agreement:

- SAWPA desires to engage the professional services of Consultant to perform such professional consulting services as may be assigned, from time to time, by SAWPA in writing;
- Consultant agrees to provide such services pursuant to, and in accordance with, the terms and conditions
 of this Agreement and has represented and warrants to SAWPA that Consultant possesses the necessary
 skills, qualifications, personnel, and equipment to provide such services; and
- The services to be performed by Consultant shall be specifically described in one or more written Task Orders issued by SAWPA to Consultant pursuant to this Agreement.

AGREEMENT

Now, therefore, in consideration of the foregoing Recitals and mutual covenants contained herein, SAWPA and Consultant agree to the following:

ARTICLE I

TERM OF AGREEMENT

1.01 This agreement shall become effective on the date first above written and shall continue until **December 31, 2027**, unless extended or sooner terminated as provided for herein.

ARTICLE II

SERVICES TO BE PERFORMED

- **2.01** Consultant agrees to provide such professional consulting services as may be assigned, from time to time, in writing by the Commission and the General Manager of SAWPA. Each assignment shall be made in the form of a written Task Order. Each such Task Order shall include, but shall not be limited to, a description of the nature and scope of the services to be performed by Consultant, the amount of compensation to be paid, and the expected time of completion.
- **2.02** Consultant may at Consultant's sole cost and expense, employ such competent and qualified independent professional associates, subcontractors, and consultants as Consultant deems necessary to perform each assignment; provided that Consultant shall not subcontract any work to be performed without the prior written consent of SAWPA.

ARTICLE III

COMPENSATION

- **3.01** In consideration for the services to be performed by Consultant, SAWPA agrees to pay Consultant as provided for in each Task Order.
- **3.02** Each Task Order shall specify a total not-to-exceed sum of money and shall be based upon the regular hourly rates customarily charged by Consultant to its clients.
- **3.03** Consultant shall not be compensated for any services rendered nor reimbursed for any expenses incurred in excess of those authorized in any Task Order unless approved in advance by the Commission and General Manager of SAWPA, in writing.

3.04 Unless otherwise provided for in any Task Order issued pursuant to this Agreement, payment of compensation earned shall be made in monthly installments after receipt from Consultant of a timely, detailed, corrected, written invoice by SAWPA's Project Manager, describing, without limitation, the services performed, when such services were performed, the time spent performing such services, the hourly rate charged therefore, and the identity of individuals performing such services for the benefit of SAWPA. Such invoices shall also include a detailed itemization of expenses incurred. Upon approval by an authorized SAWPA employee, SAWPA will pay within 30 days after receipt of a valid invoice from Consultant.

ARTICLE IV CONSULTANT OBLIGATIONS

- **4.01** Consultant agrees to perform all assigned services in accordance with the terms and conditions of this Agreement including those specified in each Task Order. In performing the services required by this Agreement and any related Task Order Consultant shall comply with all local, state and federal laws, rules and regulations. Consultant shall also obtain and pay for any permits required for the services it performs under this Agreement and any related Task Order.
- **4.02** Except as otherwise provided for in each Task Order, Consultant will supply all personnel and equipment required to perform the assigned services.
- **4.03** Consultant shall be solely responsible for the health and safety of its employees, agents and subcontractors in performing the services assigned by SAWPA.
- **4.04** Insurance Coverage: Consultant shall procure and maintain for the duration of this Agreement insurance against claims for injuries or death to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the Consultant, its agents, representatives, employees or sub-contractors.
- **4.04(a) Coverage -** Coverage shall be at least as broad as the following:
 - 1. Commercial General Liability (CGL) Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG 00 01) including products and completed operations, property damage, bodily injury, personal and advertising injury with limit of at least two million dollars (\$2,000,000) per occurrence or the full per occurrence limits of the policies available, whichever is greater. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (coverage as broad as the ISO CG 25 03, or ISO CG 25 04 endorsement provided to SAWPA) or the general aggregate limit shall be twice the required occurrence limit.
 - 2. Automobile Liability (if necessary) Insurance Services Office (ISO) Business Auto Coverage (Form CA 00 01), covering Symbol 1 (any auto) or if Consultant has no owned autos, Symbol 8 (hired) and 9 (non-owned) with limit of one million dollars (\$1,000,000) for bodily injury and property damage each accident.
 - Workers' Compensation Insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.
 - **4. Professional Liability** (Also known as Errors & Omission) Insurance appropriates to the Consultant profession, with limits no less than \$1,000,000 per occurrence or claim, and \$2,000,000 policy aggregate.
 - 5. Cyber Liability Insurance (Technology Professional Liability Errors and Omissions) If Consultant will be providing technology services, limits not less than \$2,000,000 per occurrence or claim, and \$2,000,000 aggregate or the full per occurrence limits of the policies available, whichever is greater. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by Consultant in this Agreement and shall include, but not be limited to, claims involving infringement of intellectual property, including but not limited to infringement of copyright, trademark, trade dress,

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invasion of privacy violations, information theft, damage to or destruction of electronic information, release of private information, alteration of electronic information, extortion and network security. The policy shall provide coverage for breach response costs as well as regulatory fines and penalties as well as credit monitoring expenses with limits sufficient to respond to these obligations.

If the Consultant maintains broader coverage and/or higher limits than the minimums shown above, SAWPA requires and shall be entitled to the broader coverage and/or higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to SAWPA.

4.04(b) If Claims Made Policies:

- 1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
- 2. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the contract of work.
- If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, the Consultant must purchase "extended reporting" coverage for a minimum of five (5) years after completion of contract work.

4.04(c) Waiver of Subrogation: The insurer(s) named above agree to waive all rights of subrogation against SAWPA, its elected or appointed officers, officials, agents, authorized volunteers and employees for losses paid under the terms of this policy which arise from work performed by the Named Insured for the Agency; but this provision applies regardless of whether or not SAWPA has received a waiver of subrogation from the insurer.

4.04(d) Other Required Provisions - The general liability policy must contain, or be endorsed to contain, the following provisions:

- 1. **Additional Insured Status:** SAWPA, its directors, officers, employees, and authorized volunteers are to be given insured status (at least as broad as ISO Form CG 20 10 10 01), with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts, or equipment furnished in connection with such work or operations.
- 2. **Primary Coverage:** For any claims related to this project, the Consultant's insurance coverage shall be primary at least as broad as ISO CG 20 01 04 13 as respects to SAWPA, its directors, officers, employees and authorized volunteers. Any insurance or self-insurance maintained by the Member Water Agency its directors, officers, employees and authorized volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

4.04(e) Notice of Cancellation: Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to SAWPA.

4.04(f) Self-Insured Retentions - Self-insured retentions must be declared to and approved by SAWPA. SAWPA may require the Consultant to provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or SAWPA.

4.04(g) Acceptability of Insurers - Insurance is to be placed with insurers having a current A.M. Best rating of no less than A: VII or as otherwise approved by SAWPA.

4.04(h) Verification of Coverage – Consultant shall furnish SAWPA with certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by SAWPA before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant's obligation to provide them. SAWPA reserves the right to require complete, certified copies of all required insurance policies, including policy Declaration pages and Endorsement pages.

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- **4.04(i) Subcontractors** Consultant shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Consultant shall ensure that SAWPA, its directors, officers, employees and authorized volunteers are additional insureds on Commercial General Liability Coverage.
- **4.05** Consultant hereby covenants and agrees that SAWPA, its officers, employees, and agents shall not be liable for any claims, liabilities, penalties, fines or any damage to property, whether real or personal, nor for any personal injury or death caused by, or resulting from, or claimed to have been caused by or resulting from, any negligence, recklessness, or willful misconduct of Consultant. To the extent permitted by law, Consultant shall hold harmless, defend at its own expense, and indemnify SAWPA, its directors, officers, employees, and authorized volunteers, against any and all liability, claims, losses, damages, or expenses, including reasonable attorney's fees and costs, arising from all acts or omissions of Consultant or its officers, agents, or employees in rendering services under this Agreement and any Task Order issued hereunder; excluding, however, such liability, claims, losses, damages or expenses arising from SAWPA's sole negligence or willful acts.
- **4.06** In the event that SAWPA requests that specific employees or agents of Consultant supervise or otherwise perform the services specified in each Task Order, Consultant shall ensure that such individual(s) shall be appointed and assigned the responsibility of performing the services.
- **4.07** In the event Consultant is required to prepare plans, drawings, specifications and/or estimates, the same shall be furnished with a registered professional engineer's number and shall conform to local, state and federal laws, rules and regulations. Consultant shall obtain all necessary permits and approvals in connection with this Agreement, any Task Order or Change Order. However, in the event SAWPA is required to obtain such an approval or permit from another governmental entity, Consultant shall provide all necessary supporting documents to be filed with such entity, and shall facilitate the acquisition of such approval or permit.
- **4.08** Consultant shall comply with all local, state and federal laws, rules and regulations including those regarding nondiscrimination and the payment of prevailing wages, if required by law.

