

**NOTICE OF REGULAR MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
ENGINEERING COMMITTEE**

May 21, 2026

8:30 a.m.

Physical Address	Remote Address
34156 Del Obispo Street Dana Point, CA 92629	El Toro Water District Office: 24251 Los Alisos Blvd. Lake Forest, CA 92630

NOTICE IS HEREBY GIVEN that a Regular Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee was called to be held on **May 21, 2026, at 8:30 a.m.** SOCWA staff will be present and conducting the meeting at the SOCWA Administrative Office located at 34156 Del Obispo Street, Dana Point, California.

THE SOCWA MEETING ROOM IS WHEELCHAIR ACCESSIBLE. IF YOU REQUIRE ANY SPECIAL DISABILITY RELATED ACCOMMODATIONS, PLEASE CONTACT THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY SECRETARY'S OFFICE AT (949) 234-5400 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE SCHEDULED MEETING TO REQUEST SUCH 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. MEMBERS OF THE PUBLIC HAVE THE OPTION TO PARTICIPATE IN AND MAY JOIN THE MEETING REMOTELY VIA VIDEO CONFERENCE FOR VISUAL INFORMATION ONLY (USE ZOOM LINK BELOW) AND BY TELECONFERENCE FOR AUDIO PARTICIPATION (USE PHONE NUMBERS BELOW). 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. FOR PARTIES PARTICIPATING REMOTELY, PUBLIC COMMENTS WILL BE TAKEN DURING THE MEETING FOR ORAL COMMUNICATION IN ADDITION TO PUBLIC COMMENTS RECEIVED BY PARTIES PARTICIPATING IN PERSON. COMMENTS MAY BE SUBMITTED PRIOR TO THE MEETING VIA EMAIL TO ASSISTANT SECRETARY LYNDA MAY AT LMAY@SOCWA.COM WITH THE SUBJECT LINE "REQUEST TO PROVIDE PUBLIC COMMENT." IN THE EMAIL, PLEASE INCLUDE YOUR NAME, THE ITEM YOU WISH TO SPEAK ABOUT, AND THE TELEPHONE NUMBER YOU WILL BE CALLING FROM SO THAT THE COORDINATOR CAN UN-MUTE YOUR LINE WHEN YOU ARE CALLED UPON TO SPEAK. THOSE MAKING PUBLIC COMMENT REQUESTS REMOTELY VIA TELEPHONE IN REAL-TIME WILL BE ASKED TO PROVIDE YOUR NAME, THE ITEM YOU WISH TO SPEAK ABOUT, AND THE TELEPHONE NUMBER THAT YOU ARE CALLING FROM SO THE COORDINATOR CAN UN-MUTE YOUR LINE WHEN YOU ARE CALLED UPON TO SPEAK. ONCE THE MEETING HAS COMMENCED, THE CHAIR WILL INVITE YOU TO SPEAK AND ASK THE COORDINATOR TO UN-MUTE YOUR LINE AT THE APPROPRIATE TIME.

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 ENGINEERING COMMITTEE IN CONNECTION WITH A MATTER SUBJECT FOR DISCUSSION OR CONSIDERATION AT AN OPEN MEETING OF THE ENGINEERING COMMITTEE ARE AVAILABLE FOR PUBLIC INSPECTION IN THE AUTHORITY ADMINISTRATIVE OFFICE LOCATED AT 34156 DEL OBISPO STREET, DANA POINT, CA ("AUTHORITY OFFICE") OR BY PHONE REQUEST MADE TO THE AUTHORITY OFFICE AT 949-234-5400. IF SUCH WRITINGS ARE DISTRIBUTED TO MEMBERS OF THE ENGINEERING COMMITTEE LESS THAN SEVENTY-TWO (72) HOURS PRIOR TO THE MEETING, THEY WILL BE AVAILABLE IN THE RECEPTION AREA OF THE AUTHORITY OFFICE AT THE SAME TIME AS THEY ARE DISTRIBUTED TO THE ENGINEERING COMMITTEE AND SENT TO ANY REMOTE PARTICIPANTS REQUESTING EMAIL DELIVERY OR POSTED ON SOCWA'S WEBSITE. IF SUCH WRITINGS ARE DISTRIBUTED IMMEDIATELY PRIOR TO, OR DURING, THE MEETING, THEY WILL BE AVAILABLE IN THE MEETING ROOM OR IMMEDIATELY UPON VERBAL REQUEST TO BE DELIVERED VIA EMAIL TO REQUESTING PARTIES PARTICIPATING REMOTELY.

**THE PUBLIC MAY PARTICIPATE REMOTELY BY VIRTUAL MEANS. FOR AUDIO OF MEETING USE
THE CALL IN PHONE NUMBERS BELOW AND FOR VIDEO USE THE ZOOM LINK BELOW.**

Join Zoom Meeting
<https://socwa.zoom.us/>

Meeting ID: 884 8892 2544
Passcode: 519227

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+16699006833,, 884889225448#,,,,*519227# US (San Jose)

AGENDA

1. Call Meeting to Order
2. Public Comments

THOSE WISHING TO ADDRESS THE ENGINEERING COMMITTEE ON ANY ITEM LISTED ON THE AGENDA WILL BE REQUESTED TO IDENTIFY AT THE OPENING OF THE MEETING AND PRIOR TO THE CLOSE OF THE MEETING. THE AUTHORITY REQUESTS THAT YOU STATE YOUR NAME WHEN MAKING THE REQUEST IN ORDER THAT YOUR NAME MAY BE CALLED TO SPEAK ON THE ITEM OF INTEREST. THE CHAIR OF THE MEETING WILL RECOGNIZE SPEAKERS FOR COMMENT AND GENERAL MEETING DECORUM SHOULD BE OBSERVED IN ORDER THAT SPEAKERS ARE NOT TALKING OVER EACH OTHER DURING THE CALL.

PAGE NO.

3. Approval of Minutes..... 1
 - Engineering Committee Minutes of April 14, 2026

Recommended Action: Staff requests that the Engineering Committee approve the subject Minutes as submitted.

4. General Manager’s Report

Recommended Action: Information Item.

5. Operations Report

Recommended Action: Information Item.

6. Capital Improvements Workplan 4

Recommended Action: Information Item.

7. Capital Improvement Construction Projects Progress and Change Order Report (May) [Project Committees 2 and 15] 7

Recommended Action: Information Item.

8. As Needed Construction Management Services for Capital Improvement Projects (all PCs)..... 19

Recommended Action:

1. Staff are requesting the recommendation of award of on-call construction management services contracts for general/civil engineering projects to the following firms:

- AKM
- Ardurra/MKN
- Dudek
- La Salle Solutions

2. Staff are requesting the recommendation of award of on-call construction management services contracts for coating projects to the following firms:

Engineering Committee Meeting
May 21, 2026

- Ardurra/MKN
- Harper

9. JBL Digester Underground Piping Upgrades Construction Contract Award [Project Committee 2]..... 25

Recommended Action: Staff recommend presenting the following Engineering Committee actions to the Project Committee 2 (PC 2) Board of Directors:

1. Increase the budget of Task 32263S by \$820,000 from \$806,490 to \$1,626,490.
2. Authorize execution of a construction contract with S. S. Mechanical in the amount of \$1,182,241.00.
3. Approve a contract contingency of \$118,250.00 to address any unforeseen conditions encountered during the work.

10. CTP Access Road Construction Contract [Project Committee 15]..... 30

Recommended Action: Staff recommend presenting the following Engineering Committee actions to the Project Committee 15 (PC 15) Board of Directors:

1. Authorize execution of a construction contract with T.E. Roberts in the amount of \$204,068.76.
2. Approve a contract contingency of \$10,203.44 to address any unforeseen conditions encountered during the work.

11. CTP Regional Flow Study Update [Project Committee 15]..... 32

Recommended Action: Committee Discussion/Direction/Action.

12. Capital Improvement Program Budget for Fiscal Year 2026-27 Update..... 159


Recommended Action: Information Item.

13. Adjournment

I hereby certify that the foregoing Notice was personally emailed or mailed to each member of the SOCWA Engineering Committee at least 72 hours prior to the scheduled time of the Regular Meeting referred to above.

I hereby certify that the foregoing Notice was posted at least 72 hours prior to the time of the above-referenced Engineering Committee meeting at the usual agenda posting location of the South Orange County Wastewater Authority and at www.socwa.com.

Dated this 15th day of May 2026.



Lynda May, Assistant Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

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

Engineering Committee

DRAFT

April 16, 2026

The Regular Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee was held on April 16, 2026, at 8:30 a.m. in-person and via teleconferencing from the Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members of the Engineering Committee were present:

HANNAH FORD	El Toro Water District [Zoom]
MARC SERNA	South Coast Water District [Zoom]
MARK MCAVOY	City of Laguna Beach [Zoom]
MIKE DUNBAR	Emerald Bay Service District

Absent:

ROBERT GRANTHAM	Santa Margarita Water District
DAVE REBENDORF	City of San Clemente

Staff Present:

AMBER BOONE	General Manager
RONI GRANT	Capital Improvement Program (CIP) Manager
JIM BURROR	Deputy GM/ Chief Engineer
MATT CLARKE	Chief Technology Officer
LYNDA MAY	Administrative Assistant/Assistant Secretary
ANNA SUTHERLAND	Staff Accountant
JAMES JONES	Operations and Maintenance Superintendent

Also Present:

DUSTIN BURNSIDE	City of San Clemente
TARYN KJOLSING	South Coast Water District

1. Call Meeting to Order

Ms. Roni Grant, Capital Improvement Program (CIP) Manager, called the meeting to order at 8:33 a.m.

2. Public Comments

None.

3. Approval of Minutes

- Engineering Committee Minutes of March 19, 2026.

ACTION TAKEN

A motion was made by Mr. Serna and seconded by Mr. McAvoy to approve the Engineering Committee Minutes for March 19, 2026.

Motion carried: Aye 4, Nay 0, Abstained 0, Absent 2
Mr. McAvoy Aye
Ms. Ford Aye
Mr. Dunbar Aye
Mr. Grantham Absent
Mr. Serna Aye
Mr. Rebensdorf Absent

4. General Manager's Report

Ms. Amber Boone, General Manager, provided an update on the ongoing Master Planning schedule for CTP and JBL's planning assessments and the CTP Regional Flow study. Ms. Boone then introduced the CIP Summary budgets for each Project Committee and requested members to review them and provide any updates to bring to the May 14, 2026, Board of Director's meeting.

This was an information item; no action was taken.

5. Operations Report

Mr. Jim Burror, Deputy GM/Chief Engineer, provided the report noting recent hires, finishing small capital projects for the end of the fiscal year, and the status of the Cogen System service. Ms. Boone noted the shared service contract with Moulton Niguel Water District for the SCADA work.

This was an information item; no action was taken.

6. Capital Improvement Construction Projects Progress and Change Order Report (April) [Project Committees 2 and 15]

Ms. Roni Grant, Capital Improvement Program Manager, provided an update on the progress of active construction projects, and confirmed the CTP Personnel Building Phase II and storm drain projects will start next week.

This was an information item; no action was taken.

7. Contract Award for CTP Access Road Repaving Project [Project Committee 15]

Ms. Grant updated the Committee on partnership opportunities with surrounding cities, with Ms. Boone updating on potential cost-sharing with the County of Orange. Mr. Dunbar suggested postponing the project until there are firm commitments for cost-sharing. Mr. Serna proposed temporary patching for areas in severe deterioration in the meantime.

This was an information item; no action was taken.

8. As-Needed Construction Management Services

Ms. Grant provided an update on proposals submitted by firms listed on the staff report, with the Committee agreeing to review them and to bring this item back to the Board for approval in June.

This was an information item; no action was taken.

9. Adjournment

There being no further business, Ms. Grant adjourned the meeting at 9:00 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 April 16, 2026, and approved by the Engineering Committee and received and filed by the Board of Directors of the South Orange County Wastewater Authority.

Lynda May, Assistant Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

Agenda Item

6

Engineering Committee Meeting

Meeting Date: May 21, 2026

TO: Engineering Committee

FROM: Roni Grant, Capital Improvement Program Manager

SUBJECT: SOCWA Capital Improvement Program Workplan FY 26-27 (May)
[All Project Committees]

Staff is providing this update on the status of the Capital Improvement Program (CIP), including project budgets, expenditures, progress, upcoming FY 26-27 funding requests, and key risks. The majority of active projects are progressing as planned, with several nearing completion. A portion of the CIP remains deferred pending the outcome of the master planning effort to ensure infrastructure investments are strategically aligned. Primary challenges affecting schedule and delivery include regulatory permitting, long equipment lead times, and coordination with external agencies.

Recommended Action: Information only.

Attachment: CIP Workplan FY 26-27

Apr - Jun
Jul - Sep
Oct - Dec
Jan - Mar
Apr - Jun

SOCWA CIP Workplan

Project Number	Project Name	Ten Year CIP Project Budget	Funds Collected as of FY 25/26 Q4	Funds Spent as of April 2026	Funds Remaining	Percent Spent	FY 26-27 Funds Request	Projects Approved by the Board	Status	Anticipated Completion	Challenges/Delays	FY 25/26		FY 26/27			
												Q4	Q1	Q2	Q3	Q4	
PC 2 - J.B. Latham Treatment Plant																	
3215/3252	MCC M and Plant 1 Generator Replacement	\$ 4,232,843	\$ 1,716,131	\$ 1,091,524	\$ 624,607	64%	\$ 500,000	January 2025	Pre-procurement and design underway	July 2027	Pending AQMD permit on the generator	B&A	C	C	C	C	
32221L	Plant 1 Grit, MCC A-1 and Blower Building Upgrades	\$ 6,256,220			\$ -		\$ 500,000	October 2024	Design underway	July 2027	Will combine with the Main Plant Drain Project	D	B&A	C	C	C	
3285	Main Plant Drain Line Reconstruction	\$ 1,000,000	\$ 431,167	\$ 49,250	\$ 381,917	11%	\$ 568,833	October 2024	Design underway	July 2027	Will combine with the Plant 1 Blower Building HVAC Upgrades	D	B&A	C	C	C	
32241L	Effluent Pump Station Storage and Staging Area	\$ 850,000	\$ 850,000	\$ 824,408	\$ 25,592	97%	\$ -	December 2025	Construction complete			C					
32226L	Effluent Pump Station Upgrades	\$ 1,877,000	\$ 1,202,083	\$ 829,898	\$ 372,185	69%	\$ -	July 2025	Construction underway	August 2026		C	C				
32243L	Plant 2 Headworks Rehabilitation	\$ 2,200,000	\$ 795,000	\$ 842,679	\$ (47,679)	106%	\$ 705,000	July 2025	Construction underway	August 2026		C	C				
32225S	Energy Building Roof Upgrades	\$ 1,163,000	\$ 656,196	\$ 969,190	\$ (312,994)	148%	\$ 506,804	July 2025	Construction underway	August 2026		C	C				
32225C	Energy Building Upgrades - Common	\$ 895,000	\$ 677,500	\$ 276,941	\$ 400,559		\$ 217,500	March 2026	Construction underway	August 2026		C	C				
3216	Hoist System for Maintenance Shop	\$ 758,000	\$ 568,176	\$ 516,134	\$ 52,042	91%	\$ -	July 2025	Construction underway	August 2026		C	C				
32232S	Buried Digester Gas and Flare Piping Improvements	\$ 125,000	\$ 124,673	\$ 122,719	\$ 1,955	98%	\$ -	June 2025	Bidding underway	July 2027		D	B&A	C	C	C	
32234S	Heat Exchanger 4 Pipe Replacement	\$ 250,000	\$ 112,500	\$ 61,899	\$ 50,601	55%	\$ 137,500	June 2025	Bidding underway	July 2027		D	B&A	C	C	C	
32231S	Gas Flare Replacement	\$ 1,500,000	\$ 268,896	\$ 32,730	\$ 236,166	12%		June 2025	Design underway	July 2027	Pending AQMD permit and equipment long lead time	D	D	D	B&A	C	
32261S	Odor Control Scrubber No. 2 Replacement	\$ 2,000,000	\$ 500,000	\$ 51,071	\$ 448,929	10%	\$ -				Pending master planning recommendation	CA					
2540/32224S/32224S/32262S	Dewatering System and Truck Loading Area	\$ 9,507,000	\$ -	\$ -	\$ -		\$ -				Pending master planning recommendation and equipment obsolescence						
32263S	Buried Digester Piping Reconstruction	\$ 806,490	\$ 250,000	\$ 139,665	\$ 110,335	56%	\$ -		Bidding underway	July 2027		D	B&A	C	C	C	
322236S	Digester 3 and 4 Upgrades and Coating	\$ 1,000,000	\$ -	\$ -	\$ -		\$ 200,000						P	P	B&A	C	
PC 5 - San Juan Creek Ocean Outfall																	
5059	Monitoring Vault Rehabilitation	\$ 200,000			\$ -												

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

SOCWA CIP Workplan

Project Number	Project Name	Ten Year CIP Project Budget	Funds Collected as of FY 25/26 Q4	Funds Spent as of April 2026	Funds Remaining	Percent Spent	FY 26-27 Funds Request	Projects Approved by the Board	Status	Anticipated Completion	Challenges/Delays	FY 25/26		FY 26/27			
												Q4	Q1	Q2	Q3	Q4	
PC15 - Coastal Treatment Plant																	
3540-000/3540-001	Export Sludge Environmental Mitigation	\$ 1,392,100	\$ 146,000	\$ 63,852	\$ 82,148	44%	\$ 291,900	Feb 2022	Mitigation work/permitting ongoing	July 2027	Pending regulatory agencies approval	ENV	ENV	ENV	ENV	ENV	
35242L	Grit Baffles and Diffusers	\$ 631,000	\$ 200,000	\$ 100,862	\$ 99,138	50%	\$ 300,000	Sept 2025	Phase 1 complete, Phase 2 will start soon	July 2027			D	B&A	C	C	
15820/15821	East Primary and Secondary Tank Sludge Piping, Troughs and Scum Skimmers	\$ 775,000	\$ -	\$ -	\$ -		\$ -				Pending master planning recommendation						
3543	Export Sludge Pipeline Replacement at RTP	\$ 400,000	\$ -	\$ -	\$ -		\$ -				Pending master planning recommendation						
35247L	Aeration Blower System Upgrades	\$ 500,000	\$ 324,999	\$ 57,294	\$ 267,706	18%	\$ -	January 2025	Preliminary design underway	July 2026	Pending master planning recommendation	P	P	P	D	D	
35229L/35235L	Odor Control Scrubber/Foul Air System Reconstruction	\$ 1,500,000	\$ 663,722	\$ 418,833	\$ 244,889	63%	\$ 222,323	November 2024	Final design underway	October 2026	Long equipment lead time	D	D	D	B&A	C	
3522AL	Drainage Pump Station	\$ 4,200,000	\$ 1,286,085	\$ 297,588	\$ 988,498	23%	\$ 279,980	September 2024	Final design underway	October 2026	Will address more pressing issues until the master planning effort is done.	D	D	D	B&A	C	
3525	Personnel Building Reconstruction	\$ 965,667	\$ 965,667	\$ 202,017	\$ 763,651	21%	\$ -	December 2024 / February 2026	Phase 1 complete, Phase 2 underway	December 2026		C	C				
35233L/35236L	Scum Pump Station and Wet well	\$ 300,000	\$ -	\$ -	\$ -		\$ -				Pending master planning recommendation						
35234L	RAS/WAS Pump Station Repair	\$ 100,000	\$ -	\$ -	\$ -		\$ -				Pending master planning recommendation						
35237L	Electrical Manhole/Cable Project	\$ 85,000	\$ -	\$ -	\$ -		\$ -				Pending master planning recommendation						
35261L	EQ Tank Liner Rehabilitation	\$ 300,000	\$ -	\$ -	\$ -		\$ 100,000		Condition assessment underway	December 2026	Need to move the project up due to deteriorating lining	P	CA	D	B&A	C	
35248L	Access Road Repaving	\$ 1,750,000	\$ 1,199,999	\$ 70,090	\$ 1,129,909	6%		October 2024	Quotes under review	September 2026	Will address more pressing issues, looking for partnership with OC Parks.	B&A	C	C			
PC 21 - Effluent Transmission Main																	
3105/3106/3107/3108	Air Valve Replacement	\$ 911,424	\$ 562,459	\$ 294,214	\$ 268,245	52%	\$ 229,132	November 2020	Design/permitting underway	July 2027	Pending amended permit	ENV	B&A	C	C	C	
31222B	Reach B Techite Pipe Replacement	\$ 7,891,000		\$ 697,694	\$ (697,694)		\$ 1,190,000	February 2026	Design underway	December 2026	Potential long CEQA process	D	D	D	B&A	C	
3101/31221B	Trail Bridge Crossing	\$ 7,788,067	\$ 480,438	\$ 444,771	\$ 35,667	93%	\$ 14,000	March 2018	Planning/design underway		Seeking FEMA grant funding	P	ENV	ENV	ENV	ENV	
PC 24 - Aliso Creek Ocean Outfall																	
54221O	Outfall inspection, port cleaning and repairs	\$ 400,000	\$ -	\$ -	\$ -		\$ -										
34222O	Golf Course Road	\$ 45,000	\$ 22,588	\$ 88	\$ 22,500	1%	\$ 22,500		Planning underway		Coordination with the golf course	P	P	D	B&A	C	

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

Agenda Item

7

Engineering Committee Meeting

Meeting Date: May 21, 2026

TO: Engineering Committee

FROM: Roni Grant, Capital Improvement Program Manager

SUBJECT: Capital Improvement Construction Projects Progress and Change Order Report (May) [Project Committees 2 and 15]

Overview

This agenda item provides a status update on active construction projects, including any associated change orders. Updated Capital Improvement Program (CIP) reports are attached for reference.

Project Updates

JBL Electrical Upgrades

Pre-purchasing activities for the Motor Control Center (MCC) and Plant 1 Generator are currently underway. Construction is anticipated to be completed by December 2026, contingent upon the issuance of the AQMD permit to construct for the generator.

JBL Effluent Pump Station and Energy Building Upgrades

Construction is currently in progress. Construction is anticipated to be completed by July 2026. There is one new change order in the amount of \$11,635.85 associated with this project, bringing the total revised contract amount to \$3,140,422.58.

JBL Plant 2 Headworks Rehabilitation

Construction is currently in progress. Construction is anticipated to be completed by July 2026.

JBL Old Effluent Pump Station Storage and Staging

Construction has been completed.

CTP West Primary and Secondary Scum Skimming System

Construction is currently in progress. Construction is anticipated to be completed by July 2026.

CTP Personnel Building Phase 2 Reconstruction

Construction is currently in progress. Construction is anticipated to be completed by August 2026. There is one new change order in the amount of \$13,398.86 associated with this project, bringing the total revised contract amount to \$663,247.86.

CTP Storm Drain Improvements

The construction contract has been approved; construction is anticipated to be completed by August 2026.

SCAQMD Permit Status Updates for Upcoming CIP Projects

JBL Plant 1 Generator (A/N 654624)				
Application Date	Communication Dates from SCAQMD	Information requested from SCAQMD	Information provided to SCAQMD	Response Dates from SOCWA
08/01/24	9/11/24	CG18 gas engine technical data	Provided technical data	9/25/24
	10/8/24	Serial number and model year	Serial number and model year not available, confirmed flapper type rain cap	10/9/24
	10/17/24	Maintenance and testing requirements	Confirmed requirements	10/18/24
	1/15/25	Confirmed receipt of serial number and model year	Provided serial number and model year	1/13/25
	4/25/25	Requested to confirm EPA family code	Confirmed EPA family code and provided EPA certificate	4/25/25
JBL Flare System (A/N 657267)				
Application Date	Communication Dates from SCAQMD	Information requested from SCAQMD	Information provided to SCAQMD	Response Dates from SOCWA
12/13/24	1/8/25	Requested additional fee	Paid online	1/21/25
	1/24/25	Requested voucher or receipt from the online payment	Provided voucher payment and receipt number	1/24/25
	4/1/25 and 4/18/25	Requested clarification on facility ownership	Clarified the facility ownership	4/23/25
	5/14/25	Additional information needed on the flare Varec 244E unit	Provided additional information	5/19/25
	5/21/25	Requested specifications on the flare retention time and temperature	Provided additional information	5/22/25
	8/7/25	Additional questions regarding the existing flare and proposed flare system	Responses provided	8/14/25

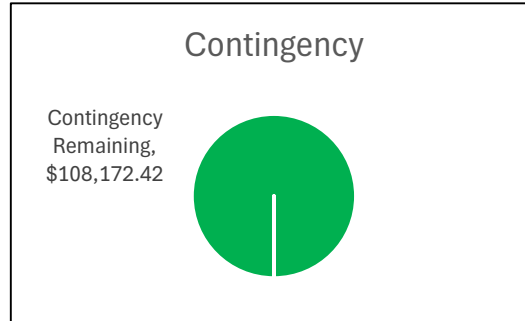
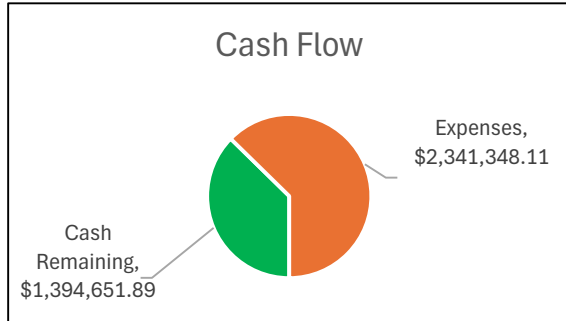
CTP Odor Scrubber System (A/N 656320)				
Application Date	Communication Dates from SCAQMD	Information requested from SCAQMD	Information provided to SCAQMD	Response Dates from SOCWA
10/2/24	11/8/24	Additional information needed	Design intent clarified	11/19/24
	7/15/25	Additional information needed	Additional information provided	7/18/25
	1/28/2026	Permit to Construct Issued		

Recommended Action: Information only.

Project Financial Status

Project Committee	2
Project Name	Effluent Pump Station and Energy Building Upgrades
Project Description	Replacement of effluent valves and piping; installation of monorail, roof, safety upgrades and seismic retrofit in the Energy Building

Data Last Updated May 14, 2026
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Cash Flow

Collected	\$ 3,736,000.00
Expenses	\$ 2,341,348.11

Project Completion

Schedule	65%
Budget	62.67%

Construction Contracts

Company	PO No.	Original	Change Orders	Amendments	Total	Costs to Date
Pacific Hydrotech	21280	\$ 3,093,900.00	\$ 46,522.58		\$ 3,140,422.58	\$ 2,233,996.01
Carollo Engineers	20453	\$ 119,316.00			\$ 119,316.00	\$ 59,985.40
Project Partners	21283	\$ 12,500.00			\$ 12,500.00	
SOCWA Staff Time	32226L/32225S/3216					\$ 47,366.70
		\$ 3,225,716.00	\$ 46,522.58	\$ -	\$ 3,272,238.58	\$ 2,341,348.11

Construction Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids/Solids/Common	32226L/32225S/3216	\$ 154,695.00	\$ 46,522.58	\$ 108,172.42	30.1%
		\$ 154,695.00	\$ 46,522.58	\$ 108,172.42	30.1%

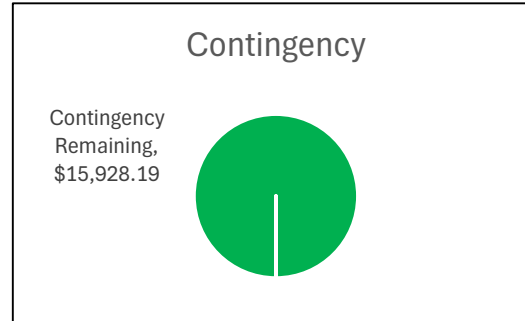
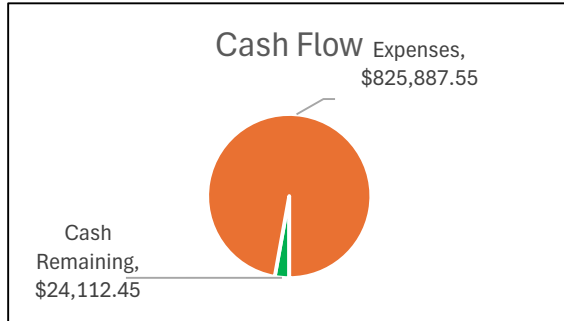
<u>Change Order No.</u>	<u>Vendor Name</u>	<u>Project ID</u>	<u>Description</u>	<u>Status Date</u>	<u>Days</u>	<u>Amount</u>
1	Pacific Hydrotech	32225S	Guardrail Mounting Plate Anchor Conflict	12/11/2025		\$ 31,955.35
2	Pacific Hydrotech	32226L	Effluent Pump Station Manifold Tee Addition	12/23/2025		\$ 9,432.35
3	Pacific Hydrotech	32226L	Elimiating Line Stop on the Outfall Line	12/23/2025		\$ (37,988.50)
4	Pacific Hydrotech	32226L	Adding Pipe Spools at the Pump Discharge Location	2/13/2026		\$ 31,487.53
5	Pacific Hydrotech	32226L	East and West Grating Replacement	4/27/2026		\$ 11,635.85
						\$ 46,522.58

Project Financial Status

Project Committee	2
Project Name	Effluent Pump Station Stroage and Staging Area (32241L)
Project Description	Demolition of the existing Effluent Pump Station and Repurpose into parking and storage area

Data Last Updated

My 14, 2026



Cash Flow

Collected	\$ 850,000.00
Expenses	\$ 825,887.55

Project Completion

Schedule	100%
Budget	98.09%

Construction Contracts

Company	PO No.	Original	Change Orders	Amendments	Total	Costs to Date
Pacific Hydrotech	21640	\$ 791,700.00	\$ 23,656.81		\$ 815,356.81	\$ 815,356.81
Z&K/Ardurra	21446	\$ 26,640.00			\$ 26,640.00	\$ 1,480.00
SOCWA Staff Time	32241L					\$ 9,050.74
		\$ 818,340.00	\$ 23,656.81	\$ -	\$ 841,996.81	\$ 825,887.55

Construction Contingency

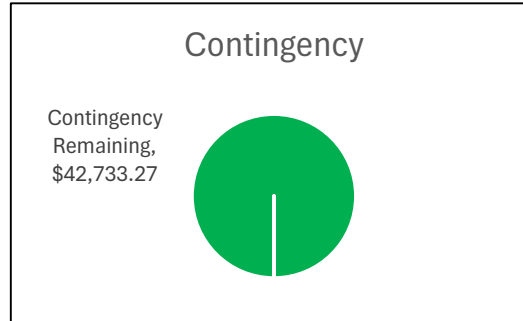
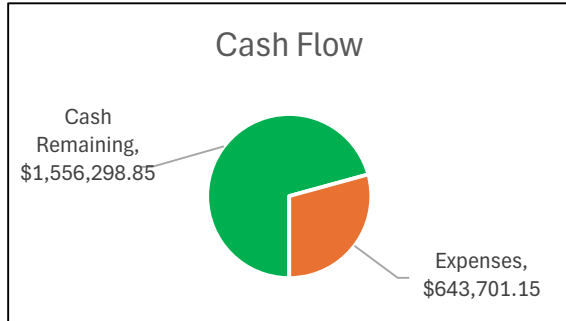
Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	32241L	\$ 39,585.00	\$ 23,656.81	\$ 15,928.19	59.8%
		\$ 39,585.00	\$ 23,656.81	\$ 15,928.19	59.8%

<u>Change Order No.</u>	<u>Vendor Name</u>	<u>Project ID</u>	<u>Description</u>	<u>Status Date</u>	<u>Days</u>	<u>Amount</u>
1	Pacific Hydrotech	32241L	Tripping Hazard Repair	2/18/2026	0	\$ 12,163.93
2	Pacific Hydrotech	32241L	Abandoned Riser Demolition	3/17/2026	0	\$ 11,492.88
						\$ 23,656.81

Project Financial Status

Project Committee	2
Project Name	Plant 2 Headworks Rehabilitation - 32243L
Project Description	Plant 2 Headworks building roof replacement, channel concrete repair and cover replacement, and electrical modification

Data Last Updated May 14, 2026
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Cash Flow

Collected	\$ 2,200,000.00
Expenses	\$ 643,701.15

Project Completion

Schedule	30%
Budget	28.95%

Construction Contracts

Company	PO No.	Original	Change Orders	Amendments	Total	Costs to Date
Pacific Hydrotech	21351	\$ 2,149,600.00	\$ 7,666.73		\$ 2,157,266.73	\$ 598,428.44
Dudek Engineers	20250	\$ 47,858.00			\$ 47,858.00	\$ 11,754.50
Project Partners ADS	21283	\$ 5,000.00			\$ 5,000.00	
	21830	\$ 13,180.00			\$ 13,180.00	\$ 5,272.00
SOCWA Staff Time	32243L					\$ 28,246.21
		\$ 2,215,638.00	\$ 7,666.73	\$ -	\$ 2,223,304.73	\$ 643,701.15

Construction Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	32243L	\$ 50,400.00	\$ 7,666.73	\$ 42,733.27	15.2%
		\$ 50,400.00	\$ 7,666.73	\$ 42,733.27	15.2%

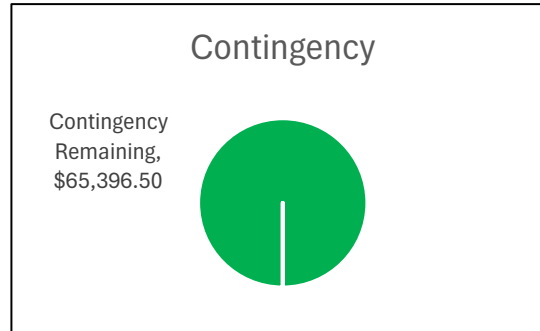
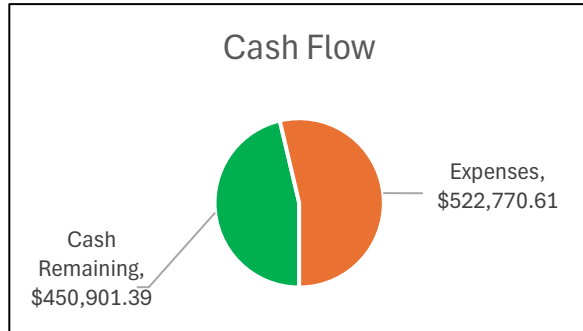
<u>Change Order No.</u>	<u>Vendor Name</u>	<u>Project ID</u>	<u>Description</u>	<u>Status Date</u>	<u>Days</u>	<u>Amount</u>
1	Pacific Hydrtech	32243L	FRP Ductwork Modifications and New Damper	2/23/2026	0	\$ 7,666.73

Project Financial Status

Project Committee	2
Project Name	Electrical System Upgrades - 3252
Project Description	Electrical System upgrades including MCC and Plant 1 Generator

Data Last Updated

May 14, 2026



Cash Flow

Collected	\$ 973,672.00
Expenses	\$ 522,770.61

Project Completion

Schedule	40%
Budget	64%

Construction Contracts

Company	PO No.	Original	Change Orders	Amendments	Total	Costs to Date
Quinn Power	20975	\$ 414,940.00			\$ 414,940.00	\$ 264,999.15
Pacific Parts	20561	\$ 239,025.00			\$ 239,025.00	\$ 56,331.22
Hazen	14331	\$ 164,350.00			\$ 164,350.00	\$ 149,354.49
SOCWA Staff Time	3252					\$ 52,085.75
		\$ 818,315.00	\$ -	\$ -	\$ 818,315.00	\$ 522,770.61

Construction Contingency

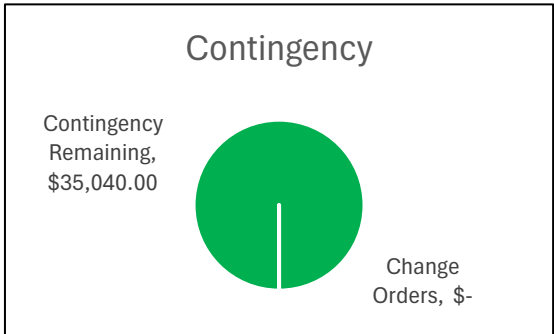
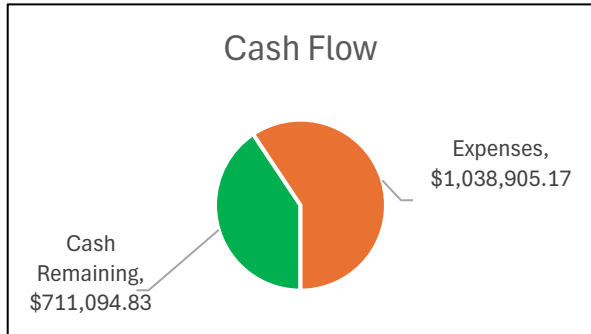
Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3252	\$ 65,396.50		\$ 65,396.50	0.0%
		\$ 65,396.50	\$ -	\$ 65,396.50	0.0%

Project Financial Status

Project Committee	15
Project Name	West Primary and Secondary Sludge Skimming System - 35246L/35239L
Project Description	Replacement of west primary and secondary sludge skimming system

Data Last Updated

My 14, 2026



Cash Flow

Collected	\$ 1,750,000.00
Expenses	\$ 1,038,905.17

Project Completion

Schedule	20%
Budget	59%

Construction Contracts

Company	PO No.	Original	Change Orders	Amendments	Total	Costs to Date
Filanc		\$ 784,000.00			\$ 784,000.00	\$ 91,100.00
Brentwood	20496	\$ 930,960.00			\$ 930,960.00	\$ 930,960.00
Z&K/Ardurra	21446	\$ 39,860.00			\$ 39,860.00	\$ 5,345.00
SOCWA Staff Time	35246L/35239L					\$ 11,500.17
		\$ 970,820.00	\$ -	\$ -	\$ 1,754,820.00	\$ 1,038,905.17

Construction Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	35246L/35239L	\$ 35,040.00	\$ -	\$ 35,040.00	0.0%
		\$ 35,040.00	\$ -	\$ 35,040.00	0.0%

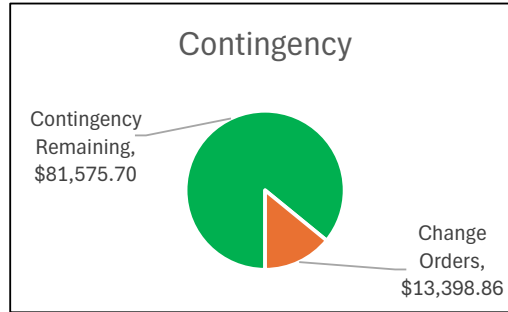
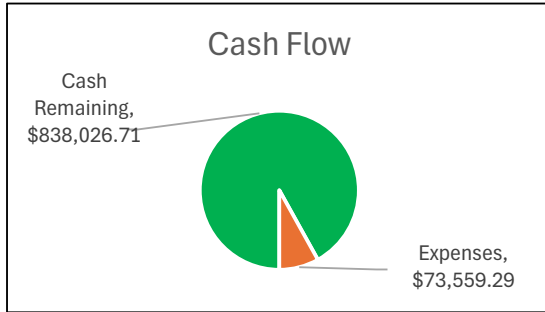
Change Order No.	Vendor Name	Project ID	Description	Status Date	Days	Amount

Project Financial Status

Data Last Updated

My 14, 2026

Project Committee	15
Project Name	Personnel Building Reconstruction Phase II- 3525
Project Description	Personnel building reconstruction including fixtures, lightings, ceiling, tiles and minor electrical



Cash Flow

Collected	\$ 911,586.00
Expenses	\$ 73,559.29

Project Completion

Schedule	10%
Budget	8%

Construction Contracts

Company	PO No.	Original	Change Orders	Amendments	Total	Costs to Date
T.E. Roberts	21768	\$ 649,849.00	\$ 15,924.30		\$ 665,773.30	
Project Partners	20877	\$ 50,000.00			\$ 50,000.00	\$ 30,558.50
Project Lines	21767	\$ 50,368.00			\$ 50,368.00	\$ 8,575.15
AKM	21878	\$ 42,950.00			\$ 42,950.00	\$ 2,083.00
SOCWA Staff Time	3525					\$ 32,342.64
		\$ 793,167.00	\$ 15,924.30	\$ -	\$ 809,091.30	\$ 73,559.29

Construction Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3525	\$ 97,500.00	\$ 15,924.30	\$ 81,575.70	16.3%
		\$ 97,500.00	\$ 15,924.30	\$ 81,575.70	16.3%

Change Order No.	Vendor Name	Project ID	Description	Status Date	Days	Amount
1	T.E. Roberts	3525	Demolition and Replacement of Restroom Ceilings	4/22/2026		\$ 13,398.86
2	T.E. Roberts	3525	Removal of Electrical Box	5/14/2025		\$ 2,525.44
						\$ 15,924.30

Agenda Item

8

Engineering Committee Meeting

Meeting Date: May 21, 2026

TO: Engineering Committee

FROM: Roni Grant, Capital Improvement Program Manager

SUBJECT: As Needed Construction Management Services for Capital Improvement Projects [All Project Committees]

Overview

The South Orange County Wastewater Authority (SOCWA) has received eight Statements of Qualifications to provide as needed construction management services to support the construction of capital improvement projects. The intent is to select and retain three to five firms. Services may include but are not limited to resident engineering, construction document management, scheduling review, cost analysis, general inspection, and specialty inspection such as electrical and coatings. On-call services agreements will be for a three (3) year term and have a not-to-exceed limit of \$750,000 per agreement.

Background

SOCWA has traditionally procured construction management services on a project-by-project basis for larger projects such as the Coastal Treatment Plant (CTP) Facility Improvements Project. Oversight of smaller construction projects has typically been left to either SOCWA Engineering or Operations & Maintenance staff members. SOCWA staff members typically do not have the specialty skills needed for inspection work. Therefore, the use of as needed construction management firms is proposed to maintain quality control in the delivery of capital improvement projects.

SOCWA staff reviewed the proposed on-call construction management services process with the Engineering Committee on February 19, 2026. Selected on-call construction management firms will perform consulting construction management and inspection services (Services) on an "as-needed" basis for projects assigned by SOCWA via written Task Order.

SOQ's

Twenty-one firms were invited to submit a Statement of Qualifications (SOQ) through the PlanetBids platform on March 5, 2026. Eight SOQs were received on April 8, 2026. The submitting firms are as follows:

- AKM
- Ardurra/MKN
- Capo Projects Group
- CREDE Construction Advisory
- Dudek

- Harper & Associates
- La Salle Solutions
- Lee and Ro

The key attributes of the eight SOQs are briefly summarized in Table 1.

Each of the eight SOQs shows areas of broad expertise in construction management. Key differentiators include experience with (a) construction management of wastewater treatment plants and (b) availability of inspectors as contrasted with engineers and construction managers. The utilization of subconsultants enhanced several of the teams while raising some issues:

- The Ardurra/MKN team included the firm CSI for the inspection of coating work. CSI had been invited to submit its own SOQ but determined to participate as a subconsultant.
- The LaSalle Solutions team included HDR and KCS to broaden construction management and inspection resources. This provides a very robust project team. However, this may increase the expense of the proposed services as LaSalle would be apt to add a mark-up to HDR and KCS fees.

The Request for SOQ's established the rating criteria and points. The preliminary rating of the as-needed construction management services SOQs is presented in Table 2.

Seven of the SOQs related to construction management for general/civil construction projects. The ranking of general/civil service firms is presented in Table 3. The original intent had been to award on-call service contracts to three firms. However, it is noted that AKM, Ardurra/MKN and Dudek were close in capabilities and resources.

Of the eight SOQ's only three firms presented qualifications for coating inspection: Ardurra/MKN the Capo Group and Harper. The rankings of these firms are presented in Table 4.

Budget

There is no budget impact through this contract award process. The budget impact is evaluated with firm selected to provide on-call services for a specific project.

Recommended Action:

1. Staff are requesting the recommendation of award of on-call construction management services contracts for general/civil engineering projects to the following firms:
 - AKM
 - Ardurra/MKN
 - Dudek
 - La Salle Solutions
2. Staff are requesting the recommendation of award of on-call construction management services contracts for coating projects to the following firms:
 - Ardurra/MKN
 - Harper

Table 1
Construction Management Proposals Summary

	AKM	Ardurra/MKN	Capo Projects Group
Type	General/Civil Construction	General/Civil Construction Coating Inspection	General/Civil Construction Coating Inspection
Firm Overview	(1) Since 1990; (2) Irvine based; (3) 32 employees	(1) 14 California Offices incl Irvine/Newport Beach; (2) 250+ employees (CA); (3) Recent Ardurra buyout of MKN	(1) Founded 2013; (2) San Clemente based; (3) Partnering with Psomas
Firm Experience	(1) Good example similar plant work with West Basin MWD; (2) strong CM experience with SCWD	(1) Related work with City of Oceanside/San Luis Rey WRF; LACSD Valencia WRF	Work for Helix WD, Eastern MWD; San Diego County Water CA. No wastewater treatment related work identified
Project Team	Emin Kayiran – Principal; 2 senior CM's; 1 CM; 7 Inspectors Subs: Ninyo & Moore (Materials); Costin Public Outreach Group (Public Outreach)	Peter Brennan – Principal PM; 7 CM's; 11 Inspectors Subs: AESCO (Specialty Materials Testing); CSI (Coating Inspection); Rincon (Environmental)	Aaron Trimm – Project Manager; Misha Trayan (Psomas) CM Resource; 2 RE's; 4 Leads Inspectors; Scheduler; Estimator; Claims Analyst Subs: Psomas (Mech); Ninyo & Moore (Materials); Certerra (Electrical and Coatings); On-Site Technical (Instrument/Welding)
Reasonableness of Fees	Principal (\$269/h); CM (\$212/h); Senior Insp (\$184/h); Insp (\$177/h)	Senior CM (\$275/h); RE (\$230/hr); Insp \$213/h)	CM (\$300/h); RE (\$265/h); Lead Insp (\$240/h)
Compliance With RFQ	No experience matrix provided.	No experience matrix provided.	No issues
Method and Techniques	Sound Mechanism	Sound Mechanism	Good write-up – more focus cost estimation and scheduling.