ARTICLE V SAWPA OBLIGATIONS

- **5.01** SAWPA shall:
 - **5.01a** Furnish all existing studies, reports and other available data pertinent to each Task Order that are in SAWPA's possession;
 - **5.01b** Designate a person to act as liaison between Consultant and the General Manager and Commission of SAWPA.

ARTICLE VI

ADDITIONAL SERVICES, CHANGES AND DELETIONS

- **6.01** During the term of this Agreement, the Commission of SAWPA may, from time to time and without affecting the validity of this Agreement or any Task Order issued pursuant thereto, order changes, deletions, and additional services by the issuance of written Change Orders authorized and approved by the Commission of SAWPA.
- **6.02** In the event Consultant performs additional or different services than those described in any Task Order or authorized Change Order without the prior written approval of the Commission of SAWPA, Consultant shall not be compensated for such services.
- **6.03** Consultant shall promptly advise SAWPA as soon as reasonably practicable upon gaining knowledge of a condition, event, or accumulation of events, which may affect the scope and/or cost of services to be provided pursuant to this Agreement. All proposed changes, modifications, deletions, and/or requests for additional services shall be reduced to writing for review and approval or rejection by the Commission of SAWPA.

6.04 In the event that SAWPA orders services deleted or reduced, compensation shall be deleted or reduced by a comparable amount as determined by SAWPA and Consultant shall only be compensated for services actually performed. In the event additional services are properly authorized, payment for the same shall be made as provided in Article III above.

ARTICLE VII

CONSTRUCTION PROJECTS: CONSULTANT CHANGE ORDERS

7.01 In the event SAWPA authorizes Consultant to perform construction management services for SAWPA, Consultant may determine, in the course of providing such services, that a Change Order should be issued to the construction contractor, or Consultant may receive a request for a Change Order from the construction contractor. Consultant shall, upon receipt of any requested Change Order or upon gaining knowledge of any condition, event, or accumulation of events, which may necessitate issuing a Change Order to the construction contractor, promptly consult with the liaison, General Manager and Commission of SAWPA. No Change Order shall be issued or executed without the prior approval of the Commission of SAWPA.

ARTICLE VIII

TERMINATION OF AGREEMENT

- **8.01** In the event the time specified for completion of an assigned task in a Task Order exceeds the term of this Agreement, the term of this Agreement shall be automatically extended for such additional time as is necessary to complete such Task Order and thereupon this Agreement shall automatically terminate without further notice.
- **8.02** Notwithstanding any other provision of this Agreement, SAWPA, at its sole option, may terminate this Agreement at any time by giving 10 day written notice to Consultant, whether or not a Task Order has been issued to Consultant.
- **8.03** In the event of termination, the payment of monies due Consultant for work performed prior to the effective date of such termination shall be paid after receipt of an invoice as provided in this Agreement.

ARTICLE IX CONSULTANT STATUS

- **9.01** Consultant shall perform the services assigned by SAWPA in Consultant's own way as an independent contractor, in pursuit of Consultant's independent calling and not as an employee of SAWPA. Consultant shall be under the control of SAWPA only as to the result to be accomplished and the personnel assigned to perform services. However, Consultant shall regularly confer with SAWPA's liaison, General Manager, and Commission as provided for in this Agreement.
- **9.02** Consultant hereby specifically represents and warrants to SAWPA that the services to be rendered pursuant to this Agreement shall be performed in accordance with the standards customarily applicable to an experienced and competent professional consulting organization rendering the same or similar services. Furthermore, Consultant represents and warrants that the individual signing this Agreement on behalf of Consultant has the full authority to bind Consultant to this Agreement.

ARTICLE X

AUDIT AND OWNERSHIP OF DOCUMENTS

10.01 All draft and final reports, plans, drawings, specifications, data, notes, and all other documents of any kind or nature prepared or developed by Consultant in connection with the performance of services assigned to it by SAWPA are the sole property of SAWPA, and Consultant shall promptly deliver all such materials to SAWPA. Consultant may retain copies of the original documents, at its option and expense. Use of such documents by SAWPA for project(s) not the subject of this Agreement shall be at SAWPA's sole risk without legal liability or exposure to Consultant. SAWPA agrees to not release any software "code" without prior written approval from the Consultant.

10.02 Consultant shall retain and maintain, for a period not less than four years following termination of this Agreement, all time records, accounting records, and vouchers and all other records with respect to all matters concerning services performed, compensation paid and expenses reimbursed. At any time during normal business hours and as often as SAWPA may deem necessary, Consultant shall make available to SAWPA's agents for examination of all such records and will permit SAWPA's agents to audit, examine and reproduce such records.

ARTICLE XI MISCELLANEOUS PROVISIONS

- **11.01** This Agreement supersedes any and all previous agreements, either oral or written, between the parties hereto with respect to the rendering of services by Consultant for SAWPA and contains all of the covenants and agreements between the parties with respect to the rendering of such services in any manner whatsoever. Any modification of this Agreement will be effective only if it is in writing signed by both parties.
- **11.02** Consultant shall not assign or otherwise transfer any rights or interest in this Agreement without the prior written consent of SAWPA. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.
- **11.03** In the event Consultant is an individual person and dies prior to completion of this Agreement or any Task Order issued hereunder, any monies earned that may be due Consultant from SAWPA as of the date of death will be paid to Consultant's estate.
- **11.04** Time is of the essence in the performance of services required hereunder. Extensions of time within which to perform services may be granted by SAWPA if requested by Consultant and agreed to in writing by SAWPA. All such requests must be documented and substantiated and will only be granted as the result of unforeseeable and unavoidable delays not caused by the lack of foresight on the part of Consultant.
- **11.05** SAWPA expects that Consultant will devote its full energies, interest, abilities and productive time to the performance of its duties and obligations under this Agreement, and shall not engage in any other consulting activity that would interfere with the performance of Consultant's duties under this Agreement or create any conflicts of interest. If required by law, Consultant shall file a Conflict of Interest Statement with SAWPA.
- **11.06** Any dispute which may arise by and between SAWPA and the Consultant, including the Consultants, its employees, agents and subcontractors, shall be submitted to binding arbitration. Arbitration shall be conducted by a neutral, impartial arbitration service that the parties mutually agree upon, in accordance with its rules and procedures. The arbitrator must decide each and every dispute in accordance with the laws of the State of California, and all other applicable laws. Unless the parties stipulate to the contrary prior to the appointment of the arbitrator, all disputes shall first be submitted to non-binding mediation conducted by a neutral, impartial mediation service that the parties mutually agree upon, in accordance with its rules and procedures.
- 11.07 During the performance of the Agreement, Consultant and its subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status and denial of family care leave. Consultant and its subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Consultant and its subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code, Section 12290 et seq.) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 et seq., set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full. Consultant and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. Consultant shall include the

non-discrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

- **11.08** Contractor's employees, agents and subcontractors shall adhere to, and comply with, the California Drug Free Workplace Act at Government Code, Sections 8350 through 8357.
- **11.09** This contract may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, and such counterparts shall together constitute one and the same Contract. The parties shall be entitled to sign and transmit an electronic signature of this Contract (whether by facsimile, PDF or other email transmission), which signature shall be binding on the party whose name is contained therein. Each party providing an electronic signature agrees to promptly execute and deliver to the other party an original signed Contract upon request.

In witness whereof, the parties hereby have made and executed this Agreement as of the day and year first above-written.

SANTA ANA WATERSHED PROJECT AU	THORITY		
Jeffrey J. Mosher, General Manager	Date		
TRUSSELL TECHNOLOGIES, INC.			
(Signature)	 Date	Typed/Printed Name	

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Brine Line Solids Imbalance and Billing Formula Update

PA 24 Committee
Agenda Item No. 6.A
Lucas Gilbert
Manager of Permitting and Pretreatment
October 1, 2024

Recommendation

 Authorize the General Manager to issue a General Services Agreement and Task Order No. TRU240-27 to Trussell Technologies, Inc. to provide Professional Services to investigate the Brine Line solids imbalance and update or revise as necessary, the Brine Line Billing Formula in an amount not to exceed \$154,390.

SARI Metering Station (SMS)

SAWPA recovers costs paid to OC San, from monitoring conducted at SMS, using a billing formula to allocate the costs related to solids formation from each discharger.