Table 1 (Cont'd)
 Construction Management Proposals Summary

	CREDE Construction Advisory	Dudek	Harper & Associates
Type	General/Civil Construction	General/Civil Construction	Coating Inspection
Firm Overview	(1) Founded 2001; (2) Irvine based; (3) 179 Employees	(1) Headquartered in Encinitas; work primarily out of Mission Viejo/San Marcos office; (2) over 1000 employees	(1) Founded 1979; (2) Corona based
Firm Experience	Work for City of Laguna Beach; Temescal Valley Water District (including wastewater treatment related work).	Lengthy experience with as-needed contracts. Prior experience on SOCWA Const. Additional wastewater treatment CM work for City of Coachella and Coachella Valley WD	Work for agencies throughout Southern California including SOCWA, SMWD, SCWD and MNWD
Project Team	Dennis Lorton – Senior PM; James Nelson – SOCWA POC; 2 Manager/Inspectors Subs: Proactive Engineering Consultants (Resident Engineering); Fenagh Engineering (Geotech & Matls); Curt Pringle & Assoc.	George Litzinger – Principal; 3 CM's; 8 Insp Subs: Rockwell Construction Services (Electrical and Inst.); Atlas Technical Consultants (Materials); Kylie Hawks (Labor Compliance)	Krista Harper – Principal; Andre Harper – President; 6 inspectors; 2 Divers – note 9 staff members with NACE certification
Reasonableness of Fees	Senior PM (\$190/h); RE (\$263/h); Senior CM/Insp (\$165/h); Labor Compliance Dir (\$136/h)	Principal (\$225/h); RE (\$195/h); Insp (\$165/h)	Principal (\$250/h); Corrosion Engineer (\$225/h); Insp (\$145/h)
Compliance With RFQ	No issues	No issues but Dudek has comments on std agreement language	No experience matrix provided.
Method and Techniques	Well organized presentation on PM procedures.	Good write-up on company QC	Light discussion on ability to perform standard scope items

Table 1 (Cont'd)
 Construction Management Proposals Summary

	LaSalle Solutions	Lee & Ro
Type	General/Civil Construction	General/Civil Construction
Firm Overview	(1) Founded 2010; (2) San Diego based	(1) Headquartered in City of Industry; major office in San Diego; (2) founded in 1979; (3) over 80 employees
Firm Experience	City of San Diego North City Reclamation Plant (Project Management); LA County SD On Call CM (HDR); City of San Jose Advanced Treatment Facilities (HDR).	No WWTP Construction Management projects identified (odd given the firms extensive resume in WWTP design) Extensive work experience with SOCWA and member agencies
Project Team	Dennis LaSalle – Principal; Christine Waters – PM; 14 CM's; 8 Inspectors Subs: HDR (CM); KCS (CM); Kleinfelder (Materials); San Dieguito Engineering (Survey) Excellent Team Matrix	Amritendu Maji – Project Director; Robert Mercado – Construction Manager; 3 RE/Inspectors
Reasonableness of Fees	Principal (\$269/h); CM (\$212/h); Senior Insp (\$184/h); Insp (\$177/h)	Senior RE (\$222/h); RE (\$202/h); Senior Insp (\$165/h); Insp (\$136/h)
Compliance With RFQ	No issues	No experience matrix provided.
Method and Techniques	Write-up gives focus on how they would work with SOCWA	Sound approach

Table 2
 Rating of SOQ's

	AKM	Ardurra /MKN	Capo Projects	CREDE	Dudek	Harper	LaSalle Soln's	Lee & Ro
Firm Overview (15%)	15	15	15	15	15	15	15	15
Firm Experience (35%)	25	25	20	25	25	25	30	20
Project Team (35%)	25	25	25	20	25	30	30	20
Fees (5%)	5	5	4	5	5	5	5	5
RFQ Compliance (5%)	5	5	5	5	5	4	5	5
Method (5%)	5	5	5	5	5	4	5	5
Total (100%)	80	80	74	75	80	83	90	70

Table 3
 Ranking of SOQ's for As-Need Construction Services for General/Civil Projects

Firm	Rating Point Total
LaSalle Soln's	90
AKM	80
Ardurra /MKN	80
Dudek	80
CREDE	75
Capo Projects	74
Lee & Ro	70

Table 4
 Ranking of SOQ's for As-Need Construction Services for Coating Projects

Firm	Rating Point Total
Harper	83
Ardurra /MKN	80
Capo Projects	74

Agenda Item

9

Engineering Committee Meeting

Meeting Date: May 21, 2026

TO: Engineering Committee

FROM: Roni Grant, Capital Improvement Program Manager

SUBJECT: J. B. Latham Treatment Plant Digester Underground Piping Upgrades
Construction Contract Award [Project Committee 2]

Overview

Underground piping between the four anaerobic digesters at the J. B. Latham Treatment Plant (JBLTP). Portions of the buried piping have been subject to repeated failures over the past 35 years. A portion of the existing underground digester gas piping is occluded; a temporary above ground piping system has been installed to allow gas to flow from the digesters. The buried portions of these pipelines run through an area that is congested with other process piping. Excavating in this area would be difficult, and leaks in buried piping can be difficult to locate and repair. Locating the new utilities above-ground could reduce construction costs, operational impacts, future maintenance costs and improve reliability.

Construction bids have been received for a project to construct the following improvements:

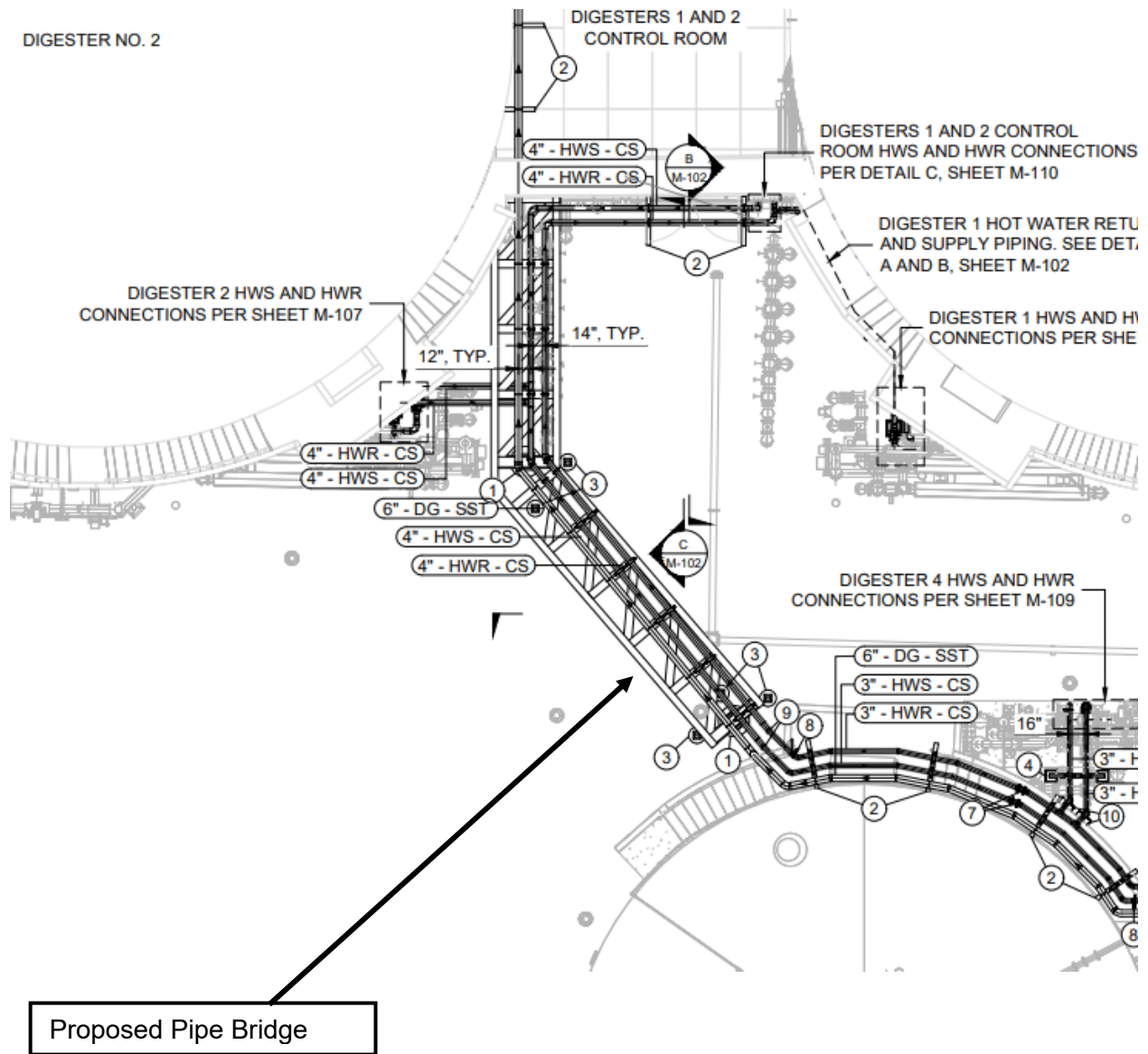
- Replace and relocate hot water and digester gas piping between digesters, and
- Install pipe bridging structure to accommodate piping relocation to above ground routes.

Background

The SOCWA Project Committee 2 Board of Directors awarded a design contract to MKN & Associates on April 3 in the amount of \$441,129 for the final design of the J. B. Latham Treatment Plant (JBLTP) Flare System and Underground Piping Replacement Project. A determination was made to break the project into two separate phases to accommodate the forthcoming master planning efforts at the JBLTP. Completion of the master planning effort will ensure that the new location for the gas flare will not conflict with future construction of other facilities.

MKN performed a detailed routing evaluation and review with Operations staff for the replacement and relocation of the two piping systems. The central feature of the project is a pipe bridge that will cross the road between Digesters 1/2 and Digesters 3/4. The location of this bridge is as shown in Figure 1. The bridge is being built of sufficient size to accommodate the above ground relocations of other digester piping systems in the future.

Table 1 – Pipe Bridge Location



Bids

On March 18, 2025, SOCWA issued a formal solicitation for bids by way of the PlanetBids platform. Qualified contractors were invited to participate in the procurement process for the construction of the digester underground piping upgrades. Bid submissions were due by April 8, 2026. SOCWA received four bids as summarized in Table 2.

Table 1 – Summary of Bids

Item No.	Description	Filanc	Murray	Pacific Hydrotech	S.S. Mechanical
1	Mobilization /Demobilization	\$85,000.00	\$126,552.00	\$85,000.00	\$58,000.00
2	Utility Potholing	\$25,000.00	\$11,572.00	\$21,000.00	\$45,510.00
3	Dewatering	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00
4	Utility Relocation	\$41,000.00	\$42,704.00	\$35,600.00	\$75,075.00
5	Demolition	\$53,000.00	\$30,877.00	\$77,800.00	\$10,000.00
6	Pipe Bridge	\$250,000.00	\$105,844.00	\$160,200.00	\$234,681.00
7	Pipe Supports	\$143,000.00	\$110,374.00	\$141,200.00	\$64,735.00
8	Above Ground Gas Piping	\$344,000.00	\$265,024.00	\$256,800.00	\$163,210.00
9	Buried Digester Gas Piping	\$47,000.00	\$65,139.00	\$30,300.00	\$38,395.00
10	Hot Water Piping	\$281,000.00	\$393,990.00	\$470,300.00	\$288,350.00
11	Valves /Mechanical	\$73,000.00	\$105,795.00	\$49,600.00	\$53,700.00
12	Pipeline Tie-In	\$65,000.00	\$10,430.00	\$239,400.00	\$24,275.00
13	Pavement Restoration	\$52,000.00	\$27,660.00	\$17,100.00	\$37,315.00
14	Temporary Dig. Isolation	\$19,000.00	\$25,089.00	\$54,300.00	\$18,995.00
15	Unidentified Utility Relocation	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00
16	All Other Items	\$230,000.00	\$235,941.00	\$56,300.00	\$20,000.00
	TOTAL	\$1,758,000.00	\$1,606,991.00	\$1,744,900.00	\$1,182,241.00
Subcontractors					
	Insulation	Karcher Ins.	Karcher Ins.	Karcher Ins.	Karcher Ins.
	Painting & Coating	Techno Coatings	Techno Coatings	Techno Coatings	Techno Coatings
	Drilling	Curtis Drilling			Mahaffey Drill
	Pipe Bridge	Allied Steel	Can Lines		
	Concrete		D.V. Con.		
	Potholing		Ultra Eng.		
	Passivation		Astro Pak		
	NPDES Monitoring		Pure Effect Inc.		

The apparent low bid amount of \$1,181,241 by S.S. Mechanical is approximately 21% higher than the Engineer’s Opinion of Probable Cost of \$975,874. The Estimate of Probable Cost was prepared by MKN in February 2026.

Cost Allocation

A summary of the cost allocation by member agency is presented Table 2.

Table 2 – Cost Allocation by Member Agency

Agency	PC 2 Solids (\$) Ownership %	Cost Allocation
Santa Margarita Water District	58.38	\$690,192.30
South Coast Water District	41.62	\$492,048.70
Total	100.00	\$1,182,241.00

Budget

A comparison of the estimated construction cost with the available budget is presented in Table 3. This table indicates that the overall project cost is approximately 80% over the current budget.

Table 3 – Comparison of Estimated Construction Cost with Budget

	32232S	32234S	32263S	
	Flare System and Buried Digester Pipe Replacement	JBL Heat Exchanger #4 Pipe Replacement	Buried Digester Piping Re-construction	Total
Budget	\$125,000	\$75,000	\$806,490	\$1,006,490
Study and Design	\$77,464	\$48,773	\$160,665	\$286,902
Construction Bid			\$1,182,241	\$1,182,241
Construction Contingency (10% of Const)			\$118,250	\$118,250
Construction Management (20% of Const.)			\$236,500	\$236,500
Total Estimated Cost	\$77,464	\$48,773	\$1,697,656	\$1,823,893

Recommended Action

Staff recommend presenting the following Engineering Committee actions to the Project Committee 2 (PC 2) Board of Directors:

1. Increase the budget of Task 32263S by \$820,000 from \$806,490 to \$1,626,490.
2. Authorize execution of a construction contract with S. S. Mechanical in the amount of \$1,182,241.00.
3. Approve a contract contingency of \$118,250.00 to address any unforeseen conditions encountered during the work.

Agenda Item

10

Engineering Committee Meeting

Meeting Date: May 21, 2026

TO: Engineering Committee

FROM: Roni Young Grant, Capital Improvement Program Manager

SUBJECT: Contract Award for Coastal Treatment Plant Access Road Repaving
[Project Committee 15]

Overview

The existing AWMA Road serves as a critical access route at the entrance of Aliso and Wood Canyons Wilderness Park, connecting visitors to the AWMA Road parking area and providing essential utility access to the Coastal Treatment Plant (CTP).

After decades of heavy use by park visitors, utility vehicles, and emergency responders, the roadway surface has significantly deteriorated. Repaving is now necessary to ensure safe, reliable, and long-term access for both public recreation and essential infrastructure operations.

Staff are actively pursuing cost-sharing opportunities with the County of Orange and exploring potential grant funding sources. Additionally, at the direction of the Board, staff are also identifying partnership opportunities with other entities.

Background

Constructed in the late 1970s, the original AWMA Road and the accompanying AWMA Bridge over Aliso Creek were built to provide access to the wastewater treatment facilities in Aliso Canyon. Over time, as the surrounding land was dedicated for park and recreation purposes, the road evolved into one of the primary access points for:

- The park's extensive and heavily used trail system, supporting thousands of visitors each year.
- Public parking for visitors entering via Alicia Parkway, making it a key entryway to the 4,500-acre wilderness park.
- Maintenance, utility, and emergency access into Aliso Canyon, supporting critical wastewater operations and public safety needs.

Bids/Quotes

On January 19, 2026, SOCWA issued a formal solicitation for bids via the PlanetBids platform. Bid submissions were due by March 4, 2026. SOCWA received one bid from T.E. Roberts in the amount of \$1,341,222. At the direction of the PC 15 Engineering Committee, SOCWA subsequently contacted Big Ben Engineering and T.E. Roberts to request quotes for the repair items requiring immediate attention. The two quotes are summarized in Table 1.

Table 1 - Quotes

Company	Cost
Big Ben Engineering	\$266,400.00
T.E. Roberts	\$204,068.76

T.E. Roberts was the apparent low quote out of the two.

Cost Allocation

Table 2 shows the allocation of costs by member agencies.

Table 2 – Cost Allocation by Member Agency (35248L)

Agency	Cost
City of Laguna Beach	\$110,809.34
Emerald Bay Service District	\$6,122.06
South Coast Water District	\$87,137.36
Total	\$204,068.76

Budget

The budget for CTP Access Road Repaving is \$1.75M. The budget impact for award of the construction contract will involve the related expenses as shown in Table 3.

Table 3 – Budget Impacts of Construction Cost Award

Cost Item	Percentage of Construction Contract	Cost
Construction Contract		\$204,068.76
Construction Contingency	5%	\$10,203.44
Construction Services	10%	\$20,406.88
Total		\$234,679.11

Prior Related Project Committee or Board Action (s)

This item was reviewed and discussed by the Engineering Committee on March 19 and April 16, 2026, and at the Board of Directors meeting on April 2, 2026.

Recommended Action

Staff recommend presenting the following Engineering Committee actions to the Project Committee 15 (PC 15) Board of Directors:

1. Authorize execution of a construction contract with T.E. Roberts in the amount of \$204,068.76.
2. Approve a contract contingency of \$10,203.44 to address any unforeseen conditions encountered during the work.

Agenda Item

11

Engineering Committee Meeting

Meeting Date: May 21, 2026

TO: Engineering Committee

FROM: Amber Boone, General Manager

STAFF CONTACT: Jim Burror, Deputy General Manager/Chief Engineer

SUBJECT: CTP Regional Flow Study Update [Project Committee 15]

Summary

At the March 5, 2026, SOCWA Board of Directors meeting, Project Committee 15 (PC-15) approved a professional services agreement with MKN, to prepare the Coastal Treatment Plant (CTP) Regional Flow Study. The purpose of the study is to evaluate planning-level regional wastewater conveyance and treatment alternatives associated with potential future decommissioning of the CTP and identify major infrastructure requirements, operational impacts, regulatory considerations, recycled water impacts, and planning-level costs.

The study evaluates three primary regional alternatives:

1. Redirection to Orange County Sanitation District (OC San) Plant No. 2 and the Regional Treatment Plant (RTP);
2. Redirection to the JB Latham Treatment Plant (JBL); and
3. Redirection to the RTP.

Project Element 1 (PE1) provides the initial technical feasibility framework, existing infrastructure evaluation, and conceptual alternative development. Project Element 2 (PE2) expands the evaluation to include planning-level infrastructure sizing, conveyance concepts, implementation considerations, and additional detail regarding regional coordination and operational impacts.

The draft PE1 and PE2 submittals were distributed to the PC15 Engineering Committee members at Workshops PE1 and PE2. Copies of the two submittals are attached for the remaining Engineering Committee to review and discuss.

Discussion

During the PE1 stakeholder workshop, participating agencies discussed the feasibility constraints associated with the original Alternative 1 concept, which evaluated conveying all PC15 wastewater flows to OC San's collection system and OC San's Plant No. 2 in Huntington Beach.

Based on discussions with stakeholders and preliminary technical evaluations, it was determined that OC San's currently available collection system capacity is limited to approximately 4 MGD without substantial downstream infrastructure improvements. Preliminary evaluations indicate that conveying full PC15 peak wet weather flows to Plant No. 2 would require significant upgrades to OC San lift stations and force mains extending from southern Newport Beach to Huntington

Beach. Preliminary planning-level estimates indicate these additional improvements alone could range between approximately \$100 million and \$200 million and could effectively double the overall capital costs associated with Alternative 1 to approximately \$200 million to \$400 million.

Stakeholders also discussed uncertainty regarding the feasibility of constructing additional large-diameter pipelines within the highly congested Pacific Coast Highway utility corridor based on prior OC San projects in the area.

As a result of the PE1 workshop discussions, stakeholders directed the consultant team to further develop and evaluate a modified “hybrid” variation of Alternative 1. Under the revised hybrid approach:

- Wastewater flows from the City of Laguna Beach (CLB) and Emerald Bay Service District (EBSD) would be redirected to OC San Plant No. 2; and
- Remaining South Coast Water District (SCWD) flows would be redirected to Moulton Niguel Water District’s Regional Treatment Plant (RTP).

This modified concept was developed because combined CLB and EBSD wastewater flows are generally near the currently available 4 MGD OC San collection system capacity threshold. In addition, the hybrid approach may provide a more cost-effective strategy for returning recycled water supplies to SCWD, which was identified by stakeholders as a key regional priority.

Accordingly, SOCWA staff requested that the following clarification language be incorporated into Section 2.1.1 of the draft report associated with Alternative 1:

“The original scope of Alternative 1 was to evaluate sending all PC15 flows to OC San’s collection system. However, during peak flow events, wastewater flows from the PC15 service area substantially exceed OC San’s currently available collection system capacity of 4 MGD. Conveying flows above 4 MGD would require major capacity improvements to OC San’s lift stations and force mains extending from southern Newport Beach to Plant No. 2 in Huntington Beach. Preliminary estimates indicate these improvements alone could cost between \$100–200 million, effectively doubling the needed improvement costs to \$200–\$400 million, and rendering the alternative infeasible in comparison. In addition, based on OC San’s past projects along the Pacific Coast Highway, it remains uncertain whether feasible pipeline alignments exist within the highly congested PCH utility corridor.

During the PE1 workshop, a hybrid variation of Alternative 1 was therefore introduced to evaluate the feasibility of diverting up to 4 MGD from the PC15 service area to OC San. Under this hybrid Alternative 1, wastewater generated from the City of Laguna Beach and Emerald Bay Service District would be conveyed to OC San’s Plant No. 2, while the balance of PC15 flows from SCWD would be transmitted to MNWD’s Regional Treatment Plant. This approach was developed because the combined flows from CLB and EBSD are near the 4 MGD capacity currently available within OC San’s system. Additionally, this approach provides a more cost-effective solution for returning recycled water to SCWD, which was identified as a key priority by SCWD. Direction provided during the PE1 workshop was to proceed with the development of this hybrid Alternative 1 option outlined below.

PE2 reflects the continued development of all the alternatives, including this revised hybrid Alternative 1 concept, and includes conceptual infrastructure layouts, lift-station sizing, force-main

routing concepts, and planning-level implementation considerations. The three concepts also maintain flexibility for future regional wastewater, recycled water, and regional infrastructure planning discussions.

PE3 was submitted on May 11, 2026, and is currently under review. The PE3 will include the cost evaluations for the three (3) alternatives.

SOCWA staff will also be providing this update at the May 14, 2026, SOCWA Board meeting.

Lastly, comments on the draft PE1, PE2, and PE3 are still being accepted for inclusion in the final draft report, anticipated July 1, 2026. Please route comments to Jim Burror.

Fiscal Impact

None

Recommended Action: Engineering Committee Discussion, Direction, and Action

Attachment(s)

1. Project Element 1 (PE1) – Project Initiation and Data Collection
2. Project Element 2 (PE2) – Technical Feasibility Assessment
3. Project Element 3 (PE3) – Cost Evaluation
4. Updated CTP Regional Flow Study Schedule (as of 5-15-2026)



**SOUTH ORANGE COUNTY
WASTEWATER AUTHORITY**

**COASTAL TREATMENT PLANT
REGIONAL PLANNING STUDY**

JUNE XX, 2026

PREPARED FOR:

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
34156 DEL OBISPO STREET
DANA POINT, CA 92629**

PREPARED BY:

**MKN
16310 BAKE PARKWAY
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TABLE OF CONTENTS

1.0	BACKGROUND AND ASSUMPTIONS	1-1
1.1	PROJECT BACKGROUND	1-1
1.2	OBJECTIVE.....	1-1
1.3	EXISTING INFRASTRUCTURE	1-2
1.3.1	Regional Wastewater Treatment Facilities.....	1-2
1.3.1.1	Coastal Treatment Plant (SOCWA).....	1-2
1.3.1.2	JB Latham Treatment Plant	1-7
1.3.1.3	Plant No. 2.....	1-7
1.3.1.4	Regional Treatment Plant	1-7
1.3.2	Regional Wastewater Collection Systems.....	1-7
1.3.2.1	Moulton Niguel Water District.....	1-7
1.3.2.2	City of Laguna Beach.....	1-8
1.3.2.3	Emerald Bay Service District.....	1-8
1.3.2.4	Orange County Sanitation District.....	1-9
1.3.2.5	South Coast Water District.....	1-10
1.3.3	Regional Recycled Water Systems.....	1-11
1.3.3.1	South Coast Water District.....	1-11
1.3.3.2	Moulton Niguel Water District.....	1-11
1.3.4	Coastal Supply Pipeline.....	1-12
1.4	PROJECT ASSUMPTIONS	1-12
1.4.1	Wastewater Flow	1-12
1.4.1.1	Regional Wastewater Treatment Facility Capacity and Flows	1-15
1.4.1.2	Regional Lift Station Capacity and Flows	1-16
1.4.2	Costs	1-16
1.4.2.1	Operating Costs.....	1-17
1.4.2.2	Capital Costs	1-17
1.4.2.3	OCSAN Connection	1-18
1.4.2.4	Groundwater Costs	1-19
1.4.2.5	Economic Assumptions.....	1-19
1.5	INFRASTRUCTURE DESIGN CRITERIA.....	1-20
1.6	ALTERNATIVES EVALUATION CRITERIA.....	1-21
2.0	TECHNICAL FEASIBILITY ASSESSMENT.....	2-1
2.1	Alternative 1 – Regional Conveyance to OCSAN.....	2-1
2.1.1	Infrastructure Sizing.....	2-2

2.1.2	New Water Supply	2-3
2.1.3	Governance/Contractual Pathway	2-3
2.2	Alternative 2 – Redirection to JB Latham Treatment Plant (JBL).....	2-3
2.3	Alternative 3 – Redirection to RTP	2-4
2.4	Recycled Water	2-4
3.0	COST EVALUATION	3-1
3.1	Capital Costs	3-1
3.2	Operating Costs.....	3-1
3.3	Cost Comparison.....	3-1
4.0	ANALYSIS AND RECOMMENDATIONS	4-1
4.1	Alternatives Analysis.....	4-1
4.2	Recommendation.....	4-1
4.3	Implementation	4-1

LIST OF TABLES

Table 1-1:	Aliso Creek Ocean Outfall (PC-24) Ownership.....	1-6
Table 1-2:	CLB Relevant Lift Stations	1-8
Table 1-3:	OCSAN Relevant Lift Stations.....	1-9
Table 1-4:	SCWD Relevant Lift Stations	1-10
Table 1-5:	Agency Flow Contributions to CTP	1-15
Table 1-6:	Treatment Plant Capacity (MGD).....	1-16
Table 1-7:	Lift Station Summary.....	1-16
Table 1-8:	Plant Operating Costs	1-17
Table 1-9:	Impacted Capital Improvement Projects.....	1-17
Table 1-10:	OCSAN Connection Costs	1-18
Table 1-11:	Economic Evaluation Assumptions	1-19
Table 1-12:	Infrastructure Unit Costs	1-20
Table 1-13:	Infrastructure Design Criteria	1-20
Table 1-14:	Evaluation Criteria and Scoring Guidance.....	1-21

LIST OF FIGURES

Figure 1-1:	CTP Process Schematic	1-6
Figure 1-2:	OCSAN Relevant Infrastructure	Error! Bookmark not defined.
Figure 1-3:	EBSD and CLB Relevant Infrastructure	Error! Bookmark not defined.
Figure 1-4:	SCWD Relevant Infrastructure.....	Error! Bookmark not defined.
Figure 1-5:	OCSAN Collection System Capacity.....	1-10
Figure 1-6:	Historical CTP Influent	1-14
Figure 1-7:	Baseline Flow Schematic.....	Error! Bookmark not defined.
Figure 1-8:	Peak Wet Weather Flow	1-15

LIST OF APPENDICES

Appendix A: [Title]

Appendix B: [Title]

Appendix C: [Title]

DRAFT

List of Abbreviations

AACE	Association for the Advancement of Cost Engineering	JBL	JB Latham Treatment Plant
ACWRF	Aliso Creek Water Reclamation Facility	kWh	Kilowatt-Hours
AFY	Acre-Feet per Year	LAFCO	Local Agency Formation Commission
BPS	Booster Pump Station	LBCWD	Laguna Beach County Water District
c/o	Care Of	LF	Linear Feet
CEQA	California Environmental Quality Act	MBR	Membrane Bioreactor
CIP	Capital Improvement Program	MG	Million Gallons
CLB	City of Laguna Beach	MGD	Million Gallons per Day
CMLCS	Cement Mortar Lined and Coated Steel	mi	Miles
CSC	City of San Clemente	MKN	Michael K. Nunley and Associates, LLP
CSJC	City of San Juan Capistrano	MNWD	Moulton Niguel Water District
CTP	Coastal Treatment Plant	NCI	North Coast Interceptor
DPR	Direct Potable Reuse	NPDES	National Pollutant Discharge Elimination System
EBSD	Emerald Bay Service District	OASIS	Optimized Adaptive Sustainable Integrated Supply
ETM	Effluent Transmission Main	OCSAN	Orange County Sanitation District
ETWD	El Toro Water District	OCWD	Orange County Water District
ft	Feet	O&M	Operations and Maintenance
FY	Fiscal Year	PC	Project Committee
GIS	Geographic Information System	PDWF	Peak Dry Weather Flow
gpd	Gallons per Day	RTP	Regional Treatment Plant
gph	Gallons per Hour	SCWD	South Coast Water District
gpm	Gallons per Minute	SMWD	Santa Margarita Water District
GWRS	Ground Water Replenishment System	SOCWA	South Orange County Wastewater Authority
HDPE	High-Density Polyethylene	TDS	Total Dissolved Solids
in.	Inches	VFD	Variable Frequency Drive
IRWD	Irvine Ranch Water District / Irvine Water District		

Previous Studies and Reports

The following studies, reports, and other materials were reviewed during the preparation of this Report:

1. City of Laguna Beach Sewer Master Plan (Dudek, 2025)
2. Fiscal Year 2025–26 Budget (SOCWA, 2025)
3. Emerald Bay Service District Lift Station Condition Assessment Summary (MKN, 2021)
4. Coastal Treatment Plant Future Alternatives Feasibility Study (Hazen, 2021)
5. Coastal Treatment Plant Export Sludge Force Main Replacement (Dudek, 2020)
6. North Coast Interceptor – Reliability Assessment & Analysis (Dudek, 2020)
7. Aliso Creek Estuary Restoration – Conceptual Restoration Plan (ESA, 2018)
8. South Coast Water District Infrastructure Master Plan Update (AECOM, 2017)
9. Coastal Treatment Plant Facility Plan (CH2M Hill, 2014)
10. Export Sludge Force Main Replacement for the South Coast Water District – Phase I Laguna Niguel Regional Park Section (HYA Consulting Engineers, 1998)
11. Coast Supply Line Replacement – Section 1A (James M. Montgomery, 1991)
12. Coast Supply Line Replacement – Section 3 (James M. Montgomery, 1990)

1.0 BACKGROUND AND ASSUMPTIONS

This section provides the foundational context for the Coastal Treatment Plant (CTP) Regional Planning Study and establishes the framework used to evaluate potential project alternatives. It summarizes the project background, defines the study objectives, identifies existing infrastructure, and documents key assumptions and evaluation criteria used in the technical and cost analyses.

The information presented reflects currently available data, stakeholder input, and the planning-level nature of this evaluation of regional flow and treatment alternatives.

1.1 PROJECT BACKGROUND

The South Orange County Wastewater Authority (SOCWA) operates regional wastewater treatment and conveyance facilities that serve multiple member agencies in southern Orange County, including the Cities of Laguna Beach (CLB), San Clemente (CSC), and San Juan Capistrano (CSJC); Emerald Bay Service District (EBSB); South Coast Water District (SCWD); Moulton Niguel Water District (MNWD); Santa Margarita Water District (SMWD); and El Toro Water District (ETWD). The CTP has historically provided wastewater treatment and recycled water production for portions of the coastal service area. Over time, evolving regulatory requirements, aging infrastructure, and changing regional capital priorities have prompted consideration of long-term strategies for treatment, conveyance, and recycled water supply within the South Orange County service area.

In parallel with these considerations, several regional infrastructure projects and planning efforts are underway that influence future system configuration. These include ongoing investments in conveyance systems such as the North Coast Interceptor (NCI) and improvements to the SCWD tunnel infrastructure, as well as broader discussions regarding treatment capacity, recycled water demands, and interagency coordination across South Orange County. These factors create an opportunity to evaluate how existing and planned infrastructure can support future regional wastewater management strategies, including redirection of flows among facilities.

This report documents a planning-level evaluation of regional wastewater flow and treatment considerations associated with the CTP. The analysis relies on available system data, planning documents, and stakeholder input to characterize existing conditions, identify key infrastructure relationships, and provide context for evaluating potential regional conveyance and treatment configurations. The information presented herein is intended to support ongoing coordination among SOCWA and its member agencies as they consider long-term infrastructure and operational planning for the region.

1.2 OBJECTIVE

The following objectives define the key outcomes this planning-level evaluation is intended to inform.

- **Decommissioning:** Evaluate high-level regional considerations associated with potential future decommissioning of CTP.
- **Redirection:** Assess conceptual and hydraulic feasibility of redirecting wastewater flows to alternative regional treatment facilities.

- **Infrastructure:** Identify major infrastructure needs, constraints, and operational risks associated with potential alternatives.
- **Costs:** Develop planning-level cost information to support comparison of regional strategies.
- **Next Steps:** Provide information to support future decision-making and potential follow-up studies.

1.3 **EXISTING INFRASTRUCTURE**

Using Geographic Information System (GIS), as-builts, and input from agency staff, Michael K. Nunley and Associates, LLP (MKN), an Ardurra Group, Inc. company, prepared **Figure 1-1** through **Figure 1-3** to identify relevant infrastructure owned by CLB, EBSD, Orange County Sanitation District (OCSAN), MNWD, SCWD, and SOCWA associated with the alternative scenarios evaluated in this study. The following subsections provide additional information related to the key components shown in the figures.

1.3.1 **Regional Wastewater Treatment and Outfall Facilities**

This section provides a high-level overview of the four regional wastewater treatment facilities considered in the proposed alternative scenarios.

1.3.1.1 **Coastal Treatment Plant (SOCWA)**

Constructed in 1983, the CTP is a SOCWA regional wastewater treatment facility located within the City of Laguna Niguel’s sphere of influence that treats wastewater from CLB, EBSD, and a portion of SCWD. The CTP is managed by SOCWA Project Committee No. 15 (PC-15). The facility can treat up to 6.7 million gallons per day (MGD) of wastewater and has the capacity to produce up to 1.5 MGD of recycled water for use in SCWD’s recycled water system. Besides the treatment processes, key components of the facility include a sludge export pipeline and the Aliso Creek Ocean Outfall as described in the following subsections. **Figure 1-4** illustrates the CTP process schematic.

Sludge Export Pipeline

The sludge export system between the CTP and the Regional Treatment Plant (RTP) was constructed in the early 1980s and consisted of two parallel 4-inch (in) ductile iron force mains that extended 23,000 feet (ft) or 4.4 miles (mi) along the Aliso Creek corridor adjacent to Reach E of SOCWA’s effluent transmission main (ETM). The 4-in. pipelines have since been abandoned and replaced by a newer sludge force main system, constructed over two phases.

- ***Phase I*** – Completed in 1998, Phase I includes 7,900 ft (1.5 mi) of 6-in. ductile iron force main extending from Alicia Parkway to the RTP within a 25-ft MNWD easement.
- ***Phase II*** – Completed in 2022, Phase II includes 16,400 ft (3.1 mi) of 6-in. high-density polyethylene (HDPE) force main extending from the CTP to Alicia Parkway on the eastern side of Aliso Creek within ETM Reach E’s 30-ft easement.



Legend

Treatment Facility	Force Main Pipeline
Coastal Supply Pipeline	City of Laguna Beach
Regional Lift Station Overflow Pipeline	Emerald Bay Service District
Sludge Export Pipeline	Orange County Sanitation District
Lift Station	South Coast Water District
City of Laguna Beach	Not Impacted by Alternatives
Emerald Bay Service District	Gravity Pipeline
Moulton Niguel Water District	City of Laguna Beach
Orange County Sanitation District	Emerald Bay Service District
South Coast Water District	Orange County Sanitation District
Not Impacted by Alternatives	South Coast Water District
	Not Impacted by Alternatives



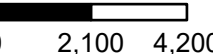
South Orange County Wastewater Authority

CTP Regional Flow Study

Figure 1-1
Orange County Sanitation District Relevant Infrastructure



1 inch = 4,200 feet



Legend

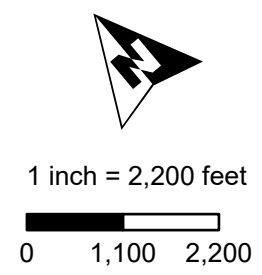
- Treatment Facility
- Coastal Supply Pipeline
- Regional Lift Station Overflow Pipeline
- Sludge Export Pipeline
- Lift Station
 - City of Laguna Beach
 - Emerald Bay Service District
 - Moulton Niguel Water District
 - Orange County Sanitation District
 - South Coast Water District
 - Not Impacted by Alternatives
- Force Main Pipeline
 - City of Laguna Beach
 - Emerald Bay Service District
 - Orange County Sanitation District
 - South Coast Water District
 - Not Impacted by Alternatives
- Gravity Pipeline
 - City of Laguna Beach
 - Emerald Bay Service District
 - Orange County Sanitation District
 - South Coast Water District
 - Not Impacted by Alternatives



South Orange County Wastewater Authority
CTP Regional Flow Study



Figure 1-2
 City of Laguna Beach and Emerald Bay Service District Relevant Infrastructure





Legend

Treatment Facility	Force Main Pipeline
Coastal Supply Pipeline	City of Laguna Beach
Regional Lift Station Overflow Pipeline	Emerald Bay Service District
Sludge Export Pipeline	Orange County Sanitation District
Lift Station	South Coast Water District
City of Laguna Beach	Not Impacted by Alternatives
Emerald Bay Service District	Gravity Pipeline
Moulton Niguel Water District	City of Laguna Beach
Orange County Sanitation District	Emerald Bay Service District
South Coast Water District	Orange County Sanitation District
Not Impacted by Alternatives	South Coast Water District
	Not Impacted by Alternatives



South Orange County Wastewater Authority
CTP Regional Flow Study

Figure 1-3

South Coast Water District Relevant Infrastructure



1 inch = 3,400 feet

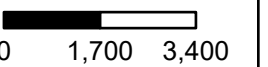
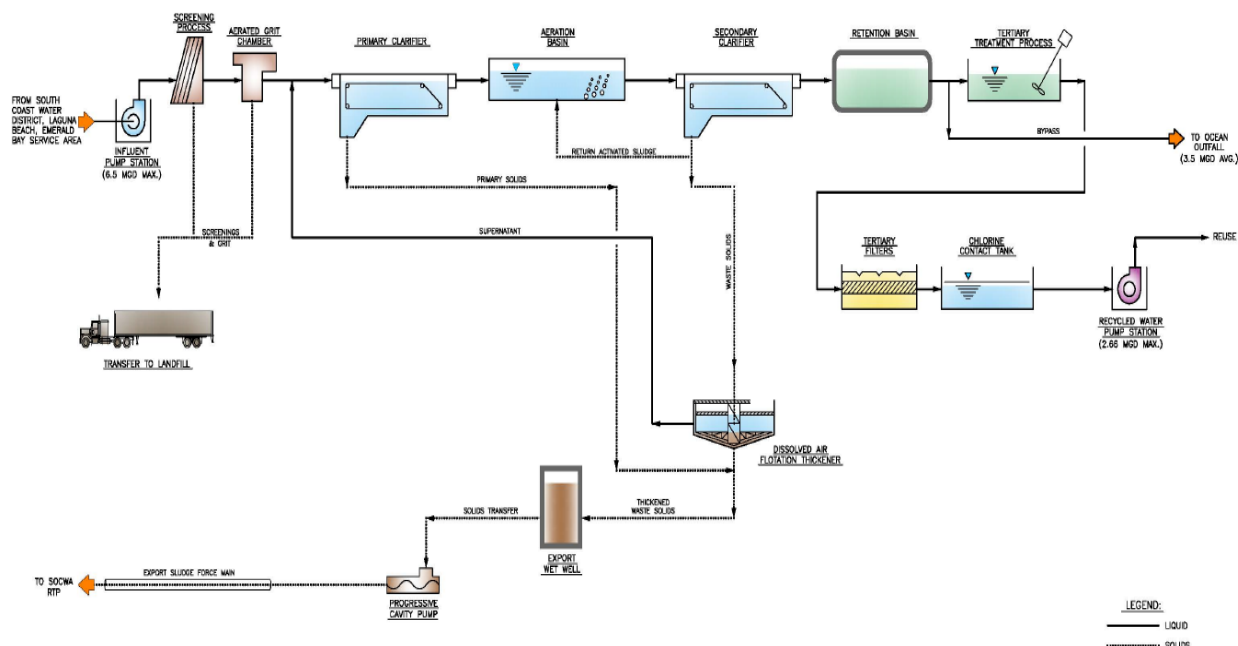


Figure 1-4: CTP Process Schematic



Source: National Pollutant Discharge Elimination System (NPDES) No. CA0107611

Aliso Creek Ocean Outfall

The Aliso Creek Ocean Outfall was constructed in 1979 and consists of 8,700 ft (1.5 mi) of 36-in.-diameter pipeline extending from the CTP to offshore of Aliso Creek Beach within CLB. The outfall is managed by SOCWA PC-24. The outfall conveys treated effluent from the CTP and treated effluent from the ETM produced by ETWD, Irvine Water District (IRWD), and MNWD. The hydraulic capacity of the outfall is approximately 50 MGD and has split capacity ownership between users per **Table 1-1**.

Table 1-1: Aliso Creek Ocean Outfall (PC-24) Ownership		
Agency	Hydraulic Capacity (MGD)	Capacity Ownership
CLB	5.500	11.00%
EBSD	0.390	0.78%
ETWD	8.151	16.30%
IRWD (c/o ETWD)	7.880	15.76%
MNWD (c/o ETWD)	21.924	43.85%
SCWD	6.155	12.31%
Total	50.000	100.00%

Note:

- As part of negotiated agreements for the exit of MNWD and IRWD from participation in SOCWA, capacity rights for the Aliso Creek Ocean Outfall have been reassigned. Historical capacity shares for IRWD and MNWD are identified as "care of" (c/o) ETWD, reflecting the transfer of participation in SOCWA facilities.

Excluding CTP effluent, agency staff indicated that upstream ETM flows have elevated total dissolved solids (TDS) and are not suitable for recycled water use without additional treatment.

1.3.1.2 JB Latham Treatment Plant

Constructed in 1964, the JB Latham Treatment Plant (JBL) is a SOCWA regional wastewater treatment facility located in the City of Dana Point that treats wastewater from CSJC, MNWD, SMWD, and SCWD. JBL is managed by SOCWA PC-2. The facility's treatment processes include screening, grit removal, primary treatment, secondary treatment, secondary clarification, anaerobic digestion, and solids dewatering and can treat up to a capacity of 13 MGD of wastewater. Besides the treatment processes, the facility also includes the San Juan Creek Ocean Outfall constructed in 1978 to discharge treated effluent approximately 10,300 ft (2.2 mi) off Doheny State Beach.

1.3.1.3 Plant No. 2

Reclamation Plant No. 2 (Plant No. 2) is an OCSAN regional wastewater treatment facility located in the City of Huntington Beach, adjacent to the Santa Ana River and east of Pacific Coast Highway. The facility's treatment processes include screening, grit removal, primary treatment, secondary treatment, anaerobic digestion, and solids dewatering. Plant No. 2 operates in a separated stream mode, splitting non-reclaimable and reclaimable streams. Secondary effluent that is reclaimable is diverted to the Orange County Water District's (OCWD's) Ground Water Replenishment System (GWRS) and non-reclaimable secondary effluent is discharged to the ocean outfall system.

1.3.1.4 Regional Treatment Plant

Constructed in 1982, the RTP is a MNWD regional wastewater treatment facility located in the City of Laguna Niguel that treats a portion of wastewater from MNWD. The facility's treatment processes include preliminary treatment, primary treatment, secondary treatment, tertiary filtration, anaerobic digestion, and solids dewatering. Additionally, the RTP has the capacity to produce up to 6 MGD of recycled water for use in MNWD's recycled water system.

1.3.2 Regional Wastewater Collection Systems

This section provides a high-level overview of the regional wastewater collection systems considered in the proposed alternative scenarios.

1.3.2.1 Moulton Niguel Water District

The MNWD Regional Lift Station is located in the City of Laguna Niguel near the intersection of Crown Valley Parkway and Alicia Parkway. The lift station pumps to the RTP via two parallel force mains, approximately 2 mi in length, which are currently being replaced. MNWD staff indicated that the lift station pumping ranges from approximately 800 gallons per minute (gpm) during low flows to 4,000 gpm during peak dry weather flows (PDWFs).

An existing 18-in. VCP sewer pipeline extends downhill from the MNWD Regional Lift Station to CTP and serves as an overflow. The pipeline has been used sparingly over the past decade and MNWD staff have indicated the pipeline could be available to be repurposed.

1.3.2.2 City of Laguna Beach

CLB’s wastewater collection system services approximately 23,000 residents and is comprised of 102 mi of gravity and force main pipeline, 25 active urban water diversion structures, and 24 lift stations. CLB does not treat the wastewater generated within its service area and instead conveys all wastewater to either the Laguna SOCWA Lift Station or the Bluebird SOCWA Lift Station to be pumped through the NCI to the CTP. The following subsections provide more information on CLB’s lift stations and the NCI.

Relevant Lift Stations

Table 1-2 provides a summary of CLB lift stations anticipated to be impacted by one or more of the evaluated alternatives.

Table 1-2: CLB Relevant Lift Stations				
Lift Station (LS) Name	Location	Year Constructed	Design Capacity (MGD)	Force Main Diameter (in.)
Irvine Cove LS	Adjacent to 2495 Riviera Dr	1961	0.58	6
Crescent Bay LS	1301 Cliff Dr	2003 (Replaced)	0.94	6
Main Beach LS	175 N Pacific Coast Hwy	2012 (Replaced)	3.46	6 & 8
Laguna SOCWA LS	276 Loma Terrace	2018 (Rehabilitated)	10.45	24
Anita Street LS	End of Anita St	1950	1.08	6
Bluebird SOCWA LS	1521 Galen Dr	2019 (Rehabilitated)	14.51	27
Nye’s Place LS	210 Nye’s Pl	1991	1.87	8
<i>Notes:</i> <ol style="list-style-type: none"> <i>Lift stations provided in order of upstream to downstream.</i> <i>Data per the City of Laguna Beach Sewer Master Plan (November 2025, Dudek).</i> 				

North Coast Interceptor

The NCI is a 21-in.- to 27-in.-diameter 4-mi pipeline conveyance system comprised of two lift stations (Laguna SOCWA LS and Bluebird SOCWA LS), two sewer force main reaches (Reaches 1 and 3), two gravity sewer reaches with relatively short inverted siphons (Reaches 2 and 4), and a long inverted siphon discharging to the CTP (Reach 5). North of Nye’s Place Lift S, the NCI represents the sole conveyance system for wastewater collected from EBSD and CLB to the CTP. In 2020, CLB completed the North Coast Interceptor Reliability Assessment and Analysis (July 2020, Dudek) to evaluate options to rehabilitate the NCI system and replacement of Reach 5 of the NCI is slated to begin this fiscal year (FY) pending the results of this study.

1.3.2.3 Emerald Bay Service District

EBSD is a special district founded in 1961 to provide potable water, wastewater collection, trash, street, recreation, and public safety services to the community of Emerald Bay. EBSD’s wastewater collection system is comprised of approximately 6 mi of gravity and force main pipeline and seven lift stations. EBSD does not treat the wastewater generated within its service area and instead conveys wastewater

to CLB’s system through Lift Station No. 4, which is then collected and conveyed via the Laguna SOCWA LS and Bluebird SOCWA LS to the CTP.

Lift Station No. 4 is the only relevant infrastructure from EBSD considered in this study and is summarized as follows:

- Location – Intersection of the Pacific Coast Hwy and Emerald Bay
- Year Constructed – 1950s
- Design Capacity – Unknown, estimated at 150 gpm
- Force Main Diameter – 8-in.

1.3.2.4 Orange County Sanitation District

OCSAN is a special district founded in 1952 that provides wastewater collection, treatment, and recycling services for approximately 2.6 million people in central and northwest Orange County. OCSAN’s wastewater collection system consists of 380 mi of gravity and force main pipeline and 15 lift stations. OCSAN treats all its wastewater through its two wastewater treatment facilities: Plant No. 1 and Plant No. 2. **Table 1-3** provides a summary of OCSAN lift stations anticipated to be impacted by one or more of the evaluated alternatives.

Table 1-3: OCSAN Relevant Lift Stations				
Lift Station (LS) Name	Location	Year Constructed	Design Capacity (MGD)	Force Main Diameter (in.)
Crystal Cove LS	S of Los Trancos and Pacific Coast Hwy	UNK	0.80	8 & 8
Bay Bridge LS	300 E Coast Hwy	2026 (Rehabilitated)	18.20	24 & 24
Rocky Point LS	1800 W Coast Hwy	UNK	6.50	12 & 12
Bitter Point LS	Industrial Park Way and Pacific Coast Hwy	UNK	39.40	42 & 36
<i>Notes:</i> 1. Lift stations provided in order of upstream to downstream. 2. Data per input from OCSAN staff. 3. UNK = Unknown.				

OCSAN provided **Figure 1-5**, which illustrates the available capacity within the collection system serving the coastal areas north of the SOCWA service area.

Figure 1-5: OCSAN Collection System Capacity



1.3.2.5 South Coast Water District

SCWD is a special district founded in 1932 to provide potable water, recycled water, and wastewater collection services to approximately 40,000 residents of Dana Point, South Laguna Beach, and areas of San Clemente and San Juan Capistrano. SCWD’s wastewater collection system is comprised of 143 mi of gravity and force main pipeline, including a unique sewer tunnel and main in South Laguna Beach, 31 flow diversions, and 13 lift stations. SCWD does not treat the wastewater generated within its service area and instead conveys wastewater to either CTP or JBL. The following subsections provide more information on SCWD’s lift stations and the pipeline tunnel.

Relevant Lift Stations

Table 1-4 provides a summary of SCWD lift stations anticipated to be impacted by one or more of the evaluated alternatives.

Table 1-4: SCWD Relevant Lift Stations				
Lift Station (LS) Name	Location	Year Constructed	Design Capacity (MGD)	Force Main Diameter (in.)
Lift Station No. 6	33103 Pacific Coast Hwy	1983	1.96	14 & 18
Lift Station No. 7	31885 Circle Dr	2008	0.07	4
Lift Station No. 1	111 Blue Lagoon	1967	0.58	6
Lift Station No. 2	Country Club Dr	1963	3.17	12 & 20

Notes:

- Lift stations provided in order of upstream to downstream.
- Data per the City of Laguna Beach Sewer Master Plan (November 2025, Dudek).

Pipeline Tunnel

Constructed in 1954, the SCWD tunnel is an approximately 2-mi gravity pipeline that conveys wastewater from Lift Station No. 6 and Lift Station No. 7 to Lift Station No. 2 for conveyance to the CTP. In March 2024, SCWD completed the Tunnel Stabilization and Sewer Pipeline Replacement project to correct undersized and deteriorating portions of the infrastructure. Project elements included the following:

- **Tunnel Stabilization** – The tunnel was enlarged from its existing size of 5 ft by 5 ft to 9 ft by 9 ft. Permanent shotcrete lining and steel supports were also installed throughout the tunnel.
- **Pipeline Replacement** – A new 24-in. pipeline was installed throughout the tunnel, with the old 24-in. pipeline encased in concrete and retained for redundancy and emergency use.

1.3.3 Regional Recycled Water Systems

This section provides a high-level overview of the regional recycled water systems considered in the proposed alternative scenarios.

1.3.3.1 South Coast Water District

SCWD’s recycled water system is comprised of 15 mi. of distribution pipeline, three booster pump stations (BPSs), and three reservoirs. Recycled water is provided by CTP and is further treated at the Aliso Creek Water Reclamation Facility (ACWRF) to increase water quality at a design capacity of 2.61 MGD. The ACWRF operates at Reservoir No. 1, pulling directly from the tank, treating and then delivering product water back to the tank. In accordance with the 2017 Infrastructure Master Plan, the future recycled water demand is anticipated to be 1.20 MGD at full buildout.

Reservoir No. 3 (Joint Reservoir) is the highest recycled water reservoir in the system and storage capacity is shared by both SCWD and MNWD’s recycled water systems. Through this reservoir, SCWD is contracted to supply up to 1.44 MGD to MNWD. However, agency staff have indicated that the two agencies manage the reservoir using a “net zero” approach, in which either user is obligated to return the volume of recycled water used from the reservoir.

1.3.3.2 Moulton Niquel Water District

MNWD’s recycled water is provided by the RTP and 3A Treatment Plant and is conveyed through 142 mi of distribution pipeline, 13 BPSs, and 11 reservoirs. Additionally, MNWD owns 1,000 acre-feet of capacity rights in the Upper Oso recycled water reservoir owned by SMWD. As explained in the previous subsection, MNWD shares the joint reservoir storage capacity with SCWD. MNWD is currently advancing the Optimized Adaptive Sustainable Integrated Supply (OASIS) Water Resource Center Project, which will use effluent from RTP to supply a new direct potable reuse (DPR) treatment system. The project is expected to be operational by approximately 2040.

Based on discussions with MNWD staff, the following key considerations were identified:

- **Recycled Water Supply Needs.** With implementation of the OASIS Project, a portion of existing recycled water supplies will be redirected to DPR. As a result, MNWD will need to identify and connect supplemental recycled water sources to continue meeting demands within its Title 22 recycled water system.

- **Source Control Considerations.** Conveyance of raw wastewater to the RTP may introduce additional coordination requirements related to source control programs. These challenges could be minimized or avoided by providing treated recycled water in lieu of raw influent.
- **Outfall Capacity Constraints.** Staff identified limitations in outfall capacity during wet weather events. Under these conditions, the tertiary treatment facilities must operate at or near full capacity to prevent surcharging the ocean outfall. Accordingly, any increase in influent flows may necessitate outfall improvements and/or expansion of recycled water treatment capacity.
- **Potential Water Supply Opportunities.** MNWD indicated that if SOCWA member agencies participate in the OASIS Project, there may be opportunities to negotiate a return of a portion of the produced potable water supply as part of a broader regional partnership.

1.3.4 Coastal Supply Pipeline

Constructed by the Laguna Beach County Water District (LBCWD) in the mid-20th century, the original Coast Supply Pipeline was a 30-in.-diameter steel pipeline extending from the City of Newport Beach near the intersection of Fernleaf Ave and Pacific Coast Highway to CLB near Ledroit Street. Replacement of the Coast Supply Pipeline was completed in multiple phases during the late 1980s and early 1990s and generally consisted of a series of 24-in. and 27-in. cement mortar lined and coated steel (CMLCS) transmission pipelines installed within the Pacific Coast Highway corridor.

Per the as-built drawings for the replacement project, the original transmission main was abandoned in place, with some segments removed or filled depending on location and constructability constraints. The replacement pipeline is currently used by LBCWD to convey groundwater from the City of Newport Beach’s system to LBCWD’s system. Under an existing agreement with the City of Newport Beach, LBCWD can receive up to 2,025 acre-feet per year (AFY) of groundwater to meet potable water demands.










1.4 PROJECT ASSUMPTIONS

This section summarizes the key project assumptions used as the basis for the analyses presented in this report. These assumptions establish the baseline conditions for the evaluation, including factors such as existing infrastructure capacities, allocated treatment capacities, estimated wastewater flows, and other relevant system parameters.

1.4.1 Wastewater Flow

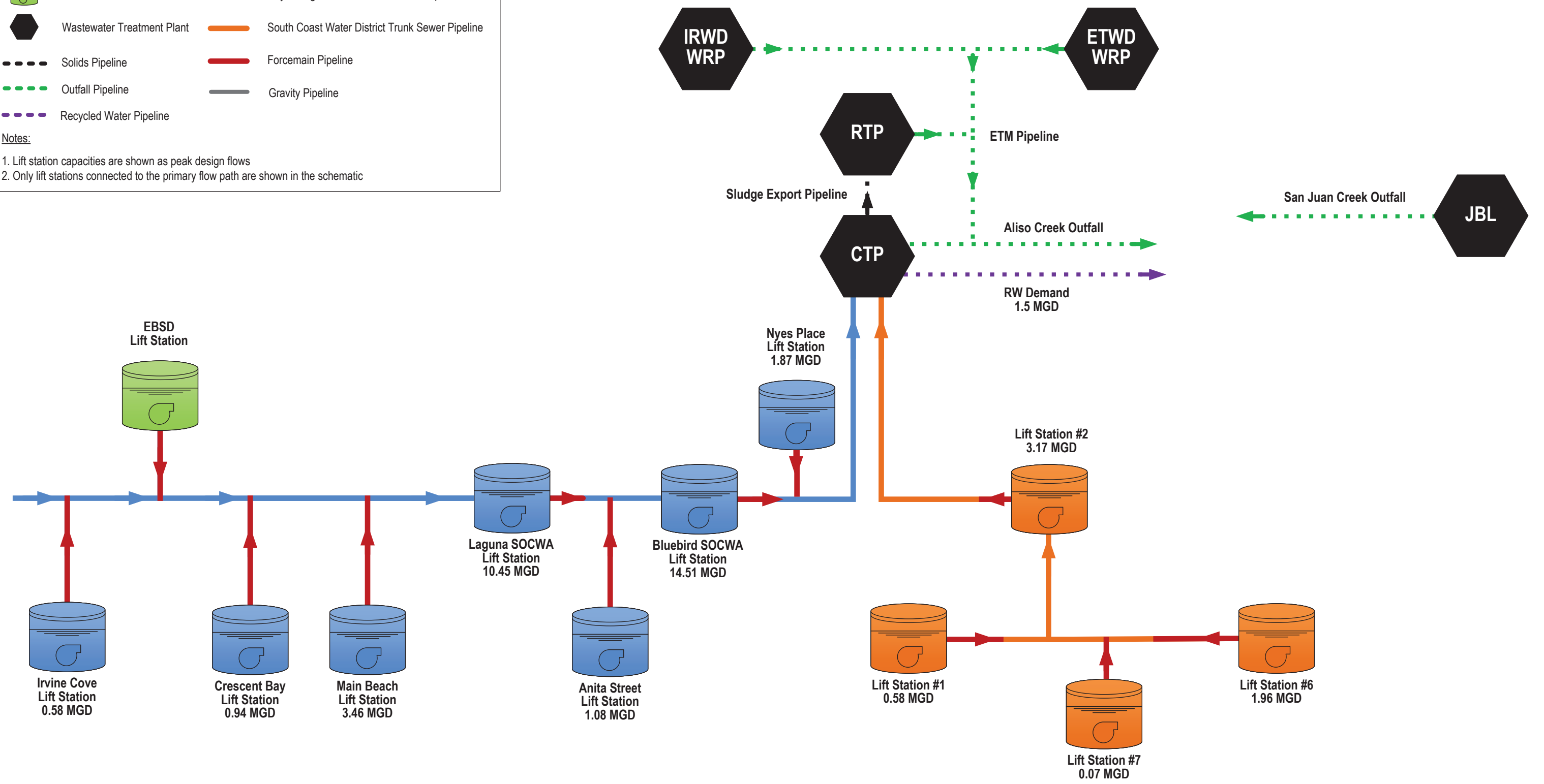
This section summarizes the wastewater flow path and flow values observed from each individual member agency to CTP, as well as flows observed at each of the four regional wastewater treatment plants relevant to the proposed alternatives. **Figure 1-6** provides a schematic showing the existing wastewater flow path from EBSD, CLB, and SCWD to the CTP and JBL. **Figure 1-7** was prepared based on daily influent data provided by SOCWA for the years 2020 through 2025.

Legend

	Lift Station		City of Laguna Beach Trunk Sewer Pipeline
	Wastewater Treatment Plant		South Coast Water District Trunk Sewer Pipeline
	Solids Pipeline		Forcemain Pipeline
	Outfall Pipeline		Gravity Pipeline
	Recycled Water Pipeline		

Notes:

- Lift station capacities are shown as peak design flows
- Only lift stations connected to the primary flow path are shown in the schematic

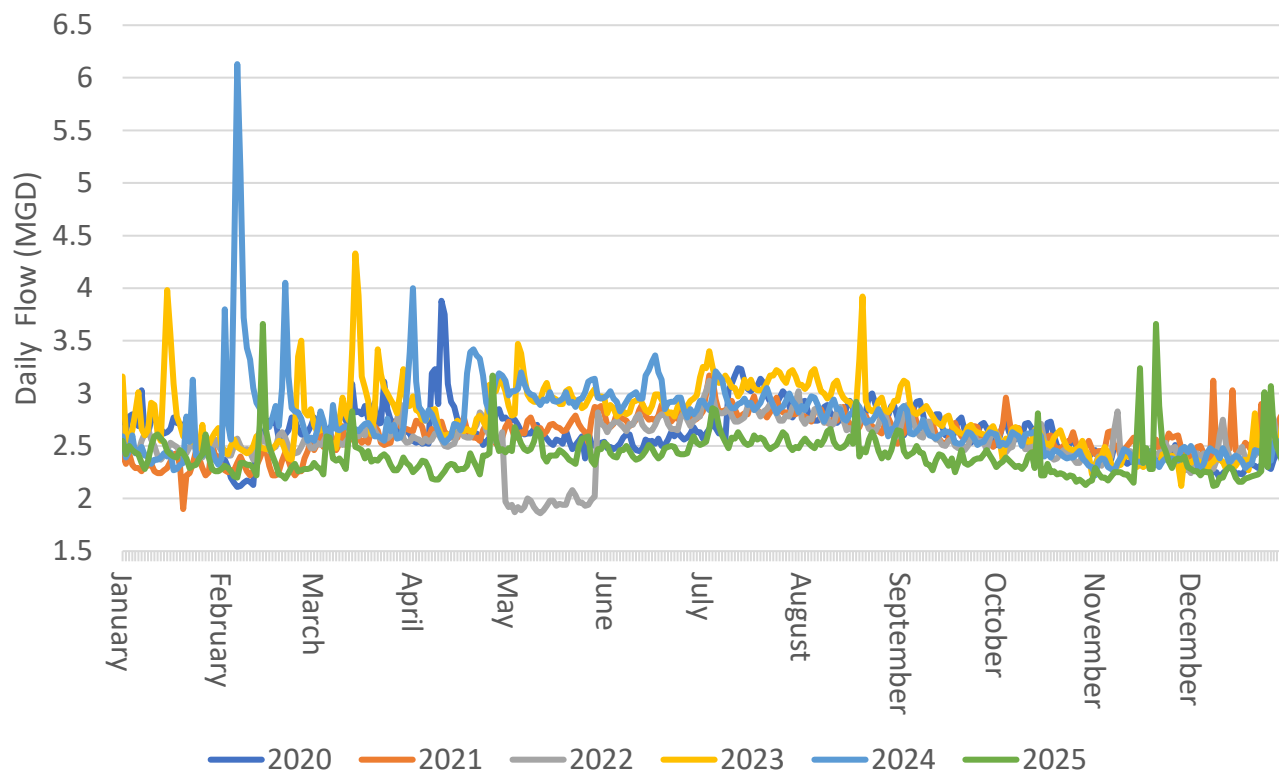


South Orange County Wastewater Authority (SOCWA) – Coastal Treatment Plant (CTP) Regional Flow Study

Figure 1-6: Base Case Flow Schematic



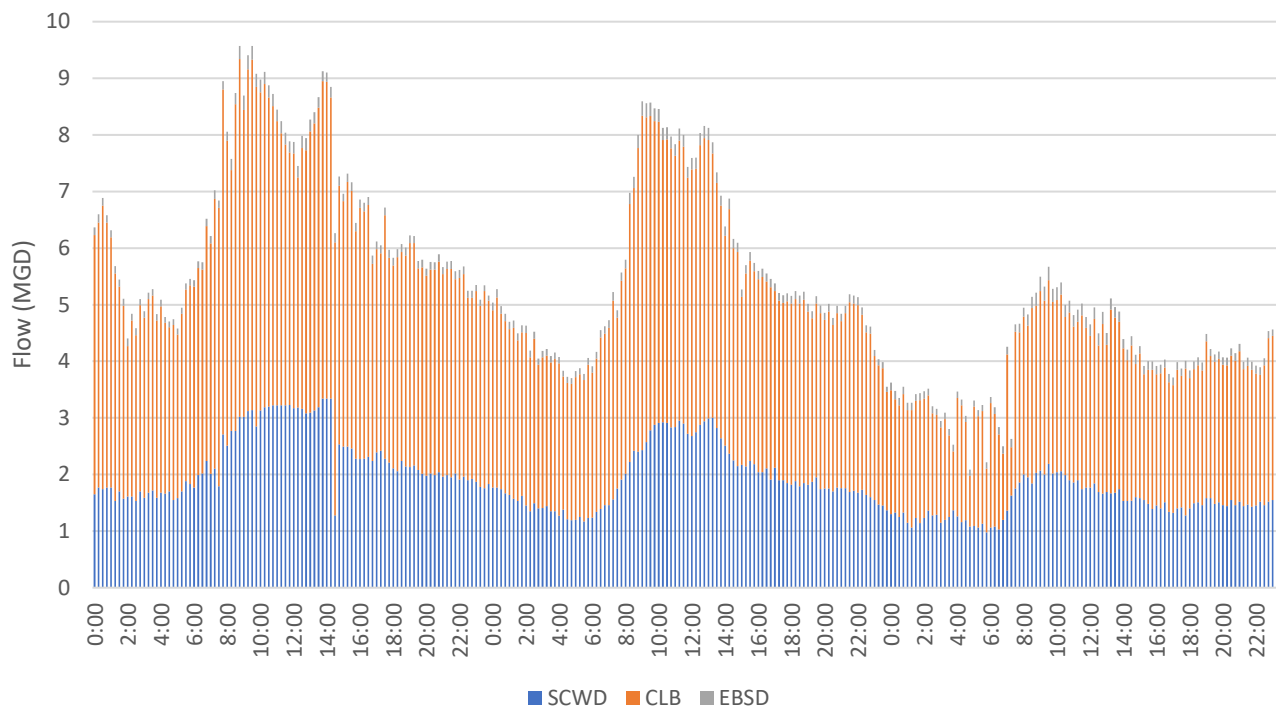
Figure 1-7: Historical CTP Influent



For this 5-year period, the average day flow has remained stable, with a high of 2.8 MGD (2023) and low of 2.4 MGD (2025). The maximum average daily wet weather flow during this period is noted as 6.1 MGD on February 6, 2024. This rain event was a Category 3 atmospheric river with an estimated multi-day precipitation of 3-5 in., which would approximately correspond with a 10–25-year storm event.

Figure 1-8 presents 15-minute flow data for the February 2024 maximum daily wet weather event, developed using metered influent data to the CTP from SCWD and CLB. Flows for EBSD were estimated based on an assumed average of 150,000 gallons per day (gpd) and a diurnal pattern consistent with CLB. This approach was necessary as EBSD does not maintain instantaneous flow data. EBSD staff indicated that typical wastewater flows from the service area range between 50,000 and 100,000 gpd, with higher flows occurring during summer weekends and special events.

Figure 1-8: Peak Wet Weather Flow



The peak instantaneous flow recorded during this event is noted as 9.5 MGD, with 3.0 MGD from SCWD, 6.3 MGD from CLB, and 0.2 MGD from EBSD.

SOCWA staff also provided data beyond the most recent 5-year period, including historical peak wet weather events. The most significant of these occurred on January 23, 2017, during which precipitation reached approximately 4.5 in. and the peak estimated instantaneous influent flow was approximately 15 MGD. **Table 1-5** summarizes the corresponding flow data by agency.

Table 1-5: Agency Flow Contributions to CTP					
Description	Units	EBSD	SCWD	CLB	Total
Average Dry Weather Flow	MGD	0.05	0.85	1.78	2.68
Peak Dry Weather Flow	MGD	0.10	1.71	3.55	5.36
Peak Dry Weather Flow	gpm	69	1,187	2,466	3,722
Peak Wet Weather Flow – 2024 (instantaneous peak)	MGD	0.15	3.02	6.32	9.5
	gpm	104	2,097	4,389	6,597
Peak Wet Weather Flow – 2017 (instantaneous peak)	MGD	0.25	4.77	9.98	15
	gpm	175	3,311	6,930	10,417
Ownership	%	3.00	42.70	54.30	100

1.4.1.1 Regional Wastewater Treatment Facility Capacity and Flows

A summary of key metrics associated with the four plants impacted by the potential alternatives is provided in **Table 1-6**.

Table 1-6: Treatment Plant Capacity (MGD)				
Description	CTP	JBL	Plant No. 2	RTP
Average Flow	2.6	7.34	120	7.52
Permitted Capacity – Average Monthly	6.7	13.0	265	12.0
Design Capacity	14.0	26.0	400	15.9
Recycled Water Production	Up to 1.5	0	All Reclaimable Flows	6.0

Peak wet weather flow was noted by staff to have reached 40- to 44-MGD instantaneously flow rates at JBL. The latter value was measured during the January 23, 2017 rain event which also recorded the highest plant flow at CTP.

1.4.1.2 Regional Lift Station Capacity and Flows

Table 1-7 summarizes the design capacities and the existing and future peak wastewater flows anticipated at each lift station identified from Section 1.3.2.

Table 1-7: Lift Station Summary				
Ownership	Lift Station (LS)	Flow (MGD)		
		Design Capacity	Peak Flow Current	Peak Flow Planned
MNWD	Regional LS	8.00	6.00	6.00
SCWD	LS No. 2	3.17	~2.9	~3.8
	LS No. 6	x	x	x
	LS No. 7	x	x	x
CLB	Bluebird (SOCWA) LS	x	x	x
	Laguna (SOCWA) LS	x	x	x
	Main Beach LS	3.46	0.50	0.60
	Fairview LS	0.94	0.30	0.35
	Crescent Bay LS	0.94	0.30	0.35
EBSD	Irvine Cove LS	0.58	0.20	0.25
	LS No. 4	x	0.16	0.16

Sources:

- SCWD Infrastructure Master Plan (2017)
- CLB Wastewater Master Plan (2025)
- EBSD based on Lift Station Condition Assessment Summary (MKN, 2021); 80,000 gpd average and 6,800 gallons per hour (gph) peak (per staff)

1.4.2 Costs

This section summarizes operating costs, capital costs, and other related assumptions that will be utilized as part of the economic feasibility evaluation.

1.4.2.1 Operating Costs

Table 1-8: Plant Operating Costs			
Facility	Description	FY 24-25	FY 25-26
JBL (PC-2)	PC-2 JBL O&M (\$M)	\$7.84	\$8.62
	Average Flow (MGD)	7.34	
	Calculated Unit Cost (\$/MG)	\$2,900	\$3,200
CTP (PC-15)	PC-15 CTP O&M (\$M)	\$3.26	\$3.82
	Flow (MGD)	2.92	
	Calculated Unit Cost (\$/MG)	\$3,100	\$3,600
RTP (PC-17)	PC-17 RTP O&M (\$M)	\$8.54	\$9.50
	Flow (MGD)	7.52	
	Calculated Unit Cost (\$/MG)	\$3,100	\$3,500
OCSAN Plant No. 2	Estimated Unit Cost (\$/MG) – Full Service	\$3,446	\$3,599
	Estimated Unit Cost (\$/MG) – Treatment Only	\$2,799	\$2,848
Notes: <ol style="list-style-type: none"> JBL and CTP costs are from the FY24-25 and FY25-26 SOCWA Budgets. Need solids treatment cost to include in this value RTP costs for FY24-25 are from the SOCWA Budget, and FY25-26 are from the MNWD Budget. OCSAN unit costs for “Full Service” are from OCSAN’s FY 2025-26 First Quarter Financial Report. These costs are inclusive of all collection, treatment, and disposal. Treatment-only costs were provided by OCSAN staff. O&M = Operations and Maintenance. MG = million gallons. Flows for FY24-25 are noted as actual, and FY25-26 are assumed to be the same. 			

1.4.2.2 Capital Costs

Table 1-9 summarizes capital projects planned by the agencies included in this study that would be impacted by the proposed alternatives.

Table 1-9: Impacted Capital Improvement Projects										
Agency	Project Name (LS = Lift Station)	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	FY 30/31	FY 31/32	Future Years	Total
CLB	Bluebird LS Replacement	\$2.7								\$2.7
	NCI Reach 5 Replacement	\$9.0								\$9.0
	Crescent Bay LS Reconstruction		\$2.5							\$2.5
	VFDs at Laguna & Bluebird SOCWA			\$0.1						\$0.1
	Odor Control at N Laguna Siphon			\$0.3	\$0.6					\$0.9
	Pumps at Laguna & Bluebird SOCWA					\$0.8				\$0.8
	Nye’s Place Elimination Study						\$0.4			\$0.4
	Irvine Cove LS Rehabilitation						\$0.4			\$0.4
	NCI Reaches 1- 4 Replacements						\$5.0	\$5.0	\$21.9	\$31.9
	Nye’s Place Rehabilitation							\$2.0		\$2.0
	Main Beach Wet Well Mechanical							\$0.2		\$0.2
	Subtotal	\$13.3	\$2.8	\$1.2	\$4.1	\$5.4	\$7.5	\$7.7	\$21.9	\$63.6
SOCWA	CTP Projects	\$4.1	\$6.5	\$4.5	\$10.7	\$4.8	\$7.3	\$3.6	\$7.2	\$48.7
Notes: <ol style="list-style-type: none"> VFD = Variable Frequency Drive. Future years only capture any known future costs. All CLB costs are from the approved FY 25/26 Budget and CLB 2025 Wastewater Master Plan. Based on the FY 25-26 Ten Year Annual CIP Committee Budget, PC-15 has approximately \$49M identified and planned 										

Additional capital costs assumptions include the following:

- Live Stream Treatment.** Under the baseline scenario, CLB is assumed to pursue beneficial reuse of its proportionate share of influent currently treated at CTP. This would require implementation of advanced treatment processes. For planning-level cost estimating, this analysis references the *CTP Future Alternatives Feasibility Study Technical Memorandum* (Hazen, May 2021). The Live Stream discharge approach is assumed to be consistent with **Alternative 2 (Membrane Bioreactor [MBR])**, which was estimated at approximately **\$38 million** with increased ongoing O&M costs of approximately **\$500,000**.
- Future Capital Projects.** The current SOCWA Capital Improvement Program (CIP) for CTP is largely based on the 2014 Facility Master Plan and includes approximately **\$49 million** in planned expenditures over the next eight years. While SOCWA is currently initiating an updated Facility Master Plan, this analysis assumes an additional **\$20 to \$50 million** in capital investment over the subsequent 20-year planning horizon.
- Reduced Capital Expenditure.** For alternatives that eliminate or significantly reduce reliance on CTP, it is assumed that long-term capital reinvestment at the facility would be correspondingly reduced. However, a portion of the CIP is assumed to represent near-term, unavoidable improvements. For planning purposes, a reduced annual capital expenditure of approximately **\$XXX per year** is assumed during the transition period.

1.4.2.3 OCSAN Connection

Two primary approaches are available for connecting to OCSAN infrastructure: (1) Out of Service Area Agreement and (2) Annexation. For the first approach, **Table 1-10** was prepared to summarize the anticipated costs. The cost structure summarized is based on the *Agreement Between County Sanitation District No. 11 of Orange County and Sunset Beach Sanitary District for the Conveyance, Treatment, and Disposal of Wastewater* (May 8, 1985). The agreement establishes a framework consisting of upfront capital contributions and ongoing annual charges to recover the proportional cost of conveyance, treatment, and disposal services.

Table 1-10: OCSAN Connection Costs

Cost Component	Description	Estimated Cost Magnitude
Capacity Buy-In (Capital Costs)	One-time payment for proportional share of primary and advanced treatment, conveyance, and disposal facilities to secure capacity rights.	\$5M per MGD capacity ¹
Annual Treatment (O&M) Charges	Flow-based charge (\$/MG) covering operations, maintenance, and administrative overhead, adjusted annually.	\$2,848.46 per MG ²
Capital Replacement Charges	Annual fee (≈3% of capital value) to fund long-term repair, replacement, and renewal of facilities.	3% of Capacity Buy-In
Future Capital Participation	Proportional share of new treatment facilities or upgrades required for regulatory compliance or system expansion.	Unknown

Notes:

- Total capital charges for treatment capacity, including portion of advanced treatment, was approximately \$486k in 1984. These costs are escalated to 2026 using ENR CCI.
- Treatment cost, as provided by OCSAN staff, as of February 2026.

The annexation approach would require a multi-step process involving coordination with OCSAN and approval by Orange County Local Agency Formation Commission (LAFCO), as well as a one-time payment to satisfy the required capital capacity buy-in. Under this structure, wastewater service charges would be levied directly by OCSAN on properties within the annexed area, typically collected via the County property tax roll in accordance with Proposition 218 requirements.

1.4.2.4 Groundwater Costs

LBCWD currently holds an allocation of 2,025 AFY from the Orange County groundwater basin through OCWD. It may be feasible to increase this allocation if additional wastewater is conveyed to OCSAN facilities and subsequently treated through the GWRS for basin recharge. The following assumptions were used to evaluate the potential for expanded groundwater supply:

- **Expanded Allocation.** Any additional groundwater allocation is assumed to be limited such that the total allocation does not exceed approximately 85% of LBCWD’s annual demand. Based on an estimated demand of 4,500 AFY, this results in a maximum additional allocation of approximately 1,800 AFY beyond the existing supply.
- **Pumping and Conveyance.** LBCWD is currently coordinating with the City of Newport Beach on development of a new production well and associated wheeling agreement to convey groundwater to the LBCWD service area. For purposes of this analysis, it is assumed that sufficient well capacity is available to support the increased supply. A conveyance charge of \$250/AF is assumed for conveyance.
- **Water Supply Costs.** Imported water costs are assumed at \$1,600/AF, representing the 2026 baseline rate inclusive of capacity charges, readiness-to-serve charges, and administrative costs. Groundwater costs are assumed at \$600/AF, reflecting the OCWD Replenishment Assessment. Future imported water costs are escalated at 9% annually from 2025 through 2035, and 7.2% annually thereafter. Groundwater costs are assumed to increase at 3.5% annually over the planning horizon.

1.4.2.5 Economic Assumptions

For utilization as part of the economic evaluation, additional financial-related assumptions were compiled and are presented in **Table 1-11**.

Table 1-11: Economic Evaluation Assumptions			
Category	Assumption	Value	Notes
Analysis Period	Life-Cycle Evaluation Period	30 years	Standard for wastewater infrastructure
Discount Rate	Nominal Discount Rate	5.0%	Typical for municipal infrastructure economic analysis
O&M Inflation	Annual Escalation	3.0% per year	Includes labor, chemicals, routine maintenance
Construction Inflation	Capital Cost Escalation	4.0% per year	Reflects recent water/wastewater construction trends
Electricity Cost	Unit Cost	\$0.18/kWh	Typical municipal Southern California blended rate

Table 1-11: Economic Evaluation Assumptions			
Category	Assumption	Value	Notes
Engineering/ Program Costs	Engineering + Construction Management + Admin	30% of construction cost	Typical planning-level factor
Capital Contingency	Planning-Level Estimate	30% contingency	Consistent with AACE Classes 4–5 estimate

Note:

1. kWh = kilowatt-hour.
2. AACE = Association for the Advancement of Cost Engineering.

Table 1-12 summarizes pipeline and lift station unit costs that will be utilized for the evaluation. Unit costs are planning-level, parametric estimates based on recent project experience in Southern California and reflect typical construction conditions for similar wastewater infrastructure.

Table 1-12: Infrastructure Unit Costs		
Description	Unit	Capital Unit Cost (\$/Unit)
Pipe Diameter		
12-in.	LF	\$700
16-in.	LF	\$900
20-in.	LF	\$1,200
24-in.	LF	\$1,400
Lift Station		
0.25 MGD	MGD	\$10M
1 MGD	MGD	\$5M
3 MGD	MGD	\$2.5M
15 MGD	MGD	\$1M

Notes:

1. LF = linear feet.

1.5 INFRASTRUCTURE DESIGN CRITERIA

The following design criteria, used by CLB, will serve as the basis for sizing new infrastructure.

Table 1-13: Infrastructure Design Criteria		
Category	Parameter	Value
Gravity Main Criteria	Minimum pipe diameter	8 in.
	Minimum velocity at peak dry flow	3 ft/second
	Manning's Roughness Coefficient	0.013
Depth-to-Diameter Ratio for Gravity Mains	For sewer mains ≤ 12-in. at PDWF	0.50
	For sewer mains > 12-in. at PDWF	0.75
Pump Station Criteria	Minimum number of pumps	2
	Minimum pump capacity	Peak flow
	Standby capacity	100% of the largest pump capacity
	Emergency backup power	Required
Velocity for Force Mains	Minimum allowable velocity	2 ft/second
	Maximum allowable velocity	8 ft/second

Source: Table 5.1 from CLB Wastewater Master Plan

1.6 ALTERNATIVES EVALUATION CRITERIA

Evaluation criteria were developed in coordination with SOCWA staff and the PC-15 Member Agencies to provide a consistent and transparent framework for comparing regional wastewater flow redirection alternatives. The criteria reflect technical feasibility, regional coordination complexity, financial implications, regulatory constraints, and operational impacts associated with potential decommissioning of the CTP and redirection of flows to alternative facilities (e.g., OCSAN, JBL, RTP).

Both quantitative metrics (e.g., order-of-magnitude capital costs, hydraulic capacity, estimated implementation duration) and qualitative considerations (e.g., interagency coordination, permitting complexity, operational transition risk) were incorporated into the evaluation.

Each alternative was scored on a scale of **1 to 3** for each criterion:

- 1 = Significant challenges / least favorable
- 2 = Moderate feasibility / moderate risk
- 3 = Most favorable / lowest risk

The evaluation is intended to support high-level screening and identification of viable regional strategies and does not represent detailed design-level analysis.

Table 1-14: Evaluation Criteria and Scoring Guidance

Criteria	Metrics (Scoring 1 to 3)	Weighting
Capital Cost	Relative order-of-magnitude capital cost compared to other alternatives ($\pm 30\text{--}50\%$). A high score (3) reflects the lowest comparative capital investment.	High
O&M Cost Impact	Relative long-term operational and maintenance cost impacts, including staffing, energy, and treatment costs. A high score (3) reflects lower lifecycle operational burden.	High
Technical Feasibility	Ability to convey and treat projected flows within available hydraulic and treatment capacities, and transition seamlessly. A high score (3) reflects minimal infrastructure constraints and no major fatal flaws.	Medium
Regulatory & Permitting Risk	Level of permitting complexity (e.g., NPDES, CEQA, LAFCO, annexation, out-of-area service agreements). A high score (3) reflects limited new regulatory hurdles and low approval risk.	Medium
Schedule & Implementation Complexity	Estimated time and complexity to implement, including property acquisition, design, construction, and transition planning. A high score (3) reflects a shorter and less complex implementation timeline.	Low
Regional / Interagency Coordination	Degree of coordination required between SOCWA, CLB, SCWD, EBSD, OCSAN, MNWD, and OCWD. A high score (3) reflects fewer agencies and simpler agreement structures.	Low
Recycled Water Impacts	Effect on existing and future recycled water production and reliability in South Orange County. A high score (3) reflects preservation or enhancement of recycled water supply.	Low
<i>Notes:</i> 1. CEQA = California Environmental Quality Act.		



**SOUTH ORANGE COUNTY
WASTEWATER AUTHORITY**

**COASTAL TREATMENT PLANT
REGIONAL PLANNING STUDY**

JUNE XX, 2026

PREPARED FOR:

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TABLE OF CONTENTS

1.0	BACKGROUND AND ASSUMPTIONS.....	1-1
1.1	PROJECT BACKGROUND.....	1-1
1.2	OBJECTIVE.....	1-1
1.3	EXISTING INFRASTRUCTURE.....	1-2
1.3.1	Regional Wastewater Treatment and Outfall Facilities	1-2
1.3.2	Regional Wastewater Collection Systems.....	1-7
1.3.3	Regional Recycled Water Systems	1-11
1.3.4	Coastal Supply Pipeline	1-12
1.4	PROJECT ASSUMPTIONS.....	1-12
1.4.1	Wastewater Flow.....	1-12
1.4.2	Costs	1-16
1.5	INFRASTRUCTURE DESIGN CRITERIA.....	1-20
1.6	ALTERNATIVES EVALUATION CRITERIA.....	1-20
2.0	TECHNICAL FEASIBILITY ASSESSMENT.....	2-1
2.1	ALTERNATIVE 1 – REDIRECTION TO OC San AND RTP.....	2-1
2.1.1	Overview	2-1
2.1.2	Infrastructure Design.....	2-3
2.1.3	New Transfer LS	2-12
2.1.4	CTP Abandonment and New CTP LS.....	2-13
2.1.5	Regional Treatment Plant Buy-In.....	2-16
2.1.6	Regulatory and Permitting Risk.....	2-16
2.1.7	Schedule and Implementation Complexity.....	2-18
2.1.8	Regional/Interagency Coordination.....	2-19
2.1.9	Recycled Water Impacts	2-19
2.1.10	New Water Opportunities	2-20
2.2	ALTERNATIVE 2 – REDIRECTION TO JBL.....	2-20
2.2.1	Overview	2-20
2.2.2	Infrastructure Sizing	2-21
2.2.3	Tunnel Use.....	2-26
2.2.4	JBL Expansion and Capital Buy-In.....	2-27
2.2.5	CTP Abandonment.....	2-27
2.2.6	Regulatory and Permitting Risk.....	2-27
2.2.7	Schedule and Implementation Complexity.....	2-29
2.2.8	Regional/Interagency Coordination.....	2-29

2.2.9	Recycled Water Impacts	2-30
2.3	ALTERNATIVE 3 – REDIRECTION TO RTP	2-30
2.3.1	Overview	2-30
2.3.2	Infrastructure Sizing	2-31
2.3.3	RTP Expansion and Capital Buy-In.....	2-35
2.3.4	CTP Abandonment and New LS	2-36
2.3.5	Regulatory and Permitting Risk.....	2-36
2.3.6	Schedule and Implementation Complexity	2-37
2.3.7	Regional/Interagency Coordination	2-37
2.3.8	Recycled Water Impacts	2-38
2.3.9	New Water Opportunities	2-38
3.0	COST EVALUATION	3-1
3.1	Capital Costs	3-1
3.2	Operating Costs.....	3-1
3.3	Cost Comparison.....	3-1
4.0	ANALYSIS AND RECOMMENDATIONS.....	4-1
4.1	Alternatives Analysis	4-1
4.2	Recommendation	4-1
4.3	Implementation.....	4-1

LIST OF TABLES

Table 1-1: Aliso Creek Ocean Outfall (PC-24) Ownership.....	1-6
Table 1-2: CLB Relevant Lift Stations.....	1-8
Table 1-3: OC San Relevant Lift Stations.....	1-9
Table 1-4: SCWD Relevant Lift Stations.....	1-10
Table 1-5: Agency Flow Contributions to CTP.....	1-15
Table 1-6: Treatment Plant Capacity (MGD).....	1-16
Table 1-7: Lift Station Summary.....	1-16
Table 1-8: Plant Operating Costs.....	1-16
Table 1-9: Impacted Capital Improvement Projects.....	1-17
Table 1-10: OC San Connection Costs.....	1-18
Table 1-11: Economic Evaluation Assumptions.....	1-19
Table 1-12: Infrastructure Unit Costs.....	1-20
Table 1-13: Infrastructure Design Criteria.....	1-20
Table 1-14: Evaluation Criteria and Scoring Guidance.....	1-21
Table 2-1: Alternative 1 Infrastructure Improvements Summary.....	2-2
Table 2-2: Alternative 1 Lift Station Design Capacity.....	2-9
Table 2-3: Alternative 1 Force Main Pipeline Diameter.....	2-11
Table 2-4: Alternative 1 Gravity Pipeline Diameter.....	2-11
Table 2-5: Alternative 1 Lift Station Design TDH.....	2-12
Table 2-6: Alternative 1 Lift Station Design HP.....	2-12
Table 2-7: OC San Regulatory and Permitting Requirements.....	2-16
Table 2-8: CTP Decommissioning Requirements.....	2-18
Table 2-9: Alternative 2 Infrastructure Improvements Summary.....	2-20
Table 2-10: Alternative 2 Lift Station Design Capacity.....	2-21
Table 2-11: Alternative 2 Force Main Pipeline Diameter.....	2-25
Table 2-12: Alternative 2 Gravity Pipeline Diameter.....	2-25
Table 2-13: Alternative 2 Lift Station Design TDH.....	2-25
Table 2-14: Alternative 2 Lift Station Design HP.....	2-26
Table 2-15: JBL Regulatory and Permitting Requirements.....	2-28
Table 2-16: Alternative 3 Infrastructure Improvements Summary.....	2-30
Table 2-17: Alternative 3 CTP LS Design Capacity.....	2-31
Table 2-18: Alternative 3 CTP LS Force Main Pipeline Diameter.....	2-34
Table 2-19: Alternative 3 CTP LS Design TDH.....	2-35
Table 2-20: Alternative 3 CTP LS Design HP.....	2-35
Table 2-21: JBL Regulatory and Permitting Requirements.....	2-36

LIST OF FIGURES

Figure 1-1: OC San Relevant Infrastructure	1-3
Figure 1-2: EBSD and CLB Relevant Infrastructure	1-4
Figure 1-3: SCWD Relevant Infrastructure	1-5
Figure 1-4: CTP Process Schematic.....	1-6
Figure 1-5: OC San Collection System Capacity	1-10
Figure 1-6: Baseline Flow Schematic	1-13
Figure 1-7: Historical CTP Influent.....	1-14
Figure 1-8: Peak Wet Weather Flow.....	1-15
Figure 2-1: Alternative 1 Overview.....	2-4
Figure 2-2: Infrastructure Improvement Locations (Part 1).....	2-5
Figure 2-3: Alternative 1 Infrastructure Improvement Locations (Part 2).....	2-6
Figure 2-4: Alternative 1 Infrastructure Improvement Locations (Part 3).....	2-7
Figure 2-5: Alternative 1 Flow Path Schematic.....	2-8
Figure 2-6: Storage Requirement for New Transfer LS	2-9
Figure 2-7: Alternative 1 Storage Requirement for New CTP LS	2-10
Figure 2-8: Alternative 1 New Transfer LS.....	2-14
Figure 2-9: CTP Abandonment and CTP Lift Station.....	2-15
Figure 2-10: Alternative 1 Implementation Schedule	2-19
Figure 2-11: Alternative 2 Infrastructure Improvement Locations (Part 1).....	2-22
Figure 2-12: Alternative 2 Infrastructure Improvement Locations (Part 2).....	2-23
Figure 2-13: Alternative 2 Flow Path Schematic.....	2-24
Figure 2-14: Sample Cross Section of Sewer Tunnel.....	2-26
Figure 2-15: Alternative 2 Implementation Schedule	2-29
Figure 2-16: Alternative 3 Infrastructure Improvement Locations	2-32
Figure 2-17: Alternative 3 Flow Path Schematic.....	2-33
Figure 2-18: Alternative 3 Storage Requirement for New CTP LS	2-34
Figure 2-19: Alternative 3 Implementation Schedule.....	2-37

LIST OF APPENDICES

[Title]
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List of Abbreviations

AACE	Association for the Advancement of Cost Engineering	JBL	JB Latham Treatment Plant
ACWRF	Aliso Creek Water Reclamation Facility	kWh	Kilowatt-Hours
AFY	Acre-Feet per Year	LAFCO	Local Agency Formation Commission
BPS	Booster Pump Station	LBCWD	Laguna Beach County Water District
c/o	Care Of	LF	Linear Feet
CEQA	California Environmental Quality Act	MBR	Membrane Bioreactor
CIP	Capital Improvement Program	MG	Million Gallons
CLB	City of Laguna Beach	MGD	Million Gallons per Day
CMLCS	Cement Mortar Lined and Coated Steel	mi	Miles
CSC	City of San Clemente	MKN	Michael K. Nunley and Associates, LLP
CSJC	City of San Juan Capistrano	MNWD	Moulton Niguel Water District
CTP	Coastal Treatment Plant	NCI	North Coast Interceptor
DPR	Direct Potable Reuse	NPDES	National Pollutant Discharge Elimination System
EBSD	Emerald Bay Service District	OASIS	Optimized Adaptive Sustainable Integrated Supply
ETM	Effluent Transmission Main	OC San	Orange County Sanitation District
ETWD	El Toro Water District	OCWD	Orange County Water District
ft	Feet	O&M	Operations and Maintenance
FY	Fiscal Year	PC	Project Committee
GIS	Geographic Information System	PDWF	Peak Dry Weather Flow
gpd	Gallons per Day	RTP	Regional Treatment Plant
gph	Gallons per Hour	SCWD	South Coast Water District
gpm	Gallons per Minute	SMWD	Santa Margarita Water District
GWRS	Ground Water Replenishment System	SOCWA	South Orange County Wastewater Authority
HDPE	High-Density Polyethylene	TDS	Total Dissolved Solids
in.	Inches	VFD	Variable Frequency Drive
IRWD	Irvine Ranch Water District / Irvine Water District		

Previous Studies and Reports

The following studies, reports, and other materials were reviewed during the preparation of this Report:

1. City of Laguna Beach Sewer Master Plan (Dudek, 2025)
2. Fiscal Year 2025–26 Budget (SOCWA, 2025)
3. Emerald Bay Service District Lift Station Condition Assessment Summary (MKN, 2021)
4. Coastal Treatment Plant Future Alternatives Feasibility Study (Hazen, 2021)
5. Coastal Treatment Plant Export Sludge Force Main Replacement (Dudek, 2020)
6. North Coast Interceptor – Reliability Assessment & Analysis (Dudek, 2020)
7. Aliso Creek Estuary Restoration – Conceptual Restoration Plan (ESA, 2018)
8. South Coast Water District Infrastructure Master Plan Update (AECOM, 2017)
9. Coastal Treatment Plant Facility Plan (CH2M Hill, 2014)
10. Export Sludge Force Main Replacement for the South Coast Water District – Phase I Laguna Niguel Regional Park Section (HYA Consulting Engineers, 1998)
11. Coast Supply Line Replacement – Section 1A (James M. Montgomery, 1991)
12. Coast Supply Line Replacement – Section 3 (James M. Montgomery, 1990)
13. JBTLF Package B Planning – Technical Memorandum No. 1 Liquid Treatment Train Analysis (Carollo, 2017)

2.0 TECHNICAL FEASIBILITY ASSESSMENT

This section provides a high-level technical feasibility evaluation of the identified regional flow redirection alternatives associated with potential decommissioning of the Coastal Treatment Plant. Each alternative is assessed at a conceptual level to identify major infrastructure requirements, system modifications, operational impacts, and potential constraints. The following describes the alternatives evaluated in this section:

- **Alternative 1 – Split Redirection to OC San Plant No. 2 and RTP.** Wastewater flow generated by EBSD and CLB is conveyed to OC San’s Plant No. 2 and wastewater flow generated by SCWD’s northern service area is conveyed to MNWD’s Regional Treatment Plant.
- **Alternative 2 – Complete Redirection to JBL.** Wastewater flow generated by EBSD, CLB, and SCWD is conveyed to SOCWA’s JB Latham Treatment Plant.
- **Alternative 3 – Complete Redirection to RTP.** Wastewater flow generated by EBSD, CLB, and SCWD is conveyed to MNWD’s Regional Treatment Plant.

Each subsection that follows describes a specific alternative, including an overview of the general concept, identification of infrastructure improvements, infrastructure sizing, and additional infrastructure considerations. Each alternative assessment also includes commentary on the following additional categories:

- Regulatory and Permitting Risk
- Schedule and Implementation Complexity
- Regional/Interagency Coordination
- Recycled Water Impacts
- New Water Opportunities

2.1 ALTERNATIVE 1 – REDIRECTION TO OC San PLANT NO. 2 AND RTP

2.1.1 Overview

In 1947, a regional wastewater approach was documented in the “Report Upon the Collection, Treatment and Disposal of Sewage and Industrial Wastes of Orange County California”. In this document, the area generally served by CTP was included in Orange County Sanitation District No. 8 and wastewater was intended to be conveyed to OC San’s Plant No. 2. While District No. 8 was later dissolved and infrastructure development did not occur to support conveyance to Plant No. 2, the overall approach of this alternative is to meet the original intent of the 1947 document.

Under Alternative 1, wastewater flow generated from the City of Laguna Beach and Emerald Bay Service District is conveyed to Plant No. 2 through a combination of new pipeline and lift station construction and existing lift station modifications. Redirecting flow to Plant No. 2 will require the existing flow path direction through CLB to reverse, with an altered flow path extending from Nyes Place to Bluebird SOCWA LS to Laguna SOCWA LS to a new Transfer LS located near EBSD’s Lift Station #4. From there, flow is conveyed to OC San’s 21-inch gravity trunk main located at the intersection of MacArthur Blvd and Pacific Coast Hwy, which is conveyed to OC San’s Bay Bridge LS, then Bitter Point LS, and finally Plant No. 2.

Several of the new pipelines will follow existing alignments of CLB’s NCI and LBWD’s abandoned Coastal Supply Pipeline. Due to existing capacity constraints in OC San’s collection system, the maximum flow conveyed from CLB and EBSD is limited to a total of 4 MGD to avoid any OC San infrastructure improvements.

Wastewater flow generated from SCWD’s northern collection system, generally bounded by Cardinal Dr and Crown Valley Pkwy, will be redirected to MNWD’s Regional Treatment Plant via a new CTP LS located at the site of the decommissioned CTP and a new force main to convey flow to MNWD’s existing Regional LS. Wastewater flow generated from SCWD’s southern collection system will continue to flow to SOCWA’s JB Latham Treatment Plant and no infrastructure modifications are anticipated to that portion of SCWD’s system.

Table 2-1 summarizes the infrastructure improvements associated with Alternative 1 and **Figure 2-1** through **Figure 2-4** provides an overview and locations of the improvements. **Figure 2-5** provides a revised flow schematic of CLB’s, EBSD’s, and SCWD’s collection systems accounting for the flow redirections to Plant No. 2 and the RTP.