SARI Metering Station



Background

- The solids formation creates an imbalance in the Total Suspended Solids (TSS) and Biochemical Oxygen Demand (BOD) measured at the SMS versus the dischargers input.
- To account for the imbalance, in 2016 SAWPA developed a scientifically-based revision of the previous billing formula based on known formation mechanisms of the observed solids composition.
- In July 2016, the SAWPA Commission adopted this revised Billing Formula
- SAWPA continues to implement the Billing Formula following subsequent annual reviews of the monitoring data and billing formula parameters in 2017, 2018 and 2019.

Brine Line Billing Formula

$$TSS_b = TSS_m + TSS_f * \left[\frac{dBOD_m}{dBOD_t} * (0.31) + \frac{Calcium_m}{Calcium_t} * (0.28) + \frac{Alkalinity_m}{Alkalinity_t} * (0.41) \right]$$

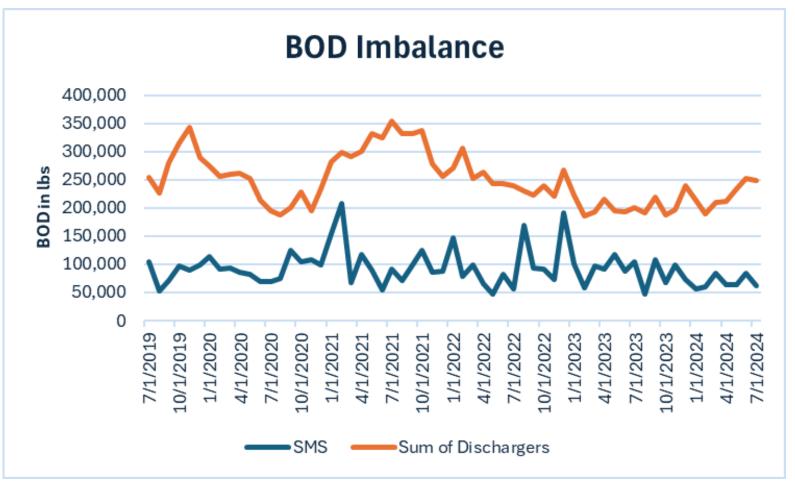
BOD Load Calcium Load Alkalinity Load

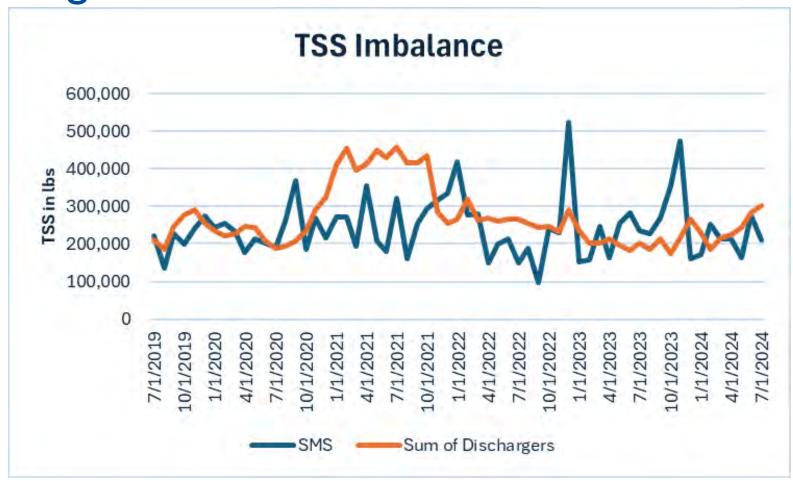
Where:

- TSS_n = Billed TSS to discharger
- TSS_m = Measured TSS for discharger
- TSS_i = Formed TSS in Brine Line (calculated)
- dBOD_m = Dissolved BOD measured for discharger
- dBOD_i = Total dissolved BOD measured for all dischargers
- Calcium_m = Dissolved calcium measured for discharger
- Calcium, = Total dissolved calcium measured for all dischargers
- Alkalinity_m = Dissolved alkalinity measured for discharger
- Alkalinity, = Total dissolved alkalinity measured for all dischargers.

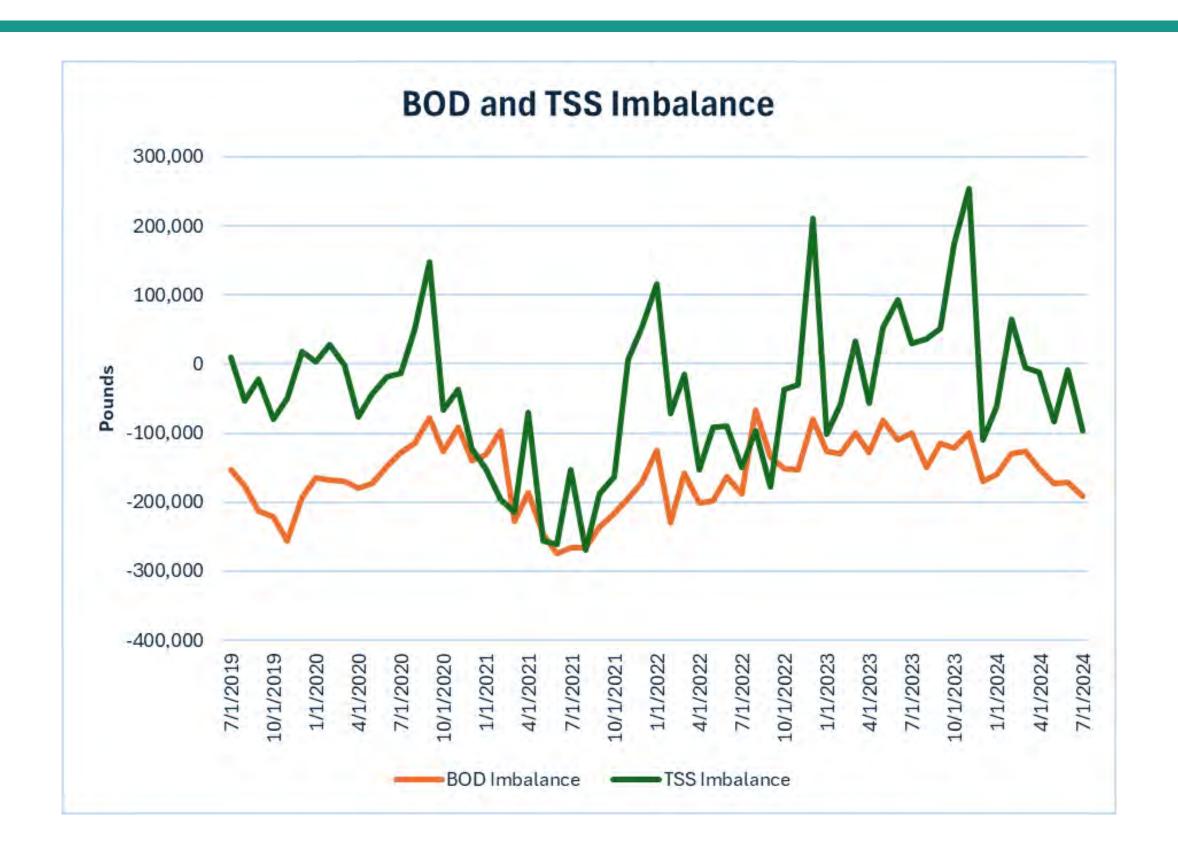
Background

 Since the last review of the billing formula there have been changes in the flow characteristics of the Brine Line due to new discharges and increased flow resulting in an increase to the solids imbalance since 2019 when the billing formula was last reviewed.





BOD and TSS Imbalance



Scope of Work and Schedule

 Perform a study that will (a) assess ~ 5 years of suspended solids formation in the Brine Line and (b) develop an updated scientifically-based formula, or other methodology as necessary, for allocating associated formation costs.

Task Description	Marker Indication	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Task 1 – Summarize and Review Data Since 2019	TM, Member Agency Workshop			••						
Task 2 – Supplemental Monitoring and Solids Characterization	Monitoring Plan, Sampling Events				•					
Task 3 – Update and/or Revision of the Billing Formula	Technical Memo, Member Agency Workshop									••
Meetings and Presentations	Kickoff Meeting, Progress Meeting, Findings Presentation to PA 24	•				•				•

Recommendation

 Authorize the General Manager to issue a General Services Agreement and Task Order No. TRU240-27 to Trussell Technologies, Inc. to provide Professional Services to investigate the Brine Line solids imbalance and update or revise as necessary, the Brine Line Billing Formula in an amount not to exceed \$154,390.

Questions?