Table 2-1: Alternative 1 Infrastructure Improvements Summary	
No.	Infrastructure Improvement Description
1	Transfer LS Force Main. New sewer pipeline consisting of 28,080-foot 16-inch HDPE force main from the new Transfer LS to the 21-inch VCP OC San gravity pipeline connection located near the intersection of MacArthur Blvd and Pacific Coast Hwy. Uses the alignment of LBCWD’s abandoned Coastal Supply Pipeline.
2	Laguna SOCWA LS Gravity Main. New sewer pipeline consisting of 1,390-foot 27-inch PVC gravity main from the intersection of Ledroit St and Pacific Coast Hwy to the new Transfer LS.
3	Laguna SOCWA LS Force Main. New sewer pipeline consisting of 7,410-foot 20-inch HDPE force main from CLB’s Laguna SOCWA LS to the new Transfer LS. Includes tie-ins from the following CLB lift stations: Crescent Bay LS, Fairview LS, and Main Beach LS.
4	Bluebird SOCWA LS Gravity Main. New sewer pipeline consisting of 2,005-foot 16-inch PVC gravity main from the end of Bent St to CLB’s Laguna SOCWA LS.
5	Bluebird SOCWA LS Force Main. New sewer pipeline consisting of 5,705-foot 12-inch HDPE force main from CLB’s Bluebird LS to the end of Bent St. Includes a tie-in from CLB’s Anita LS and uses the alignment of CLB’s existing NCI pipeline.
6	Nyes Place LS Force Main. New sewer pipeline consisting of 720-foot 8-inch HDPE force main from CLB’s Nyes Place LS to an existing CLB 8-inch VCP gravity pipeline on Solana Way. Assumed that the local collection system has the hydraulic capacity to convey Nyes Place LS flows to CLB’s Bluebird SOCWA LS.
7	CTP LS Force Main. New sewer pipeline consisting of 16,760-foot 12-inch HDPE force main from the new CTP LS located at the CTP’s west primary sedimentation basin to MNWD’s Transfer LS located near the intersection of Sulphur Creek and Alicia Pkwy. Assumed to use the alignment of MNWD’s inactive 18-inch VCP gravity pipeline.
8	MNWD Recycled Water Pipeline Improvement. New recycled water pipeline consisting of approximately 100 feet of 12-inch PVC distribution pipeline.

Table 2-1: Alternative 1 Infrastructure Improvements Summary

No.	Infrastructure Improvement Description
9	New Transfer LS. New lift station consisting of approximately 520,000 gallons of equalization storage (20-foot x 35-foot by 100-foot multi-chamber concrete vault) and three (two duty and one standby) 125 horsepower (HP) pumps sized at approximately 1,380 gpm at 219 feet TDH each. Includes an emergency generator.
10	New CTP LS. New lift station consisting of conversion of the existing CTP West Primary Sedimentation Basin to approximately 240,000 gallons of equalization storage and three (two duty and one standby) 50 HP pumps sized at approximately 800 gpm at 111 feet TDH each. Includes an emergency generator.
11	Crescent Bay LS Improvements. Replace existing pumps with two (one duty and one standby) 20 HP pumps sized at approximately 325 gpm at 131 feet TDH each.
12	Fairview LS Improvements. Replace existing pumps with two (one duty and one standby) 15 HP pumps sized at approximately 325 gpm at 88 feet TDH each.
13	Main Beach LS Improvements. Replace existing pumps with three (two duty and one standby) 30 HP pumps sized at approximately 800 gpm at 88 feet TDH each.
14	Laguna SOCWA LS Improvements. Replace existing pumps with four (three duty and one standby) 200 HP pumps sized at approximately 1,900 gpm at 140 feet TDH each.
15	Anita LS Improvements. Replace existing pumps with two (one duty and one standby) 15 HP pumps sized at approximately 375 gpm at 98 feet TDH each.
16	Bluebird SOCWA LS Improvements. Replace existing pumps with three (two duty and one standby) 50 HP pumps sized at approximately 1,050 gpm at 103 feet TDH each.
17	Nyes Place LS Improvements. Replace existing pumps with two (one duty and one standby) 20 HP pumps sized at approximately 650 gpm at 63 feet TDH each.
18	RTP and Lift Station Buy-In. Improvements per Section 2.1.5.
19	CTP Abandonment. Abandonment per Section 2.1.4.

2.1.2 Infrastructure Design

This section presents planning-level sizing of the new pipelines, new lift stations, and modifications to existing lift stations identified for Alternative 1 in **Table 2-1**. The sizing is intended to establish the general scope of required infrastructure to support evaluation of order-of-magnitude costs. These preliminary assumptions are appropriate for alternatives screening; final sizing and design will require refinement through detailed hydraulic analysis and engineering during subsequent project phases.

2.1.2.1 Lift Station Design Flows

Existing lift station capacities were applied to the revised flow paths identified in **Figure 2-5** to determine new required lift station capacities under Alternative 1. It was assumed that all existing lift stations are already sized adequately for existing flow conditions. **Table 2-2** provides a summary of the recommended Alternative 1 lift station capacities and a comparison to existing lift station capacities

Legend

Sewer Service Area	Gravity Pipeline	Lift Station
Treatment Plant	Proposed New	Proposed New
Force Main	Existing CLB	Existing CLB
Proposed New	Existing EBSD	Existing EBSD
Existing CLB	Existing MNWD	Existing MNWD
EBSD	Existing OCSAN	Existing OCSAN
Existing MNWD	Existing SCWD	Existing SCWD
Existing OCSAN	Not Impacted	Not Impacted
Existing SCWD		
Not Impacted		



**South Orange
County
Wastewater
Authority**

**CTP Regional
Flow Study**

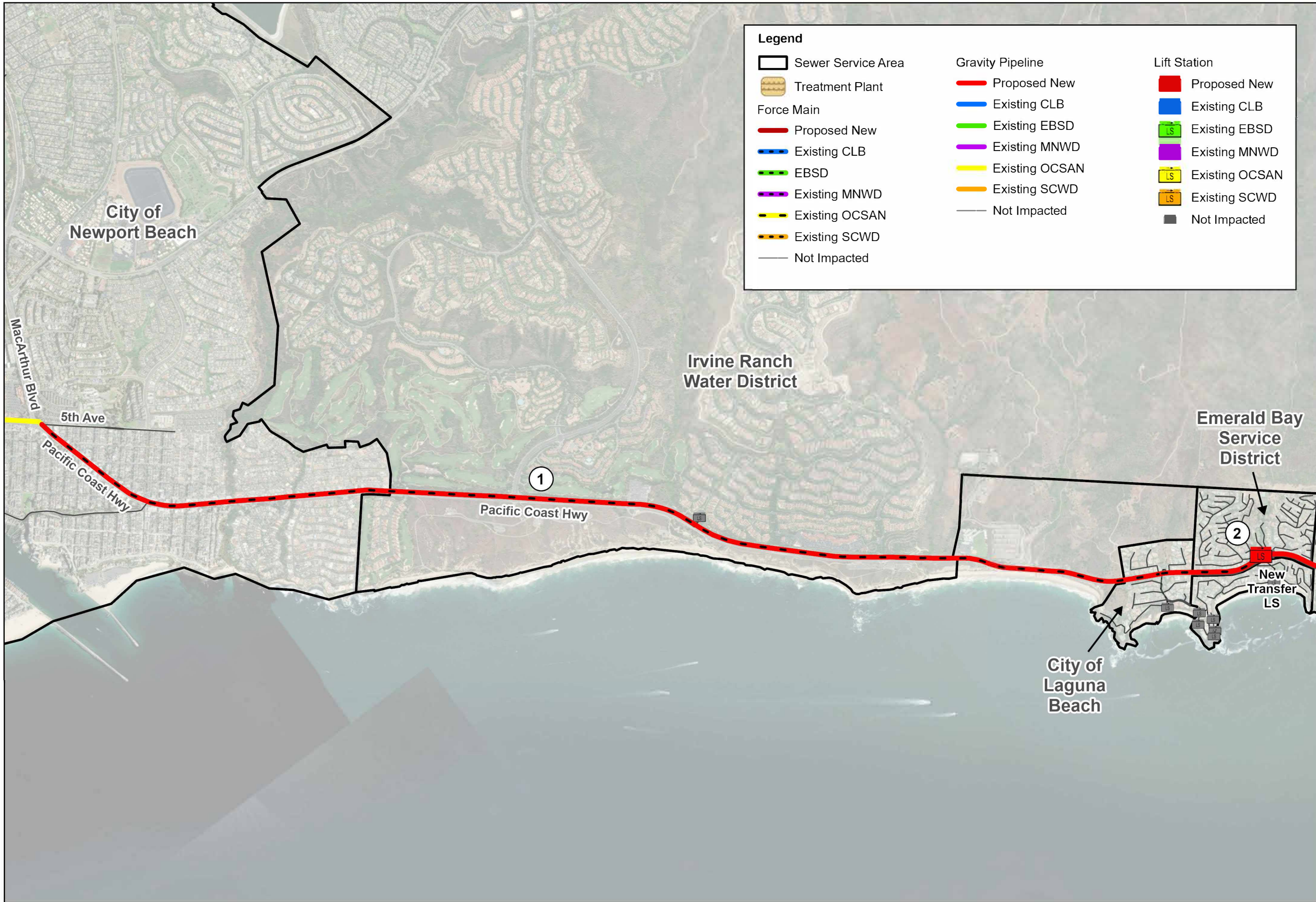
Figure 2-1

Alternative 1
Overview



1 inch = 6,000 feet





Legend

Sewer Service Area	Gravity Pipeline	Lift Station
Treatment Plant	Proposed New	Proposed New
Force Main	Existing CLB	Existing CLB
Proposed New	Existing EBSD	Existing EBSD
Existing CLB	Existing MNWD	Existing MNWD
EBSD	Existing OCSAN	Existing OCSAN
Existing MNWD	Existing SCWD	Existing SCWD
Existing OCSAN	Not Impacted	Not Impacted
Existing SCWD		
Not Impacted		



**South Orange
County
Wastewater
Authority**

**CTP Regional
Flow Study**

Figure 2-2
Alternative 1
Infrastructure
Improvements
Part 1



1 inch = 1,800 feet

0 900 1,800





Legend

Sewer Service Area	Gravity Pipeline	Lift Station
Treatment Plant	Proposed New	Proposed New
Force Main	Existing CLB	Existing CLB
Proposed New	Existing EBSD	Existing EBSD
Existing CLB	Existing MNWD	Existing MNWD
EBSD	Existing OCSAN	Existing OCSAN
Existing MNWD	Existing SCWD	Existing SCWD
Existing OCSAN	Not Impacted	Not Impacted
Existing SCWD		
Not Impacted		



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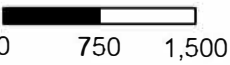
**CTP Regional
Flow Study**

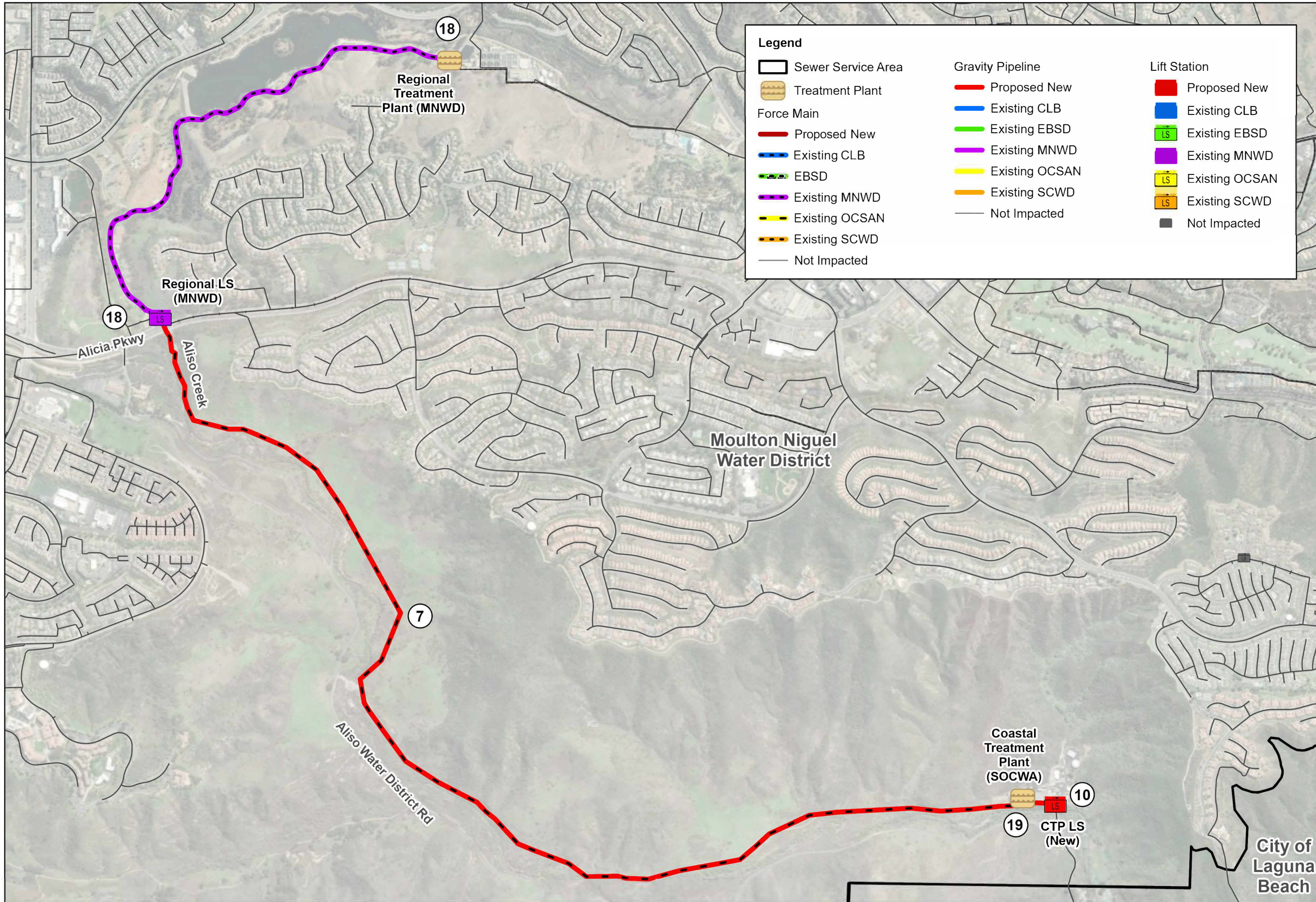
Figure 2-3

Alternative 1
Infrastructure
Improvements
Part 2



1 inch = 1,500 feet





Legend

Sewer Service Area	Gravity Pipeline	Lift Station
Treatment Plant	Proposed New	Proposed New
Force Main	Existing CLB	Existing CLB
Proposed New	Existing EBSD	Existing EBSD
Existing CLB	Existing MNWD	Existing MNWD
EBSD	Existing OCSAN	Existing OCSAN
Existing MNWD	Existing SCWD	Existing SCWD
Existing OCSAN	Not Impacted	Not Impacted
Existing SCWD		
Not Impacted		



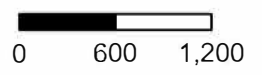
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**CTP Regional
Flow Study**

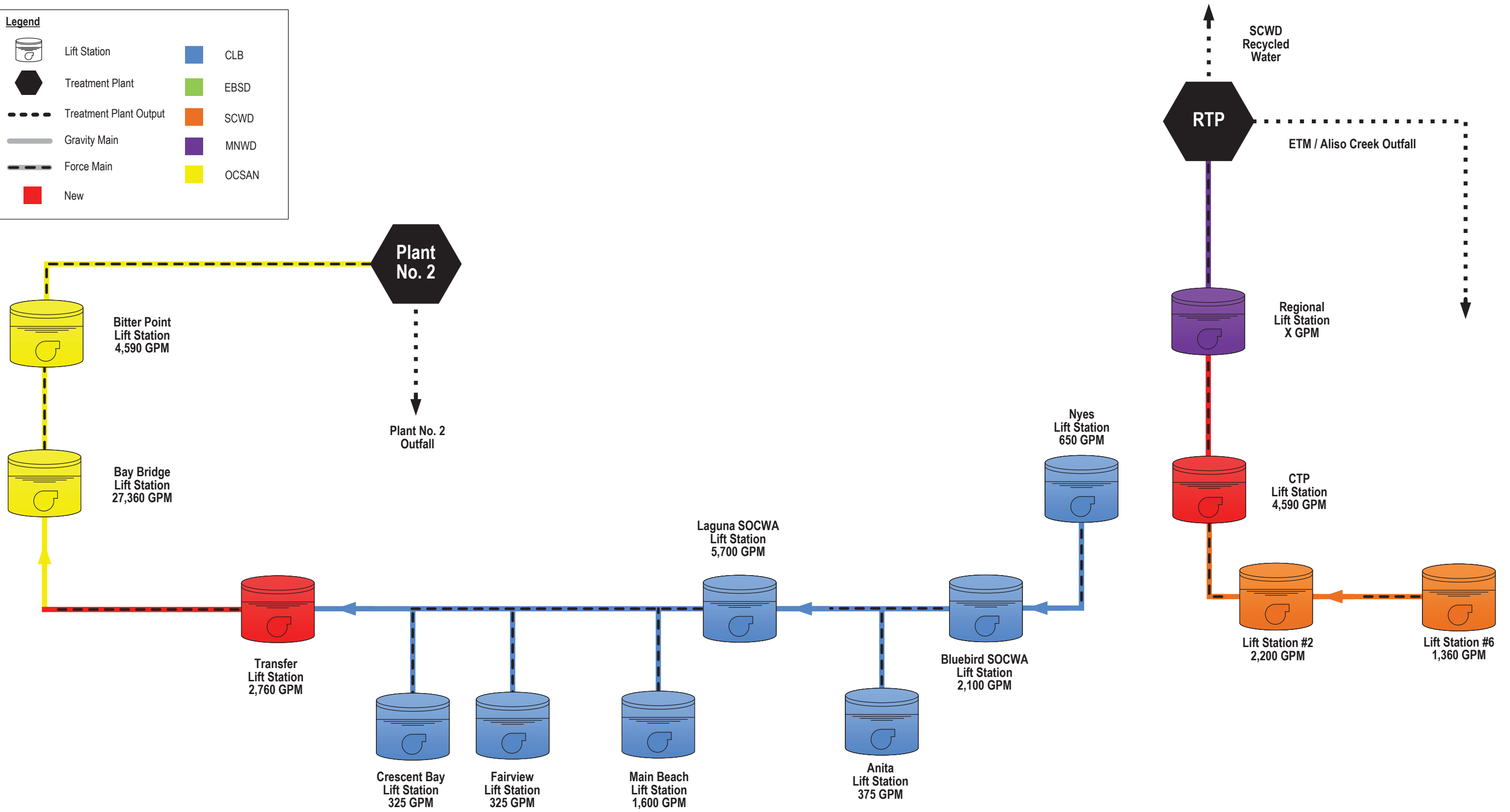
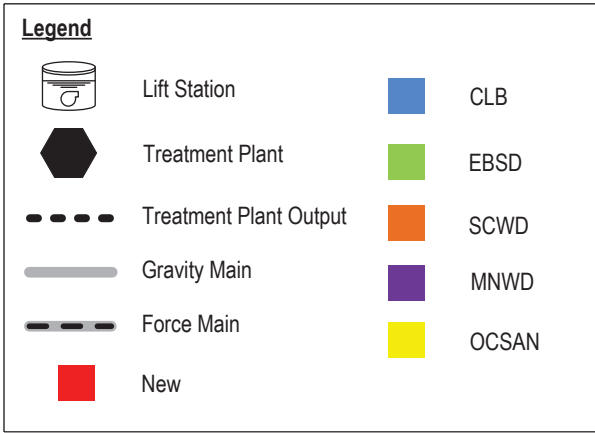
Figure 2-4

Alternative 1
Infrastructure
Improvements
Part 3



1 inch = 1,200 feet





South Orange County Wastewater Authority (SOCWA) – Coastal Treatment Plant (CTP) Regional Flow Study

Figure 2-5: Alternative 76 Flow Path Schematic



Table 2-2: Alternative 1 Lift Station Design Capacity

Lift Station	Design Capacity (GPM)		# Pumps at Design Flow (gpm)
	Baseline	Alternative 1	
Transfer LS (New)	-	2,760 ¹	3 @ 1,380
CTP LS (New)	-	1,600 ²	3 @ 800
Crescent Bay LS (CLB)	325	325	2 @ 325
Fairview LS (CLB)	325	325	2 @ 325
Main Beach LS (CLB)	1,600	1,600	3 @ 800
Laguna SOCWA LS (CLB)	5,260	5,700 ³	4 @ 1,900
Anita LS (CLB)	375	375	2 @ 375
Bluebird SOCWA LS (CLB)	7,080	2,100 ⁴	3 @ 1,050
Nyes Place LS (CLB)	650	650	2 @ 650

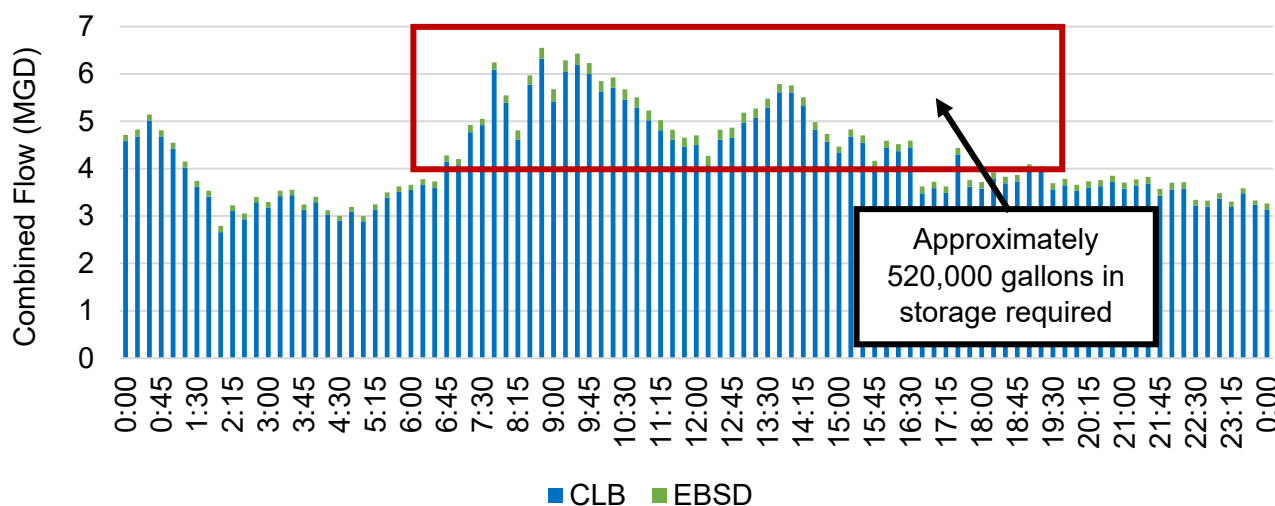
Notes:

- Design capacity limited to ensure the wastewater flow from the Transfer LS does not exceed the maximum acceptable flow of 4 MGD to OC San's collection system.
- Sized to meet SCWD maximum average daily wet weather flow of 2.3 MGD
- Equal to the design capacity of Bluebird SOCWA LS + Nyes Place LS + Irvine Cove LS – Main Beach LS – Fairview LS – Crescent Bay LS.
- Equal to the design capacity of Bluebird SOCWA LS + Nyes Place LS – Laguna SOCWA LS – Anita LS.

2.1.2.2 Transfer Lift Station Equalization Basin

The new Transfer LS will include an equalization basin sized to provide operational storage and peaking attenuation of influent flows. Preliminary sizing of the equalization basin was established based on the maximum daily wet weather observed over the past five years on February 6, 2024 for combined CLB and EBSD flows. All flows exceeding the lift station's design capacity of 4 MGD were totaled during the peaking event and converted to a storage volume requirement. **Figure 2-6** shows the 15-minute interval peak wet weather flows observed during the February 6, 2024 event and identifies the total lift station storage requirement for equalization.

Figure 2-6: Storage Requirement for New Transfer LS

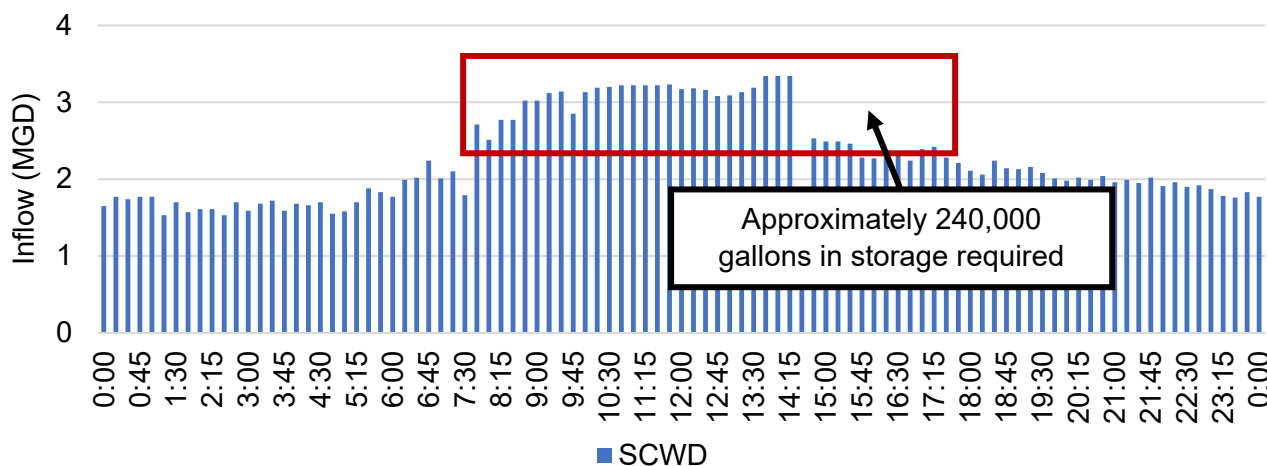


With approximately 520,000 gallons of storage required, a 20-foot x 35-foot x 100-foot multi-chamber concrete basin is recommended.

2.1.2.3 CTP Lift Station Equalization Basin

The new CTP LS will include an equalization within the existing CTP West Primary Sedimentation Basin to provide operational storage and peaking attenuation of wet weather flows greater than the lift station’s capacity. Preliminary sizing of the equalization basin was established based on the maximum average daily wet weather flow observed over the past five years on February 6, 2024 for SCWD flows. All flows exceeding the lift station’s design capacity of 2.3 MGD (1,600 gpm) were totaled during the peaking event and converted to a storage volume requirement. **Figure 2-7** shows the 15-minute interval peak wet weather flows observed during the February 6, 2024 event and identifies the total lift station storage requirement for equalization.

Figure 2-7: Alternative 1 Storage Requirement for New CTP LS



With approximately 240,000 gallons of storage required, a 20-foot x 20-foot x 80-foot multi-chamber concrete basin is recommended.

2.1.2.4 Force Main Pipeline Diameter

Using the lift station design capacities sized for Alternative 1 in **Table 2-2**, a pipeline diameter was selected for each pipeline infrastructure improvement. **Table 2-3** summarizes the recommended force main pipeline diameters and hydraulic results.

Table 2-3: Alternative 1 Force Main Pipeline Diameter

Pipeline	Contributing Lift Station(s)	Flow (GPM)		Diameter (in)	Pipeline Velocity (ft/s)	
		Min ¹	Max ²		Min	Max
Transfer LS Force Main	Transfer LS	1,380	2,760	16	2.2	4.4
Laguna SOCWA LS Force Main	Laguna SOCWA LS, Crescent Bay LS, Fairview LS, and Main Beach LS	1,900	7,950	20	1.9	8.1
Bluebird SOCWA LS Force Main	Bluebird SOCWA LS and Anita LS	1,050	2,100	12	3.0	6.0
Nyes Place LS Force Main	Nyes Place LS	650	650	8	4.1	4.1
CTP LS Force Main	CTP LS	800	1,600	12	2.3	4.5

Notes:

1. One duty pump active at primary lift station.
2. All duty pumps active for lift stations contributing flow to force main.
3. Per **Table 1-13**, force mains should be designed to produce velocities between 2 ft/s and 8 ft/s.

2.1.2.5 Gravity Pipeline Diameter

Alternative 1 contains two gravity pipelines that convey wastewater flow from the Laguna SOCWA LS and Bluebird SOCWA LS force mains. To conservatively size the pipeline, the recommended diameter was selected based off the depth-to-diameter ratio and velocity for an assumed minimum slope of 0.5% and maximum flow anticipated in the pipeline. **Table 2-4** summarizes the recommended gravity pipeline diameters and resulting velocities.

Table 2-4: Alternative 1 Gravity Pipeline Diameter

Pipeline	Contributing Lift Station(s)	Max Flow (gpm) ¹	Diameter (in)	d/D	Velocity (ft/s)
Laguna SOCWA LS Gravity Main	Laguna SOCWA LS (CLB), Crescent Bay LS (CLB), Fairview LS (CLB), and Main Beach LS (CLB)	7,950	27	0.67	6.1
Bluebird SOCWA LS Gravity Main	Bluebird SOCWA LS (CLB)	2,100	16	0.68	4.4

Notes:

1. All duty pumps active for lift stations contributing flow to gravity main.
2. Per **Table 1-13**, gravity mains should be designed with a depth-to-diameter (d/D) ratio of below 0.75 for pipelines greater than 12-inch and a minimum velocity at maximum flow greater than 3 ft/s.
3. d/D = Depth-to-diameter ratio.

2.1.2.6 Lift Station Total Dynamic Head

A preliminary design TDH was determined for each lift station using the design capacities from **Table 2-2** and the pipeline diameters from Sections 2.1.2.4 and 2.1.2.5. **Table 2-5** provides a summary of each lift station's design TDH at its design capacity.

Table 2-5: Alternative 1 Lift Station Design TDH

Lift Station	Baseline		Alternative 1	
	Design Capacity (gpm)	TDH (ft)	Design Capacity (gpm)	TDH (ft) ¹
Transfer (New)	-	-	2,760	219
CTP (New)	-	-	1,600	111
Crescent Bay (CLB)	325	105	325	131 ²
Fairview (CLB)	325	70	325	88 ²
Main Beach (CLB)	1,600	70	1,600	88 ²
Laguna SOCWA (CLB)	5,260	90	5,700	140
Anita Street (CLB)	375	78	375	98 ²
Bluebird SOCWA (CLB)	7,080	108	2,100	103
Nyes Place (CLB)	650	22	650	63

Notes:

1. TDH = Static Lift + Friction Losses. Friction losses approximated using the Hazen Williams formula with an assumed "C Factor" of 140.
2. Lift station currently ties into gravity main and will be converted to discharge to a shared force main. Baseline TDH is assumed to increase by 25% under Alternative 1. Subsequent hydraulic analysis is recommended.

2.1.2.7 Lift Station Horsepower

With the design capacity and TDH determined for each lift station, the minimum and recommended design horsepower for each lift station pump was determined. **Table 2-6** provides a summary of the recommended design lift station horsepower.

Table 2-6: Alternative 1 Lift Station Design HP

Lift Station	Design Capacity per Pump (GPM)	Design TDH per Pump (ft)	Min Required HP per Pump ¹	Design HP per Pump
Transfer (New)	960	219	118	125
CTP (New)	1,000	111	47	50
Crescent Bay (CLB)	325	131	17	20
Fairview (CLB)	325	88	11	15
Main Beach (CLB)	800	88	27	30
Laguna SOCWA (CLB)	1,900	140	155	200
Anita Street (CLB)	375	98	14	15
Bluebird SOCWA (CLB)	1,050	103	42	50
Nyes Place (CLB)	650	63	16	20

Notes:

1. Minimum required HP calculated using an assumed combined pump and motor efficiency of 65%.
2. Design HP selected by rounding minimum required HP to next largest standard size.

2.1.3 New Transfer LS

The new Transfer LS would be located in the vicinity of EBSD LS #4. A key advantage of this location is the availability of existing EBSD-owned property, which could minimize right-of-way acquisition and streamline implementation. The new Transfer LS would include a 520,000-gallon equalization basin (per Section 2.1.2.2), submersible or dry-pit pumps, and a dedicated valve and piping gallery. Additional facilities would include odor control systems, emergency backup power (generator with on-site fuel storage), electrical and control systems (including SCADA integration), and provisions for maintenance

access and equipment removal. The site would also require associated appurtenances such as flow metering, surge protection, bypass pumping connections, and site drainage.

The site footprint is assumed to be 20 feet x 35 feet x 100 feet, though additional space may be required for access, maintenance clearances, and ancillary equipment. **Figure 2-8** provides an illustration of potential areas that could be utilized. Construction at this location would likely require a retaining wall due to topographic constraints, as well as careful staging and coordination to maintain uninterrupted access to the vehicle tunnel beneath Pacific Coast Highway. Traffic control, limited staging areas, and potential restrictions on construction methods may further influence design, cost, and schedule.

2.1.4 CTP Abandonment and New CTP LS

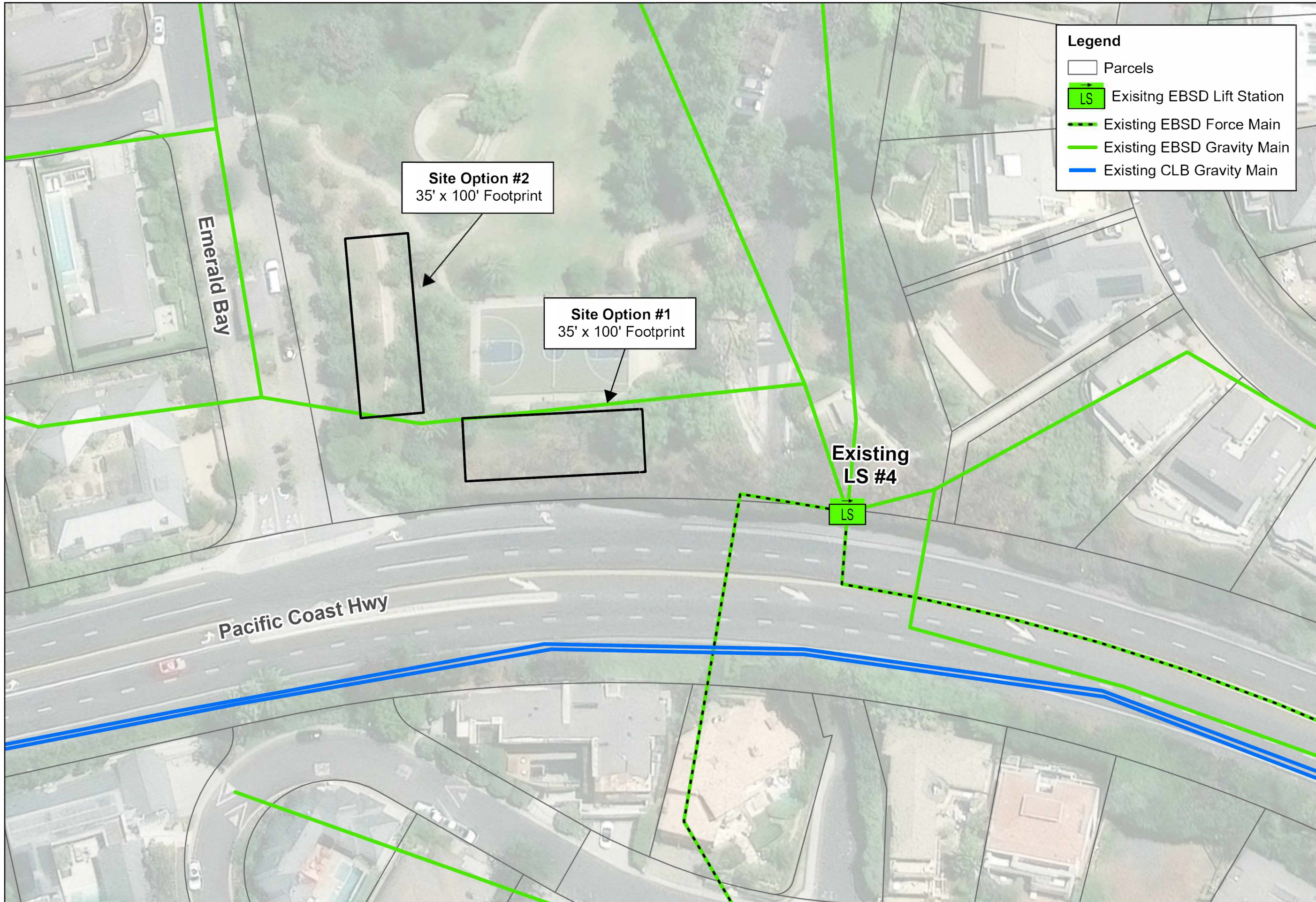
For this alternative, the CTP could be decommissioned and largely abandoned, apart from select facilities that would remain in service to support ongoing operations and site functions. These include:

- Reservoir No. 1 and associated pumping systems
- SCWD Vehicle Storage Building
- Aliso Creek Water Reclamation Facility (ACWRF)
- Water Testing Lab
- Bathroom and Breakroom
- Emergency Generator
- Electrical Supply Equipment/ Power Building
- Stormwater pumping system
- Site fencing and select surface improvements (as needed for access and security)

In addition, the new CTP LS would be constructed as described in **Table 2-1**. Implementation of this alternative would require the following key modifications and new facilities:

- Construction of a new lift station with wet well, pumps, electrical/control systems, odor control, and backup power
- Conversion of an existing concrete basin to provide influent equalization storage to attenuate peak wet weather flows
- Modifications to existing emergency power systems to support the new lift station
- Reconfiguration of influent piping and site hydraulics to route all flows to the new lift station

Figure 2-9 illustrates the conceptual location of the proposed lift station and identifies the areas of the CTP site that could be decommissioned. While reuse of the site is not the primary focus of this study, the cleared area—totaling approximately 2.7 acres—represents a potentially valuable asset. Conceptual reuse opportunities could include solar power generation, expanded operational or maintenance facilities, recycled water storage, or other utility-support functions.



Legend

- Parcels
- Existing EBSD Lift Station
- Existing EBSD Force Main
- Existing EBSD Gravity Main
- Existing CLB Gravity Main



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Figure 2-8
Alternative 1
Transfer LS
Site Options

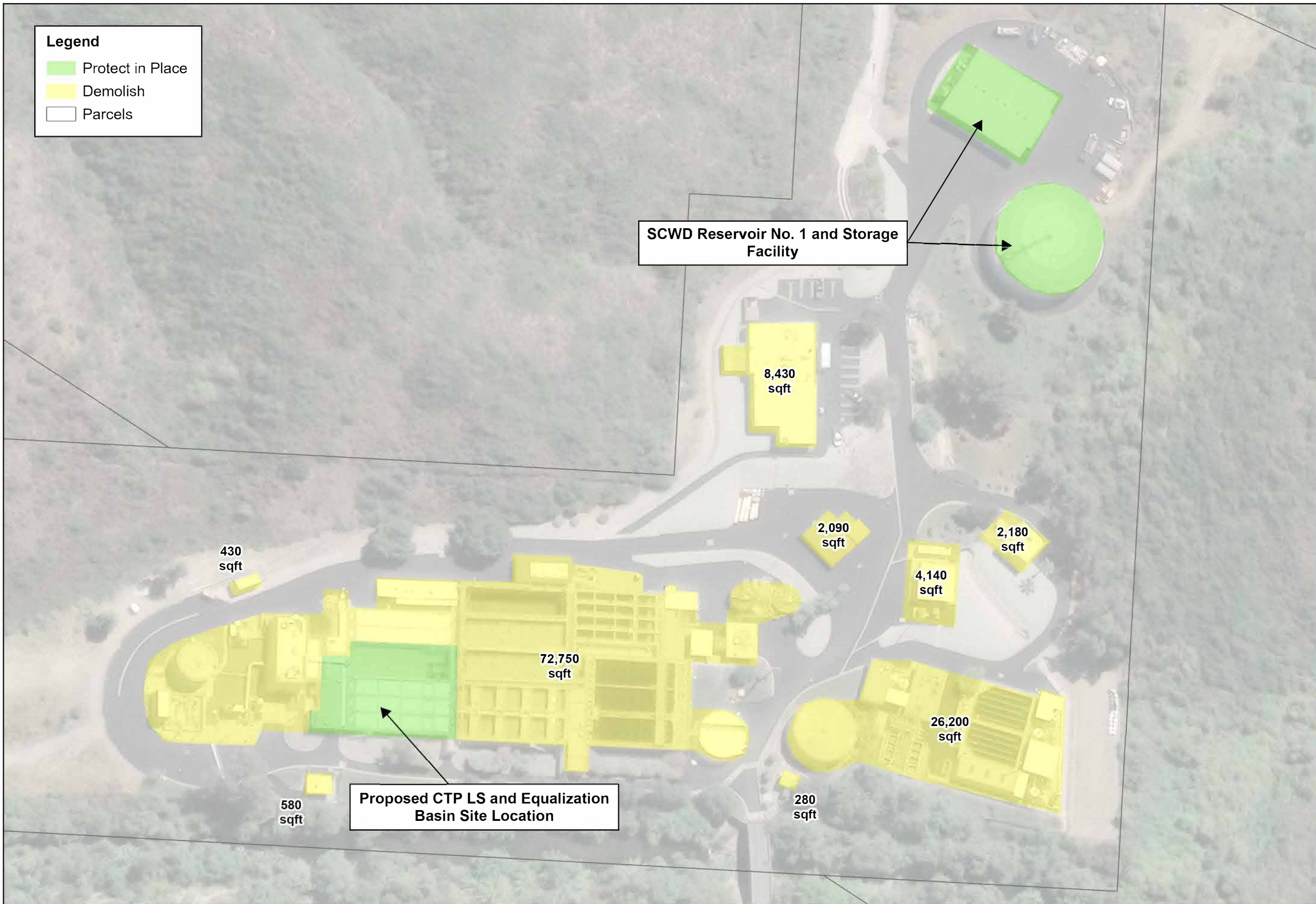


1 inch = 50 feet
0 25 50



Legend

- Protect in Place
- Demolish
- Parcels



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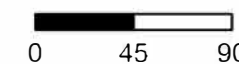
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Figure 2-9

Alternative 1
Coastal
Treatment Plant
Abandonment
and New
Lift Station



1 inch = 90 feet



However, redevelopment of the site would be subject to several important constraints and considerations. These include existing land use and zoning restrictions (e.g., open space or coastal zone designations), permitting requirements under the California Coastal Act, and potential environmental constraints such as habitat sensitivity, visual resource impacts, and public access requirements. In addition, conversion to beneficial reuse (e.g., recycled water storage or treatment) would require demonstration of consistent demand, operational reliability, and integration with the broader recycled water system. These factors may limit feasible reuse options and should be evaluated in more detail in subsequent phases.

2.1.5 Regional Treatment Plant Buy-In

RTP appears to have sufficient available capacity to accommodate SCWD flows under average dry-weather conditions. As shown in **Table 1-6**, the current average flow is approximately 7.18 MGD compared to a design capacity of 12 MGD. The proposed addition of SCWD flows would increase influent by approximately 0.85 MGD, resulting in a total average flow of roughly 8.0 MGD, which remains within the design capacity available. While average capacity is available, wet weather hydraulic and tertiary treatment constraints may limit operational flexibility and require further evaluation.

While detailed data are not available to fully assess peak wet weather conditions, it is assumed that influent equalization at the CTP could be implemented to attenuate peak flows. This approach would reduce hydraulic surcharge risks and minimize impacts to both the Regional Lift Station and RTP during wet weather events. Confirmation of available peak capacity and conveyance limitations would require further hydraulic modeling and coordination with MNWD.

- **RTP Capacity Buy-In.** Use of existing treatment capacity would require a proportional capital buy-in, to be established through project-specific negotiations with MNWD.
- **Advanced Water Treatment (AWT) Expansion/Buy-In.** SCWD requires a reliable recycled water supply. To ensure availability during peak demand periods, expansion of the existing AWT facilities—or a proportional buy-in to existing capacity—is assumed to provide approximately 0.85 MGD of firm recycled water production during peak demand months.
- **Regional Lift Station/Force-Main Buy-In.** Use of existing pumping and conveyance capacity would require a proportional capital buy-in, to be established through project-specific negotiations with MNWD.

2.1.6 Regulatory and Permitting Risk

Table 2-7 summarizes the OC San regulatory and permitting requirements for this scenario.

Table 2-7: OC San Regulatory and Permitting Requirements	
Category	Description
Caltrans Encroachment Permits (PCH / SR-1)	Construction within Pacific Coast Highway right-of-way will require Caltrans encroachment permits, which impose strict requirements on traffic control, allowable construction methods, and work hours. Limitations on open trenching and potential requirements for trenchless construction may significantly influence design, cost, and schedule.

Table 2-7: OC San Regulatory and Permitting Requirements

Category	Description
Coastal Development Permits (CDP)	The alignment lies within the California Coastal Zone and will require coastal development permits from CLB and Newport Beach, with potential involvement or appeal authority from the California Coastal Commission. Coastal Act policies related to visual resources, public access, and environmentally sensitive habitat areas may constrain alignment and facility siting.
CEQA Compliance	Due to the scale and visibility of the project, preparation of an Environmental Impact Report (EIR) is likely required. Key issues include traffic, construction-related impacts, biological and cultural resources, and coastal aesthetics. The CEQA process may be prolonged due to stakeholder interest and potential for legal challenge.
RWQCB Permitting	Construction activities will require compliance with the Construction General Permit for stormwater discharges, as well as potential permits for dewatering or non-stormwater discharges. Coordination with the Regional Water Quality Control Board will be necessary for activities affecting surface or groundwater.
Resource Agency Permits	If the project affects jurisdictional waters or drainage features, permits may be required from the California Department of Fish and Wildlife (Lake and Streambed Alteration Agreement) and the U.S. Army Corps of Engineers (Section 404), along with Section 401 water quality certification. A federal nexus could also trigger Section 106 cultural resource review.
Local Agency Permits and Coordination	Work outside of Caltrans right-of-way will require encroachment permits and approvals from the Cities of Laguna Beach and Newport Beach. Additional coordination will be required for utility conflicts, relocations, and public outreach due to construction impacts in developed areas.
Right-of-Way and Easements	While much of the alignment may follow public corridors, additional easements may be required in constrained segments and for construction of the new Transfer LS. Acquisition within coastal areas may be complex due to limited space and property constraints.
Construction and Traffic Constraints	Construction along PCH will require careful traffic management to maintain access and minimize disruption. Work hour restrictions, seasonal limitations, and high traffic volumes will likely constrain construction windows and extend the schedule.

Overall, this alternative presents a high level of permitting complexity due to multi-agency coordination, coastal zone requirements, and CEQA compliance. The constrained and highly visible nature of the corridor introduces elevated schedule risk and a potentially lengthy and resource-intensive approval process.

Additional activities would be required for the ultimate shutdown of CTP as shown in **Table 2-8**. These activities would be considered constant among all alternatives.

Table 2-8: CTP Decommissioning Requirements

Category	Description
Treatment Plant Permit Modifications (OC San and RTP)	<p>CTP operates under an NPDES permit for ocean discharge. If flows are diverted and discharge ceases, the permit would need to be formally modified or terminated through the Regional Water Quality Control Board. This process requires demonstration that discharges have permanently ceased and may involve a formal application and agency review period.</p> <p>OC San would likely need to amend its NPDES permit and/or Waste Discharge Requirements (WDRs) to reflect increased influent flow and loading, though changes are expected to be administrative if within existing capacity. In contrast, MNWD’s Regional Treatment Plant (RTP) would likely require more substantive updates to its WDRs and recycled water permits, including revisions to the Title 22 Engineering Report to address changes in influent source, treatment capacity, and recycled water production.</p>
Waste Discharge Requirements (WDRs)	<p>Any existing WDRs associated with treatment, solids handling, or residuals management would need to be modified or rescinded. If any portion of the facility remains in operation (e.g., equalization, pumping, or partial treatment), revised permits may be required to reflect the new function.</p>
Air Quality Permits	<p>South Coast AQMD permits for treatment processes (e.g., odor control systems, engines, or digesters if present) would need to be modified or surrendered. Equipment decommissioning may require notifications and potentially emissions reporting during shutdown activities.</p>
CEQA for Facility Decommissioning	<p>Decommissioning activities themselves may be subject to CEQA, particularly if demolition, site restoration, or repurposing is involved. If included as part of a broader project (e.g., diversion alternative), it can be covered within the overall CEQA document.</p>
Hazardous Materials and Site Closure	<p>A site assessment may be required to address any hazardous materials, chemical storage, or legacy contamination. Regulatory closure requirements could include soil and groundwater evaluation depending on historical operations.</p>

2.1.7 Schedule and Implementation Complexity

From a technical standpoint, this alternative presents limited complexity, as the required improvements primarily consist of conveyance infrastructure and new pumping facilities. In addition, the contractual framework for discharge to OC San is already well established, providing a basis for advancing negotiations using existing agreement structures.

The primary implementation challenges for this alternative are expected to be related to environmental review, permitting, and multi-agency coordination, particularly for work within the Pacific Coast Highway corridor and the coastal zone. These elements are anticipated to be the critical drivers of the overall project schedule.

Figure 2-10 presents a preliminary implementation schedule for this alternative.