Lucas Gilbert

Santa Ana Watershed Project Authority Office (951) 354-4245 | Cell (951) 415-5572 Igilbert@sawpa.gov sawpa.gov





PA 24 COMMITTEE MEMORANDUM NO. 2024.21

DATE: October 1, 2024

TO: Project Agreement 24 Committee

(Inland Empire Brine Line)

SUBJECT: Inland Empire Brine Line Request from YVWD to Purchase Treatment

and Disposal Capacity Rights

PREPARED BY: David Ruhl, Executive Manager of Engineering and Operations

RECOMMENDATION

Receive and file.

DISCUSSION

Yucaipa Valley Water District (YVWD) dischargers RO concentrate from the Wochholz Regional Water Recycling Facility (Facility) to the Brine Line. YVWD is expanding their Facility and has requested from SAWPA through San Bernardino Municipal Water District (Valley) to purchase 0.5 million gallons per day (MGD) of Treatment and Disposal Capacity Right (Capacity). Facility expansion is expected to be completed in December 2026.

In September 2024, SAWPA requested from Orange County Sanitation District (OC San) the cost to purchase 1 MGD of Capacity and the process to sell Capacity. OC San responded that based on the Wastewater Treatment and Disposal Agreement (1996 Agreement) between OC San and SAWPA, additional Capacity is not available for sale until SAWPA's brine discharge to OC San exceeds the currently owned Capacity. Currently, SAWPA owns 17 MGD of Capacity and discharges to OC San an annual daily average flow of 12.2 MGD.

The 1996 Agreement provides the terms and conditions for SAWPA to acquire Capacity in OC San's treatment facilities up to 30 MGD, including language that Capacity shall be purchased when the flow exceeds the existing owned Capacity and shall be sold in 1 MGD increments.

YVWD has informed SAWPA, that they have the funding available to purchase Capacity immediately.

SAWPA staff estimates that it will be several years before the Brine Line flow to OC San exceeds 17 MGD, allowing for the purchase of additional Capacity. The recently completed draft Brine Line Master Plan shows the Brine Line may exceed the currently owned 17 MGD Capacity in the next 5 to 10 years, depending on the timing of future projects.

As a result, SAWPA staff is investigating the option to sell Capacity to YVWD to meet their needs. This would require SAWPA to sell Capacity to YVWD in the next 6 months. When Capacity exceeds 17 MGD, SAWPA would use this funding to purchase additional Capacity from OC San.

An agreement between SAWPA and San Bernardino Valley and subsequent agreement between San Bernardino Valley and YVWD would require YVWD to pay the full cost SAWPA pays to OC San. YVWD would pay the current OC San cost upfront (or inflation adjusted cost

to a future date) with the difference in cost paid in the future (or returned if the future cost is less). SAWPA would hold the funds in reserve until such time it is required to purchase Capacity from OC San. Member Agencies and dischargers that own Capacity would not be impacted and would maintain their right to discharge up to their allotted Capacity.

Since SAWPA is required to purchase Capacity in 1 MGD increments, the remaining 0.5 MGD of Capacity would either be purchased by a Member Agency that needs Capacity or SAWPA would purchase and sell at a future time.

Next Steps

SAWPA staff will work with San Bernardino Valley and YVWD on an agreement and timing to purchase Capacity. An agreement or alternative option will be presented to the GM's and PA 24 Committee at a future meeting.

RESOURCE IMPACTS

OC San Future Treatment and Disposal Capacity Reserve (R-05) includes funds to purchase capacity from OC San. When capacity purchases are requested by member agencies, member agency funds are deposited in this reserve to cover the OC San purchase price.

Attachments:

1. PowerPoint Presentation

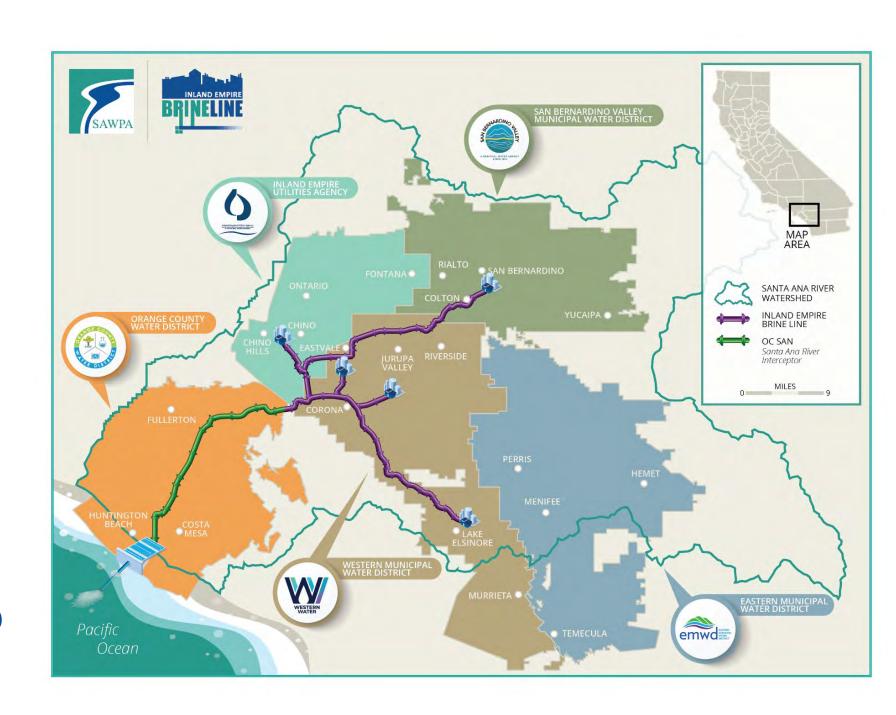


Request from YVWD to Purchase Treatment and Disposal Capacity Rights

Project Agreement 24 Committee
Item Number 6.B
David Ruhl, P.E.
Executive Manager of Engineering and Operations
October 1, 2024

Treatment and Disposal Capacity Right (Capacity)

- SAWPA has a 30 MGD Capacity Right in OC San's
 Treatment Facilities and ocean outfall
- SAWPA has purchased 17 MGD of Capacity and has sold this Capacity to Member Agencies
- Capacity is sold in 1 MGD increments (per the 1996 agreement between SAWPA and OC San)
- Purchase price is \$7,407,682 per MGD
 - Final purchase price obtained from OC San at the time of purchase.
- Note:
 - Per agreement, SAWPA must purchase additional 1 MGD of Capacity when monthly average flow (MGD) exceeds purchased Capacity (currently 17 MGD)



Process to Purchase Capacity

- Sub Agency request to Member Agency
- Member Agency request to SAWPA
- SAWPA notifies OC San of the need to purchase Capacity
- PA 24 Committee Approval of Capacity Purchase Agreements:
 - Between SAWPA and OC San
 - Between SAWPA and Member Agency
 - Note:
 - If Member Agency is selling Capacity, there is an agreement between the Member Agency and Sub Agency