Figure 2-10: Alternative 1 Implementation Schedule

Activity	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Conceptual Planning	•	•									
CEQA/Permitting (EIR, CDP, NPDES)		•	•	•	•	•					
Preliminary Design			•	•							
Final Design				•	•						
ROW / Easements			•	•	•						
Construction (Overall)						•	•	•	•	•	•
Transfer LS						•	•				
Transfer LS Forcemain						•	•	•			
Laguna SOCWA Forcemain and LS							•	•	•		
Bluebird SOCWA Forcemain and LS							•	•			
Nyes LS Forcemain								•	•		
CTP LS Conversion									•	•	
CTP to Regional LS Pipeline									•	•	
Decommission CTP										•	•

2.1.8 Regional/Interagency Coordination

The following regional/interagency coordination is anticipated:

- **Closeout of PC-15.** Coordinate the ultimate shutdown of CTP. SCWD would be sole owner of all remaining assets at CTP.
- **OC San Discharge Agreement.** Agreement between CLB/EBSD/OC San for wastewater discharge as discussed in Section 1.4.2.3.
- **MNWD Discharge Agreement.** Agreement between MNWD/SCWD for wastewater discharge as discussed in Section 2.1.5. Agreement will also need to cover return of recycled water as discussed in Section 2.1.9.
- **Closeout or Modify PC-23.** This alternative fundamentally repurposes the NCI from southbound conveyance to northbound conveyance.
- **OCWD Water Supply.** This agreement would include LBCWD and is contingent on the receipt of additional groundwater allocation. This approach is described in Section 2.1.10.

2.1.9 Recycled Water Impacts

This option will eliminate the source of tertiary water currently supplying the SCWD recycled water system. To continue receiving recycled water, SCWD would develop an agreement with MNWD to return recycled water treated at RTP, delivered by SCWD as part of this alternative. In addition to improvements identified in Section 2.1.5, this would require modification to MNWD recycled piping at Reservoir No. 3. Based on discussions with MNWD staff, the improvements are assumed for planning purposes to include approximately 100 feet of 12-inch pipe, associated valving and metering.

For a one-to-one return, SCWD would be limited to 0.85 MGD supply. This would leave a deficit when compared against planned recycled water buildout which is noted as 1.20 MGD (Section 1.3.3.1).

2.1.10 New Water Opportunities

LBCWD holds a groundwater production right within the OCWD-managed Orange County Groundwater Basin that provides a fixed annual allocation of approximately 2,025 AFY. This right was established through a negotiated agreement with OCWD and included a one-time capital buy-in (approximately \$3.1 million in 2016) as well as ongoing replenishment assessments on produced water. Implementation of the proposed diversion of wastewater from the CLB service area to Plant No. 2, with subsequent recharge via GWRS, creates the potential to expand LBCWD’s existing groundwater allocation. Wastewater deliveries from CLB to OC San are estimated at approximately 2,000 AFY (based on 1.83 MGD ADWF), representing a new source of supply available for groundwater recharge.

Any increase in allocation would require OCWD Board approval, modification of the existing participation agreement, and payment of an additional one-time capital buy-in. Based on the 2016 transaction, the buy-in for an additional 1,100 AFY is estimated to be on the order of \$1–2 million, subject to updated valuation methodologies. Groundwater production and conveyance would continue to be facilitated through the City of Newport Beach. LBCWD and the City of Newport Beach are currently advancing a new production well and updated conveyance agreement to support the existing allocation; this framework would require modification to accommodate additional supply.

2.2 ALTERNATIVE 2 – REDIRECTION TO JBL

2.2.1 Overview

Under Alternative 2, wastewater flow generated from CLB, EBSD, and northern SCWD is conveyed to JBL through a combination of new pipeline and existing lift station modifications. Redirecting flow to the JBL will require the existing flow path direction for SCWD’s northern collection system to reverse, with an altered flow path extending from Lift Station #2 to Lift Station #6. From there, flow is conveyed directly to the JBL via a new force main along the Pacific Coast Highway and Dana Point Harbor Dr.

Table 2-9 summarizes the infrastructure improvements associated with Alternative 2 and **Figure 2-11** and **Figure 2-12** identify the locations of the improvements. **Figure 2-13** provides a revised flow schematic of CLB’s, EBSD’s, and SCWD’s collection systems accounting for flow redirections to the JBL.

Table 2-9: Alternative 2 Infrastructure Improvements Summary	
No.	Infrastructure Improvement Description
1	Lift Station #2 Force Main. New sewer pipeline consisting of 16,655-foot 24-inch HDPE force main from SCWD’s Lift Station #2 to SCWD’s Lift Station #6. Use the alignment of SCWD’s tunnel pipeline to avoid a high-lift alignment.
2	Lift Station #6 Force Main. New sewer pipeline consisting of 7,610-foot 24-inch HDPE force main from SCWD’s Lift Station #6 to the intersection of Shoreline Dr and Pacific Coast Highway.
3	Lift Station #6 Gravity Main. New sewer pipeline consisting of 6,810-foot 30-inch PVC gravity main from the intersection of Shoreline Dr and Pacific Coast Highway to the JBL.

Table 2-9: Alternative 2 Infrastructure Improvements Summary	
No.	Infrastructure Improvement Description
4	Lift Station #2 Improvements. Replace existing pumps with four (three duty and one standby) 250 HP pumps sized at approximately 2,860 gpm at 188 feet TDH each.
5	Lift Station #6 Improvements. Replace existing pumps with four (three duty and one standby) 250 HP pumps sized at approximately 3,310 gpm at 185 feet TDH each.
6	JBL Expansion and Capital Buy-In. Improvements per Section 2.2.4
7	CTP Abandonment. Abandonment per Section 2.2.5

2.2.2 Infrastructure Sizing

This section presents planning-level sizing of the new pipelines and modifications to existing lift stations identified for Alternative 2 in **Table 2-9**. The sizing is intended to establish the general scope of required infrastructure to support evaluation of order-of-magnitude costs. These preliminary assumptions are appropriate for alternatives screening; final sizing and design will require refinement through detailed hydraulic analysis and engineering during subsequent project phases.

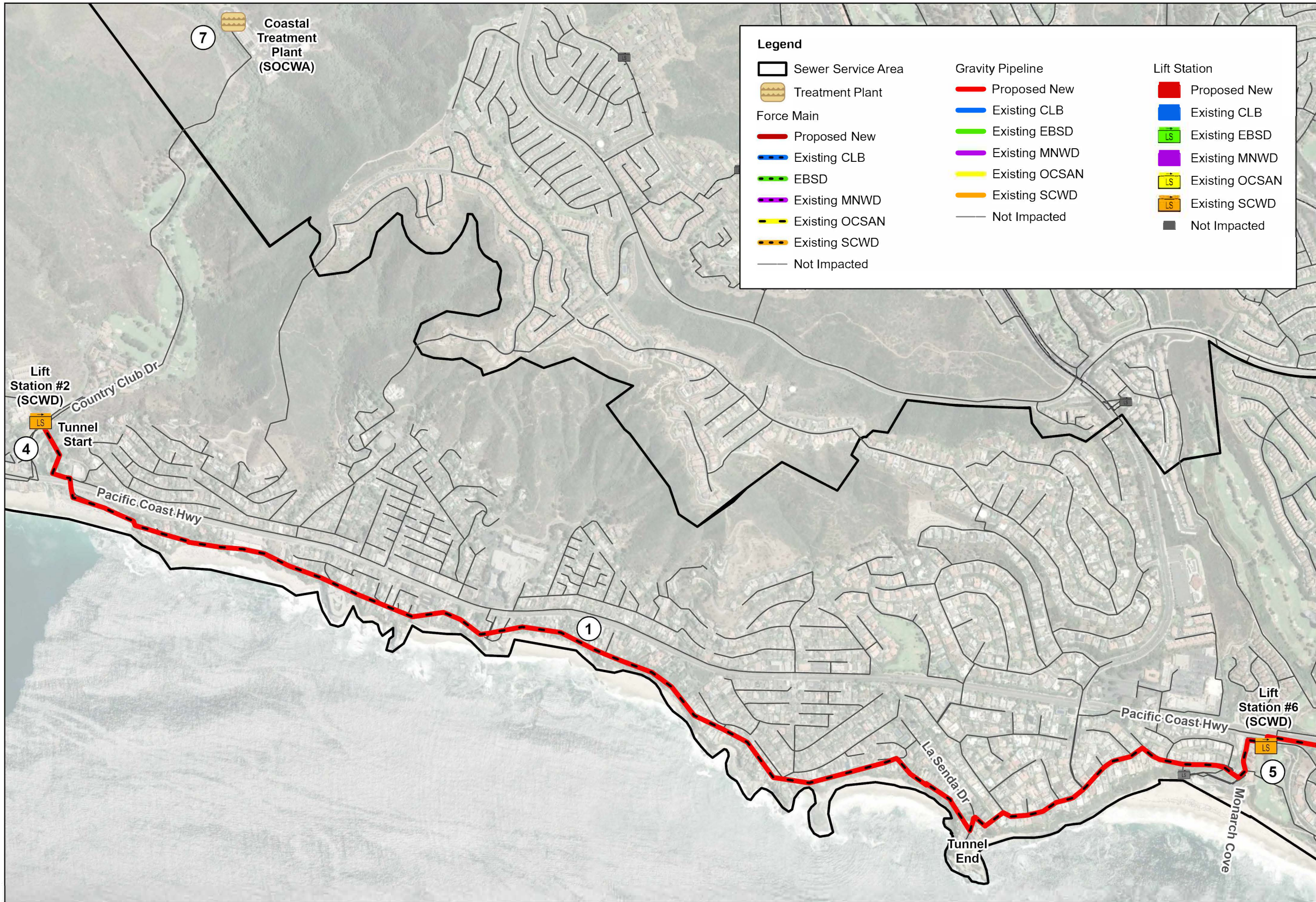
2.2.2.1 Lift Station Design Flows

Existing lift station capacities were applied to the revised flow paths identified in **Figure 2-13** to determine new required lift station capacities under Alternative 2. It was assumed that all existing lift stations are already sized adequately for existing flow conditions. **Table 2-10** provides a summary of the recommended Alternative 2 lift station capacities and a comparison to existing lift station capacities

Table 2-10: Alternative 2 Lift Station Design Capacity			
Lift Station	Design Capacity (GPM)		# Pumps at Design Flow (gpm)
	Baseline	Alternative 2	
Lift Station #2 (SCWD)	2,200	8,570 ¹	4 @ 2,860
Lift Station #6 (SCWD)	1,360	9,930 ²	4 @ 3,310

Notes:

- Equal to the design capacity of CLB's Bluebird SOCWA LS and Nyes Place LS + SCWD's Lift Station #2 – SCWD's Lift Station #6
- Equal to the design capacity of CLB's Bluebird SOCWA LS and Nyes Place LS + SCWD's Lift Station #2



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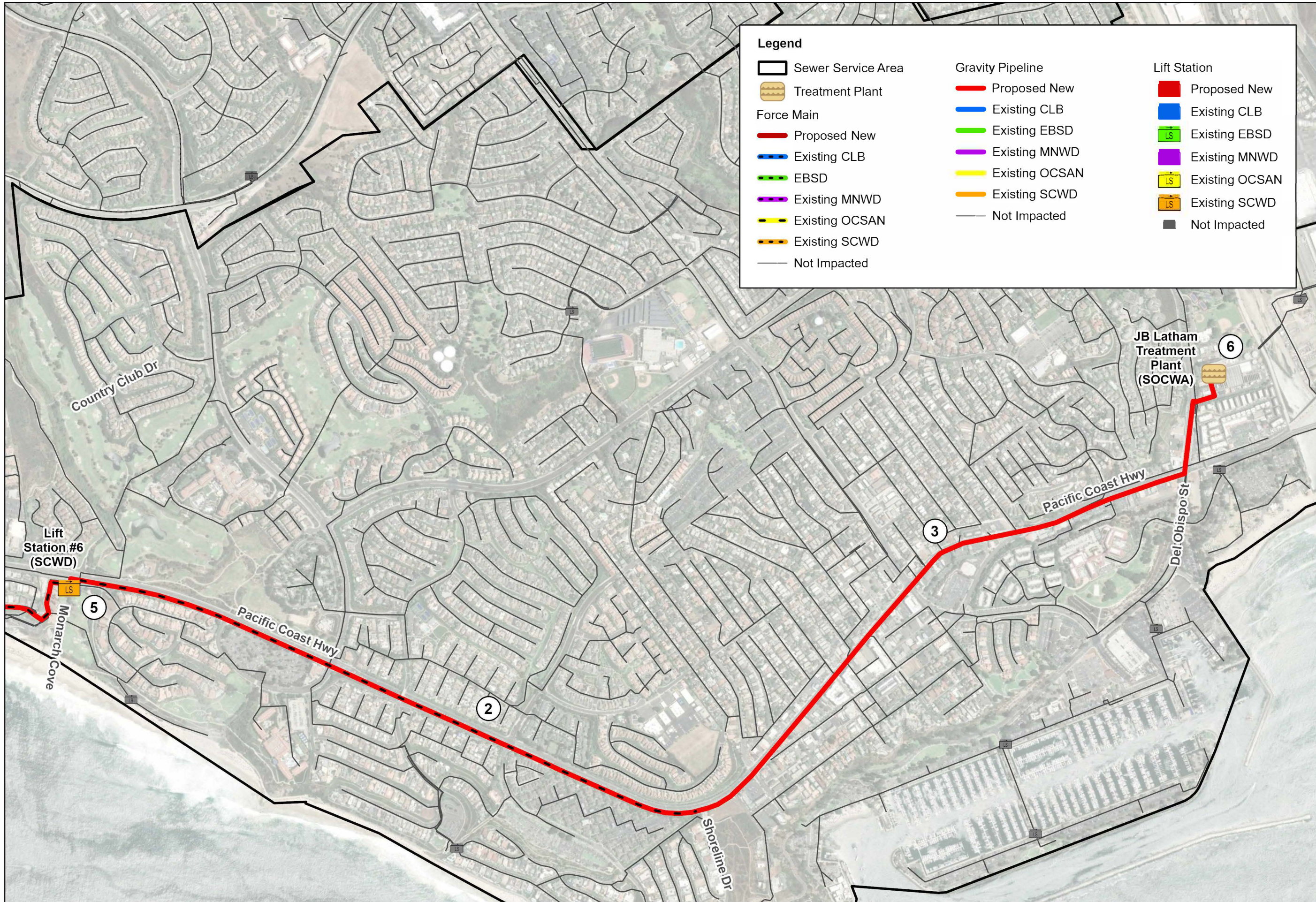
Figure 2-11

Alternative 2
Infrastructure
Improvements
Part 1



1 inch = 1,000 feet





Legend

Sewer Service Area	Gravity Pipeline	Lift Station
Treatment Plant	Proposed New	Proposed New
Force Main	Existing CLB	Existing CLB
Proposed New	Existing EBSD	Existing EBSD
Existing CLB	Existing MNWD	Existing MNWD
EBSD	Existing OCSAN	Existing OCSAN
Existing MNWD	Existing SCWD	Existing SCWD
Existing OCSAN	Not Impacted	Not Impacted
Existing SCWD		
Not Impacted		



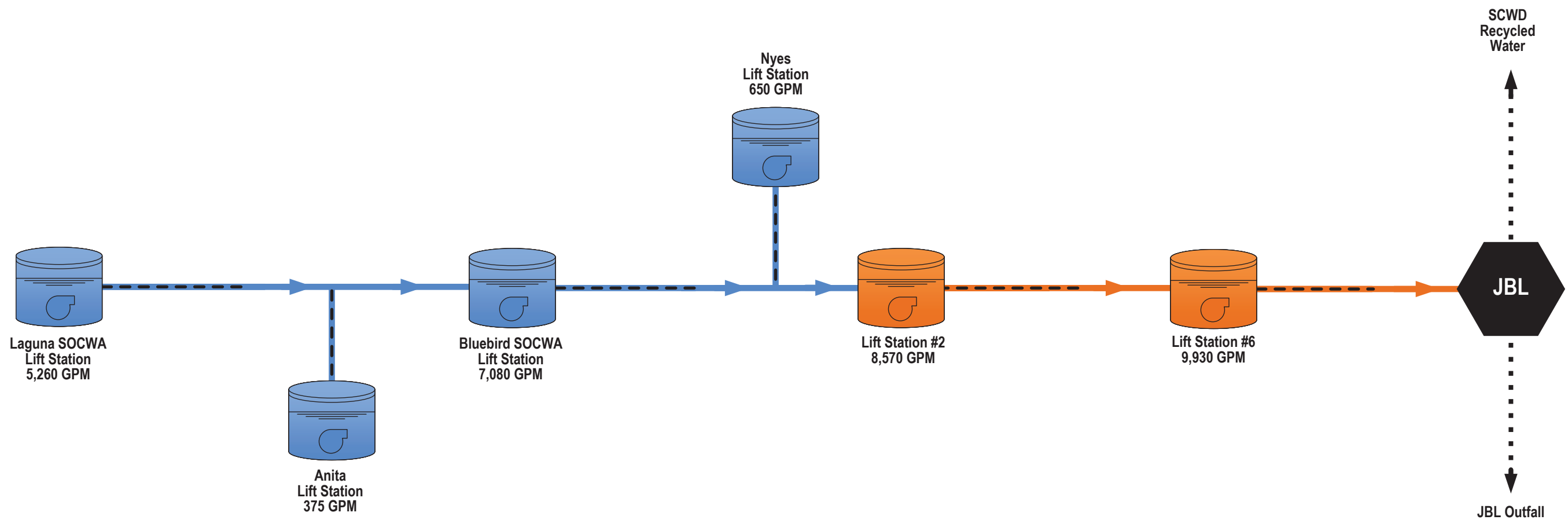
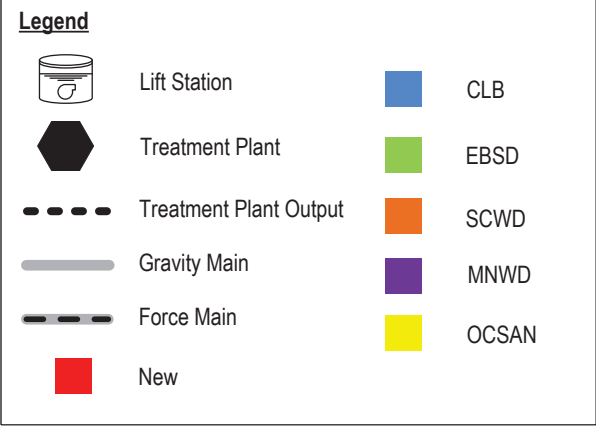
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Flow Study**

Figure 2-12
Alternative 2
Infrastructure
Improvements
Part 2



1 inch = 1,000 feet
0 500 1,000





2.2.2.2 Force Main Pipeline Diameter

Using the lift station design capacities sized for Alternative 2 in **Table 2-9**, a pipeline diameter was selected for each pipeline infrastructure improvement. **Table 2-11** summarizes the recommended force main pipeline diameters and hydraulic results.

Table 2-11: Alternative 2 Force Main Pipeline Diameter						
Pipeline	Contributing Lift Station(s)	Flow (GPM)		Diameter (in)	Pipeline Velocity (ft/s)	
		Min ¹	Max ²		Min	Max
Lift Station #2 Force Main	Lift Station #2 (SCWD)	2,860	8,570	24	2.0	6.1
Lift Station #6 Force Main	Lift Station #6 (SCWD)	3,310	9,930	24	2.3	7.0

Notes:

1. One duty pump active
2. All duty pumps active
3. Per Table 1-13, force mains should be designed to produce velocities between 2 ft/s and 8 ft/s

2.2.2.3 Gravity Pipeline Diameter

Alternative 2 contains one gravity pipeline that conveys wastewater flow from SCWD’s Lift Station #2 force main to the JBL. To conservatively size the pipeline, the recommended diameter was selected based off the depth-to-diameter ratio and velocity for an assumed minimum slope of 0.5% and maximum flow anticipated in the pipeline. **Table 2-12** summarizes the recommended gravity pipeline diameter and hydraulic results.

Table 2-12: Alternative 2 Gravity Pipeline Diameter					
Pipeline	Contributing Lift Station(s)	Max Flow (GPM)	Diameter (in)	d/D	Velocity (ft/s)
Lift Station #6 Gravity Main	Lift Station #6 (SCWD)	9,930	30	0.65	6.5

Notes:

1. All duty pumps active for all lift stations contributing flow to gravity main
2. Per Table 1-13, gravity mains should be designed with a depth-to-diameter (d/D) ratio of below 0.75 for pipelines greater than 12-inch and a minimum velocity at maximum flow greater than 3 ft/s

2.2.2.4 Lift Station Total Dynamic Head

A preliminary design TDH was determined for each lift station identified in **Table 2-9** using the design capacities from **Table 2-10** and the pipeline diameters from Sections 2.2.2.2 and 2.2.2.3. **Table 2-13** provides a summary of each lift station’s design TDH at its design capacity.

Table 2-13: Alternative 2 Lift Station Design TDH				
Lift Station	Baseline		Alternative 2	
	Design Capacity (gpm)	TDH (ft)	Design Capacity (gpm)	TDH (ft) ¹
Lift Station #2 (SCWD)	2,200	67	8,570	188
Lift Station #6 (SCWD)	1,360	95	9,930	185

Note:

1. TDH = Static Lift + Friction Losses. Friction losses approximated using the Hazen Williams formula with an assumed “C Factor” of 140

2.2.2.5 Lift Station Horsepower

With the design capacity and TDH determined for each lift station, the minimum and recommended design horsepower for each lift station pump was determined. **Table 2-14** provides a summary of the recommended design lift station horsepower.

Table 2-14: Alternative 2 Lift Station Design HP				
Lift Station	Design Capacity per Pump (GPM)	Design TDH per Pump (ft)	Min Required HP per Pump ¹	Design HP per Pump ²
Lift Station #2 (SCWD)	2,860	188	209	250
Lift Station #6 (SCWD)	3,310	185	238	250

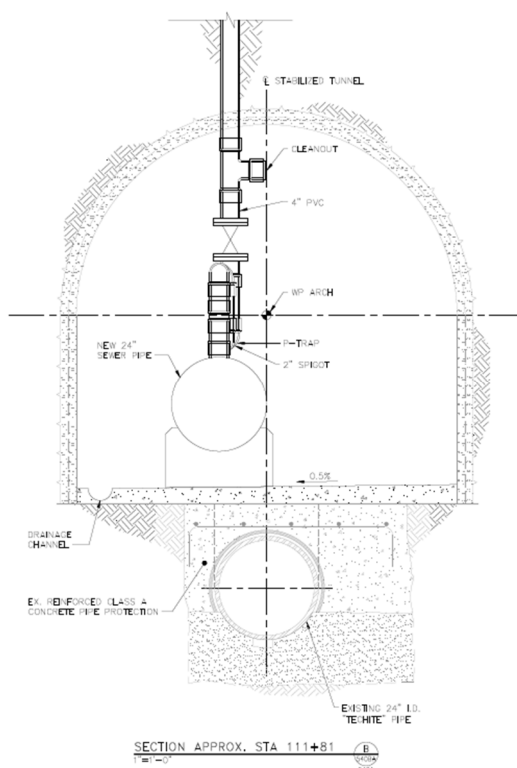
Notes:

1. Minimum required HP calculated using an assumed combined pump and motor efficiency of 65%
2. Design HP selected by rounding minimum required HP to next largest standard size

2.2.3 Tunnel Use

The SCWD Tunnel Project was a major infrastructure improvement constructed to replace aging coastal pipelines and provide a more resilient, seismically stable conveyance system for treated wastewater. The tunnel generally extends from LS #2 to a drop manhole in Three Arch Bay, a total distance of approximately 3 miles. The project included encasing the existing gravity sewer pipeline, expanding the existing tunnel and construction of a new 24-inch gravity sewer pipeline. **Figure 2-14** presents an example of a typical cross section of the tunnel.

Figure 2-14: Sample Cross Section of Sewer Tunnel



Source: Phase III, Sheet No. 37BA

Currently, flows from LS6 are pumped to Monarch Bay and then gravity flow to the drop manhole in Three Arch Bay. The drop manhole consists of multiple manholes connected to a vertical pipeline with a size of 18-inch at the base and 12-inch near the top. The pipe extends from the surface elevation of 92.5 feet to an invert elevation of 26.3 feet for a total drop of approximately 66 feet.

For this scenario, the interconnection between the NCI and Lift Station #2 influent would be made permanent. Lift Station #2 would need to be expanded to accommodate the additional capacity. A new force main constructed from Lift Station #2 to the tunnel and then a new pipeline constructed in the tunnel adjacent to the existing 24-inch gravity pipeline. The force main would exit vertically out of the tunnel adjacent to the existing drop manhole in Three Arch Bay and then follow the existing alignment to Lift Station #6.

2.2.4 JBL Expansion and Capital Buy-In

JBL appears to have limited excess treatment capacity under average dry-weather conditions; however, its ability to reliably accommodate additional flow is constrained by hydraulic limitations and peak wet weather conditions. Based on **Table 1-6**, the current average flow to the plant is approximately 7.34 MGD, which is lower than the approximately 8.4 MGD condition evaluated in the 2017 Carollo Technical Memorandum.

The proposed addition of all CTP flows would increase influent by approximately 2.6 MGD, resulting in a combined average flow of approximately 10 MGD. While prior process modeling evaluated increased flow scenarios up to 12.2 MGD and a nominal capacity of 13 MGD, the facility is primarily constrained by hydraulic capacity during peak wet weather conditions, when major treatment processes are fully utilized with minimal redundancy.

For planning purposes, the following assumptions are applied:

- **JBL Buy-In.** Use of existing facilities would require a proportional capacity buy-in, to be determined as part of project-specific negotiations.
- **JBL Capacity Improvements.** To accommodate peak wet weather conditions, capacity relief measures are anticipated, including enhanced primary treatment and targeted hydraulic bottleneck improvements.

2.2.5 CTP Abandonment

CTP abandonment would be similar to Alternative 1, as described in Section 2.1.4, with the exception that the new lift station and basin conversion to equalization would not be required. Instead, those basins would be demolished, adding an additional 12,000 square feet of required demolition.

2.2.6 Regulatory and Permitting Risk

Table 2-15 summarizes the regulatory and permitting requirements for this scenario.

Table 2-15: JBL Regulatory and Permitting Requirements

Category	Description
Caltrans Encroachment Permits (PCH / SR-1)	Construction within Pacific Coast Highway right-of-way will require Caltrans encroachment permits, which impose strict requirements on traffic control, allowable construction methods, and work hours. Limitations on open trenching and potential requirements for trenchless construction may significantly influence design, cost, and schedule.
Coastal Development Permits (CDP)	JBL is located within the Coastal Zone. Any expansion of treatment facilities or modifications to the outfall system will require Coastal Development Permits from the City of Dana Point and may be subject to California Coastal Commission review or appeal.
CEQA Compliance	Due to the scale and visibility of the project, preparation of an Environmental Impact Report (EIR) is likely required. Key issues include traffic, construction-related impacts, biological and cultural resources, and coastal aesthetics. The CEQA process may be prolonged due to stakeholder interest and potential for legal challenge.
RWQCB Permitting	Construction activities will require compliance with the Construction General Permit for stormwater discharges, as well as potential permits for dewatering or non-stormwater discharges. Coordination with the Regional Water Quality Control Board will be necessary for activities affecting surface or groundwater.
Resource Agency Permits	If the project affects jurisdictional waters or drainage features, permits may be required from the California Department of Fish and Wildlife (Lake and Streambed Alteration Agreement) and the U.S. Army Corps of Engineers (Section 404), along with Section 401 water quality certification. A federal nexus could also trigger Section 106 cultural resource review.
Local Agency Permits and Coordination	Work outside of Caltrans right-of-way will require encroachment permits and approvals from the City of Dana Point. Additional coordination will be required for utility conflicts, relocations, and public outreach due to construction impacts in developed areas.
Right-of-Way and Easements	While much of the alignment may follow public corridors, additional easements may be required in constrained segments and for expansion of LS #6. Acquisition within coastal areas may be complex due to limited space and property constraints.
Construction and Traffic Constraints	Construction along PCH will require careful traffic management to maintain access and minimize disruption. Work hour restrictions, seasonal limitations, and high traffic volumes will likely constrain construction windows and extend the schedule.

Similar to Alternative 1, this alternative presents a high level of permitting complexity due to multi-agency coordination, Coastal Zone requirements, and CEQA compliance, in addition to modifications to existing discharge permits and treatment capacity certifications at the JB Latham Treatment Plant.

Additional regulatory and permitting activities would be required for the ultimate decommissioning of the Coastal Treatment Plant (CTP). These activities are assumed to be consistent across all alternatives and are summarized in **Table 2-8**.

2.2.7 Schedule and Implementation Complexity

Implementation of Alternative 2 is expected to involve a moderate to high level of schedule and implementation complexity, driven primarily by the need to expand and integrate flows at the JB Latham Treatment Plant (JBL), construct new conveyance infrastructure, and complete associated regulatory approvals. While this alternative avoids coordination with external agencies such as OC San or MNWD for treatment capacity, it requires significant modifications within SOCWA facilities and systems, including potential plant expansion and outfall capacity considerations.

The overall schedule will be influenced by permitting timelines, particularly CEQA and Coastal Development Permit approvals, as well as the design and construction of new pipelines and lift station improvements. **Figure 2-15** presents a preliminary implementation schedule for this alternative.

Figure 2-15: Alternative 2 Implementation Schedule

Activity	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Conceptual Planning	•	•									
CEQA/Permitting (EIR, CDP, NPDES)		•	•	•	•	•					
Preliminary Design			•	•							
Final Design				•	•						
ROW / Easements			•	•	•						
Construction (Overall)						•	•	•	•	•	
JBL Expansion/Improvements						•	•	•			
Advanced Treatment								•	•		
Recycled Water Connection									•		
LS #6 and Forcemain							•	•			
LS #2 and Forcemain								•	•	•	
Decommission CTP										•	•

2.2.8 Regional/Interagency Coordination

The following regional/interagency coordination is anticipated:

- **Closeout of PC-15.** Coordinate the ultimate shutdown of CTP. SCWD would be the sole owner of all remaining assets at CTP.
- **Modify PC-2 Agreements.** Updates to PC-2 agreements to address capacity ownership, cost-sharing, and operational responsibilities associated with increased flows and potential expansion at JBL.
- **SOCWA Member Agency Agreements.** Coordination among the CLB, City of San Juan Capistrano, SCWD, Santa Margarita Water District, and EBSD to revise flow allocations and funding responsibilities.
- **JBL Capacity Buy-In.** Agreements required among contributing agencies to define proportional capital buy-in, allocation of existing and expanded treatment capacity, and long-term cost participation.

- **Modify PC-23 (NCI Operations).** This alternative reduces or eliminates reliance on the NCI for conveyance to CTP and may require modifications to existing agreements governing ownership, operation, and maintenance responsibilities.

2.2.9 Recycled Water Impacts

With the decommissioning of the CTP, SCWD will require a new source of supply to meet demands within its existing recycled water system. Alternative 2 provides an opportunity to replace this supply through development of recycled water production at JBL.

This has been contemplated and study as part of two previous studies, an initial effort in 2006 and subsequent study in 2017. The former identified an ultimate recycled water production capacity of approximately 9 MGD, with the latter indicating a practical implementation range of approximately 6 to 8 MGD.

The planned approach consisted of upgrading secondary effluent to Title 22 standards using advanced treatment processes. Tertiary membrane filtration (MF/UF) followed by ultraviolet (UV) disinfection was identified as the preferred AWT configuration.

The 2006 planning-level capital cost for the AWT facility was estimated at approximately \$15 million for an ultimate capacity of approximately 9 MGD. Escalated to 2026, this corresponds to an order-of-magnitude cost of approximately \$30 million, excluding RW distribution system improvements and any additional DPR-related upgrades.

To deliver the recycled water, a new pump station and pipeline will be required. The pump station would be sized for a future peak demand of 1.75 MGD and the 12-inch pipeline would extend approximately 5,000 feet from JBL to a connection near Stonehill Drive and Selva Road.

2.3 ALTERNATIVE 3 – REDIRECTION TO RTP

2.3.1 Overview

Under Alternative 3, wastewater flow generated from CLB, EBSD, and northern SCWD is conveyed to the CTP site using the existing collection infrastructure and then is conveyed via the CTP LS and force main to MNWD’s Regional LS. **Table 2-16** summarizes the infrastructure improvements associated with Alternative 3 and **Figure 2-16** identifies the locations of the improvements. **Figure 2-17** provides a revised flow schematic of CLB’s, EBSD’s, and SCWD’s collection systems accounting for the flow redirections to the JBL.

Table 2-16: Alternative 3 Infrastructure Improvements Summary

No.	Infrastructure Improvement Description
1	CTP LS Force Main. New sewer pipeline consisting of 16,760-foot 16-inch HDPE force main from the new CTP LS located at the CTP's west primary sedimentation basin to MNWD's Transfer LS located near the intersection of Sulphur Creek and Alicia Pkwy. Assumed to use the alignment of MNWD's inactive 18-inch VCP gravity pipeline.

Table 2-16: Alternative 3 Infrastructure Improvements Summary	
No.	Infrastructure Improvement Description
2	New CTP LS. New lift station consisting of conversion of the existing CTP West Primary Sedimentation Basin to approximately 600,000 gallons of equalization storage and four (three duty and one standby) 125 HP pumps sized at approximately 1,530 gpm at 245 feet TDH each. Includes an emergency generator.
5	RTP Expansion and Capital Buy-In. Improvements per Section 2.3.4
6	CTP Abandonment. Abandonment per Section 2.3.5.

2.3.2 Infrastructure Sizing

This section presents planning-level sizing of the CTP LS and force main identified for Alternative 3 in **Table 2-16**. The sizing is intended to establish the general scope of required infrastructure to support evaluation of order-of-magnitude costs. These preliminary assumptions are appropriate for alternatives screening; final sizing and design will require refinement through detailed hydraulic analysis and engineering during subsequent project phases.

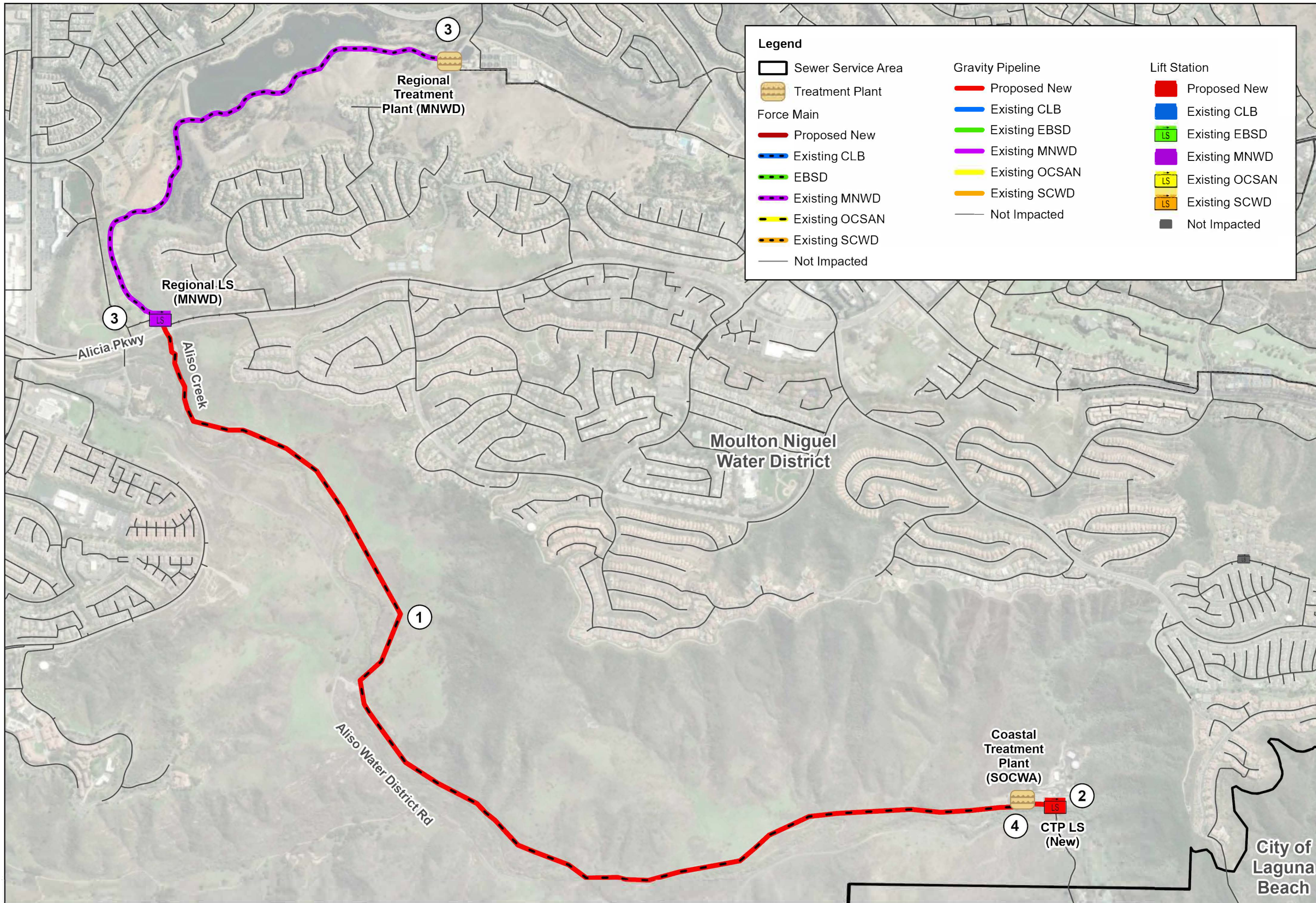
2.3.2.1 CTP Lift Station Design Flow

Table 2-17 provides a summary of the new CTP LS design capacity for Alternative 3.

Table 2-17: Alternative 3 CTP LS Design Capacity	
Design Capacity (GPM)	# Pumps at Design Flow (gpm)
4,590 ¹	4 @ 1,530
Notes:	
1. Sized to meet CLB, EBSD, and SCWD combined maximum average daily wet weather flow of 6.6 MGD	

2.3.2.2 CTP Lift Station Equalization Basin

The new CTP LS will include an equalization within the existing CTP West Primary Sedimentation Basin to provide operational storage and peaking attenuation of wet weather flows greater than the lift station's capacity. Preliminary sizing of the equalization basin was established based on the maximum average daily wet weather flow observed over the past five years on February 6th, 2024 for combined CLB, EBSD, and SCWD flows. All flows exceeding the lift station's design capacity of 6.6 MGD (4,590 gpm) were totaled during the peaking event and converted to a storage volume requirement. **Figure 2-18** shows the 15-minute interval peak wet weather flows observed during the February 6th, 2024 event and identifies the total lift station storage requirement for equalization.



Legend

Sewer Service Area	Gravity Pipeline	Lift Station
Treatment Plant	Proposed New	Proposed New
Force Main	Existing CLB	Existing CLB
Proposed New	Existing EBSD	Existing EBSD
Existing CLB	Existing MNWD	Existing MNWD
EBSD	Existing OCSAN	Existing OCSAN
Existing MNWD	Existing SCWD	Existing SCWD
Existing OCSAN	Not Impacted	Not Impacted
Existing SCWD		
Not Impacted		



South Orange County Wastewater Authority
CTP Regional Flow Study

Figure 2-16
 Alternative 3 Infrastructure Improvements



1 inch = 1,200 feet
 0 600 1,200



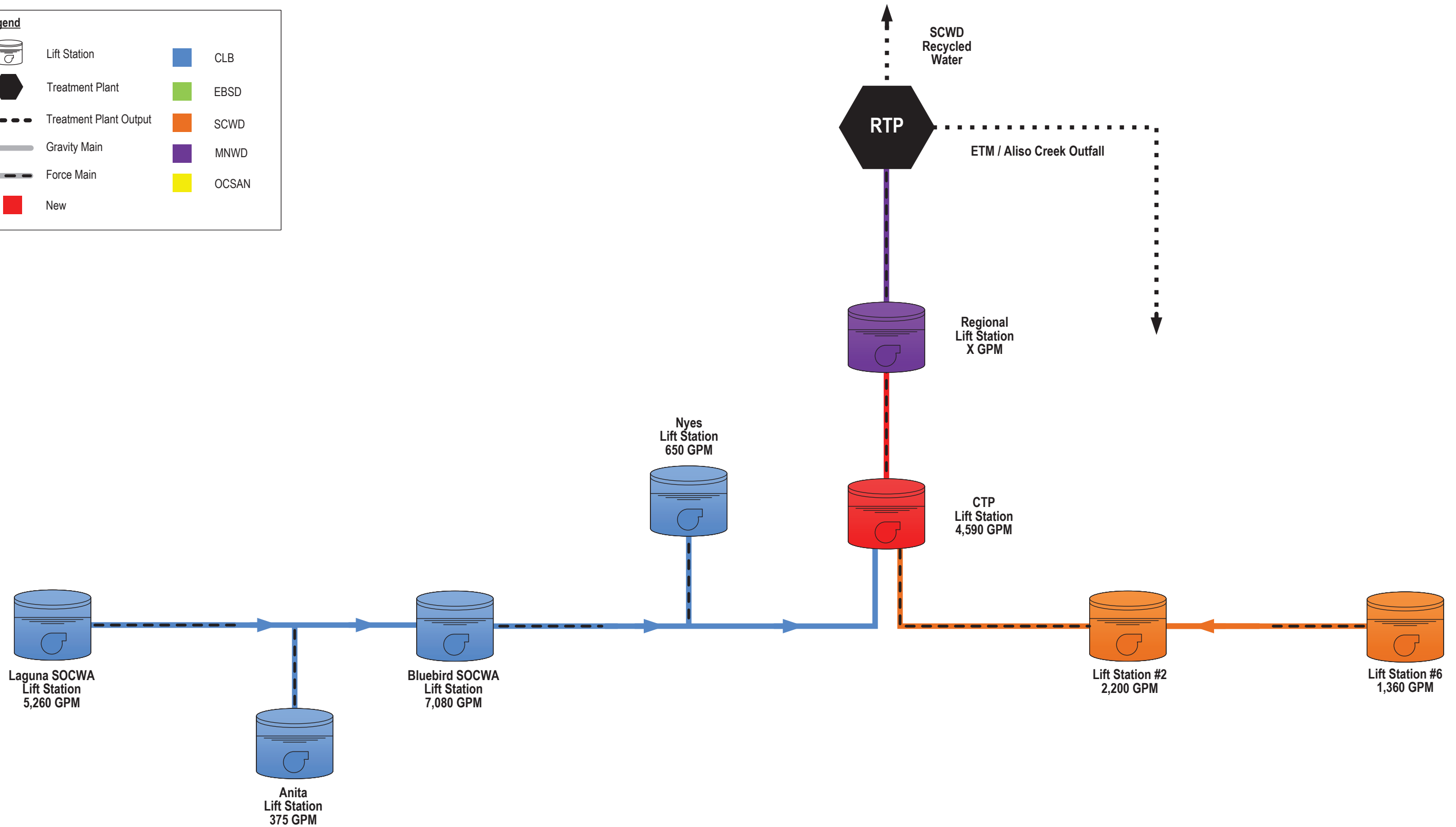
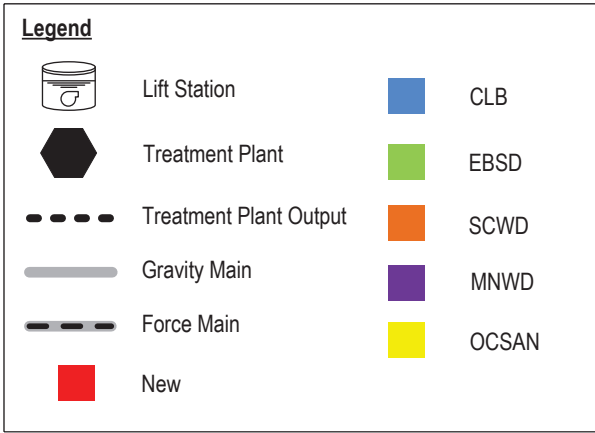
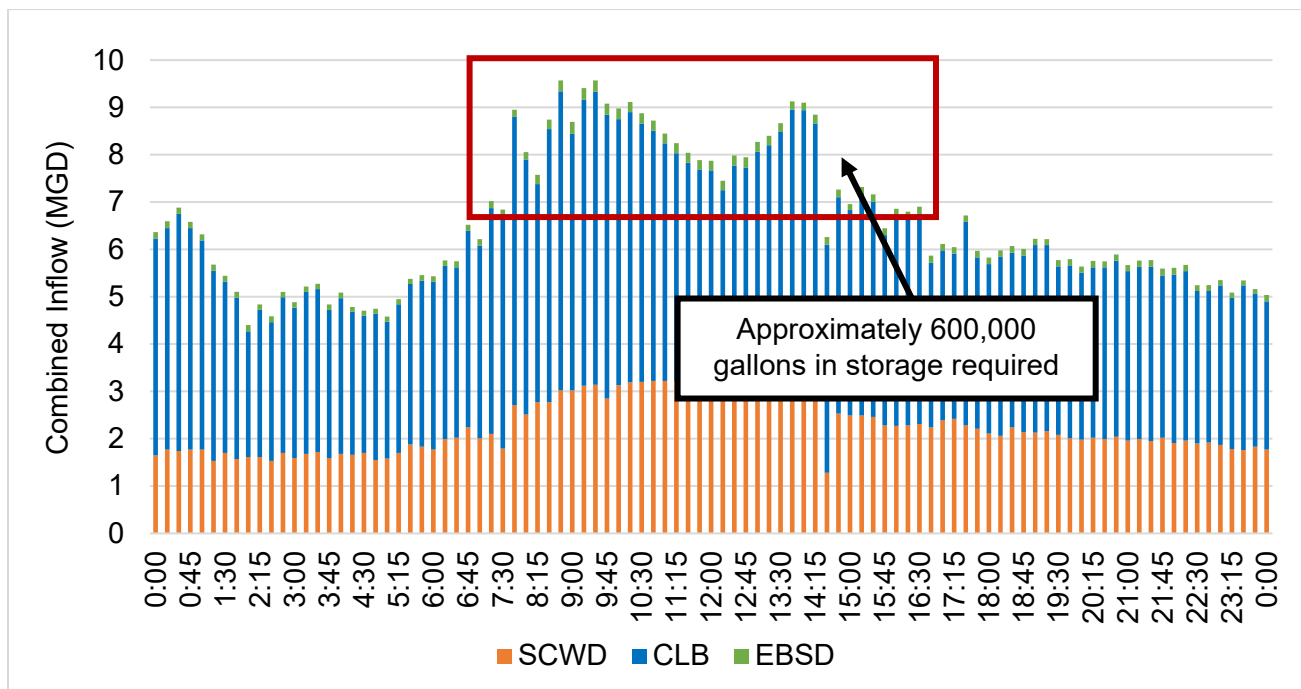


Figure 2-18: Alternative 3 Storage Requirement for New CTP LS



With approximately 600,000 gallons of storage required, a 20-foot x 40-foot x 100-foot multi-chamber concrete basin is recommended.

2.3.2.3 CTP Lift Station Force Main Pipeline Diameter

Using the CTP LS design capacity sized for Alternative 3 in **Table 2-16**, a pipeline diameter was selected for the CTP LS force main. **Table 2-18** summarizes the recommended force main pipeline diameter and hydraulic results.

Table 2-18: Alternative 3 CTP LS Force Main Pipeline Diameter				
Flow (GPM)		Diameter (in)	Pipeline Velocity (ft/s)	
Min ¹	Max ²		Min	Max
1,530	4,590	16	2.4	7.3

Notes:

- One duty pump active
- All duty pumps active
- Per Table 1-13, force mains should be designed to produce velocities between 2 ft/s and 8 ft/s

2.3.2.4 CTP Lift Station Total Dynamic Head

A preliminary design TDH was determined for the new CTP LS using the design capacity from **Table 2-17** and the pipeline diameter from **Table 2-18**. **Table 2-19** provides a summary of the new CTP LS' design TDH.

Table 2-19: Alternative 3 CTP LS Design TDH	
Design Capacity (gpm)	TDH (ft) ¹
4,590	245
Notes: 1. TDH = Static Lift + Friction Losses. Friction losses approximated using the Hazen Williams formula with an assumed "C Factor" of 140	

2.3.2.5 CTP Lift Station Horsepower

With the design capacity and TDH determined for the new CTP LS, the minimum and recommended design horsepower for was determined. **Table 2-20** provides a summary of the recommended horsepower.

Table 2-20: Alternative 3 CTP LS Design HP			
Design Capacity per Pump (GPM)	Design TDH per Pump (ft)	Min Required HP per Pump ¹	Design HP per Pump
1,530	245	118	125
Notes: 1. Minimum required HP calculated using an assumed combined pump and motor efficiency of 65% 2. Design HP selected by rounding minimum required HP to next largest standard size			

2.3.3 RTP Expansion and Capital Buy-In

RTP appears to have sufficient available capacity to accommodate SCWD flows under average dry-weather conditions. As shown in **Table 1-6**, the current average flow is approximately 7.18 MGD compared to a design capacity of 12 MGD. The proposed addition of all CTP flows would increase influent by approximately 2.6 MGD, resulting in a total average flow of roughly 9.8 MGD, which remains within the available design capacity. While average capacity is available, wet weather hydraulic and tertiary treatment constraints may limit operational flexibility and require further evaluation.

While detailed data are not available to fully assess peak wet weather conditions, it is assumed that influent equalization at the CTP could be implemented to attenuate peak flows. This approach would reduce hydraulic surcharging risks and minimize impacts to both the Regional Lift Station and RTP during wet weather events. Confirmation of available peak capacity and conveyance limitations would require further hydraulic modeling and coordination with MNWD.

The following major capital improvements/expenditures are anticipated:

- **RTP Capacity Buy-In and Expansion.** Use of existing treatment capacity would require a proportional capital buy-in, to be established through project-specific negotiations with MNWD. In addition, at this flow rate it is anticipated that expansion to the liquid stream treatment process would be required. RTP already processes all solids from CTP, so no expansion is anticipated related to solids.
- **Advanced Water Treatment (AWT) Expansion/Buy-In.** SCWD requires a reliable recycled water supply. To ensure availability during peak demand periods, expansion of the existing AWT facilities—or a proportional buy-in to existing capacity—is assumed to provide approximately 1.75 MGD of firm recycled water production during peak demand months.

- **Regional Lift Station/Force-Main Buy-In.** Use of existing pumping and conveyance capacity would require a proportional capital buy-in, to be established through project-specific negotiations with MNWD.

2.3.4 CTP Abandonment and New LS

CTP abandonment would be similar to Alternative 1, with the exception that the new lift station and basin conversion to equalization would be constructed larger to accommodate the full flow of all CTP flow.

2.3.5 Regulatory and Permitting Risk

Table 2-21 summarizes the regulatory and permitting requirements for this scenario.

Table 2-21: JBL Regulatory and Permitting Requirements	
Category	Description
CEQA Compliance	Due to the scale of proposed conveyance improvements and expansion of facilities at the RTP, preparation of an EIR is anticipated. A key consideration will be construction of the new pipeline between the CTP LS and the MNWD Regional Lift Station, which may result in impacts to Aliso Creek, biological resources, and environmentally sensitive habitats. Additional considerations include construction-related impacts, cultural resources, and potential impacts associated with expansion of treatment facilities at RTP.
RWQCB Permitting	Modifications to RTP treatment processes and increased discharge flows will likely require updates to existing Waste Discharge Requirements (WDRs) and/or NPDES permits. Construction activities will require compliance with the Construction General Permit and potential dewatering permits. Coordination with the Regional Water Quality Control Board will be required.
Resource Agency Permits	If the project affects jurisdictional waters or drainage features, permits may be required from the California Department of Fish and Wildlife (Lake and Streambed Alteration Agreement) and the U.S. Army Corps of Engineers (Section 404), along with Section 401 water quality certification. A federal nexus could also trigger Section 106 cultural resource review.
Right-of-Way and Easements	While much of the alignment may follow within existing pipeline easements, there may be a need for temporary construction easements to allow for staging and access.

Compared to the other alternatives, this alternative presents a relatively lower level of regulatory and permitting complexity. While CEQA compliance and resource agency permitting will still be required, particularly for construction of the new pipeline between the CTP LS and MNWD Regional LS within the Aliso Creek corridor, the overall permitting pathway is more streamlined. This is primarily due to the use of a single receiving treatment facility (RTP) and the absence of Coastal Zone permitting or out-of-area service agreements with external agencies such as OC San.

Additional regulatory and permitting activities would be required for the ultimate decommissioning of the Coastal Treatment Plant (CTP). These activities are assumed to be consistent across all alternatives and are summarized in Table 2-8.

2.3.6 Schedule and Implementation Complexity

Implementation of Alternative 3 is expected to involve a moderate level of schedule and implementation complexity, driven primarily by the need to construct new conveyance infrastructure and expand facilities at the Regional Treatment Plant (RTP) to accommodate full CTP flows. While RTP appears to have sufficient capacity under average dry weather conditions, additional improvements will be required to address peak wet weather hydraulics, tertiary treatment capacity, and outfall constraints.

The overall schedule will be influenced by CEQA compliance and resource agency permitting, particularly for construction of the new pipeline between the CTP LS and MNWD Regional LS within the Aliso Creek corridor, as well as the design and phased expansion of RTP facilities. Compared to the other alternatives, this alternative benefits from a more streamlined implementation approach due to reliance on a single receiving facility and the absence of Coastal Zone permitting requirements.

Figure 2-19 presents a preliminary implementation schedule for this alternative.

Figure 2-19: Alternative 3 Implementation Schedule

Activity	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Conceptual Planning	•	•									
CEQA/Permitting (EIR, CDP, NPDES)		•	•	•	•	•					
Preliminary Design			•	•							
Final Design				•	•						
ROW / Easements			•	•	•						
Construction (Overall)						•	•	•	•	•	
RTP Treatment Expansion						•	•				
RTP Title 22 Treatment Expansion							•	•			
Regional LS Modifications								•	•		
MNWD Title 22 Piping										•	
CTP LS Conversion								•	•		
CTP to Regional LS Pipeline								•	•		
Decommission CTP									•	•	

2.3.7 Regional/Interagency Coordination

The following regional/interagency coordination is anticipated:

- **Modify PC-15.** PC-15 would be converted solely to a conveyance agreement with no treatment occurring.
- **MNWD Discharge Agreement.** Agreement between MNWD/SCWD for wastewater discharge as discussed in Section 2.3.3. Agreement will also need to cover return of recycled water as discussed in Section 2.3.8.

2.3.8 Recycled Water Impacts

Similar to Alternative 1, SCWD could receive recycled water from MNWD via Reservoir No. 3. With additional flow being provided by CLB and EBSD, additional capacity could be returned sufficient for buildout which is noted as 1,200 AFY. At a 1.64 peaking factor, this equates to maximum demand of 1.75 MGD.

2.3.9 New Water Opportunities

MNWD is currently advancing the OASIS program, a planned potable reuse initiative intended to produce purified water for regional supply. The program is anticipated to be operational in the late 2030s and would utilize advanced treatment processes to convert secondary effluent into a new, drought-resilient water supply.

At this stage, the OASIS program remains in early planning and development, and project costs and participation structures have not yet been defined. However, MNWD has indicated that there may be opportunities for participating agencies to pursue a proportional buy-in to the program, subject to future agreements and program development.

DRAFT





**SOUTH ORANGE COUNTY
WASTEWATER AUTHORITY**

**COASTAL TREATMENT PLANT
REGIONAL PLANNING STUDY**

JUNE XX, 2026

PREPARED FOR:

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
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TABLE OF CONTENTS

1.0	BACKGROUND AND ASSUMPTIONS	1-1
1.1	PROJECT BACKGROUND	1-1
1.2	OBJECTIVE.....	1-1
1.3	EXISTING INFRASTRUCTURE	1-2
1.3.1	Regional Wastewater Treatment and Outfall Facilities.....	1-2
1.3.2	Regional Wastewater Collection Systems.....	1-7
1.3.3	Regional Recycled Water Systems.....	1-11
1.3.4	Coastal Supply Pipeline.....	1-12
1.4	PROJECT ASSUMPTIONS	1-12
1.4.1	Wastewater Flow	1-12
1.4.2	Costs.....	1-16
1.5	INFRASTRUCTURE DESIGN CRITERIA.....	1-20
1.6	ALTERNATIVES EVALUATION CRITERIA.....	1-20
2.0	TECHNICAL FEASIBILITY ASSESSMENT.....	2-1
2.1	ALTERNATIVE 1 – REDIRECTION TO OC SAN PLANT NO. 2 AND RTP.....	2-1
2.1.1	Overview	2-1
2.1.3	New Transfer LS.....	2-13
2.1.4	CTP Abandonment and New CTP LS.....	2-13
2.1.5	Regional Treatment Plant Buy-In.....	2-15
2.1.6	Regulatory and Permitting Risk	2-15
2.1.7	Schedule and Implementation Complexity.....	2-18
2.1.8	Regional/Interagency Coordination.....	2-19
2.1.9	Recycled Water Impacts.....	2-19
2.1.10	New Water Opportunities.....	2-20
2.2	ALTERNATIVE 2 – REDIRECTION TO JBL.....	2-20
2.2.1	Overview	2-20
2.2.2	Infrastructure Sizing.....	2-21
2.2.3	Tunnel Use	2-26
2.2.4	JBL Expansion and Capital Buy-In	2-27
2.2.5	CTP Abandonment.....	2-27
2.2.6	Regulatory and Permitting Risk	2-27
2.2.7	Schedule and Implementation Complexity.....	2-29
2.2.8	Regional/Interagency Coordination.....	2-29
2.2.9	Recycled Water Impacts.....	2-30

2.3	ALTERNATIVE 3 – REDIRECTION TO RTP	2-30
2.3.1	Overview	2-30
2.3.2	Infrastructure Sizing.....	2-31
2.3.3	RTP Expansion and Capital Buy-In	2-35
2.3.4	CTP Abandonment and New LS.....	2-36
2.3.5	Regulatory and Permitting Risk	2-36
2.3.6	Schedule and Implementation Complexity.....	2-37
2.3.7	Regional/Interagency Coordination.....	2-37
2.3.8	Recycled Water Impacts.....	2-38
2.3.9	New Water Opportunities.....	2-38
3.0	COST EVALUATION	3-1
3.1	Baseline.....	3-1
3.2	Alternative 1 – Redirection to OC San Plant No. 2 and MNWD RTP.....	3-3
3.3	Alternative 2 – Redirection to SOCWA JB Latham Treatment Plant.....	3-4
3.4	Alternative 3 – Redirection to MNWD Regional Treatment Plant.....	3-5
3.5	Cost Comparison.....	3-6
4.0	ANALYSIS AND RECOMMENDATIONS	4-11
4.1	Alternatives Analysis.....	4-11
4.2	Recommendation.....	4-11
4.3	Implementation.....	4-11

LIST OF TABLES

Table 1-1: Aliso Creek Ocean Outfall (PC-24) Ownership.....	1-6
Table 1-2: CLB Relevant Lift Stations	1-8
Table 1-3: OC San Relevant Lift Stations.....	1-9
Table 1-4: SCWD Relevant Lift Stations	1-10
Table 1-5: Agency Flow Contributions to CTP	1-15
Table 1-6: Treatment Plant Capacity (MGD).....	1-16
Table 1-7: Lift Station Summary.....	1-16
Table 1-8: Plant Operating Costs.....	1-16
Table 1-9: Impacted Capital Improvement Projects.....	1-17
Table 1-10: OC San Connection Costs	1-18
Table 1-11: Economic Evaluation Assumptions	1-19
Table 1-12: Infrastructure Unit Costs	1-20
Table 1-13: Infrastructure Design Criteria	1-20
Table 1-14: Evaluation Criteria and Scoring Guidance.....	1-21
Table 2-1: Alternative 1 Infrastructure Improvements Summary.....	2-2
Table 2-2: Alternative 1 Lift Station Design Capacity	2-9
Table 2-3: Alternative 1 Force Main Pipeline Diameter	2-11
Table 2-4: Alternative 1 Gravity Pipeline Diameter.....	2-11
Table 2-5: Alternative 1 Lift Station Design TDH.....	2-12
Table 2-6: Alternative 1 Lift Station Design HP	2-12
Table 2-7: OC San Regulatory and Permitting Requirements	2-17
Table 2-8: CTP Decommissioning Requirements.....	2-18
Table 2-9: Alternative 2 Infrastructure Improvements Summary.....	2-20
Table 2-10: Alternative 2 Lift Station Design Capacity	2-21
Table 2-11: Alternative 2 Force Main Pipeline Diameter	2-25
Table 2-12: Alternative 2 Gravity Pipeline Diameter.....	2-25
Table 2-13: Alternative 2 Lift Station Design TDH.....	2-25
Table 2-14: Alternative 2 Lift Station Design HP	2-26
Table 2-15: JBL Regulatory and Permitting Requirements.....	2-28
Table 2-16: Alternative 3 Infrastructure Improvements Summary.....	2-30
Table 2-17: Alternative 3 CTP LS Design Capacity.....	2-31
Table 2-18: Alternative 3 CTP LS Force Main Pipeline Diameter	2-34
Table 2-19: Alternative 3 CTP LS Design TDH	2-35
Table 2-20: Alternative 3 CTP LS Design HP.....	2-35
Table 2-21: JBL Regulatory and Permitting Requirements.....	2-36
Table 3-1: Summary of 40-Year Cumulative Cost Comparison	3-7
Table 3-2: Key Cost Drivers Upper and Lower Bound Values	3-8
Table 3-3: Summary of Lower Bound 40-Year Cumulative Cost Comparison	3-9

LIST OF FIGURES

Figure 1-1: OC San Relevant Infrastructure	1-3
Figure 1-2: EBSD and CLB Relevant Infrastructure	1-4
Figure 1-3: SCWD Relevant Infrastructure	1-5
Figure 1-4: CTP Process Schematic	1-6
Figure 1-5: OC San Collection System Capacity	1-10
Figure 1-6: Baseline Flow Schematic	1-13
Figure 1-7: Historical CTP Influent	1-14
Figure 1-8: Peak Wet Weather Flow	1-15
Figure 2-1: Alternative 1 Overview	2-4
Figure 2-2: Infrastructure Improvement Locations (Part 1)	2-5
Figure 2-3: Alternative 1 Infrastructure Improvement Locations (Part 2)	2-6
Figure 2-4: Alternative 1 Infrastructure Improvement Locations (Part 3)	2-7
Figure 2-5: Alternative 1 Flow Path Schematic	2-8
Figure 2-6: Storage Requirement for New Transfer LS	2-10
Figure 2-7: Alternative 1 Storage Requirement for New CTP LS	2-10
Figure 2-8: Alternative 1 New Transfer LS	2-14
Figure 2-9: CTP Abandonment and CTP Lift Station	2-16
Figure 2-10: Alternative 1 Implementation Schedule	2-19
Figure 2-11: Alternative 2 Infrastructure Improvement Locations (Part 1)	2-22
Figure 2-12: Alternative 2 Infrastructure Improvement Locations (Part 2)	2-23
Figure 2-13: Alternative 2 Flow Path Schematic	2-24
Figure 2-14: Sample Cross Section of Sewer Tunnel	2-26
Figure 2-15: Alternative 2 Implementation Schedule	2-29
Figure 2-16: Alternative 3 Infrastructure Improvement Locations	2-32
Figure 2-17: Alternative 3 Flow Path Schematic	2-33
Figure 2-18: Alternative 3 Storage Requirement for New CTP LS	2-34
Figure 2-19: Alternative 3 Implementation Schedule	2-37
Figure 3-1: Baseline Annual Costs	3-2
Figure 3-2: Alternative 1 Annual Costs	3-4
Figure 3-3: Alternative 2 Annual Costs	3-5
Figure 3-4: Alternative 3 Annual Costs	3-6
Figure 3-5: Summary of 40-Year Cumulative Cost Comparison	3-7
Figure 3-6: Upper and Lower Bound Total Cost Comparison	3-9
Figure 3-7: Cumulative Cost (Undiscounted) per Year	3-10

LIST OF APPENDICES

- Appendix A: Financial Detail
- Appendix B: [Title]
- Appendix C: [Title]

List of Abbreviations

AACE	Association for the Advancement of Cost Engineering	JBL	JB Latham Treatment Plant
ACWRF	Aliso Creek Water Reclamation Facility	kWh	Kilowatt-Hours
AFY	Acre-Feet per Year	LAFCO	Local Agency Formation Commission
BPS	Booster Pump Station	LBCWD	Laguna Beach County Water District
c/o	Care Of	LF	Linear Feet
CEQA	California Environmental Quality Act	MBR	Membrane Bioreactor
CIP	Capital Improvement Program	MG	Million Gallons
CLB	City of Laguna Beach	MGD	Million Gallons per Day
CMLCS	Cement Mortar Lined and Coated Steel	mi	Miles
CSC	City of San Clemente	MKN	Michael K. Nunley and Associates, LLP
CSJC	City of San Juan Capistrano	MNWD	Moulton Niguel Water District
CTP	Coastal Treatment Plant	NCI	North Coast Interceptor
DPR	Direct Potable Reuse	NPDES	National Pollutant Discharge Elimination System
EBSD	Emerald Bay Service District	OASIS	Optimized Adaptive Sustainable Integrated Supply
ETM	Effluent Transmission Main	OC San	Orange County Sanitation District
ETWD	El Toro Water District	OCWD	Orange County Water District
ft	Feet	O&M	Operations and Maintenance
FY	Fiscal Year	PC	Project Committee
GIS	Geographic Information System	PDWF	Peak Dry Weather Flow
gpd	Gallons per Day	RTP	Regional Treatment Plant
gph	Gallons per Hour	SCWD	South Coast Water District
gpm	Gallons per Minute	SMWD	Santa Margarita Water District
GWRS	Ground Water Replenishment System	SOCWA	South Orange County Wastewater Authority
HDPE	High-Density Polyethylene	TDS	Total Dissolved Solids
in.	Inches	VFD	Variable Frequency Drive
IRWD	Irvine Ranch Water District / Irvine Water District		

Previous Studies and Reports

The following studies, reports, and other materials were reviewed during the preparation of this Report:

1. City of Laguna Beach Sewer Master Plan (Dudek, 2025)
2. Fiscal Year 2025–26 Budget (SOCWA, 2025)
3. Emerald Bay Service District Lift Station Condition Assessment Summary (MKN, 2021)
4. Coastal Treatment Plant Future Alternatives Feasibility Study (Hazen, 2021)
5. Coastal Treatment Plant Export Sludge Force Main Replacement (Dudek, 2020)
6. North Coast Interceptor – Reliability Assessment & Analysis (Dudek, 2020)
7. Aliso Creek Estuary Restoration – Conceptual Restoration Plan (ESA, 2018)
8. South Coast Water District Infrastructure Master Plan Update (AECOM, 2017)
9. Coastal Treatment Plant Facility Plan (CH2M Hill, 2014)
10. Export Sludge Force Main Replacement for the South Coast Water District – Phase I Laguna Niguel Regional Park Section (HYA Consulting Engineers, 1998)
11. Coast Supply Line Replacement – Section 1A (James M. Montgomery, 1991)
12. Coast Supply Line Replacement – Section 3 (James M. Montgomery, 1990)
13. JBTLP Package B Planning – Technical Memorandum No. 1 Liquid Treatment Train Analysis (Carollo, 2017)

3.0 COST EVALUATION

This section presents a planning-level cost evaluation of the following four scenarios:

- Baseline – No Flow Redirection
- Alternative 1 – Redirection to OC SAN Plant No. 2 and MNWD RTP
- Alternative 2 – Redirection to SOCWA JBL
- Alternative 3 – Redirection to MNWD RTP

The purpose of this evaluation is to provide a consistent and comparative assessment of the anticipated capital and operations and maintenance (O&M) costs associated with each scenario over a 40-year planning period to support screening and decision-making. Capital costs were developed to reflect the infrastructure and facility improvements required to implement each scenario and support the continued operation of conceptual infrastructure improvements and treatment facilities receiving PC-15 flow.

Capital costs include conceptual infrastructure improvements, construction contingency, engineering design, project management allowances, existing CIP projects, and future CIP projections. O&M costs were developed to reflect the long-term operational requirements of each alternative, including labor, power, chemicals, maintenance, residuals handling, and any contractual or treatment-related costs associated with conveyance to or treatment at regional facilities.

All cost estimates presented herein are informed by the infrastructure configurations and operational considerations described in Section 2 and calculated based on assumed flows, existing CIP projects, unit costs, and economic evaluation criteria established in Section 1, as well as any additional cost assumptions identified in each scenario's cost evaluation section below. The results of this evaluation provide the basis for the comparative cost analysis presented in Section 3.3 and support the overall alternatives assessment in Section 4.

3.1 Baseline

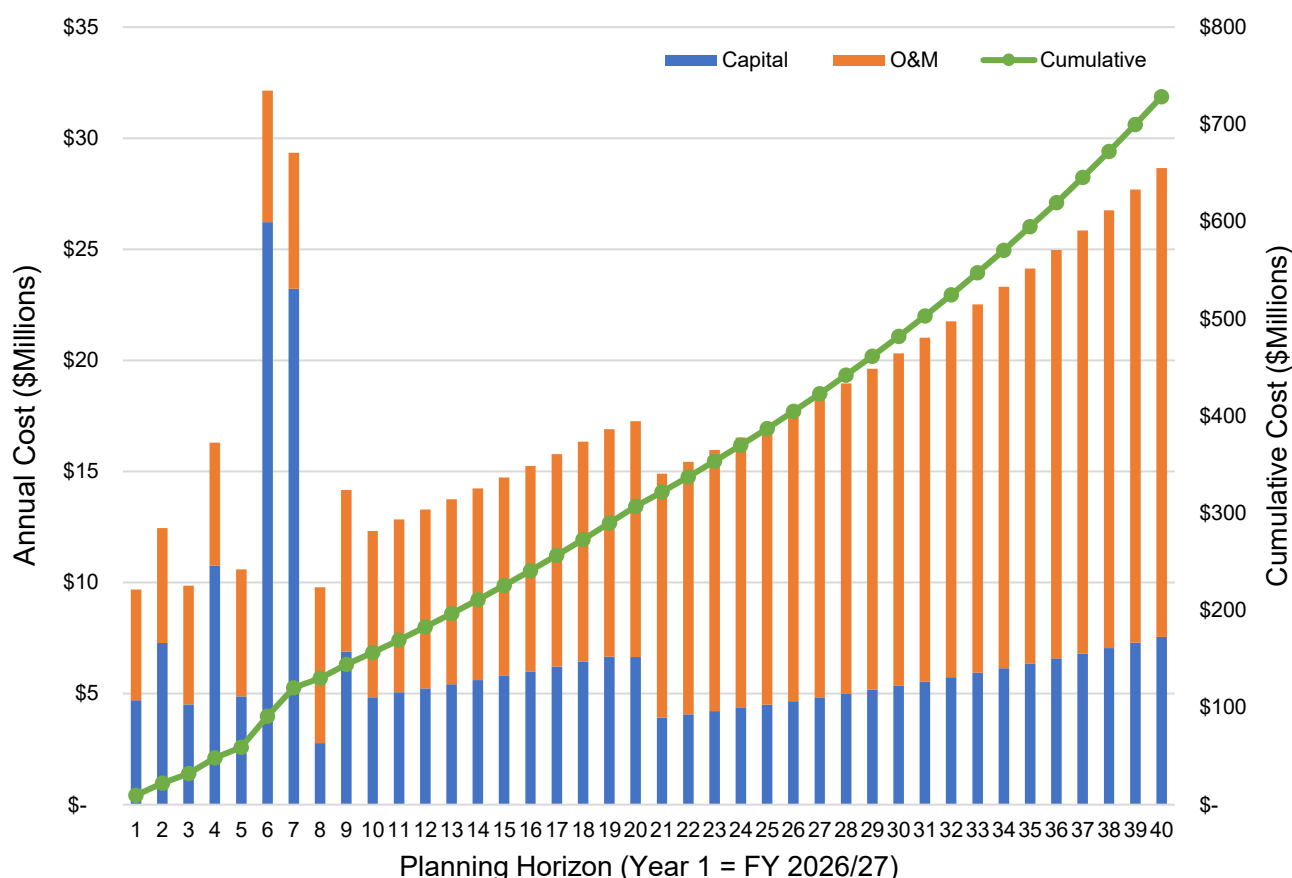
A baseline scenario was established to provide a consistent point of financial comparison for the evaluated alternatives. This baseline represents the “no flow redirection” condition, in which none of the alternatives from Section 2 are implemented and the CTP continues to operate under existing conditions. In addition to the flow assumptions, unit costs, and economic evaluation criteria set forth in Section 1, the following additional cost assumptions are made for the baseline scenario:

- **Live Stream Initial Capital and Annual O&M.** Under the baseline scenario, CLB is assumed to pursue beneficial reuse of its proportionate share of influent currently treated at CTP, requiring implementation of advanced treatment processes. For planning-level cost estimating, this analysis references the “CTP Future Alternatives Feasibility Study Technical Memorandum” (Hazen, May 2021). The live stream discharge approach is assumed to be consistent with the report's Alternative 2 – Membrane Bioreactor (MBR), which was estimated at approximately \$28,800,000 capital and \$465,000 annual O&M in October 2021 dollars. Escalated to 2026 dollars, total cost is estimated at \$31,806,000 initial required capital and \$528,000 annual O&M adjusted for inflation.

- **Live Stream Future CIP.** For years following completion of live stream construction, a one percent annual capital replacement allowance adjusted for inflation is applied to the initial total capital cost to account for required future capital improvements associated with the new facility.
- **SOCWA CTP Future CIP.** For years following the 20-year planning horizon of the CTP’s existing CIP, a three percent annual capital replacement allowance adjusted for inflation is applied to the total existing CIP cost to account for required future capital improvements associated with the existing facility.
- **MNWD RTP Biosolids Future CIP.** For years following the 10-year planning horizon of the RTP’s existing biosolids CIP, a three percent annual capital replacement allowance adjusted for inflation is applied to the total existing CIP cost and adjusted for inflation to account for required future capital improvements associated with the existing facility.

Figure 3-1 identifies the estimated baseline annual cost anticipated over the planning period. A detailed breakdown of baseline annual capital and O&M costs over the planning period are provided in **Appendix A**.

Figure 3-1: Baseline Annual Costs



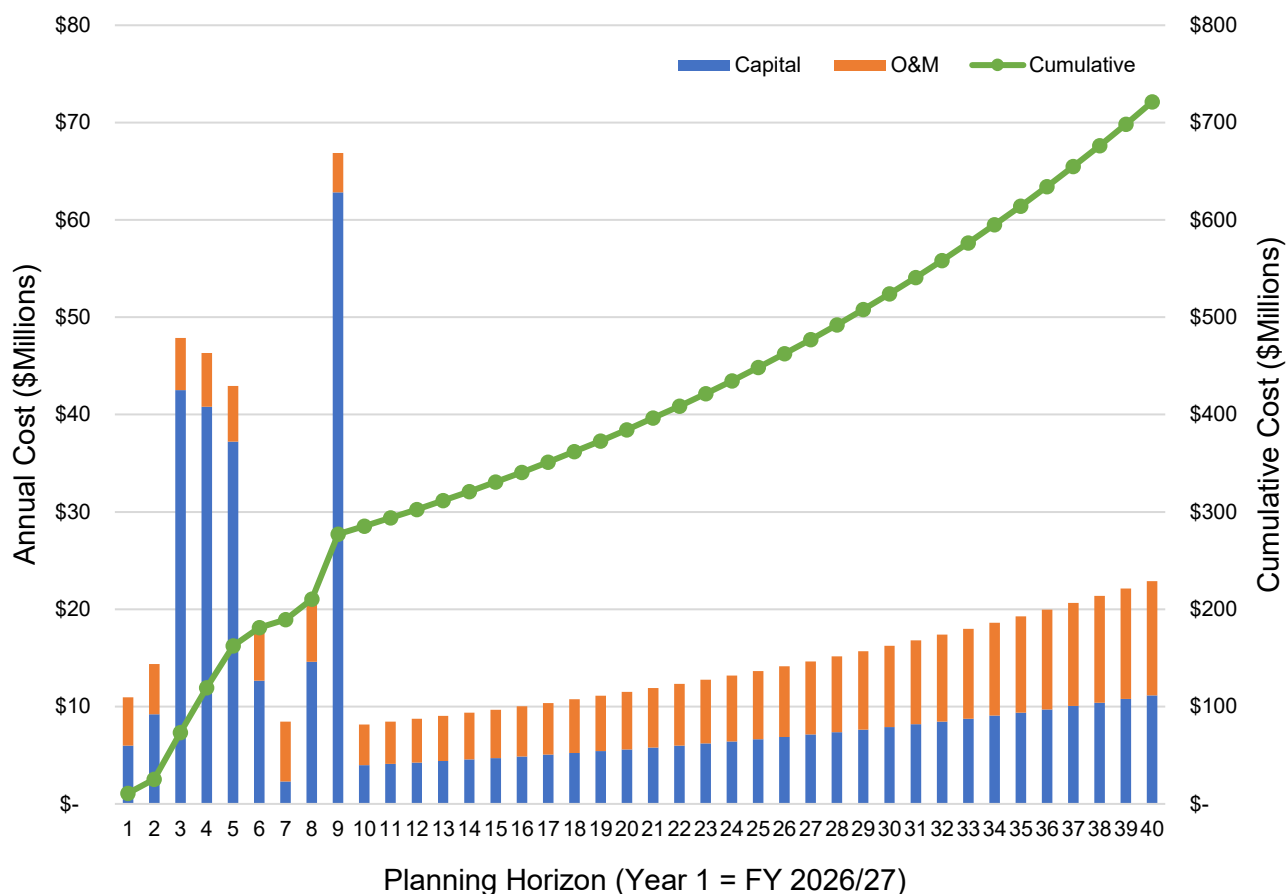
3.2 Alternative 1 – Redirection to OC San Plant No. 2 and MNWD RTP

Alternative 1 represents the scenario in which CLB and EBSD flows are redirected to OC San's Treatment Plant No. 2 and SCWD flows are redirected to MNWD's RTP. In addition to the flow assumptions, unit costs, and economic evaluation criteria set forth in Section 1, the following additional cost assumptions are made for the Alternative 1 scenario:

- **SOCWA CTP Existing CIP.** Only essential projects identified in the existing CIP are completed prior to abandonment of the CTP. For FY 2026/27 through FY 2028/29, it is assumed that 75% of each year's capital cost is required. For following years until abandonment of the CTP, a \$250,000 annual capital cost adjusted for inflation is assumed.
- **CLB Existing CIP Capital Offset.** All reaches of CLB's NCI are anticipated to be abandoned or used for their alignment under Alternative 1. Capital costs associated with existing CIP projects for the NCI are subtracted against the total annual capital cost for applicable fiscal years.
- **Conceptual Infrastructure Improvements Future CIP.** For years following completion of all conceptual infrastructure improvements, a one percent annual capital replacement allowance adjusted for inflation is applied to the initial total capital cost to account for required future capital improvements associated with the new facility.
- **MNWD RTP Future CIP.** For years following capital buy-in, a three percent annual capital replacement allowance adjusted for inflation is applied to the total capital-buy in cost to account for required capital improvements associated with the existing facility.
- **OC San Plant No. 2 Future CIP.** For years following capital buy-in, a three percent annual capital replacement allowance adjusted for inflation is applied to the total capital-buy in cost to account for required capital improvements associated with the existing facility.

Figure 3-2 identifies the estimated Alternative 1 annual cost anticipated over the planning period. A detailed breakdown of Alternative 1 annual capital and O&M costs over the planning period are provided in **Appendix A**.

Figure 3-2: Alternative 1 Annual Costs



3.3 Alternative 2 – Redirection to SOCWA JB Latham Treatment Plant

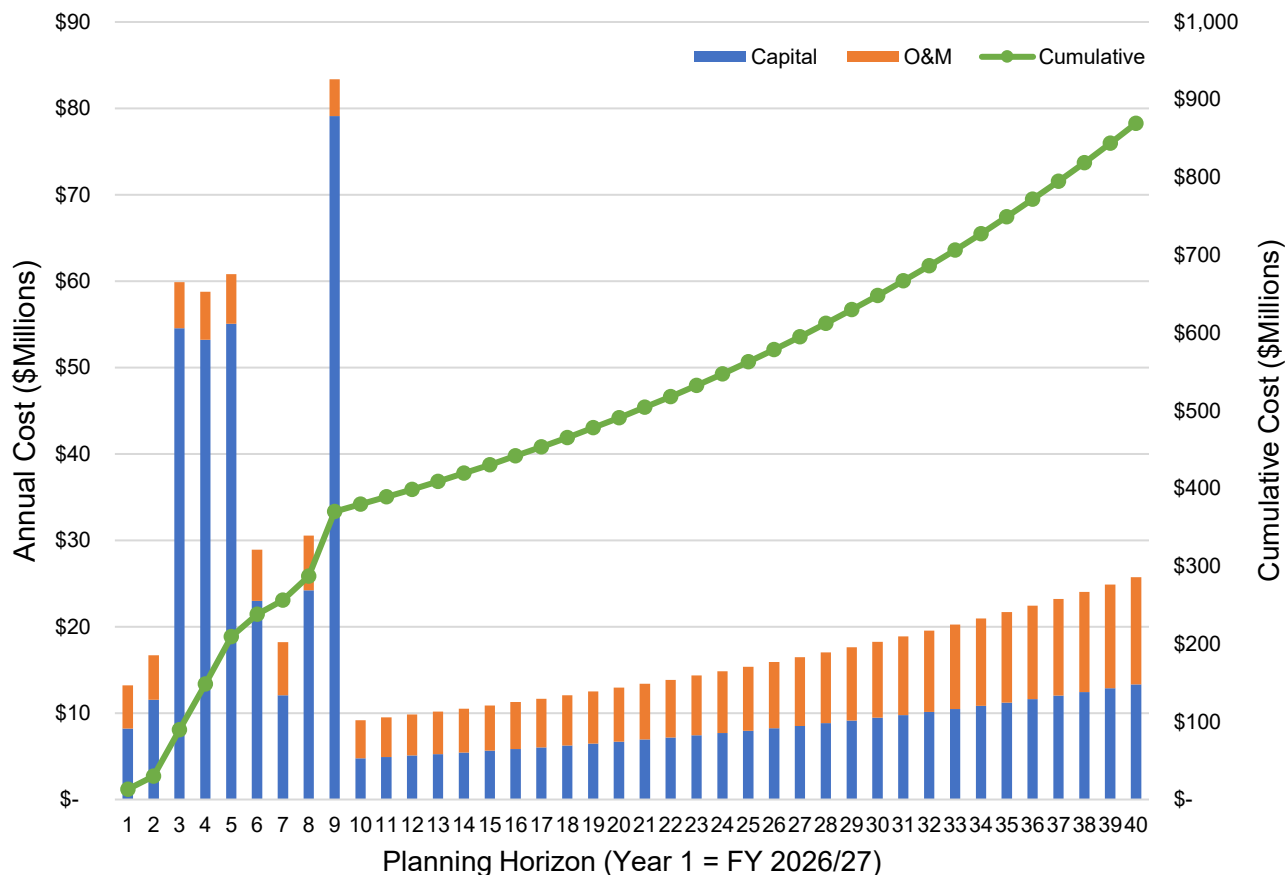
Alternative 2 represents the scenario in which all PC-15 flows are redirected to SOCWA’s JBL. In addition to the flow assumptions, unit costs, and economic evaluation criteria set forth in Section 1, the following additional cost assumptions are made for the Alternative 2 scenario:

- **SOCWA CTP Existing CIP.** Only essential projects identified in the existing CIP are completed prior to abandonment of the CTP. For FY 2026/27 through FY 2028/29, it is assumed that 75% of each year’s capital cost is required. For following years until abandonment of the CTP, a \$250,000 annual capital cost adjusted for inflation is assumed.
- **CLB Existing CIP Capital Offset.** Reach 5 is anticipated to be abandoned under Alternative 2 and the capital cost associated with the existing Reach 5 replacement CIP is subtracted against the total annual capital cost for FY 2026/27 and FY 2027/28.
- **Conceptual Infrastructure Improvements Future CIP.** For years following completion of all conceptual infrastructure improvements, a one percent annual capital replacement allowance adjusted for inflation is applied to the initial total capital cost to account for required future capital improvements associated with the new facility.

- **MNWD RTP Future CIP.** For years following capital buy-in, a three percent annual capital replacement allowance adjusted for inflation is applied to the total capital-buy in cost to account for required capital improvements associated with the existing facility.

Figure 3-3 identifies the estimated Alternative 2 annual cost anticipated over the planning period. A detailed breakdown of Alternative 2 annual capital and O&M costs over the planning period are provided in **Appendix A**.

Figure 3-3: Alternative 2 Annual Costs



3.4 Alternative 3 – Redirection to MNWD Regional Treatment Plant

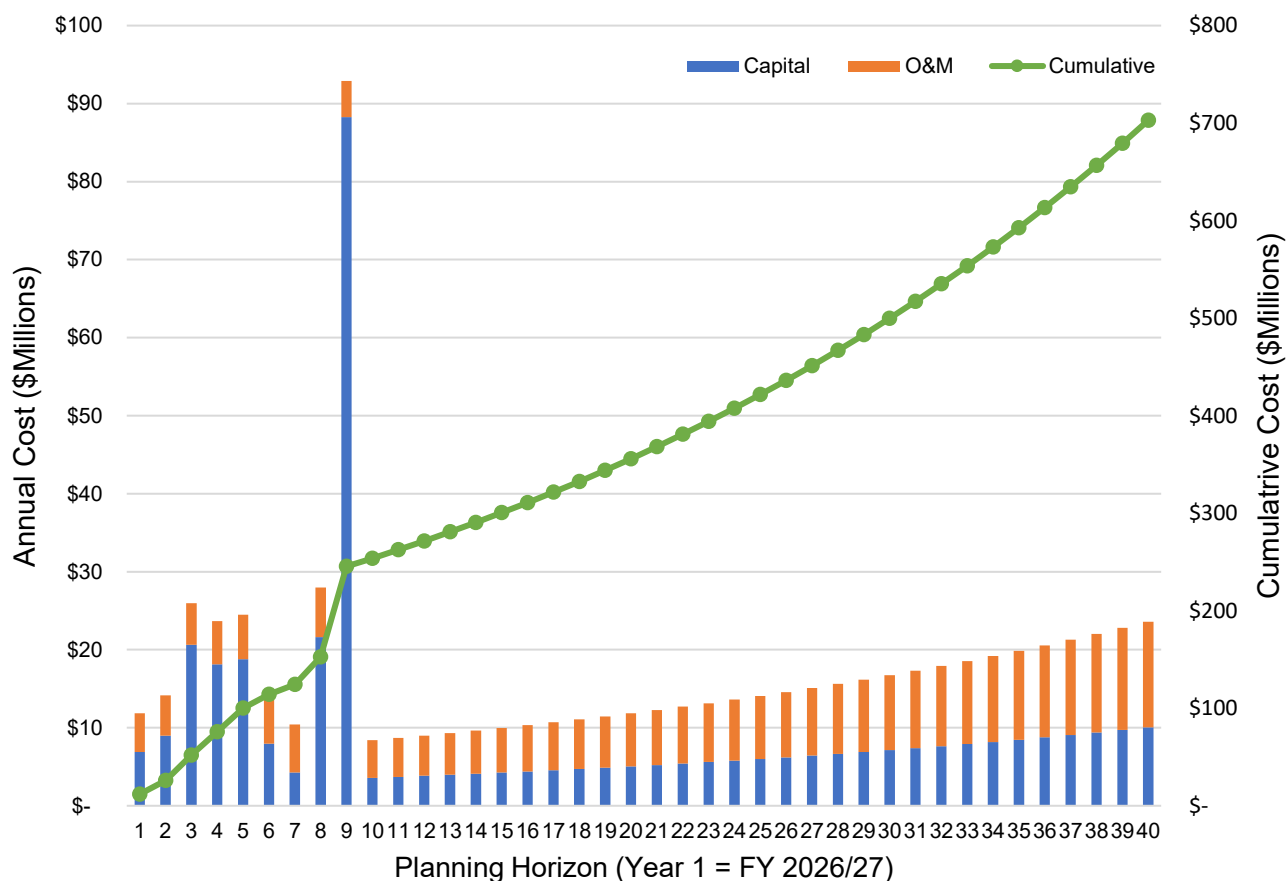
Alternative 3 represents the scenario in which all PC-15 flows are redirected to MNWD’s RTP. In addition to the flow assumptions, unit costs, and economic evaluation criteria set forth in Section 2, the following additional cost assumptions are made for the Alternative 3 scenario:

- **SOCWA CTP Existing CIP.** Only essential projects identified in the existing CIP are completed prior to abandonment of the CTP. For FY 2026/27 through FY 2028/29, it is assumed that 75% of each’s years capital cost is required. For following years until abandonment of the CTP, a \$250,000 annual capital cost adjusted for inflation is assumed.

- **Conceptual Infrastructure Improvements Future CIP.** For years following completion of all conceptual infrastructure improvements, a one percent annual capital replacement allowance adjusted for inflation is applied to the initial total capital cost to account for required future capital improvements associated with the new facility.
- **MNWD RTP Future CIP.** For years following capital buy-in, a three percent annual capital replacement allowance adjusted for inflation is applied to the total capital-buy in cost to account for required capital improvements associated with the existing facility.

Figure 3-4 identifies the estimated Alternative 3 annual cost anticipated over the planning period. A detailed breakdown of Alternative 3 annual capital and O&M costs over the planning period are provided in Appendix A.

Figure 3-4: Alternative 3 Annual Costs



3.5 Cost Comparison

This section provides a comparative cost analysis of the four scenarios evaluated in Sections 3.1 through 3.4.

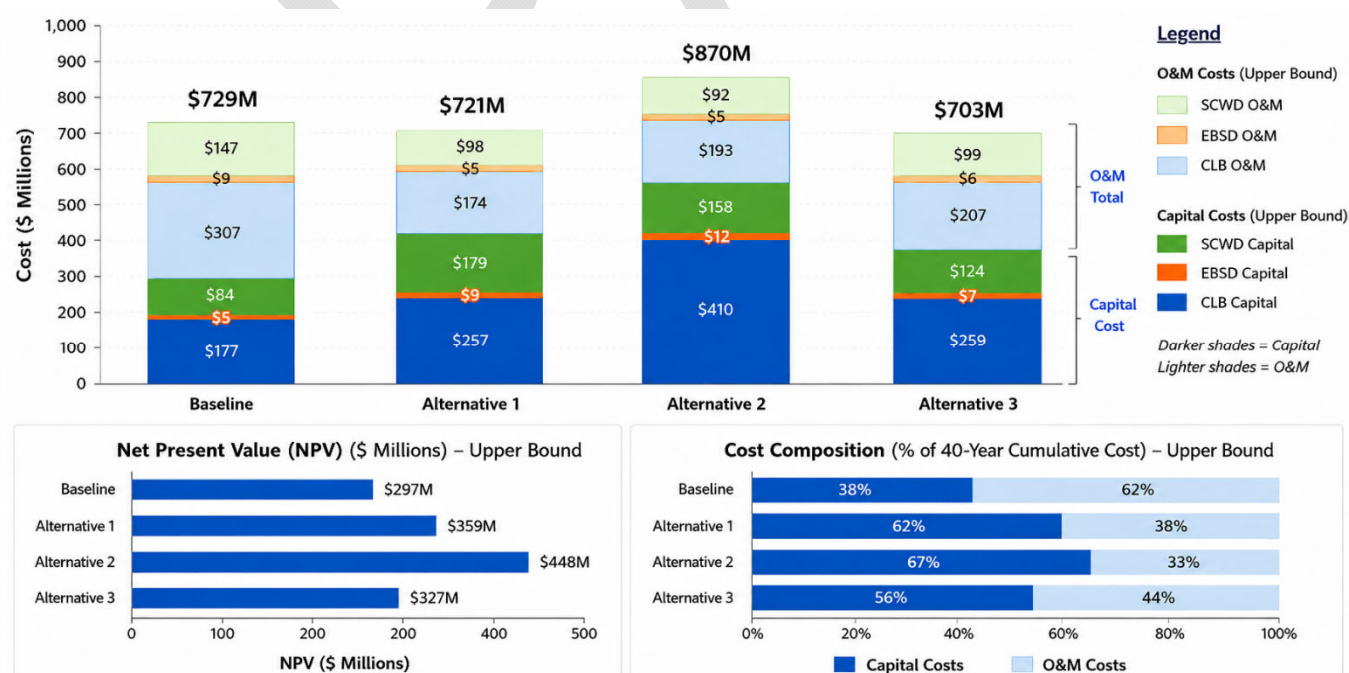
3.5.1 40-Year Cumulative Cost Summary

Table 3-1 presents the estimated cumulative costs over the planning period. Costs within each category are allocated by PC-15 member agency to provide a comparative summary of the estimated financial impact to each participating agency. Lifecycle costs represent net present value (NPV) using the discount rate assumptions identified in **Table 1-11**.

Table 3-1: Summary of 40-Year Cumulative Cost Comparison				
Metric	Baseline	Alternative 1	Alternative 2	Alternative 3
Capital Cost (\$M)	\$266	\$444	\$580	\$391
CLB	\$177	\$257	\$410	\$259
EBSD	\$5	\$9	\$12	\$7
SCWD	\$84	\$179	\$158	\$124
O&M Total (\$M)	\$462	\$277	\$290	\$312
CLB	\$307	\$174	\$193	\$207
EBSD	\$9	\$5	\$5	\$6
SCWD	\$147	\$98	\$92	\$99
40-Year Undiscounted Cost (\$M)	\$729	\$721	\$870	\$703
Net Present Value (\$M)	\$297	\$359	\$448	\$327

Figure 3-5 provides an illustration of the information provided in **Table 3-1**.

Figure 3-5: Summary of 40-Year Cumulative Cost Comparison



3.5.2 Key Cost Drivers

The cumulative cost of each scenario is influenced by several key cost drivers, including required future improvements (e.g. live stream), uncertain future CIP costs, and the magnitude of treatment facility buy-in and capacity expansion costs. Given the planning-level nature of this evaluation, several key cost drivers were evaluated using both upper bound and lower bound assumptions to understand potential cost sensitivity. **Table 3-2** identifies lower bound cost assumptions for key cost drivers that would bring the overall cumulative cost of each scenario down.

Table 3-2: Key Cost Drivers Upper and Lower Bound Values				
Key Cost Driver	Scenario	Unit	Upper Value	Lower Value
CTP Live Stream Capital Cost	Baseline	\$/EA	\$31,806,000	\$ - ¹
CTP Live Stream O&M, NPV	Baseline	\$/Yr	\$528,000	\$ - ¹
CTP Year 10 to Year 20 Total CIP	Baseline	\$/EA	\$76,346,000	\$51,346,000 ²
MNWD RTP Liquids & Solids Buy-In	Alt 1 & 3	\$/MGD	\$18,750,000	\$12,500,000 ²
MNWD RTP Recycled Water Buy-In	Alt 1 & 3	\$/MGD	\$7,500,000	\$5,000,000 ²
MNWD Regional LS and FM Buy-In	Alt 1 & 3	\$/MGD	\$3,000,000	\$2,000,000 ²
OC San Plant No. 2 Buy In	Alt 1	\$/MGD	\$15,000,000	\$10,000,000 ²
SOCWA JBL Liquids and Solids Buy-In	Alt 2	\$/MGD	\$18,750,000	\$12,500,000 ²
SOCWA JBL Recycled Water Buy-In	Alt 2	\$/MGD	\$7,500,000	\$5,000,000 ²
<i>Notes:</i> 1. Assumes that construction of the live stream is not required. 2. Assumes a 33% reduced cost compared to the high-end value.				

3.5.3 Lower Bound 40-Year Cumulative Cost Summary

Table 3-3 presents the estimated cumulative costs over the planning period using lower bound values from **Table 3-2**. Costs within each category are allocated by PC-15 member agency to provide a comparative summary of the estimated financial impact to each participating agency.

Table 3-3: Summary of Lower Bound 40-Year Cumulative Cost Comparison				
Metric	Baseline	Alternative 1	Alternative 2	Alternative 3
Capital Cost (\$M)	\$205	\$384	\$512	\$314
CLB	\$136	\$226	\$365	\$209
EBSD	\$4	\$8	\$11	\$6
SCWD	\$65	\$150	\$136	\$100
O&M Total (\$M)	\$422	\$277	\$290	\$312
CLB	\$280	\$174	\$193	\$207
EBSD	\$8	\$5	\$5	\$6
SCWD	\$134	\$98	\$92	\$99
40 Year Undiscounted Cost (\$M)	\$626	\$661	\$802	\$626
Net Present Value (\$M)	\$248	\$330	\$418	\$294

3.5.4 40-Year Cumulative Cost Comparison and Summary

Figure 3-6 summarizes the range of anticipated cumulative cost and NPV per scenario using upper and lower bound costs from Table 3-2 and Table 3-3.