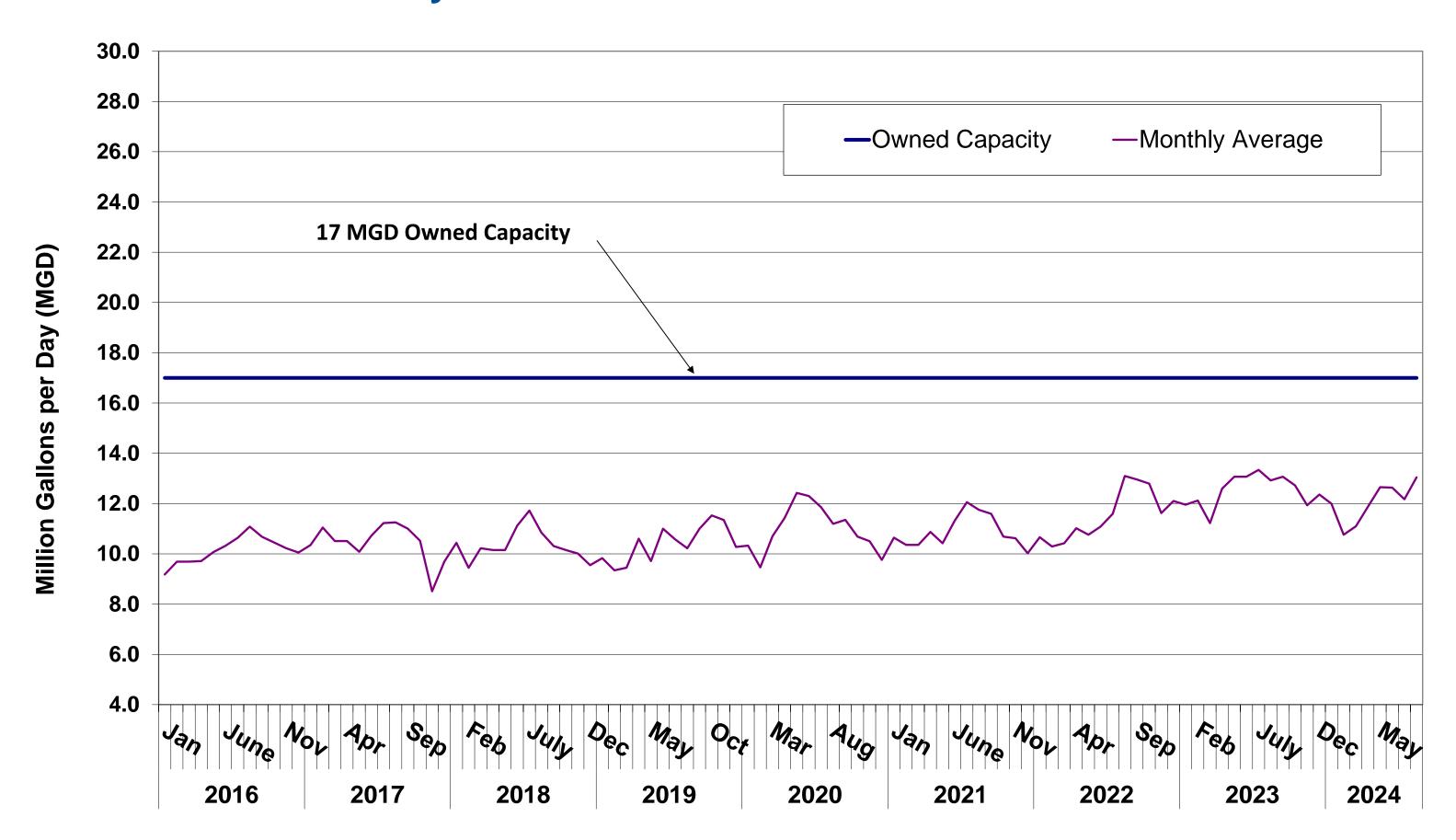
YVWD Request to Purchase Capacity

- YVWD discharges RO Concentrate from the Wochholz Regional Water Recycling Facility to the Brine Line
 - YVWD is expanding their Facility and anticipates completion in December 2026
 - YVWD has requested from SAWPA / Valley to purchase 0.5 MGD of T&D Capacity
- YVWD is interested in purchasing Capacity now based on:
 - YVWD Board has directed their staff to secure Capacity prior to the award of a construction contract
 - YVWD has secured funds from the Water Infrastructure Finance and Innovation Act (WIFIA)

Discussions with OC San

- SAWPA contacted OC San on their ability to sell Capacity
- OC San Response:
 - OC San is not willing to sell Capacity until SAWPA exceeds its purchased Capacity (per 1996 Agreement)
- Current information:
 - SAWPA owns 17 MGD of Capacity and currently discharges 12.2 MGD to OC San
 - Brine Line is expected to exceed the 17 MGD Capacity in next 5-10 years (per draft Brine Line Master Plan)

Brine Flow to OC San SARI Metering Station Historical Monthly Flow



Agency	Discharger	Allocated Capacity (MGD)	3 Month Ave Flow (MGD)	Unused Allocated Capacity (MGD)
CDA	Chino Desalter 1 and 2	3.670	3.603	0.067
EMWD	Menifee and Perris I and II Desalter	4.048	3.340	0.708
	Green River Golf Club	0.007	0.004	0.003
	California Institute for Women	0.400	0.186	0.214
	In N Out	0.086	0.071	0.015
	California Institute for Men	0.197	0.033	0.161
IEUA	Mission Linen	0.712	0.146	0.566
	OLS	0.129	0.013	0.116
	Repet	0.043	0.029	0.014
	Eastside Water Treatment Plant	0.065	0.017	0.048
	Lease Pool Contribution Balance	0.029	0.000	0.029
	Mountainview Power Plant	0.432	0.410	0.022
	Agua Mansa Power Plant	0.062	0.002	0.060
SBVMWD	YVWD – Wochholz Wastewater TP	0.595	0.415	0.180
	Rialto Bioenergy Solutions	0.250	0.029	0.221
	City of Beaumont	0.580	0.541	0.039
	Anita B. Smith Treatment Facility	0.030	0.006	0.024
	Aramark Uniform Services	0.330	0.175	0.155
	Arlington Desalter	1.400	0.759	0.642
	JCSD	1.155	1.140	0.015
	Temescal Desalter	2.150	1.380	0.770
WMWD	Wellington Foods	0.030	0.014	0.016
	Dart Container	0.060	0.032	0.028
	Fruturom	0.005	0.005	0.000
	Stringfellow	0.259	0.114	0.145
	Inactive Dischargers	0.128	0.000	0.128
	Lease Pool Contribution Balance	0.151	0.000	0.151
4 MA's	Collection Stations	0.000	0.120	(0.120)
	Total	17.000	12.585	4.415

Brine Line Treatment and Disposal Capacity (Capacity)

- 17.0 MGD allocated Capacity
- 12.6 MGD brine flow to OC San (3 Month Average)
- 4.4 MGD of unused allocated Capacity

Capacity Purchase Option

- Proposed Approach:
 - SAWPA can sell Capacity to YVWD because there is 17 MGD of Capacity in the Brine Line
 - SAWPA would purchase additional Capacity (with the YVWD funding) from OC San when required
 - SAWPA would hold YVWD payment in Capacity Purchase Reserve until SAWPA is required to purchase capacity
 - Develop terms of capacity agreement:
 - YVWD pay current OC San cost for Capacity to SAWPA (or inflation adjusted cost)
 - SAWPA provides Capacity to YVWD through agreements upon receipt of payment
 - YVWD pays difference in price when SAWPA is required to purchase Capacity (or reimbursed if the cost is less)
- Note:
 - Member Agencies and dischargers that own Capacity would not be impacted and would maintain their right to discharge up to their allotted Capacity

Next Steps

- Continue to work with San Bernardino Valley and YVWD on an Agreement and the timing to purchase Capacity
- Present an Agreement to PA 24 Committee at future meeting

Recommendation

• Receive and file

Questions?

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Santa Ana Watershed Project Authority PA24 - Brine Line - Financial Report July 2024

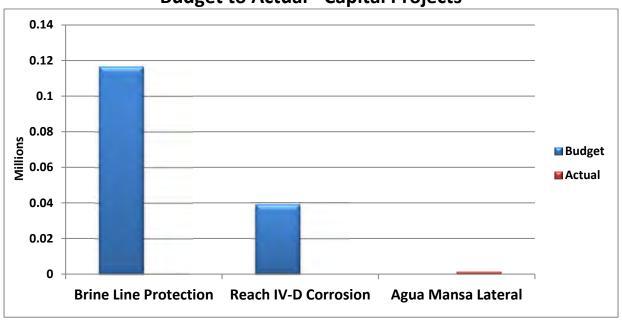
Staff comments provided on the last page are an integral part of this report.

Overview	This report highlights the Brine Line's key financial indicators for the Fiscal Year-to-Date
Overview	(FYTD) through July 2024 unless otherwise noted.

Brine Line - Capital Projects

Budget to Actual – C	Favorable			
	Annual Budget	FYTD Budget	FYTD Actual	Favorable (Unfavorable) Variance
Brine Line Protection	1,400,590	\$ 116,716	\$259	\$116,457
Reach IV-D Corrosion	469,423	39,119	32	39,087
Agua Mansa Lateral	-	-	1,359	(1,359)
Total Capital Costs	\$1,870,013	\$155,835	\$1,650	\$154,185