Figure 3-6: Upper and Lower Bound Total Cost Comparison

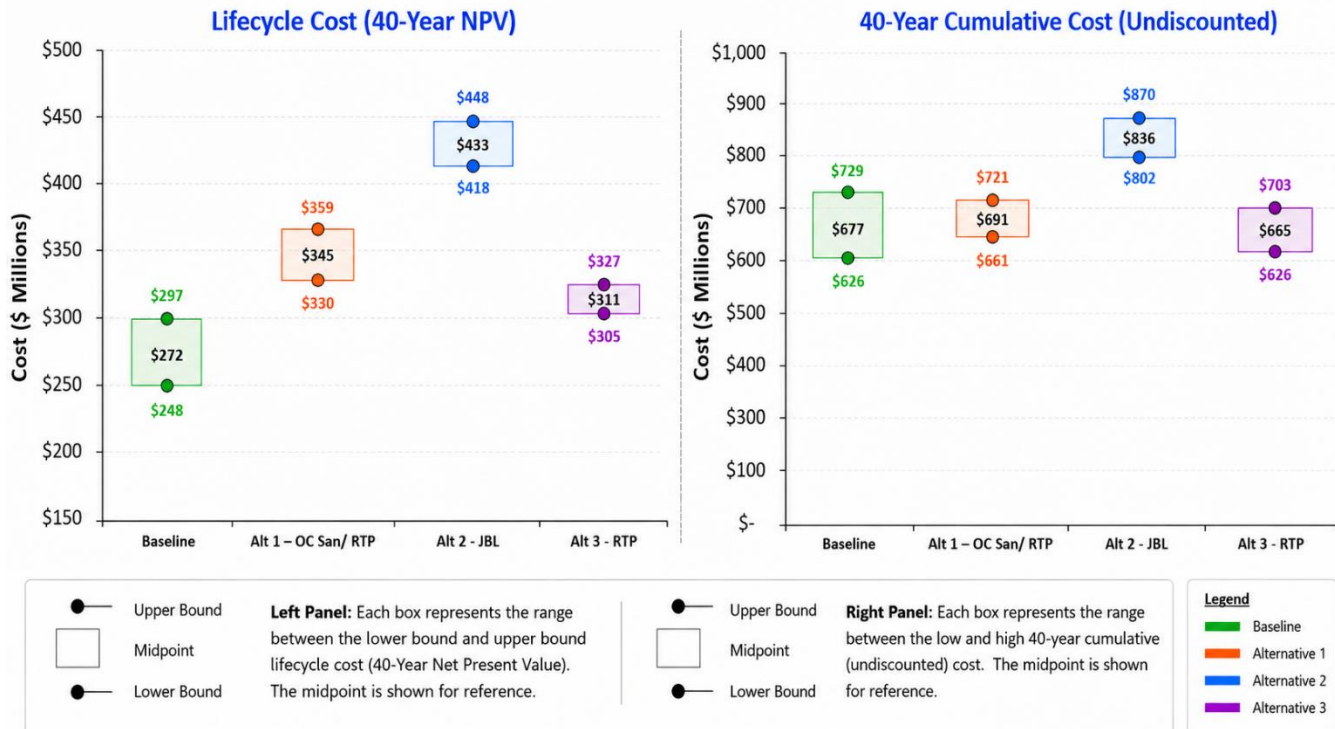
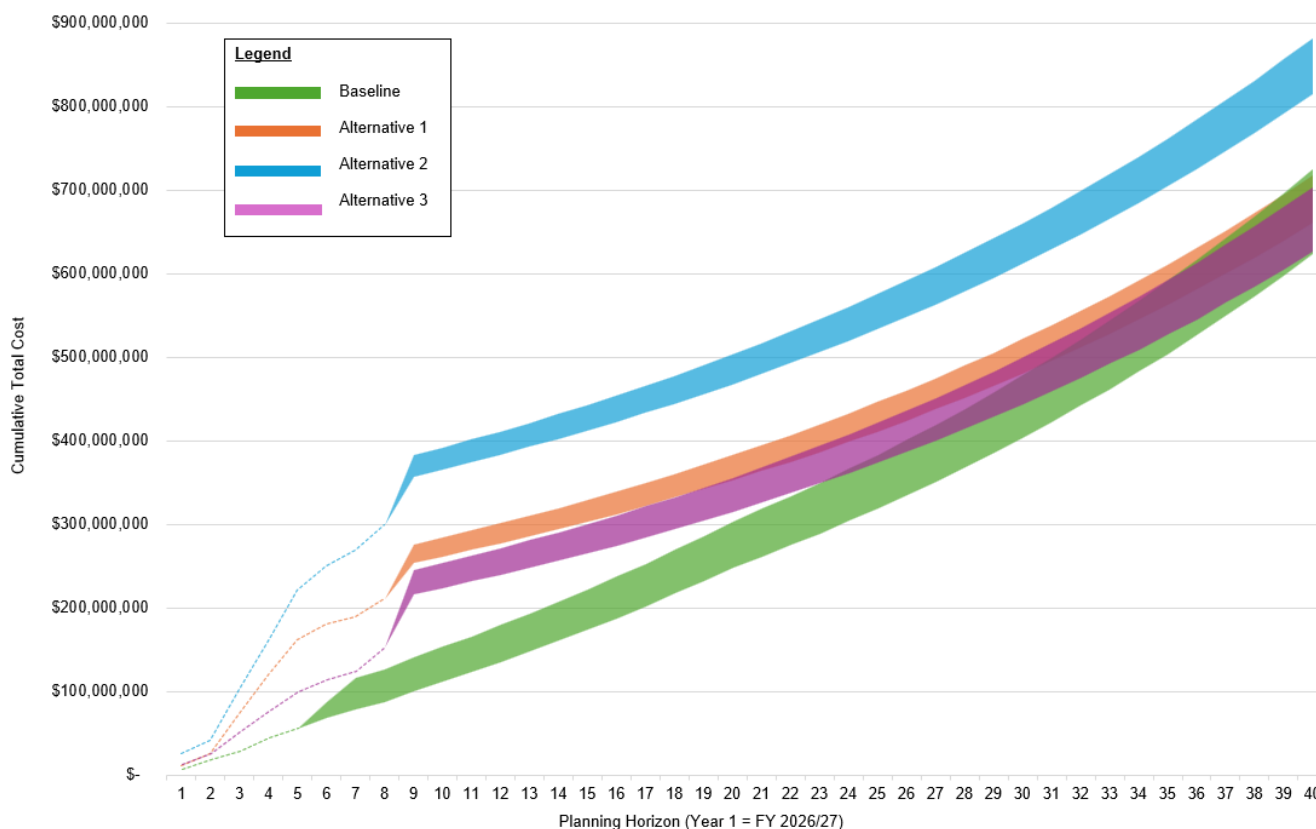


Figure 3-7 provides a summary of cumulative cost (undiscounted) per year over the planning period for the upper and lower bound scenarios. Overlap between two scenarios indicates that cumulative costs between the two scenarios have the potential to be the same for the year(s) in which they overlap.

Figure 3-7: Cumulative Cost (Undiscounted) per Year



The following are key observations from the cost evaluation analysis:

- **Lowest Cost Scenario.** The Base scenario presents the opportunity for the lowest total cost solution. Alternative 3 resulted in the lowest estimated cumulative and lifecycle cost under both high-end and low-end assumptions.
- **Highest Cost Scenario.** Alternative 2 resulted in the highest overall cost, driven primary by extensive conveyance infrastructure and lift station expansion requirements.
- **Higher Capital and Lower O&M.** All three alternatives require more capital in the next 10 years when compared to the baseline scenario. However, all three scenarios have a lower O&M requirement, with O&M costs in the baseline scenario driven by higher present-day O&M costs at the CTP.
- **Buy-In and Capacity Expansion Sensitivity.** Unknown costs associated with capital buy-in and capacity expansion at non-CTP treatment plants create a range of cost scenarios for all three alternatives.

Appendix A

Financial Detail

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**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
BASELINE - FINANCIAL EVALUATION**

Baseline Costs (High-End)																				
Fiscal Year	SOCWA Coastal Treatment Plant										Overall Cost Summary				Agency Cost Summary					
	WW Flow (MGD)	RW Produced (MGD)	Capital Cost				O&M Cost				Total Capital Cost	Total O&M Cost	Total Cost	Cumulative Cost	Total Capital Cost			Total O&M Cost		
			Live Stream (MBR)	Liquids	Solids (To MNWD)	Total	Live Stream (MBR)	Liquids	Solids (To MNWD)	Total					CLB	EBS	SCWD	CLB	EBS	SCWD
2026/27	2.68	1.07	\$ 31,806,000	\$ 4,113,000	\$ 582,000	\$ 4,695,000	\$ 528,000	\$ 3,522,000	\$ 1,468,000	\$ 4,990,000	\$ 4,695,000	\$ 4,990,000	\$ 9,685,000	\$ 9,685,000	\$ 3,118,321	\$ 87,593	\$ 1,489,086	\$ 3,314,254	\$ 93,097	\$ 1,582,649
2027/28			\$ 32,919,000	\$ 6,488,000	\$ 795,000	\$ 7,283,000	\$ 347,000	\$ 3,645,000	\$ 1,519,000	\$ 5,164,000	\$ 7,283,000	\$ 5,164,000	\$ 12,447,000	\$ 22,132,000	\$ 4,837,216	\$ 135,877	\$ 2,309,907	\$ 3,429,821	\$ 96,343	\$ 1,637,836
2028/29			\$ 34,071,000	\$ 4,467,000	\$ 52,000	\$ 4,519,000	\$ 346,000	\$ 3,773,000	\$ 1,572,000	\$ 5,345,000	\$ 4,519,000	\$ 5,345,000	\$ 9,864,000	\$ 13,996,000	\$ 3,001,425	\$ 84,310	\$ 1,433,265	\$ 3,550,037	\$ 99,720	\$ 1,695,243
2029/30			\$ 35,263,000	\$ 10,708,000	\$ 52,000	\$ 10,760,000	\$ 580,000	\$ 3,905,000	\$ 1,627,000	\$ 5,532,000	\$ 10,760,000	\$ 5,532,000	\$ 16,292,000	\$ 48,288,000	\$ 7,146,567	\$ 200,746	\$ 3,412,687	\$ 3,674,239	\$ 103,209	\$ 1,754,552
2030/31			\$ 36,497,000	\$ 4,816,000	\$ 52,000	\$ 4,868,000	\$ 600,000	\$ 4,042,000	\$ 1,684,000	\$ 5,726,000	\$ 4,868,000	\$ 5,726,000	\$ 10,594,000	\$ 58,882,000	\$ 3,233,224	\$ 90,821	\$ 1,543,955	\$ 3,803,090	\$ 106,828	\$ 1,816,082
2031/32			\$ 18,887,000	\$ 7,282,000	\$ 52,000	\$ 26,221,000	\$ 627,000	\$ 4,183,000	\$ 1,743,000	\$ 5,926,000	\$ 26,221,000	\$ 5,926,000	\$ 32,147,000	\$ 91,029,000	\$ 17,415,440	\$ 489,198	\$ 8,316,362	\$ 3,935,925	\$ 110,560	\$ 1,879,515
2032/33			\$ 19,548,000	\$ 3,618,000	\$ 52,000	\$ 23,218,000	\$ 649,000	\$ 4,329,000	\$ 1,804,000	\$ 6,133,000	\$ 23,218,000	\$ 6,133,000	\$ 29,351,000	\$ 120,380,000	\$ 15,420,910	\$ 433,172	\$ 7,363,918	\$ 4,073,410	\$ 114,422	\$ 1,945,168
2033/34			\$ 384,000	\$ 2,331,000	\$ 52,000	\$ 2,767,000	\$ 672,000	\$ 4,481,000	\$ 1,867,000	\$ 7,020,000	\$ 2,767,000	\$ 7,020,000	\$ 9,787,000	\$ 130,167,000	\$ 1,837,784	\$ 51,623	\$ 877,593	\$ 4,662,537	\$ 130,970	\$ 2,226,493
2034/35	2.68	1.07	\$ 397,000	\$ 4,091,000	\$ 2,408,000	\$ 6,896,000	\$ 1,932,000	\$ 7,266,000	\$ 6,896,000	\$ 7,266,000	\$ 6,896,000	\$ 7,266,000	\$ 14,162,000	\$ 144,329,000	\$ 4,580,179	\$ 128,657	\$ 2,187,164	\$ 4,825,925	\$ 135,560	\$ 2,304,515
2035/36			\$ 740,000	\$ 3,646,000	\$ 4,797,000	\$ 9,243,000	\$ 2,000,000	\$ 7,520,000	\$ 4,797,000	\$ 7,520,000	\$ 9,243,000	\$ 4,797,000	\$ 12,317,000	\$ 156,646,000	\$ 3,182,067	\$ 89,496	\$ 1,521,437	\$ 4,994,627	\$ 140,299	\$ 2,385,075
2036/37			\$ 4,397,000	\$ 232,290	\$ 5,054,290	\$ 5,054,290	\$ 2,070,000	\$ 7,783,000	\$ 5,054,290	\$ 7,783,000	\$ 5,054,290	\$ 7,783,000	\$ 12,837,290	\$ 169,483,290	\$ 3,356,954	\$ 94,296	\$ 1,603,040	\$ 5,169,306	\$ 145,205	\$ 2,468,489
2037/38			\$ 4,551,000	\$ 240,000	\$ 5,231,000	\$ 5,231,000	\$ 2,142,000	\$ 8,055,000	\$ 5,231,000	\$ 8,055,000	\$ 5,231,000	\$ 8,055,000	\$ 13,286,000	\$ 182,769,290	\$ 3,474,321	\$ 97,593	\$ 1,659,086	\$ 5,349,963	\$ 150,280	\$ 2,554,757
2038/39			\$ 4,710,000	\$ 248,000	\$ 5,213,000	\$ 5,213,000	\$ 2,217,000	\$ 8,337,000	\$ 5,213,000	\$ 8,337,000	\$ 5,213,000	\$ 8,337,000	\$ 13,750,000	\$ 196,519,290	\$ 3,595,201	\$ 100,989	\$ 1,716,810	\$ 5,537,261	\$ 155,541	\$ 2,644,198
2039/40			\$ 4,875,000	\$ 248,000	\$ 5,603,000	\$ 5,603,000	\$ 2,295,000	\$ 8,629,000	\$ 5,603,000	\$ 8,629,000	\$ 5,603,000	\$ 8,629,000	\$ 14,232,000	\$ 210,751,290	\$ 3,721,396	\$ 104,534	\$ 1,777,071	\$ 5,731,201	\$ 160,989	\$ 2,736,810
2040/41	2.68	1.07	\$ 5,046,000	\$ 304,000	\$ 5,799,000	\$ 5,799,000	\$ 2,375,000	\$ 8,931,000	\$ 5,799,000	\$ 8,931,000	\$ 5,799,000	\$ 8,931,000	\$ 14,730,000	\$ 225,481,290	\$ 3,851,575	\$ 108,190	\$ 1,839,235	\$ 5,931,784	\$ 166,623	\$ 2,832,593
2041/42	2.68	1.07	\$ 5,223,000	\$ 305,000	\$ 6,213,000	\$ 6,213,000	\$ 2,544,000	\$ 9,568,000	\$ 6,213,000	\$ 9,568,000	\$ 6,213,000	\$ 9,568,000	\$ 15,781,000	\$ 256,508,290	\$ 4,126,545	\$ 115,914	\$ 1,970,541	\$ 6,354,866	\$ 178,507	\$ 3,034,627
2042/43	2.68		\$ 5,406,000	\$ 305,000	\$ 6,430,000	\$ 6,430,000	\$ 2,633,000	\$ 9,903,000	\$ 6,430,000	\$ 9,903,000	\$ 6,430,000	\$ 9,903,000	\$ 16,232,000	\$ 272,841,290	\$ 4,270,672	\$ 119,963	\$ 2,039,366	\$ 6,577,366	\$ 184,757	\$ 3,140,877
2043/44	2.68		\$ 5,595,000	\$ 305,000	\$ 6,655,000	\$ 6,655,000	\$ 2,725,000	\$ 10,249,000	\$ 6,655,000	\$ 10,249,000	\$ 6,655,000	\$ 10,249,000	\$ 16,904,000	\$ 289,745,290	\$ 4,420,112	\$ 124,160	\$ 2,110,728	\$ 6,807,172	\$ 191,213	\$ 3,250,616
2044/45	2.68		\$ 5,752,000	\$ 316,000	\$ 6,847,000	\$ 6,847,000	\$ 2,820,000	\$ 10,608,000	\$ 6,847,000	\$ 10,608,000	\$ 6,847,000	\$ 10,608,000	\$ 17,255,000	\$ 307,000,290	\$ 4,414,799	\$ 124,011	\$ 2,108,190	\$ 7,045,612	\$ 197,910	\$ 3,364,478
2046/47	2.68		\$ 3,000,000	\$ 327,000	\$ 3,926,000	\$ 3,926,000	\$ 2,919,000	\$ 10,979,000	\$ 3,926,000	\$ 10,979,000	\$ 3,926,000	\$ 10,979,000	\$ 14,905,000	\$ 321,905,290	\$ 2,607,567	\$ 73,246	\$ 1,245,187	\$ 7,292,022	\$ 204,832	\$ 3,482,146
2047/48	2.68	1.07	\$ 620,000	\$ 338,000	\$ 4,063,000	\$ 4,063,000	\$ 3,021,000	\$ 11,363,000	\$ 4,063,000	\$ 11,363,000	\$ 4,063,000	\$ 11,363,000	\$ 15,426,000	\$ 337,331,290	\$ 2,698,560	\$ 75,802	\$ 1,288,638	\$ 7,547,067	\$ 211,996	\$ 3,603,937
2048/49	2.68	1.07	\$ 642,000	\$ 350,000	\$ 4,206,000	\$ 4,206,000	\$ 3,127,000	\$ 11,761,000	\$ 4,206,000	\$ 11,761,000	\$ 4,206,000	\$ 11,761,000	\$ 15,967,000	\$ 353,298,290	\$ 2,793,537	\$ 78,470	\$ 1,333,993	\$ 7,811,410	\$ 219,422	\$ 3,730,168
2049/50	2.68	1.07	\$ 664,000	\$ 362,000	\$ 4,352,000	\$ 4,352,000	\$ 3,236,000	\$ 12,173,000	\$ 4,352,000	\$ 12,173,000	\$ 4,352,000	\$ 12,173,000	\$ 16,525,000	\$ 369,823,290	\$ 2,890,507	\$ 81,194	\$ 1,380,299	\$ 8,085,052	\$ 227,108	\$ 3,860,840
2050/51	2.68	1.07	\$ 687,000	\$ 375,000	\$ 4,504,000	\$ 4,504,000	\$ 3,349,000	\$ 12,598,000	\$ 4,504,000	\$ 12,598,000	\$ 4,504,000	\$ 12,598,000	\$ 17,102,000	\$ 382,925,290	\$ 2,991,463	\$ 84,030	\$ 1,428,507	\$ 8,367,328	\$ 235,037	\$ 3,995,634
2051/52	2.68	1.07	\$ 711,000	\$ 388,000	\$ 4,661,000	\$ 4,661,000	\$ 3,466,000	\$ 13,040,000	\$ 4,661,000	\$ 13,040,000	\$ 4,661,000	\$ 13,040,000	\$ 17,701,000	\$ 404,626,290	\$ 3,095,739	\$ 86,959	\$ 1,478,302	\$ 8,660,896	\$ 243,284	\$ 4,135,821
2052/53	2.68	1.07	\$ 736,000	\$ 402,000	\$ 4,825,000	\$ 4,825,000	\$ 3,587,000	\$ 13,495,000	\$ 4,825,000	\$ 13,495,000	\$ 4,825,000	\$ 13,495,000	\$ 18,320,000	\$ 422,946,290	\$ 3,204,664	\$ 90,019	\$ 1,530,317	\$ 8,963,097	\$ 251,772	\$ 4,280,131
2053/54	2.68	1.07	\$ 762,000	\$ 416,000	\$ 4,994,000	\$ 4,994,000	\$ 3,713,000	\$ 13,969,000	\$ 4,994,000	\$ 13,969,000	\$ 4,994,000	\$ 13,969,000	\$ 18,963,000	\$ 441,909,290	\$ 3,316,910	\$ 93,172	\$ 1,583,918	\$ 9,277,918	\$ 260,616	\$ 4,430,466
2054/55	2.68	1.07	\$ 789,000	\$ 431,000	\$ 5,170,000	\$ 5,170,000	\$ 3,843,000	\$ 14,458,000	\$ 5,170,000	\$ 14,458,000	\$ 5,170,000	\$ 14,458,000	\$ 19,628,000	\$ 461,537,290	\$ 3,433,806	\$ 96,455	\$ 1,639,739	\$ 9,602,701	\$ 269,739	\$ 4,585,560
2055/56	2.68	1.07	\$ 817,000	\$ 446,000	\$ 5,351,000	\$ 5,351,000	\$ 3,978,000	\$ 14,964,000	\$ 5,351,000	\$ 14,964,000	\$ 5,351,000	\$ 14,964,000	\$ 20,315,000	\$ 481,852,290	\$ 3,554,022	\$ 99,832	\$ 1,697,146	\$ 9,938,776	\$ 279,179	\$ 4,746,045
2056/57	2.68	1.07	\$ 846,000	\$ 462,000	\$ 5,539,000	\$ 5,539,000	\$ 4,117,000	\$ 15,487,000	\$ 5,539,000	\$ 15,487,000	\$ 5,539,000	\$ 15,487,000	\$ 21,026,000	\$ 502,878,290	\$ 3,678,888	\$ 103,340	\$ 1,756,772	\$ 10,286,142	\$ 288,937	\$ 4,911,922
2057/58	2.68	1.07	\$ 876,000	\$ 478,000	\$ 5,733,000	\$ 5,733,000	\$ 4,281,000	\$ 16,029,000	\$ 5,733,000	\$ 16,029,000	\$ 5,733,000	\$ 16,029,000	\$ 21,762,000	\$ 524,640,290	\$ 3,807,739	\$ 106,959	\$ 1,818,302	\$ 10,646,127	\$ 299,049	\$ 5,083,825
2058/59	2.68	1.07	\$ 907,000	\$ 495,000	\$ 5,934,000	\$ 5,934,000	\$ 4,410,000	\$ 16,590,000	\$ 5,934,000	\$ 16,590,000	\$ 5,934,000	\$ 16,590,000	\$ 22,524,000	\$ 547,164,290	\$ 3,941,239	\$ 110,709	\$ 1,882,052	\$ 11,018,731	\$ 309,515	\$ 5,261,754
2059/60	2.68	1.07	\$ 939,000	\$ 512,000	\$ 6,142,000	\$ 6,142,000	\$ 4,564,000	\$ 17,170,000	\$ 6,142,000	\$ 17,170,000	\$ 6,142,000	\$ 17,170,000	\$ 23,312,000	\$ 570,476,290	\$ 4,079,388	\$ 114,590	\$ 1,948,022	\$ 11,403,955	\$ 320,336	\$ 5,445,709
2060/61	2.68	1.07	\$ 972,000	\$ 530,000	\$ 6,357,000	\$ 6,357,000	\$ 4,724,000	\$ 17,722,000	\$ 6,357,000	\$ 17,722,000	\$ 6,357,000	\$ 17,722,000	\$ 24,129,000	\$ 594,605,290	\$ 4,222,187	\$ 118,601	\$ 2,016,213	\$ 11,803,791	\$ 331,567	\$ 5,636,642
2061/62	2.68	1.07	\$ 1,006,000	\$ 549,000	\$ 6,580,000	\$ 6,580,000	\$ 4,889,000	\$ 18,393,000	\$ 6,580,000	\$ 18,393,000	\$ 6,580,000	\$ 18,393,000	\$ 24,973,000	\$ 619,578,290	\$ 4,370,299	\$ 122,761	\$ 2,086,940	\$ 12,216,246	\$ 343,153	\$ 5,833,601
2062/63	2.68	1.07	\$ 1,041,000	\$ 568,000	\$ 6,810,000	\$ 6,810,000	\$ 5,060,000	\$ 19,037,000	\$ 6,810,000	\$ 19,037,000	\$ 6,810,000	\$ 19,037,000	\$ 25,847,000	\$ 645,425,290	\$ 4,523,060	\$ 127,052	\$ 2,159,888	\$ 12,643,978	\$ 355,168	\$ 6,037,854
2063/64	2.68	1.07	\$ 1,077,000	\$ 588,000	\$ 7,048,000	\$ 7,048,000	\$ 5,237,000	\$ 19,703,000	\$ 7,048,000	\$ 19,703,000	\$ 7,048,000	\$ 19,703,000	\$ 26,751,000	\$ 672,176,290	\$ 4,681,134	\$ 131,493	\$ 2,235,373	\$ 13,086,321	\$ 367,593	\$ 6,249,086
2064/65	2.68	1.07	\$ 1,11																	

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
ALTERNATIVE 1 - CAPITAL PROJECTS**

Alternative 1 Infrastructure Improvement Capital																						
No.	Infrastructure Improvement Description	Attribute	Value	Unit	Unit Value	Unit Cost	Construction Cost	Construction Contingency	Design and PM Contingency	Total Project Cost	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33	FY 2033/34	FY 2034/35	FY 2035/36	Total Project Cost with Inflation	
1	Transfer LS Force Main	Diameter (in)	16	LF	28,080	\$ 900	\$ 25,272,000	\$ 7,582,000	\$ 9,856,000	\$ 42,710,000	\$ 2,136,000	\$ 2,210,000	\$ 11,438,000	\$ 11,838,000	\$ 12,253,000	\$ 5,073,000	\$ 2,625,000	\$ -	\$ -	\$ -	\$ 47,573,000	
2	Laguna SOCWA LS Gravity Main	Diameter (in)	27	LF	1,390	\$ 1,600	\$ 2,224,000	\$ 667,000	\$ 867,000	\$ 3,758,000	\$ 188,000	\$ 194,000	\$ 1,006,000	\$ 1,042,000	\$ 1,078,000	\$ 446,000	\$ 231,000	\$ -	\$ -	\$ -	\$ 4,185,000	
3	Laguna SOCWA LS Force Main	Diameter (in)	20	LF	7,410	\$ 1,200	\$ 8,892,000	\$ 2,668,000	\$ 3,468,000	\$ 15,028,000	\$ 751,000	\$ 778,000	\$ 4,025,000	\$ 4,165,000	\$ 4,311,000	\$ 1,785,000	\$ 924,000	\$ -	\$ -	\$ -	\$ 16,739,000	
4	Bluebird SOCWA LS Gravity Main	Diameter (in)	16	LF	2,005	\$ 900	\$ 1,805,000	\$ 542,000	\$ 704,000	\$ 3,051,000	\$ 153,000	\$ 158,000	\$ 817,000	\$ 846,000	\$ 875,000	\$ 362,000	\$ 188,000	\$ -	\$ -	\$ -	\$ 3,399,000	
5	Bluebird SOCWA LS Force Main	Diameter (in)	12	LF	5,705	\$ 700	\$ 3,994,000	\$ 1,198,000	\$ 1,558,000	\$ 6,750,000	\$ 338,000	\$ 349,000	\$ 1,808,000	\$ 1,871,000	\$ 1,936,000	\$ 802,000	\$ 415,000	\$ -	\$ -	\$ -	\$ 7,519,000	
6	Nyes Place LS Force Main	Diameter (in)	8	LF	720	\$ 500	\$ 360,000	\$ 108,000	\$ 140,000	\$ 608,000	\$ 30,000	\$ 31,000	\$ 163,000	\$ 169,000	\$ 174,000	\$ 72,000	\$ 37,000	\$ -	\$ -	\$ -	\$ 676,000	
7	CTP LS Force Main	Diameter (in)	12	LF	16,760	\$ 700	\$ 11,732,000	\$ 3,520,000	\$ 4,576,000	\$ 19,828,000	\$ 991,000	\$ 1,026,000	\$ 5,310,000	\$ 5,496,000	\$ 5,688,000	\$ 2,355,000	\$ 1,219,000	\$ -	\$ -	\$ -	\$ 22,085,000	
8	MNWD RW Pipeline Improvement	Diameter (in)	12	LF	100	\$ 700	\$ 70,000	\$ 21,000	\$ 27,000	\$ 118,000	\$ 6,000	\$ 6,000	\$ 32,000	\$ 33,000	\$ 34,000	\$ 14,000	\$ 7,000	\$ -	\$ -	\$ -	\$ 132,000	
9	New Transfer LS	3 - 15 MGD New Lift Station	-	MGD	4	\$ 2,500,000	\$ 10,000,000	\$ 4,710,000	\$ 6,123,000	\$ 26,533,000	\$ 1,327,000	\$ 1,373,000	\$ 7,106,000	\$ 7,354,000	\$ 7,612,000	\$ 3,151,000	\$ 1,631,000	\$ -	\$ -	\$ -	\$ 29,554,000	
		Concrete Equalization Basin	-	GAL	520,000	\$ 10	\$ 5,200,000															
		Emergency Generator	-	EA	1	\$ 500,000	\$ 500,000															
10	New CTP LS	1 - 3 MGD New Lift Station	-	MGD	2.3	\$ 5,000,000	\$ 11,500,000	\$ 4,320,000	\$ 5,616,000	\$ 24,336,000	\$ 1,217,000	\$ 1,259,000	\$ 6,517,000	\$ 6,745,000	\$ 6,982,000	\$ 2,890,000	\$ 1,496,000	\$ -	\$ -	\$ -	\$ 27,106,000	
		Concrete Equalization Basin	-	GAL	240,000	\$ 10	\$ 2,400,000															
		Emergency Generator	-	EA	1	\$ 500,000	\$ 500,000															
11	Crescent Bay LS Improvements	20 - 50 HP Pumps	2	HP	20	\$ 2,500	\$ 100,000	\$ 30,000	\$ 39,000	\$ 169,000	\$ 8,000	\$ 9,000	\$ 45,000	\$ 47,000	\$ 48,000	\$ 20,000	\$ 10,000	\$ -	\$ -	\$ -	\$ 187,000	
12	Fairview LS Improvements	5 - 15 HP Pumps	2	HP	15	\$ 3,000	\$ 90,000	\$ 27,000	\$ 35,000	\$ 152,000	\$ 8,000	\$ 8,000	\$ 41,000	\$ 42,000	\$ 44,000	\$ 18,000	\$ 9,000	\$ -	\$ -	\$ -	\$ 170,000	
13	Main Beach LS Improvements	20 - 50 HP Pumps	3	HP	30	\$ 2,500	\$ 225,000	\$ 67,500	\$ 88,000	\$ 380,500	\$ 19,000	\$ 20,000	\$ 102,000	\$ 105,000	\$ 109,000	\$ 45,000	\$ 23,000	\$ -	\$ -	\$ -	\$ 423,000	
14	Laguna SOCWA LS Improvements	150 - 250 HP Pumps	4	HP	200	\$ 1,250	\$ 1,000,000	\$ 300,000	\$ 390,000	\$ 1,690,000	\$ 85,000	\$ 87,000	\$ 453,000	\$ 468,000	\$ 485,000	\$ 201,000	\$ 104,000	\$ -	\$ -	\$ -	\$ 1,883,000	
15	Anita LS Improvements	5 - 15 HP Pumps	2	HP	15	\$ 3,000	\$ 90,000	\$ 27,000	\$ 35,000	\$ 152,000	\$ 8,000	\$ 8,000	\$ 41,000	\$ 42,000	\$ 44,000	\$ 18,000	\$ 9,000	\$ -	\$ -	\$ -	\$ 170,000	
16	Bluebird SOCWA LS Improvements	20 - 50 HP Pumps	3	HP	50	\$ 2,500	\$ 375,000	\$ 112,500	\$ 146,000	\$ 633,500	\$ 32,000	\$ 33,000	\$ 170,000	\$ 176,000	\$ 182,000	\$ 75,000	\$ 39,000	\$ -	\$ -	\$ -	\$ 707,000	
17	Nyes Place LS Improvements	20 - 50 HP Pumps	2	HP	20	\$ 2,500	\$ 100,000	\$ 30,000	\$ 39,000	\$ 169,000	\$ 8,000	\$ 9,000	\$ 45,000	\$ 47,000	\$ 48,000	\$ 20,000	\$ 10,000	\$ -	\$ -	\$ -	\$ 187,000	
18	CTP Abandonment	Area	-	SF	98,950	\$ 100	\$ 9,895,000	\$ 2,968,500	\$ 3,859,000	\$ 16,722,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,276,000	\$ -	\$ -	\$ 21,276,000	
											\$ 162,788,500	\$ 7,305,000	\$ 7,558,000	\$ 39,119,000	\$ 40,486,000	\$ 41,903,000	\$ 17,347,000	\$ 8,977,000	\$ 21,276,000	\$ -	\$ -	\$ 183,971,000

Alternative 1 New Lift Station O&M							
No	Infrastructure Improvement Description	Number of Pumps Active for ADWF	Unit	Unit Value	Unit Cost	O&M Cost (\$/Yr)	Percent of Total
9	New Transfer LS	1	HP	125	\$ 58,000	\$ 58,000	72%
10	New CTP LS	1	HP	50	\$ 23,000	\$ 23,000	28%

Legend	
CLB Only	
SCWD Only	
CLB & EBSD	
CLB, EBSD, and SCWD	

Current Flow Split	
CLB	68%
EBSB	2%
SCWD	30%

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
ALTERNATIVE 2 - FINANCIAL EVALUATION**

Fiscal Year	Alternative 2 Costs (High-End)										Overall Cost Summary				Agency Cost Summary									
	Alternative Infrastructure Improvements		SOWA Coastal Treatment Plant		SOWA JB Latham Treatment Plant		City of Laguna Beach NCI Offset		Total Capital Cost	Total O&M Cost	Total Cost	Cumulative Cost	Total Capital Cost			Total O&M Cost								
	Capital Cost	O&M Cost	WW Flow (MGD)	RW Produced (MGD)	Liquids	Capital Cost	O&M Cost	Capital Cost					O&M Cost	CLB	ESBD	SCWD	CLB	ESBD	SCWD					
2026/27	9,547,000		2.68	1.07	3,085,000	582,000	3,667,000	3,522,000	4,990,000	2.68	1.07	3,130,000		(5,000,000)	8,214,000	4,990,000	13,204,000	13,204,000	4,501,273	288,748	3,443,979	3,314,254	93,097	1,582,649
2027/28	9,891,000				4,866,000	795,000	5,661,000	3,485,000	5,194,000	2.68	1.07	3,320,000		(4,000,000)	11,542,000	5,164,000	16,706,000	16,706,000	7,072,839	312,958	4,156,202	3,429,821	96,343	1,637,836
2028/29	51,133,000				3,350,000	52,000	3,402,000	3,773,000	5,345,000	2.68	1.07	3,330,000			54,535,000	5,345,000	59,880,000	59,880,000	40,103,036	1,136,444	13,295,520	3,657,037	99,720	1,695,243
2029/30	52,924,000				250,000	52,000	302,000	3,905,000	5,162,000	2.68	1.07	3,330,000			53,228,000	5,532,000	58,760,000	148,548,000	39,369,599	1,116,190	12,740,211	3,674,239	103,209	1,754,552
2030/31	54,778,000				299,000	52,000	311,000	4,042,000	5,684,000	2.68	1.07	3,330,000			55,087,000	5,726,000	60,813,000	209,381,000	40,746,241	1,155,220	13,185,539	3,803,900	108,828	1,816,082
2031/32	22,676,000		2.68	1.07	288,000	52,000	320,000	4,183,000	5,926,000	2.68	1.07	3,330,000			22,996,000	5,926,000	28,922,000	238,283,000	16,995,030	481,803	5,519,168	3,836,925	110,560	1,879,515
2032/33	11,735,000		2.68	1.07	277,000	52,000	329,000	4,329,000	6,133,000	2.68	1.07	3,330,000			12,064,000	6,133,000	18,197,000	236,480,000	8,903,381	252,385	2,908,034	4,073,410	114,422	1,945,168
2033/34	23,857,000		2.68	1.07	287,000	52,000	339,000	4,481,000	6,348,000	2.68	1.07	3,330,000			24,196,000	6,348,000	30,544,000	287,024,000	17,881,706	506,939	5,807,354	4,216,209	118,433	2,013,358
2034/35	2,385,000	154,000								2.68	1.07	3,330,000			53,523,000	6,421,000	59,944,000	344,822,000	35,728,410	1,004,067	11,607,562	3,829,366	79,757	1,355,877
2035/36	2,448,000	159,000								2.68	1.07	3,330,000			3,985,000	6,424,000	10,409,000	353,229,000	2,831,278	80,007	1,071,715	2,838,328	82,537	1,403,134
2036/37		185,000								2.68	1.07	3,330,000			4,123,000	6,479,000	10,592,000	361,931,000	2,930,792	82,819	1,109,389	3,141,276	85,429	1,452,296
2037/38		171,000								2.68	1.07	3,330,000			4,269,000	6,479,000	10,748,000	370,938,000	3,033,885	85,731	1,148,414	3,147,645	89,414	1,504,941
2038/39		177,000								2.68	1.07	3,330,000			4,418,000	6,495,000	10,913,000	380,281,000	3,140,467	88,744	1,188,789	3,257,799	91,511	1,555,690
2039/40		183,000								2.68	1.07	3,330,000			4,573,000	6,507,000	11,070,000	389,910,000	3,250,627	91,857	1,230,516	3,371,373	94,701	1,609,925
2040/41		189,000								2.68	1.07	3,330,000			4,733,000	6,523,000	11,256,000	399,895,000	3,364,336	95,070	1,273,594	3,488,933	98,004	1,666,063
2041/42		196,000								2.68	1.07	3,330,000			4,889,000	6,547,000	11,436,000	410,232,000	3,482,933	98,404	1,318,265	3,614,232	101,437	1,724,422
2042/43		203,000								2.68	1.07	3,330,000			5,070,000	6,527,000	11,597,000	420,929,000	3,603,880	101,839	1,364,281	3,737,336	104,981	1,784,683
2043/44		210,000								2.68	1.07	3,330,000			5,247,000	6,524,000	11,771,000	432,000,000	3,729,715	105,395	1,411,811	3,868,179	108,657	1,847,164
2044/45		217,000								2.68	1.07	3,330,000			5,431,000	6,527,000	11,958,000	443,458,000	3,860,503	109,991	1,461,407	4,003,007	112,444	1,911,549
2045/46		225,000								2.68	1.07	3,330,000			5,621,000	6,528,000	12,149,000	445,317,000	3,995,579	112,908	1,512,513	4,143,149	116,381	1,978,470
2046/47		233,000								2.68	1.07	3,330,000			5,816,000	6,545,000	12,331,000	447,581,000	4,135,808	116,865	1,605,520	4,287,940	120,448	2,047,612
2047/48		241,000								2.68	1.07	3,330,000			6,022,000	6,582,000	12,544,000	480,295,000	4,280,991	120,962	1,686,540	4,424,664	124,664	2,119,291
2048/49		249,000								2.68	1.07	3,330,000			6,232,000	6,615,000	12,757,000	493,442,000	4,429,893	125,180	1,676,958	4,592,799	129,011	2,193,190
2049/50		258,000								2.68	1.07	3,330,000			6,450,000	6,717,000	13,007,000	495,049,000	4,584,827	129,599	1,735,614	4,753,530	133,526	2,269,944
2050/51		267,000								2.68	1.07	3,330,000			6,676,000	6,795,000	13,271,000	496,844,000	4,745,484	134,099	1,796,417	4,919,675	138,190	2,349,235
2051/52		276,000								2.68	1.07	3,330,000			6,910,000	6,766,000	13,576,000	498,578,000	4,911,835	138,799	1,859,366	5,091,597	143,022	2,431,381
2052/53		286,000								2.68	1.07	3,330,000			7,152,000	6,795,000	13,947,000	500,795,000	5,083,878	143,661	1,924,461	5,207,261	148,041	2,516,698
2053/54		296,000								2.68	1.07	3,330,000			7,402,000	6,823,000	14,275,000	506,410,000	5,261,615	148,884	1,991,701	5,454,903	153,228	2,604,869
2054/55		306,000								2.68	1.07	3,330,000			7,661,000	6,850,000	14,611,000	508,260,000	5,545,709	153,886	2,062,406	5,645,522	158,582	2,695,986
2055/56		317,000								2.68	1.07	3,330,000			7,927,000	6,798,000	14,955,000	509,298,000	5,848,235	159,270	2,133,495	5,848,848	164,142	2,790,410
2056/57		328,000								2.68	1.07	3,330,000			8,207,000	6,910,000	15,317,000	510,611,000	6,166,111	164,854	2,208,286	6,048,015	169,888	2,888,097
2057/58		339,000								2.68	1.07	3,330,000			8,495,000	6,942,000	15,637,000	511,919,000	6,530,581	170,639	2,285,780	6,259,224	175,821	2,988,955
2058/59		351,000								2.68	1.07	3,330,000			8,793,000	6,974,000	15,977,000	513,713,000	6,920,000	176,225	2,365,975	6,478,003	181,978	3,093,619
2059/60		363,000								2.68	1.07	3,330,000			9,097,000	7,003,000	16,300,000	515,516,000	7,312,991	182,911	2,448,873	6,674,877	189,340	3,201,772
2060/61		376,000								2.68	1.07	3,330,000			9,420,000	7,034,000	16,624,000	517,450,000	7,699,069	189,629	2,534,712	6,890,407	194,944	3,314,049
2061/62		389,000								2.68	1.07	3,330,000			9,760,000	7,065,000	16,955,000	519,415,000	8,086,866	195,848	2,623,492	7,183,097	201,772	3,430,313
2062/63		403,000								2.68	1.07	3,330,000			10,092,000	7,114,000	17,286,000	521,529,000	8,479,753	202,717	2,715,530	7,434,821	208,843	3,550,336
2063/64		419,000								2.68	1.07	3,330,000			10,445,000	7,166,000	17,611,000	523,686,000	8,880,209	209,808	2,801,959	7,695,179	216,157	3,674,664
2064/65		436,000								2.68	1.07	3,330,000			10,811,000	7,221,000	17,952,000	525,937,000	9,312,810	217,160	2,898,986	7,978,807	221,731	3,803,433
2065/66		457,000								2.68	1.07	3,330,000			11,190,000	7,281,000	18,261,000	528,429,000	9,764,268	224,773	3,010,959	8,243,791	231,567	3,936,642

Fiscal Year	Alternative 2 Costs (Low-End)										Overall Cost Summary				Agency Cost Summary									
	Alternative Infrastructure Improvements		SOWA Coastal Treatment Plant		SOWA JB Latham Treatment Plant		City of Laguna Beach NCI Offset		Total Capital Cost	Total O&M Cost	Total Cost	Cumulative Cost	Total Capital Cost			Total O&M Cost								
	Capital Cost	O&M Cost	WW Flow (MGD)	RW Produced (MGD)	Liquids	Capital Cost	O&M Cost	Capital Cost					O&M Cost	CLB	ESBD	SCWD	CLB	ESBD	SCWD					
2026/27	9,547,000		2.68	1.07	3,085,000	582,000	3,667,000	3,522,000	4,990,000	2.68	1.07	3,130,000		(5,000,000)	8,214,000	4,990,000	13,204,000	13,204,000	4,501,273	288,748	3,443,979	3,314,254	93,097	1,582,649
2027/28	9,891,000																							

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
ALTERNATIVE 2 - CAPITAL PROJECTS**

Alternative 2 Infrastructure Improvement Capital																						
No.	Infrastructure Improvement Description	Attribute	Value	Unit	Unit Value	Unit Cost	Construction Cost	Construction Contingency	Design and PM Contingency	Total Project Cost	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33	FY 2033/34	FY 2034/35	FY 2035/36	Total Project Cost with Inflation	
1	Lift Station #2 Force Main	Diameter (in)	24	LF	16,655	\$ 1,400	\$ 23,317,000	\$ 6,995,000	\$ 9,094,000	\$ 39,406,000	\$ 1,970,000	\$ 2,039,000	\$ 10,553,000	\$ 10,923,000	\$ 11,305,000	\$ 4,680,000	\$ 2,422,000	\$ -	\$ -	\$ -	\$ 43,892,000	
2	Lift Station #6 Force Main	Diameter (in)	24	LF	7,610	\$ 1,400	\$ 10,654,000	\$ 3,196,000	\$ 4,155,000	\$ 18,005,000	\$ 900,000	\$ 932,000	\$ 4,822,000	\$ 4,991,000	\$ 5,165,000	\$ 2,138,000	\$ 1,107,000	\$ -	\$ -	\$ -	\$ 20,055,000	
3	Lift Station #6 Gravity Main	Diameter (in)	30	LF	6,810	\$ 1,800	\$ 12,258,000	\$ 3,677,000	\$ 4,781,000	\$ 20,716,000	\$ 1,036,000	\$ 1,072,000	\$ 5,548,000	\$ 5,742,000	\$ 5,943,000	\$ 2,460,000	\$ 1,273,000	\$ -	\$ -	\$ -	\$ 23,074,000	
4	Lift Station #2 Improvements	3 - 15 MGD New Lift Station	-	MGD	12.4	\$ 2,500,000	\$ 31,000,000	\$ 9,300,000	\$ 12,090,000	\$ 52,390,000	\$ 2,620,000	\$ 2,711,000	\$ 14,030,000	\$ 14,521,000	\$ 15,030,000	\$ 6,222,000	\$ 3,220,000	\$ -	\$ -	\$ -	\$ 58,354,000	
5	Lift Station #6 Improvements	3 - 15 MGD New Lift Station	-	MGD	14.3	\$ 2,500,000	\$ 35,750,000	\$ 10,725,000	\$ 13,943,000	\$ 60,418,000	\$ 3,021,000	\$ 3,127,000	\$ 16,180,000	\$ 16,747,000	\$ 17,333,000	\$ 7,176,000	\$ 3,713,000	\$ -	\$ -	\$ -	\$ 67,297,000	
6	CTP Abandonment	Area	-	SF	110,950	\$ 100	\$ 11,095,000	\$ 3,329,000	\$ 4,327,000	\$ 18,751,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,857,000	\$ -	\$ -	\$ -	\$ 23,857,000
											\$ 209,686,000	\$ 9,547,000	\$ 9,881,000	\$ 51,133,000	\$ 52,924,000	\$ 54,776,000	\$ 22,676,000	\$ 11,735,000	\$ 23,857,000	\$ -	\$ -	\$ 236,529,000

Baseline SCWD Lift Station #2 and #6 O&M						
No	Lift Station	Number of Pumps Active for ADWF	Unit	Unit Value	Unit Cost	O&M Cost (\$/Yr)
-	Lift Station #2	1	HP	170	\$ 78,000	\$ 78,000
-	Lift Station #6	1	HP	75	\$ 35,000	\$ 35,000

Alternative 2 SCWD Lift Station #2 and #6 O&M								
No	Infrastructure Improvement Description	Number of Pumps Active for ADWF	Unit	Unit Value	Unit Cost	O&M Cost (\$/Yr)	O&M Cost Increase (\$/Yr)	Percent of Total
4	Lift Station #2 Improvements	1	HP	250	\$115,000	\$ 115,000	\$ 37,000	32%
5	Lift Station #6 Improvements	1	HP	250	\$115,000	\$ 115,000	\$ 80,000	68%

Legend	
CLB Only	
SCWD Only	
CLB & EBSD	
CLB, EBSD, and SCWD	

Current Flow Split	
CLB	68%
EBSB	2%
SCWD	30%

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
ALTERNATIVE 3 - FINANCIAL EVALUATION**