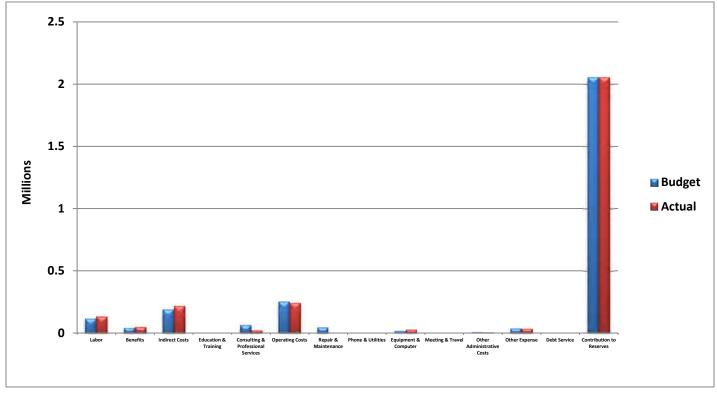
Budget to Actual - Capital Projects



Brine Line – Operating

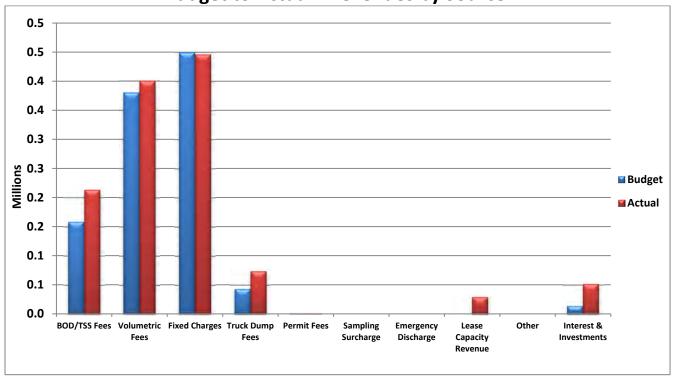
Budget to Actual - Ex	On Track			
	Annual Budget	FYTD Budget	FYTD Actual	Favorable (Unfavorable) Variance
Labor	\$1,392,817	\$116,068	\$134,051	(\$17,983)
Benefits	507,443	42,287	48,795	(6,508)
Indirect Costs	2,278,716	189,893	219,307	(29,414)
Education & Training	15,225	1,269	-	1,269
Consulting & Prof Svcs	772,500	64,375	24,007	40,368
Operating Costs	3,041,939	253,495	245,199	8,296
Repair & Maintenance	553,558	46,130	557	45,573
Phone & Utilities	13,200	1,100	705	395
Equip & Computers	204,167	17,014	28,175	(11,161)
Meeting & Travel	7,700	642	-	642
Other Admin Costs	98,988	8,249	5,559	2,690
Other Expense	426,597	35,550	34,317	1,233
Debt Service	1,709,476	-	-	-
Contribution to Reserves	2,055,786	2,055,786	2,055,786	-
Total	\$13,078,112	\$2,831,858	\$2,796,460	\$35,400

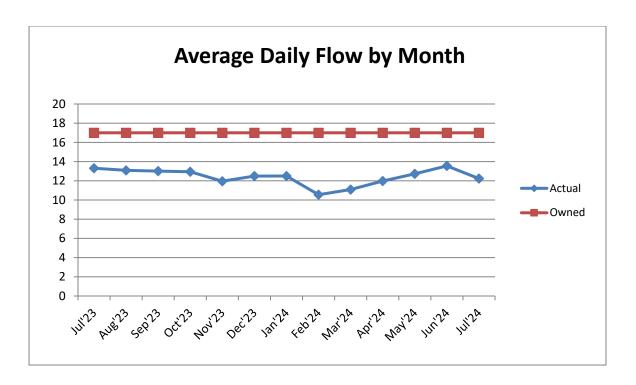
Budget to Actual - Expenses by Type



Budget to Actual - Rev	Ø	Favorable		
	Annual Budget	FYTD Budget	FYTD Actual	Favorable (Unfavorable) Variance
BOD/TSS Fees	\$1,900,850	\$158,404	\$213,026	\$54,622
Volumetric Fees	4,564,617	380,385	400,095	19,710
Fixed Charges	5,396,025	449,669	446,292	3,377
Truck Dump Fees	517,020	43,085	73,450	30,365
Permit Fees	26,600	1,100	1,100	-
Sampling Surcharge	-	-	-	-
Emergency Discharge Fees	-	-	201	201
Capital Contributions	-	-	29,091	29,091
Other Revenue	-	-	33	33
Interest & Investments	673,000	14,417	51,696	37,279
Total	\$13,078,112	\$1,047,060	\$1,214,984	\$167,924

Budget to Actual - Revenues by Source

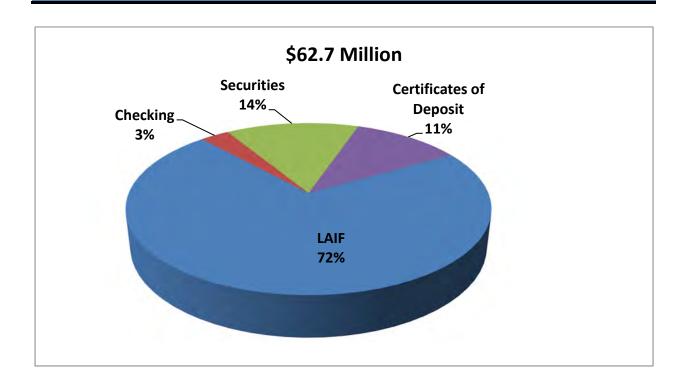




Total Discharge by Agency (in million gallons)

Discharger	Jul'24	Aug'24	Sep'24	Oct'24	Nov'43	Dec'24	Total
Chino Desalter Authority	109.4633						109.4633
Eastern Municipal Water District	104.3521						104.3521
Inland Empire Utilities Agency	16.9394						16.9394
San Bernardino Valley MWD	44.0789						44.0789
Western Municipal Water District	88.9240						88.9240
SAWPA Adjustment	0.0000						0.0000
Truck Discharge	4.0942						4.0942
Total	367.8519						967.8519

Total Cash & Investments



Reserve Fund Balance	
	Amount
Debt Retirement	\$3,011,686
Pipeline Replacement & Capital Investment	36,121,180
OC San Pipeline Rehabilitation	3,036,460
Pipeline Capacity Management	12,808,111
OC San Future Treatment & Disposal Capacity	1,960,963
Brine Line Operating	2,288,059
Brine Line Operating Cash	3,426,197
Total Reserves	\$62,652,656

Legend

Compared to Budget

Ahead or Favorable

Above +5% Favorable Revenue or Expense

Variance

0

On Track +5% to -2% Variance

1

Behind -3% to -5% Variance

3

Concern Below -5% Variance

Staff Comments

For this month's report, the item(s) explained below are either "behind", a "concern", or have changed significantly from the prior month.

Capital Projects are 98.9% below budget. Operating Expenses are 1.25% below budget and Revenues are 16% above budget.



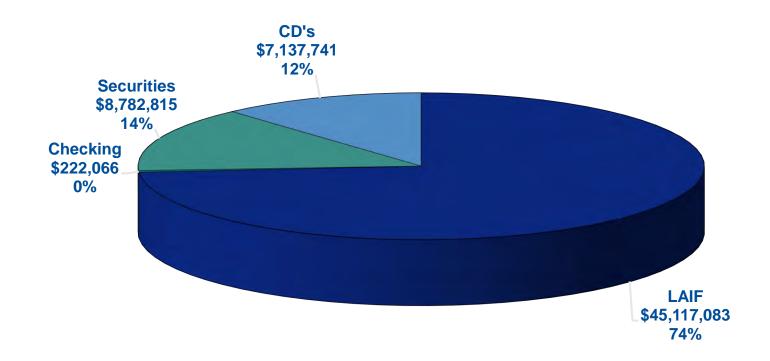
Financial Report for the Inland Empire Brine Line Enterprise/CIP for the 4th Quarter Ending June 30, 2024

Agenda

- Cash & Investments
- Reserve Account Balances
- Transfer, Uses, and Contributions from/to Reserves
- Enterprise Revenues
- Enterprise Expenses
- Enterprise Performance
- Capital Improvement Program

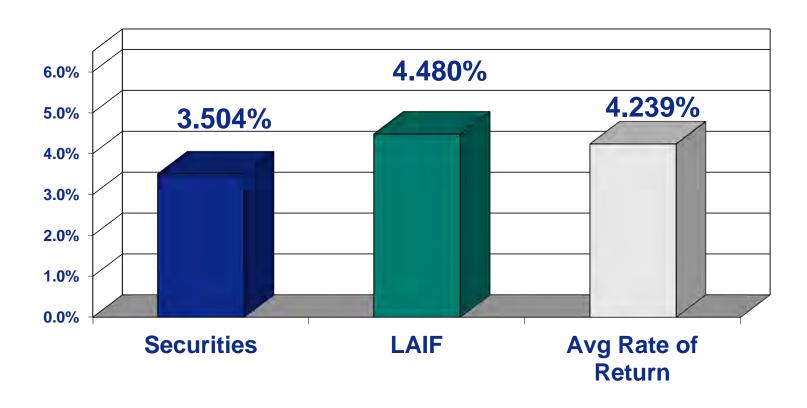
Cash & Investments

\$61,259,705



Cash & Investments

Interest Rate Analysis



Reserve Account Balance

Reserve Account	Balance
Debt Retirement	\$2,979,538
Pipeline Replacement & Capital Investment	34,149,034
OC San Pipeline Rehabilitation	2,849,924
Pipeline Capacity Management	12,671,389
OC San Future Treatment & Disposal Capacity	1,940,031
Brine Line Operating	2,240,462
Operating Cash	4,429,327
Total Reserves	\$61,259,705

Reserve Account Balance

Reserve	Balance @ 09/30/2023	Balance @ 12/31/2023	Balance @ 03/31/2024	Balance @ 06/30/2024
Debt Retirement	\$2,899,430	\$2,922,922	\$2,951,490	\$2,979,538
Pipeline Replacement & Capital Investment	34,592,116	34,710,784	33,985,636	34,149,034
OC San Pipeline Rehabilitation	2,773,949	2,795,769	2,823,097	2,849,924
Pipeline Capacity Mgmt	12,330,705	12,430,612	12,552,108	12,671,389
OC San Future Treatment & Disposal Capacity	1,887,871	1,903,167	1,921,768	1,940,031
Brine Line Operating	2,179,659	2,197,891	2,219,372	2,240,462
Operating Cash	2,581,116	3,392,879	3,902,910	4,429,327
Total	\$59,244,846	\$60,354,024	\$60,356,381	\$61,259,705

Transfers, Uses, and Contributions to/from Reserves

Pipeline Replacement & Capital Investment

- Contribution of \$1,900,000
- RBF Loan Payoff of \$1,443,906
- SBVMWD Cost Share Agua Mansa \$214,649
- Transfer of \$141,358 from excess Operating Reserve
- Use of Reserves Fund 320 \$304,685
- Use of Reserves Fund 327 \$279,225
- Use of Reserves Fund 328 (Agua Mansa Lateral) \$2,524,932

OC San Pipeline Rehabilitation

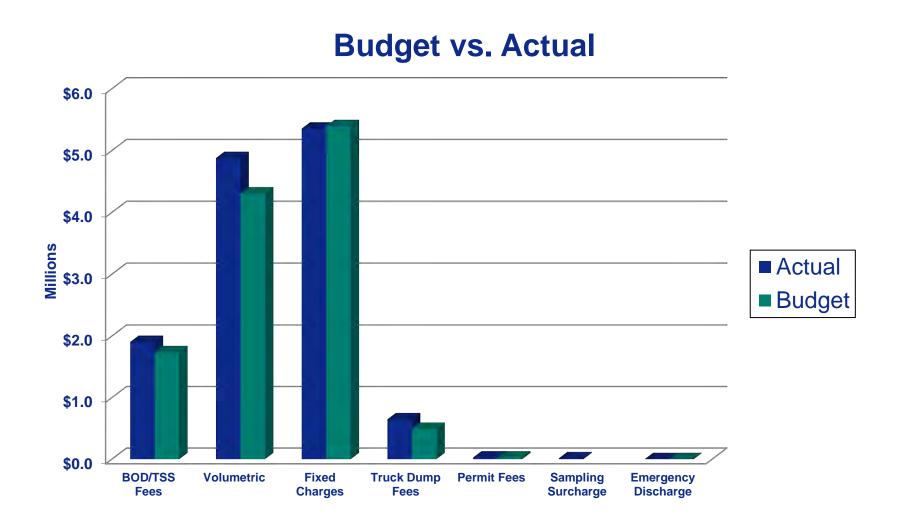
Contribution of \$325,309

Interest Earned (All Reserve Funds) - \$2,327,818

Total Operating Revenues

Source	Actual	Budget	Variance Positive/(Negative)
BOD/TSS Fees	\$1,905,187	\$1,738,500	\$166,687
Volumetric Fees	4,879,411	4,308,095	571,316
Fixed Charges	5,355,510	5,396,025	(40,515)
Truck Discharge	647,714	492,400	155,314
Permit Fees	27,700	26,600	1,100
Sampling Surcharge	14,589	0	14,589
Emergency Discharge Fees	567	0	567
Total Operating Revenues	\$12,830,678	\$11,961,620	\$869,058

Operating Revenues vs. Budget

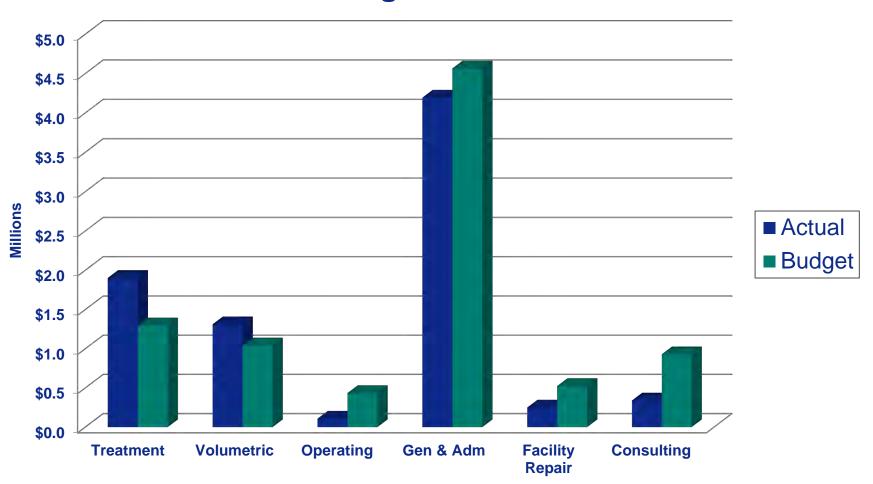


Total Operating Expenses

Source	Actual	Budget	Variance Positive/(Negative)
Treatment Costs	(\$1,903,142)	(\$1,298,500)	(\$604,642)
Volumetric Costs	(1,313,088)	(1,043,137)	(269,951)
Operating Costs	(108,080)	(434,712)	326,632
General & Administration	(4,194,070)	(4,565,406)	371,336
Facility Repair & Maintenance	(250,554)	(525,080)	274,526
Consulting & Prof. Services	(340,138)	(930,000)	589,862
Total Operating Expenses	(\$8,109,072)	(\$8,796,835)	\$687,763

Operating Expenses vs. Budget

Budget vs. Actual



Non-Operating Revenues and Expenses

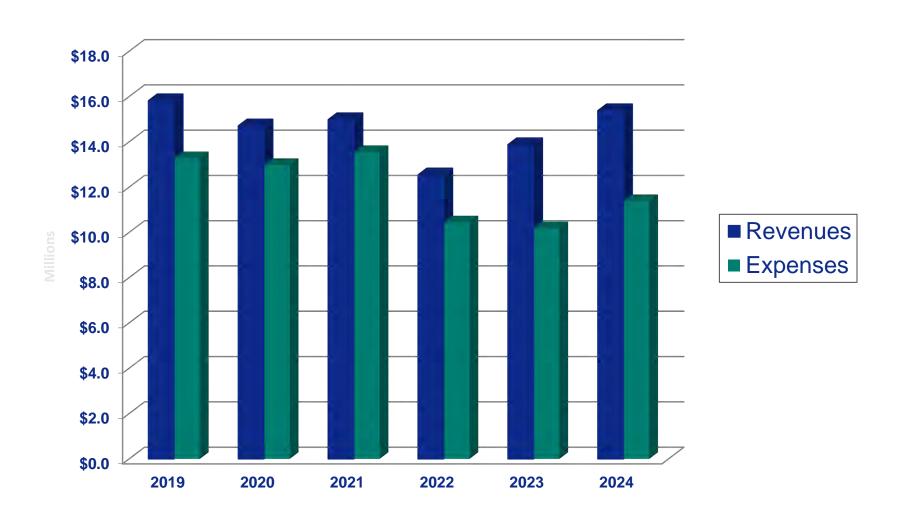
Source	Actual	Budget	Variance Positive/(Negative)
Interest & Investments	\$2,327,818	\$770,000	\$1,557,818
Other Income	217,073	0	217,073
Capital Contribution – RBF	1,389,215	0	1,389,215
Capital Contribution – SBVMWD	776,801	0	776,801
Debt Service	(1,044,273)	(1,044,273)	0
Contributions to Reserves	(2,225,309)	(2,225,309)	0
Total Non-Operating	\$1,441,325	(\$2,499,582)	\$3,940,907

5 Year Enterprise Performance

FYE	Revenue	Expense	Net Gain (Loss)
2019	\$15,815,809	(\$13,275,330)	\$2,540,479
2020	14,705,314	(12,973,136)	1,732,178
2021	14,979,869	(13,547,431)	1,432,438
2022	12,540,991	(10,440,350)	2,100,641
2023	13,875,754	(10,184,463)	3,691,291
2024*	15,375,569	(11,378,654)	3,996,915

[•] Revenues for 2024 does not include capital contributions of \$2,1660,016 for the construction of the Agua Mansa Lateral which are one time revenue sources used to pay for construction.

5 Year Enterprise Performance



Enterprise Performance

Flow, BOD, TSS Actual vs. OC San Billing

	SAWPA Billed	OC San Billing	Difference
Total Flow (MG)	4,553.728	4,497.03	56.698
Total BOD (1,000 lbs)	1,022.763	908.244	114.519
Total TSS (1,000 lbs)	3,040.928	3,129.485	(88.557)
Flow - Pass through per MG	\$292.00	\$291.99	\$0.01
BOD cost per 1,000 lbs	\$394.00	\$393.64	\$0.36
TSS cost per 1,000 lbs	\$494.00	\$493.89	\$0.11

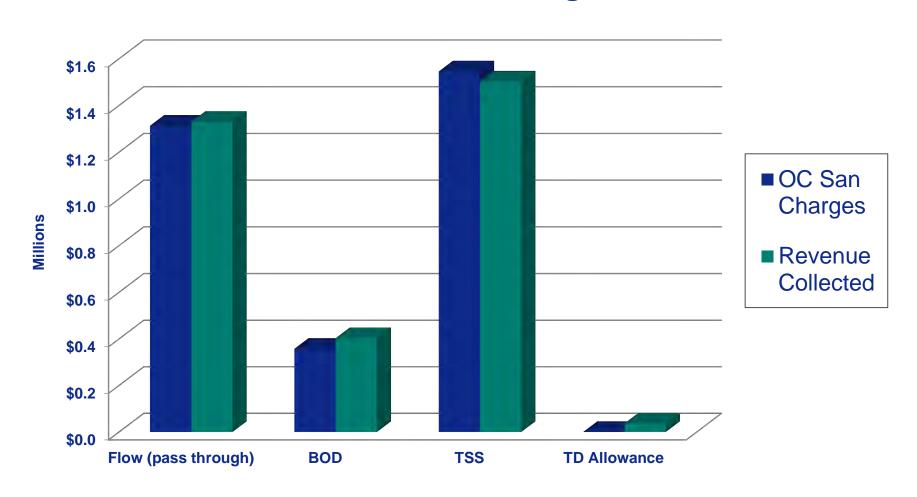
Enterprise Performance

OC San Flow, BOD & TSS Charges vs. Revenue Billed

	Revenue Billed	OC San Charges	Difference
Flow (pass through)	\$1,329,689	\$1,313,088	\$16,601
BOD	402,969	357,520	45,449
TSS	1,502,219	1,545,622	(43,403)
TD Allowance	36,861	0	36,861
Total	\$3,271,738	\$3,216,230	\$55,508

Enterprise Performance

OC San Flow, BOD & TSS Charges vs. Revenue Billed



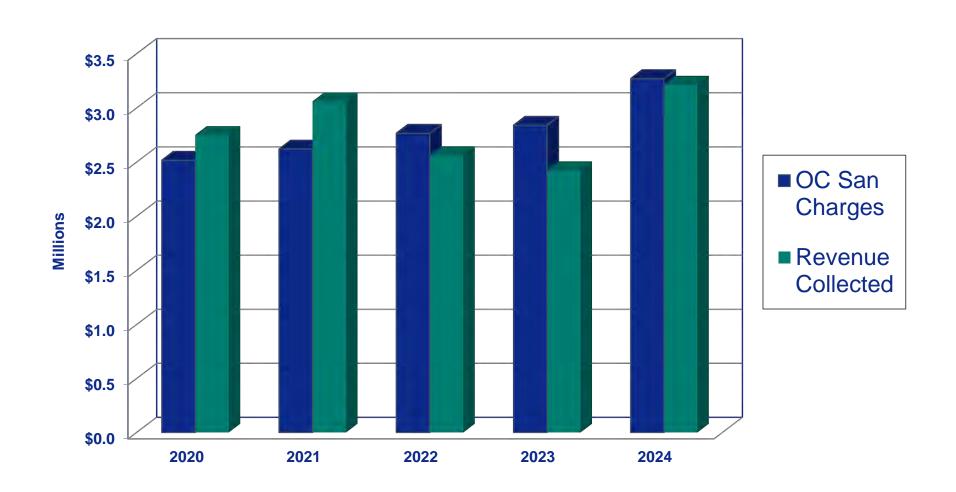
5 Year Enterprise Performance

Flow, BOD & TSS Charges vs. Revenue Billed – Last 5 Years

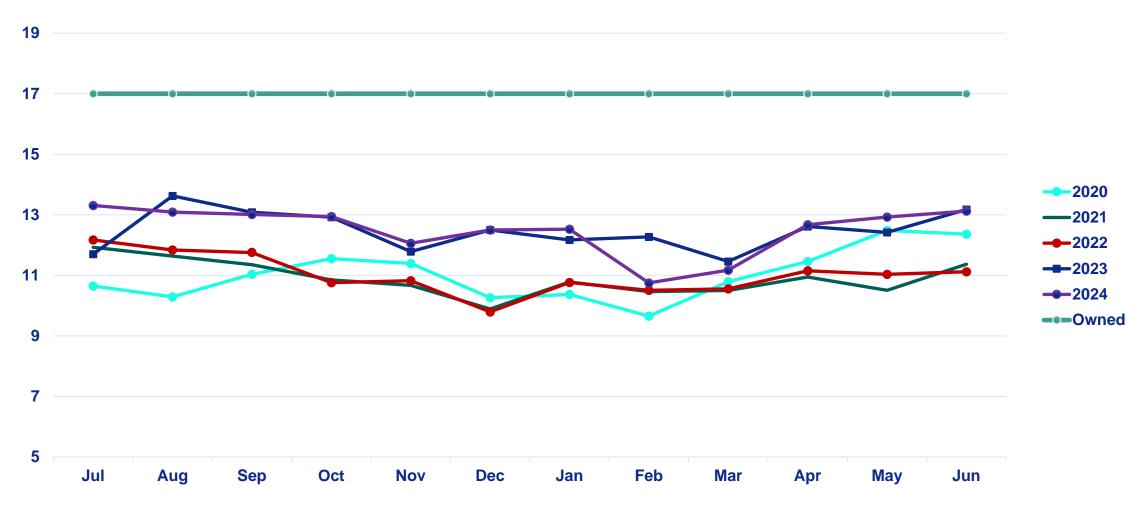
FYE	Revenue Billed	OC San Charges	Difference
2020	2,751,954	2,518,051	233,903
2021	3,061,944	2,621,142	440,802
2022	2,566,021	2,767,351	(201,330)
2023	2,427,005	2,841,389	(414,384)
2024	3,271,738	3,216,230	55,508
Total	\$14,078,662	\$13,964,163	\$114,499

5 Year Enterprise Performance

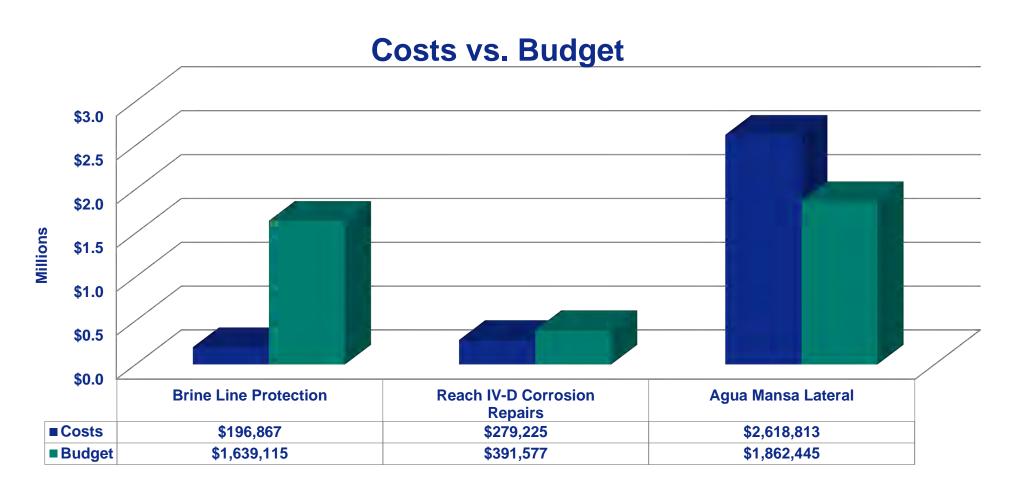
Flow, BOD & TSS Charges vs. Revenue Billed – Last 5 Years



Average Daily Flow



Capital Projects



Capital Project Fund (320)

Brine Line Protection / Relocation Projects

- D/S Prado in OC emergency protection work, pipeline relocation
- Above Prado pipeline relocation and manhole lid adjustments – when required
- D/S Prado in Riverside County bank armoring

Questions

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