Index	Fiscal Year	SOCWA Coastal Treatment Plant										MNWD Regional Treatment Plant				Overall Cost Summary				Agency Cost Summary					
		Alternative Infrastructure Improvements		WW Flow (MGD)	RW Produced (MGD)	Capital Cost			O&M Cost			WW Flow (MGD)	RW Produced (MGD)	Capital Cost	O&M Cost	Total Capital Cost	Total O&M Cost	Total Cost	Cumulative Cost	Total Capital Cost			Total O&M Cost		
		Capital Cost	O&M Cost			Liquids	Solids (To MNWD)	Total	Liquids	Solids (To MNWD)	Total									CLB	EBSD	SCWD	CLB	EBSD	SCWD
1	2026/27	\$ 3,219,000	\$ 188,000	2.68	1.07	\$ 3,085,000	\$ 582,000	\$ 3,667,000	\$ 3,522,000	\$ 1,468,000	\$ 4,990,000	2.68	1.07	\$ 44,210,000	\$ 3,424,000	\$ 6,886,000	\$ 4,990,000	\$ 11,876,000	\$ 11,876,000	\$ 4,573,537	\$ 128,470	\$ 2,183,993	\$ 3,314,254	\$ 93,097	\$ 1,582,649
2	2027/28	\$ 3,331,000				\$ 4,866,000	\$ 795,000	\$ 5,661,000	\$ 3,845,000	\$ 1,519,000	\$ 5,164,000				\$ 3,424,000	\$ 8,992,000	\$ 5,164,000	\$ 14,156,000	\$ 26,032,000	\$ 5,972,299	\$ 677,761	\$ 2,851,940	\$ 3,429,821	\$ 96,343	\$ 1,637,836
3	2028/29	\$ 17,237,000				\$ 3,350,000	\$ 52,000	\$ 3,402,000	\$ 3,773,000	\$ 1,572,000	\$ 5,345,000				\$ 3,424,000	\$ 20,639,000	\$ 5,345,000	\$ 25,984,000	\$ 52,016,000	\$ 13,707,993	\$ 385,056	\$ 6,545,951	\$ 3,520,000	\$ 97,720	\$ 1,695,877
4	2029/30	\$ 17,840,000				\$ 250,000	\$ 52,000	\$ 302,000	\$ 3,905,000	\$ 1,627,000	\$ 5,532,000				\$ 3,424,000	\$ 18,142,000	\$ 5,532,000	\$ 23,674,000	\$ 75,690,000	\$ 12,049,537	\$ 338,470	\$ 5,753,993	\$ 3,674,239	\$ 103,209	\$ 1,754,552
5	2030/31	\$ 18,484,000				\$ 259,000	\$ 52,000	\$ 311,000	\$ 4,042,000	\$ 1,684,000	\$ 5,726,000				\$ 3,424,000	\$ 18,775,000	\$ 5,726,000	\$ 24,501,000	\$ 100,191,000	\$ 12,469,963	\$ 350,280	\$ 5,954,757	\$ 3,803,900	\$ 106,828	\$ 1,816,082
6	2031/32	\$ 7,645,000				\$ 268,000	\$ 52,000	\$ 320,000	\$ 4,183,000	\$ 1,743,000	\$ 5,926,000				\$ 3,424,000	\$ 7,965,000	\$ 5,926,000	\$ 13,891,000	\$ 114,082,000	\$ 5,290,187	\$ 148,601	\$ 2,526,213	\$ 3,935,925	\$ 110,560	\$ 1,879,515
7	2032/33	\$ 3,956,000				\$ 277,000	\$ 52,000	\$ 329,000	\$ 4,329,000	\$ 1,804,000	\$ 6,133,000				\$ 3,424,000	\$ 4,285,000	\$ 6,133,000	\$ 10,418,000	\$ 124,500,000	\$ 2,846,007	\$ 79,944	\$ 1,359,049	\$ 4,073,410	\$ 114,422	\$ 1,945,168
8	2033/34	\$ 21,276,000				\$ 287,000	\$ 52,000	\$ 339,000	\$ 4,481,000	\$ 1,867,000	\$ 6,348,000				\$ 3,424,000	\$ 7,965,000	\$ 6,348,000	\$ 12,793,000	\$ 152,463,000	\$ 14,356,231	\$ 403,265	\$ 6,855,504	\$ 4,216,209	\$ 118,433	\$ 2,013,358
9	2034/35	\$ 930,000	\$ 152,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 4,506,000	\$ 4,660,000	\$ 9,291,000	\$ 245,376,000	\$ 1,646,511	\$ 27,990,690	\$ 3,095,075	\$ 86,940	\$ 1,477,985	
10	2035/36	\$ 963,000	\$ 157,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 4,666,000	\$ 4,823,000	\$ 8,406,000	\$ 253,782,000	\$ 2,379,754	\$ 66,847	\$ 1,136,399	\$ 3,203,336	\$ 89,981	\$ 1,529,683
11	2036/37	\$ 162,000	\$ 162,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 4,829,000	\$ 4,991,000	\$ 6,700,000	\$ 262,482,000	\$ 2,463,440	\$ 69,198	\$ 1,176,362	\$ 3,314,918	\$ 93,116	\$ 1,582,966
12	2037/38	\$ 168,000	\$ 168,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 4,998,000	\$ 5,166,000	\$ 9,005,000	\$ 271,487,000	\$ 2,549,784	\$ 71,623	\$ 1,217,593	\$ 3,431,149	\$ 98,381	\$ 1,638,470
13	2038/39	\$ 174,000	\$ 174,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 5,173,000	\$ 5,341,000	\$ 9,320,000	\$ 280,807,000	\$ 2,638,784	\$ 114,123	\$ 1,260,093	\$ 3,551,386	\$ 99,757	\$ 1,695,877
14	2039/40	\$ 180,000	\$ 180,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 5,354,000	\$ 5,534,000	\$ 9,646,000	\$ 290,453,000	\$ 2,731,104	\$ 76,716	\$ 1,304,179	\$ 3,675,567	\$ 103,246	\$ 1,755,187
15	2040/41	\$ 186,000	\$ 186,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 5,541,000	\$ 5,727,000	\$ 9,983,000	\$ 300,436,000	\$ 2,826,748	\$ 79,403	\$ 1,349,851	\$ 3,803,754	\$ 108,847	\$ 1,816,399
16	2041/42	\$ 193,000	\$ 193,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 5,735,000	\$ 5,926,000	\$ 10,333,000	\$ 310,769,000	\$ 2,925,709	\$ 82,183	\$ 1,397,108	\$ 3,937,254	\$ 110,597	\$ 1,880,149
17	2042/43	\$ 200,000	\$ 200,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 5,936,000	\$ 6,136,000	\$ 10,695,000	\$ 321,644,000	\$ 3,027,993	\$ 85,056	\$ 1,445,951	\$ 4,075,403	\$ 114,478	\$ 1,946,119
18	2043/44	\$ 207,000	\$ 207,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 6,144,000	\$ 6,351,000	\$ 11,070,000	\$ 332,534,000	\$ 3,124,261	\$ 88,041	\$ 1,496,698	\$ 4,218,201	\$ 118,489	\$ 2,014,310
19	2044/45	\$ 1,312,000	\$ 214,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 6,357,000	\$ 6,359,000	\$ 12,463,000	\$ 343,991,000	\$ 3,243,851	\$ 91,119	\$ 1,549,030	\$ 4,365,649	\$ 122,631	\$ 2,084,720
20	2045/46	\$ 1,358,000	\$ 221,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 6,582,000	\$ 6,582,000	\$ 13,862,000	\$ 355,849,000	\$ 3,357,425	\$ 94,310	\$ 1,603,265	\$ 4,518,410	\$ 126,922	\$ 2,157,668
21	2046/47	\$ 1,406,000	\$ 229,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 6,826,000	\$ 6,812,000	\$ 15,232,000	\$ 368,122,000	\$ 3,474,985	\$ 97,612	\$ 1,659,403	\$ 4,676,485	\$ 131,362	\$ 2,233,153
22	2047/48	\$ 1,455,000	\$ 237,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 7,085,000	\$ 7,050,000	\$ 16,287,000	\$ 380,824,000	\$ 3,596,530	\$ 101,026	\$ 1,717,444	\$ 4,839,873	\$ 135,951	\$ 2,311,175
23	2048/49	\$ 1,506,000	\$ 245,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 7,357,000	\$ 7,297,000	\$ 17,542,000	\$ 393,971,000	\$ 3,722,724	\$ 104,571	\$ 1,777,705	\$ 5,009,239	\$ 140,709	\$ 2,392,052
24	2049/50	\$ 1,559,000	\$ 254,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 7,642,000	\$ 7,552,000	\$ 18,807,000	\$ 407,578,000	\$ 3,852,903	\$ 108,228	\$ 1,839,869	\$ 5,184,582	\$ 145,634	\$ 2,475,784
25	2050/51	\$ 1,614,000	\$ 263,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 7,939,000	\$ 7,816,000	\$ 20,039,000	\$ 421,661,000	\$ 3,987,731	\$ 110,615	\$ 1,904,254	\$ 5,365,903	\$ 150,728	\$ 2,562,399
26	2051/52	\$ 1,670,000	\$ 272,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 8,239,000	\$ 8,079,000	\$ 21,493,000	\$ 431,661,000	\$ 4,110,213	\$ 115,823	\$ 1,970,858	\$ 5,748,470	\$ 162,127	\$ 2,652,906
27	2052/53	\$ 1,728,000	\$ 282,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 8,544,000	\$ 8,337,000	\$ 23,066,000	\$ 443,179,000	\$ 4,271,336	\$ 119,981	\$ 2,039,683	\$ 6,154,740	\$ 161,474	\$ 2,745,056
28	2053/54	\$ 1,788,000	\$ 292,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 8,868,000	\$ 8,656,000	\$ 24,858,000	\$ 455,811,000	\$ 4,420,778	\$ 124,179	\$ 2,111,045	\$ 6,597,716	\$ 167,127	\$ 2,841,157
29	2054/55	\$ 1,851,000	\$ 302,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 9,208,000	\$ 8,969,000	\$ 26,821,000	\$ 468,097,000	\$ 4,575,530	\$ 128,526	\$ 2,184,944	\$ 7,145,604	\$ 172,966	\$ 2,940,429
30	2055/56	\$ 1,916,000	\$ 313,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 9,564,000	\$ 9,283,000	\$ 29,106,000	\$ 499,823,000	\$ 4,735,997	\$ 133,022	\$ 2,261,381	\$ 7,837,463	\$ 179,030	\$ 3,043,507
31	2056/57	\$ 1,983,000	\$ 324,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 9,936,000	\$ 9,608,000	\$ 31,739,000	\$ 517,134,000	\$ 4,900,978	\$ 137,668	\$ 2,340,354	\$ 8,596,627	\$ 185,299	\$ 3,150,075
32	2057/58	\$ 2,052,000	\$ 335,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 10,330,000	\$ 9,944,000	\$ 34,703,000	\$ 535,050,000	\$ 5,072,336	\$ 142,481	\$ 2,422,183	\$ 9,662,097	\$ 191,772	\$ 3,260,313
33	2058/59	\$ 2,124,000	\$ 347,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 10,734,000	\$ 10,292,000	\$ 38,039,000	\$ 553,593,000	\$ 5,249,672	\$ 147,463	\$ 2,506,866	\$ 10,627,201	\$ 198,489	\$ 3,374,310
34	2059/60	\$ 2,198,000	\$ 359,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 11,152,000	\$ 10,682,000	\$ 41,661,000	\$ 568,187,000	\$ 5,432,985	\$ 152,612	\$ 2,594,403	\$ 11,313,276	\$ 205,429	\$ 3,492,295
35	2060/61	\$ 2,275,000	\$ 372,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 11,585,000	\$ 11,097,000	\$ 45,158,000	\$ 587,624,000	\$ 5,622,940	\$ 157,948	\$ 2,685,112	\$ 12,007,616	\$ 212,631	\$ 3,614,720
36	2061/62	\$ 2,355,000	\$ 385,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 12,036,000	\$ 11,611,000	\$ 48,783,000	\$ 599,250,000	\$ 5,820,201	\$ 163,489	\$ 2,779,310	\$ 12,834,657	\$ 220,075	\$ 3,741,269
37	2062/63	\$ 2,437,000	\$ 398,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 12,500,000	\$ 12,098,000	\$ 52,581,000	\$ 613,206,000	\$ 6,023,440	\$ 169,198	\$ 2,876,362	\$ 13,808,299	\$ 227,761	\$ 3,871,940
38	2063/64	\$ 2,522,000	\$ 412,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 12,984,000	\$ 12,709,000	\$ 56,805,000	\$ 635,504,000	\$ 6,233,985	\$ 175,112	\$ 2,976,903	\$ 14,891,903	\$ 235,728	\$ 4,007,369
39	2064/65	\$ 2,610,000	\$ 426,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 3,424,000	\$ 13,48									

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

ALTERNATIVE 3 - CAPITAL PROJECTS

Alternative 3 Infrastructure Improvement Capital																					
No.	Infrastructure Improvement Description	Attribute	Value	Unit	Unit Value	Unit Cost	Construction Cost	Construction Contingency	Design and PM Contingency	Total Project Cost	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33	FY 2033/34	FY 2034/35	FY 2035/36	
1	CTP LS Force Main	Diameter (in)	16	LF	16,760	\$ 900	\$ 15,084,000	\$ 4,525,000	\$ 5,883,000	\$ 25,492,000	\$ 1,275,000	\$ 1,319,000	\$ 6,827,000	\$ 7,066,000	\$ 7,313,000	\$ 3,028,000	\$ 1,567,000	\$ -	\$ -	\$ -	
2	New CTP LS	3 - 15 MGD New Lift Station	-	MGD	6.6	\$ 2,500,000	\$ 16,500,000	\$ 6,900,000	\$ 8,970,000	\$ 38,870,000	\$ 1,944,000	\$ 2,012,000	\$ 10,410,000	\$ 10,774,000	\$ 11,151,000	\$ 4,617,000	\$ 2,389,000	\$ -	\$ -	\$ -	
		Concrete Equalization Basin	-	GAL	600,000	\$ 10	\$ 6,000,000														
		Emergency Generator	-	EA	1	\$ 500,000	\$ 500,000														
3	CTP Abandonment	Area	-	SF	98,950	\$ 100	\$ 9,895,000	\$ 2,969,000	\$ 3,859,000	\$ 16,723,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,276,000	\$ -	\$ -	
											\$ 81,085,000	\$ 3,219,000	\$ 3,331,000	\$ 17,237,000	\$ 17,840,000	\$ 18,464,000	\$ 7,645,000	\$ 3,956,000	\$ 21,276,000	\$ -	\$ -

Alternative 3 New Lift Station O&M						
No	Infrastructure Improvement Description	Number of Pumps Active for ADWF	Unit	Unit Value	Unit Cost	O&M Cost (\$/Yr)
2	New CTP LS	2	HP	125	\$ 58,000	\$ 116,000

Legend	
	CLB Only
	SCWD Only
	CLB & EBSD
	CLB, EBSD, and SCWD

Current Flow Split	
CLB	68%
EBSD	2%
SCWD	30%



**SOUTH ORANGE COUNTY
WASTEWATER AUTHORITY**

**COASTAL TREATMENT PLANT
REGIONAL PLANNING STUDY**

JUNE XX, 2026

PREPARED FOR:

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
34156 DEL OBISPO STREET
DANA POINT, CA 92629**

PREPARED BY:

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TABLE OF CONTENTS

1.0	BACKGROUND AND ASSUMPTIONS	1-1
1.1	PROJECT BACKGROUND	1-1
1.2	OBJECTIVE.....	1-1
1.3	EXISTING INFRASTRUCTURE	1-2
1.3.1	Regional Wastewater Treatment and Outfall Facilities.....	1-2
1.3.2	Regional Wastewater Collection Systems.....	1-7
1.3.3	Regional Recycled Water Systems.....	1-11
1.3.4	Coastal Supply Pipeline.....	1-12
1.4	PROJECT ASSUMPTIONS	1-12
1.4.1	Wastewater Flow	1-12
1.4.2	Costs.....	1-16
1.5	INFRASTRUCTURE DESIGN CRITERIA.....	1-20
1.6	ALTERNATIVES EVALUATION CRITERIA.....	1-20
2.0	TECHNICAL FEASIBILITY ASSESSMENT.....	2-1
2.1	ALTERNATIVE 1 – REDIRECTION TO OC SAN PLANT NO. 2 AND RTP.....	2-1
2.1.1	Overview	2-1
2.1.3	New Transfer LS.....	2-13
2.1.4	CTP Abandonment and New CTP LS.....	2-13
2.1.5	Regional Treatment Plant Buy-In.....	2-15
2.1.6	Regulatory and Permitting Risk	2-15
2.1.7	Schedule and Implementation Complexity.....	2-18
2.1.8	Regional/Interagency Coordination.....	2-19
2.1.9	Recycled Water Impacts.....	2-19
2.1.10	New Water Opportunities.....	2-20
2.2	ALTERNATIVE 2 – REDIRECTION TO JBL.....	2-20
2.2.1	Overview	2-20
2.2.2	Infrastructure Sizing.....	2-21
2.2.3	Tunnel Use	2-26
2.2.4	JBL Expansion and Capital Buy-In	2-27
2.2.5	CTP Abandonment.....	2-27
2.2.6	Regulatory and Permitting Risk	2-27
2.2.7	Schedule and Implementation Complexity.....	2-29
2.2.8	Regional/Interagency Coordination.....	2-29
2.2.9	Recycled Water Impacts.....	2-30

2.3	ALTERNATIVE 3 – REDIRECTION TO RTP	2-30
2.3.1	Overview	2-30
2.3.2	Infrastructure Sizing.....	2-31
2.3.3	RTP Expansion and Capital Buy-In	2-35
2.3.4	CTP Abandonment and New LS.....	2-36
2.3.5	Regulatory and Permitting Risk	2-36
2.3.6	Schedule and Implementation Complexity.....	2-37
2.3.7	Regional/Interagency Coordination.....	2-37
2.3.8	Recycled Water Impacts.....	2-38
2.3.9	New Water Opportunities.....	2-38
3.0	COST EVALUATION	3-1
3.1	Baseline.....	3-1
3.2	Alternative 1 – Redirection to OC San Plant No. 2 and MNWD RTP.....	3-3
3.3	Alternative 2 – Redirection to SOCWA JB Latham Treatment Plant.....	3-4
3.4	Alternative 3 – Redirection to MNWD Regional Treatment Plant.....	3-5
3.5	Cost Comparison.....	3-6
4.0	ANALYSIS AND RECOMMENDATIONS	4-11
4.1	Alternatives Analysis.....	4-11
4.2	Recommendation.....	4-11
4.3	Implementation.....	4-11

LIST OF TABLES

Table 1-1: Aliso Creek Ocean Outfall (PC-24) Ownership.....	1-6
Table 1-2: CLB Relevant Lift Stations	1-8
Table 1-3: OC San Relevant Lift Stations.....	1-9
Table 1-4: SCWD Relevant Lift Stations	1-10
Table 1-5: Agency Flow Contributions to CTP	1-15
Table 1-6: Treatment Plant Capacity (MGD).....	1-16
Table 1-7: Lift Station Summary.....	1-16
Table 1-8: Plant Operating Costs.....	1-16
Table 1-9: Impacted Capital Improvement Projects.....	1-17
Table 1-10: OC San Connection Costs	1-18
Table 1-11: Economic Evaluation Assumptions	1-19
Table 1-12: Infrastructure Unit Costs	1-20
Table 1-13: Infrastructure Design Criteria	1-20
Table 1-14: Evaluation Criteria and Scoring Guidance.....	1-21
Table 2-1: Alternative 1 Infrastructure Improvements Summary.....	2-2
Table 2-2: Alternative 1 Lift Station Design Capacity	2-9
Table 2-3: Alternative 1 Force Main Pipeline Diameter	2-11
Table 2-4: Alternative 1 Gravity Pipeline Diameter.....	2-11
Table 2-5: Alternative 1 Lift Station Design TDH.....	2-12
Table 2-6: Alternative 1 Lift Station Design HP	2-12
Table 2-7: OC San Regulatory and Permitting Requirements	2-17
Table 2-8: CTP Decommissioning Requirements.....	2-18
Table 2-9: Alternative 2 Infrastructure Improvements Summary.....	2-20
Table 2-10: Alternative 2 Lift Station Design Capacity	2-21
Table 2-11: Alternative 2 Force Main Pipeline Diameter	2-25
Table 2-12: Alternative 2 Gravity Pipeline Diameter.....	2-25
Table 2-13: Alternative 2 Lift Station Design TDH.....	2-25
Table 2-14: Alternative 2 Lift Station Design HP	2-26
Table 2-15: JBL Regulatory and Permitting Requirements.....	2-28
Table 2-16: Alternative 3 Infrastructure Improvements Summary.....	2-30
Table 2-17: Alternative 3 CTP LS Design Capacity.....	2-31
Table 2-18: Alternative 3 CTP LS Force Main Pipeline Diameter	2-34
Table 2-19: Alternative 3 CTP LS Design TDH	2-35
Table 2-20: Alternative 3 CTP LS Design HP.....	2-35
Table 2-21: JBL Regulatory and Permitting Requirements.....	2-36
Table 3-1: Summary of 40-Year Cumulative Cost Comparison	3-7
Table 3-2: Key Cost Drivers Upper and Lower Bound Values	3-8
Table 3-3: Summary of Lower Bound 40-Year Cumulative Cost Comparison	3-9

LIST OF FIGURES

Figure 1-1: OC San Relevant Infrastructure	1-3
Figure 1-2: EBSD and CLB Relevant Infrastructure	1-4
Figure 1-3: SCWD Relevant Infrastructure	1-5
Figure 1-4: CTP Process Schematic	1-6
Figure 1-5: OC San Collection System Capacity	1-10
Figure 1-6: Baseline Flow Schematic	1-13
Figure 1-7: Historical CTP Influent	1-14
Figure 1-8: Peak Wet Weather Flow	1-15
Figure 2-1: Alternative 1 Overview	2-4
Figure 2-2: Infrastructure Improvement Locations (Part 1)	2-5
Figure 2-3: Alternative 1 Infrastructure Improvement Locations (Part 2)	2-6
Figure 2-4: Alternative 1 Infrastructure Improvement Locations (Part 3)	2-7
Figure 2-5: Alternative 1 Flow Path Schematic	2-8
Figure 2-6: Storage Requirement for New Transfer LS	2-10
Figure 2-7: Alternative 1 Storage Requirement for New CTP LS	2-10
Figure 2-8: Alternative 1 New Transfer LS	2-14
Figure 2-9: CTP Abandonment and CTP Lift Station	2-16
Figure 2-10: Alternative 1 Implementation Schedule	2-19
Figure 2-11: Alternative 2 Infrastructure Improvement Locations (Part 1)	2-22
Figure 2-12: Alternative 2 Infrastructure Improvement Locations (Part 2)	2-23
Figure 2-13: Alternative 2 Flow Path Schematic	2-24
Figure 2-14: Sample Cross Section of Sewer Tunnel	2-26
Figure 2-15: Alternative 2 Implementation Schedule	2-29
Figure 2-16: Alternative 3 Infrastructure Improvement Locations	2-32
Figure 2-17: Alternative 3 Flow Path Schematic	2-33
Figure 2-18: Alternative 3 Storage Requirement for New CTP LS	2-34
Figure 2-19: Alternative 3 Implementation Schedule	2-37
Figure 3-1: Baseline Annual Costs	3-2
Figure 3-2: Alternative 1 Annual Costs	3-4
Figure 3-3: Alternative 2 Annual Costs	3-5
Figure 3-4: Alternative 3 Annual Costs	3-6
Figure 3-5: Summary of 40-Year Cumulative Cost Comparison	3-7
Figure 3-6: Upper and Lower Bound Total Cost Comparison	3-9
Figure 3-7: Cumulative Cost (Undiscounted) per Year	3-10

LIST OF APPENDICES

- Appendix A: Financial Detail
- Appendix B: [Title]
- Appendix C: [Title]

List of Abbreviations

AACE	Association for the Advancement of Cost Engineering	JBL	JB Latham Treatment Plant
ACWRF	Aliso Creek Water Reclamation Facility	kWh	Kilowatt-Hours
AFY	Acre-Feet per Year	LAFCO	Local Agency Formation Commission
BPS	Booster Pump Station	LBCWD	Laguna Beach County Water District
c/o	Care Of	LF	Linear Feet
CEQA	California Environmental Quality Act	MBR	Membrane Bioreactor
CIP	Capital Improvement Program	MG	Million Gallons
CLB	City of Laguna Beach	MGD	Million Gallons per Day
CMLCS	Cement Mortar Lined and Coated Steel	mi	Miles
CSC	City of San Clemente	MKN	Michael K. Nunley and Associates, LLP
CSJC	City of San Juan Capistrano	MNWD	Moulton Niguel Water District
CTP	Coastal Treatment Plant	NCI	North Coast Interceptor
DPR	Direct Potable Reuse	NPDES	National Pollutant Discharge Elimination System
EBSD	Emerald Bay Service District	OASIS	Optimized Adaptive Sustainable Integrated Supply
ETM	Effluent Transmission Main	OC San	Orange County Sanitation District
ETWD	El Toro Water District	OCWD	Orange County Water District
ft	Feet	O&M	Operations and Maintenance
FY	Fiscal Year	PC	Project Committee
GIS	Geographic Information System	PDWF	Peak Dry Weather Flow
gpd	Gallons per Day	RTP	Regional Treatment Plant
gph	Gallons per Hour	SCWD	South Coast Water District
gpm	Gallons per Minute	SMWD	Santa Margarita Water District
GWRS	Ground Water Replenishment System	SOCWA	South Orange County Wastewater Authority
HDPE	High-Density Polyethylene	TDS	Total Dissolved Solids
in.	Inches	VFD	Variable Frequency Drive
IRWD	Irvine Ranch Water District / Irvine Water District		

Previous Studies and Reports

The following studies, reports, and other materials were reviewed during the preparation of this Report:

1. City of Laguna Beach Sewer Master Plan (Dudek, 2025)
2. Fiscal Year 2025–26 Budget (SOCWA, 2025)
3. Emerald Bay Service District Lift Station Condition Assessment Summary (MKN, 2021)
4. Coastal Treatment Plant Future Alternatives Feasibility Study (Hazen, 2021)
5. Coastal Treatment Plant Export Sludge Force Main Replacement (Dudek, 2020)
6. North Coast Interceptor – Reliability Assessment & Analysis (Dudek, 2020)
7. Aliso Creek Estuary Restoration – Conceptual Restoration Plan (ESA, 2018)
8. South Coast Water District Infrastructure Master Plan Update (AECOM, 2017)
9. Coastal Treatment Plant Facility Plan (CH2M Hill, 2014)
10. Export Sludge Force Main Replacement for the South Coast Water District – Phase I Laguna Niguel Regional Park Section (HYA Consulting Engineers, 1998)
11. Coast Supply Line Replacement – Section 1A (James M. Montgomery, 1991)
12. Coast Supply Line Replacement – Section 3 (James M. Montgomery, 1990)
13. JBTLF Package B Planning – Technical Memorandum No. 1 Liquid Treatment Train Analysis (Carollo, 2017)

3.0 COST EVALUATION

This section presents a planning-level cost evaluation of the following four scenarios:

- Baseline – No Flow Redirection
- Alternative 1 – Redirection to OC SAN Plant No. 2 and MNWD RTP
- Alternative 2 – Redirection to SOCWA JBL
- Alternative 3 – Redirection to MNWD RTP

The purpose of this evaluation is to provide a consistent and comparative assessment of the anticipated capital and operations and maintenance (O&M) costs associated with each scenario over a 40-year planning period to support screening and decision-making. Capital costs were developed to reflect the infrastructure and facility improvements required to implement each scenario and support the continued operation of conceptual infrastructure improvements and treatment facilities receiving PC-15 flow.

Capital costs include conceptual infrastructure improvements, construction contingency, engineering design, project management allowances, existing CIP projects, and future CIP projections. O&M costs were developed to reflect the long-term operational requirements of each alternative, including labor, power, chemicals, maintenance, residuals handling, and any contractual or treatment-related costs associated with conveyance to or treatment at regional facilities.

All cost estimates presented herein are informed by the infrastructure configurations and operational considerations described in Section 2 and calculated based on assumed flows, existing CIP projects, unit costs, and economic evaluation criteria established in Section 1, as well as any additional cost assumptions identified in each scenario's cost evaluation section below. The results of this evaluation provide the basis for the comparative cost analysis presented in Section 3.3 and support the overall alternatives assessment in Section 4.

3.1 Baseline

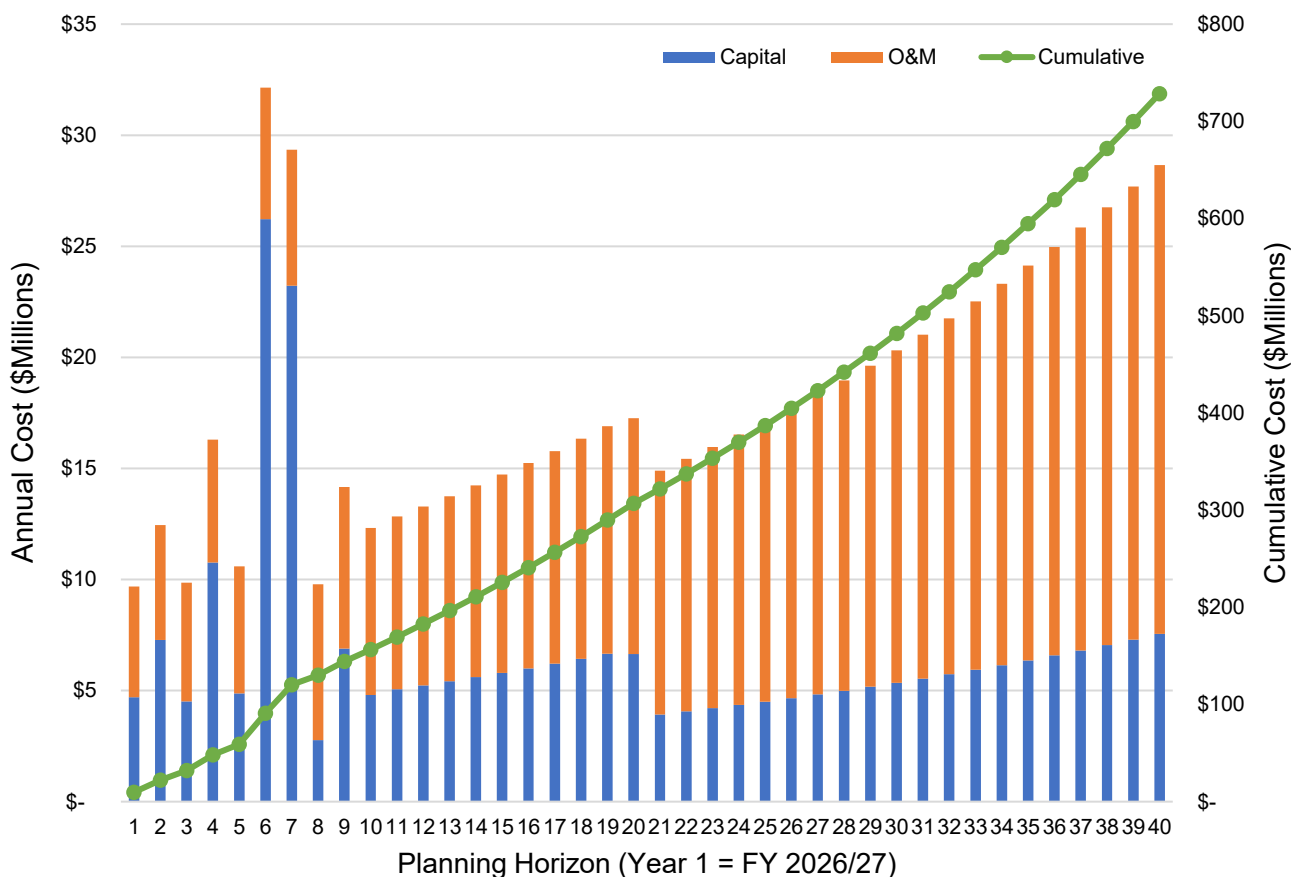
A baseline scenario was established to provide a consistent point of financial comparison for the evaluated alternatives. This baseline represents the “no flow redirection” condition, in which none of the alternatives from Section 2 are implemented and the CTP continues to operate under existing conditions. In addition to the flow assumptions, unit costs, and economic evaluation criteria set forth in Section 1, the following additional cost assumptions are made for the baseline scenario:

- **Live Stream Initial Capital and Annual O&M.** Under the baseline scenario, CLB is assumed to pursue beneficial reuse of its proportionate share of influent currently treated at CTP, requiring implementation of advanced treatment processes. For planning-level cost estimating, this analysis references the “CTP Future Alternatives Feasibility Study Technical Memorandum” (Hazen, May 2021). The live stream discharge approach is assumed to be consistent with the report's Alternative 2 – Membrane Bioreactor (MBR), which was estimated at approximately \$28,800,000 capital and \$465,000 annual O&M in October 2021 dollars. Escalated to 2026 dollars, total cost is estimated at \$31,806,000 initial required capital and \$528,000 annual O&M adjusted for inflation.

- **Live Stream Future CIP.** For years following completion of live stream construction, a one percent annual capital replacement allowance adjusted for inflation is applied to the initial total capital cost to account for required future capital improvements associated with the new facility.
- **SOCWA CTP Future CIP.** For years following the 20-year planning horizon of the CTP’s existing CIP, a three percent annual capital replacement allowance adjusted for inflation is applied to the total existing CIP cost to account for required future capital improvements associated with the existing facility.
- **MNWD RTP Biosolids Future CIP.** For years following the 10-year planning horizon of the RTP’s existing biosolids CIP, a three percent annual capital replacement allowance adjusted for inflation is applied to the total existing CIP cost and adjusted for inflation to account for required future capital improvements associated with the existing facility.

Figure 3-1 identifies the estimated baseline annual cost anticipated over the planning period. A detailed breakdown of baseline annual capital and O&M costs over the planning period are provided in **Appendix A**.

Figure 3-1: Baseline Annual Costs



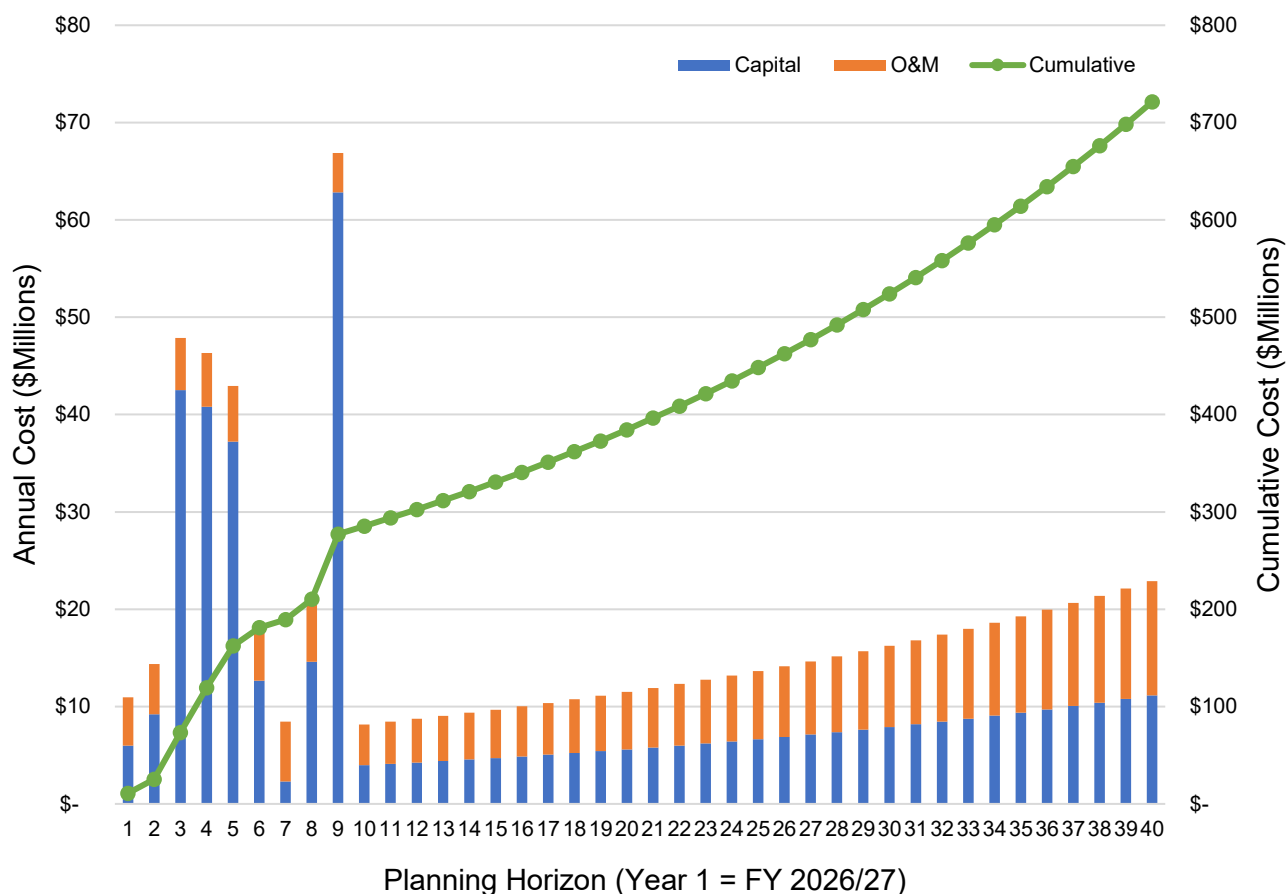
3.2 Alternative 1 – Redirection to OC San Plant No. 2 and MNWD RTP

Alternative 1 represents the scenario in which CLB and EBSD flows are redirected to OC San's Treatment Plant No. 2 and SCWD flows are redirected to MNWD's RTP. In addition to the flow assumptions, unit costs, and economic evaluation criteria set forth in Section 1, the following additional cost assumptions are made for the Alternative 1 scenario:

- **SOCWA CTP Existing CIP.** Only essential projects identified in the existing CIP are completed prior to abandonment of the CTP. For FY 2026/27 through FY 2028/29, it is assumed that 75% of each year's capital cost is required. For following years until abandonment of the CTP, a \$250,000 annual capital cost adjusted for inflation is assumed.
- **CLB Existing CIP Capital Offset.** All reaches of CLB's NCI are anticipated to be abandoned or used for their alignment under Alternative 1. Capital costs associated with existing CIP projects for the NCI are subtracted against the total annual capital cost for applicable fiscal years.
- **Conceptual Infrastructure Improvements Future CIP.** For years following completion of all conceptual infrastructure improvements, a one percent annual capital replacement allowance adjusted for inflation is applied to the initial total capital cost to account for required future capital improvements associated with the new facility.
- **MNWD RTP Future CIP.** For years following capital buy-in, a three percent annual capital replacement allowance adjusted for inflation is applied to the total capital-buy in cost to account for required capital improvements associated with the existing facility.
- **OC San Plant No. 2 Future CIP.** For years following capital buy-in, a three percent annual capital replacement allowance adjusted for inflation is applied to the total capital-buy in cost to account for required capital improvements associated with the existing facility.

Figure 3-2 identifies the estimated Alternative 1 annual cost anticipated over the planning period. A detailed breakdown of Alternative 1 annual capital and O&M costs over the planning period are provided in **Appendix A**.

Figure 3-2: Alternative 1 Annual Costs



3.3 Alternative 2 – Redirection to SOCWA JB Latham Treatment Plant

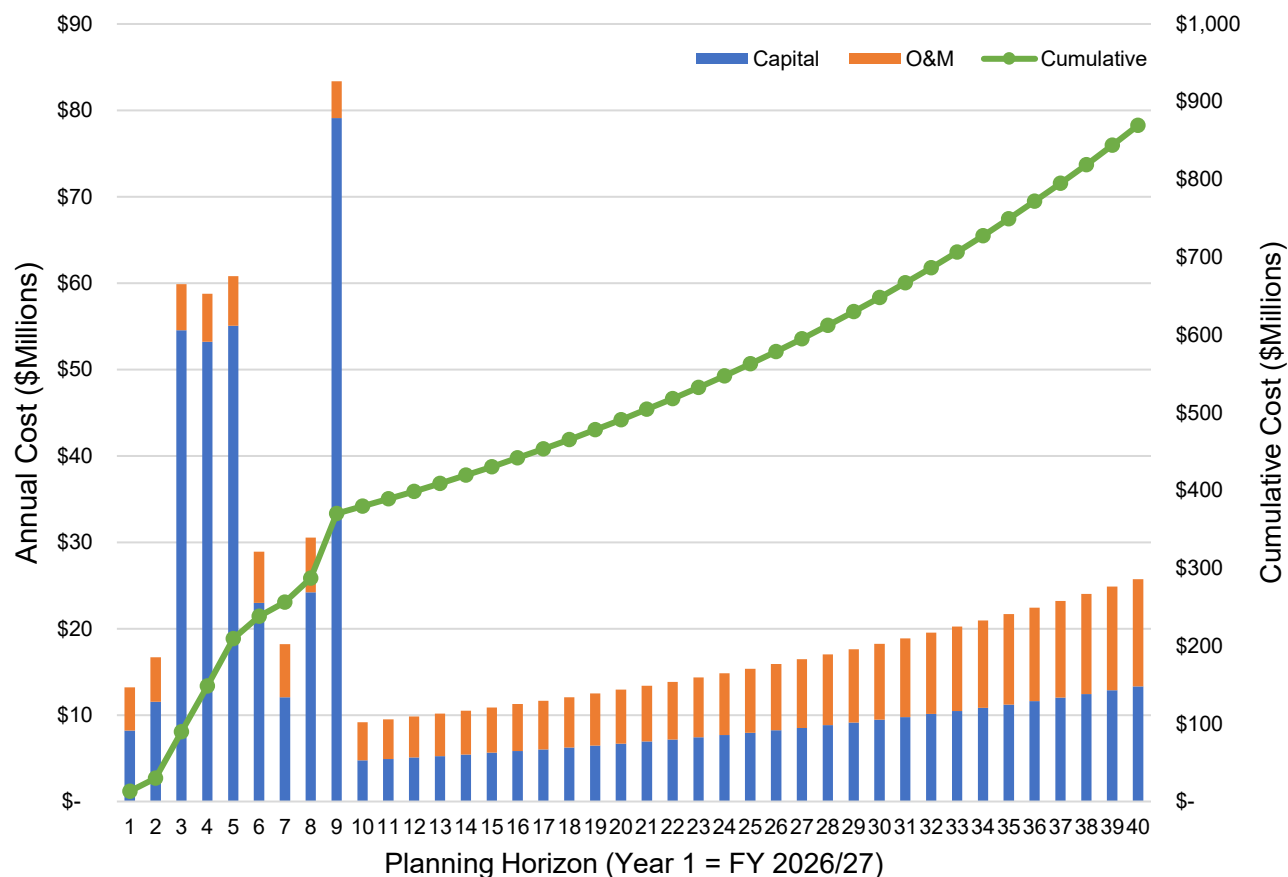
Alternative 2 represents the scenario in which all PC-15 flows are redirected to SOCWA’s JBL. In addition to the flow assumptions, unit costs, and economic evaluation criteria set forth in Section 1, the following additional cost assumptions are made for the Alternative 2 scenario:

- **SOCWA CTP Existing CIP.** Only essential projects identified in the existing CIP are completed prior to abandonment of the CTP. For FY 2026/27 through FY 2028/29, it is assumed that 75% of each year’s capital cost is required. For following years until abandonment of the CTP, a \$250,000 annual capital cost adjusted for inflation is assumed.
- **CLB Existing CIP Capital Offset.** Reach 5 is anticipated to be abandoned under Alternative 2 and the capital cost associated with the existing Reach 5 replacement CIP is subtracted against the total annual capital cost for FY 2026/27 and FY 2027/28.
- **Conceptual Infrastructure Improvements Future CIP.** For years following completion of all conceptual infrastructure improvements, a one percent annual capital replacement allowance adjusted for inflation is applied to the initial total capital cost to account for required future capital improvements associated with the new facility.

- **MNWD RTP Future CIP.** For years following capital buy-in, a three percent annual capital replacement allowance adjusted for inflation is applied to the total capital-buy in cost to account for required capital improvements associated with the existing facility.

Figure 3-3 identifies the estimated Alternative 2 annual cost anticipated over the planning period. A detailed breakdown of Alternative 2 annual capital and O&M costs over the planning period are provided in **Appendix A**.

Figure 3-3: Alternative 2 Annual Costs



3.4 Alternative 3 – Redirection to MNWD Regional Treatment Plant

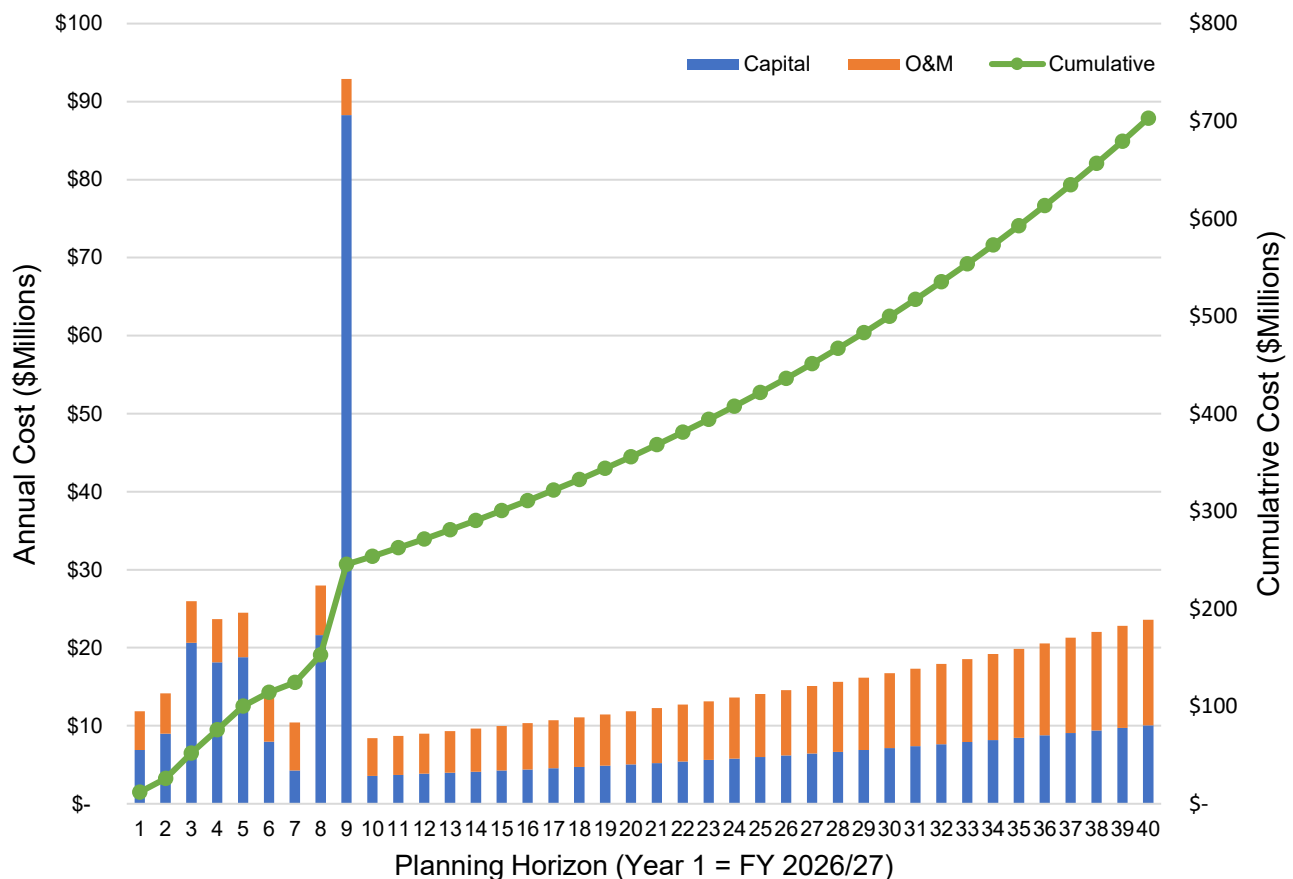
Alternative 3 represents the scenario in which all PC-15 flows are redirected to MNWD’s RTP. In addition to the flow assumptions, unit costs, and economic evaluation criteria set forth in Section 2, the following additional cost assumptions are made for the Alternative 3 scenario:

- **SOCWA CTP Existing CIP.** Only essential projects identified in the existing CIP are completed prior to abandonment of the CTP. For FY 2026/27 through FY 2028/29, it is assumed that 75% of each’s years capital cost is required. For following years until abandonment of the CTP, a \$250,000 annual capital cost adjusted for inflation is assumed.

- **Conceptual Infrastructure Improvements Future CIP.** For years following completion of all conceptual infrastructure improvements, a one percent annual capital replacement allowance adjusted for inflation is applied to the initial total capital cost to account for required future capital improvements associated with the new facility.
- **MNWD RTP Future CIP.** For years following capital buy-in, a three percent annual capital replacement allowance adjusted for inflation is applied to the total capital-buy in cost to account for required capital improvements associated with the existing facility.

Figure 3-4 identifies the estimated Alternative 3 annual cost anticipated over the planning period. A detailed breakdown of Alternative 3 annual capital and O&M costs over the planning period are provided in Appendix A.

Figure 3-4: Alternative 3 Annual Costs



3.5 Cost Comparison

This section provides a comparative cost analysis of the four scenarios evaluated in Sections 3.1 through 3.4.

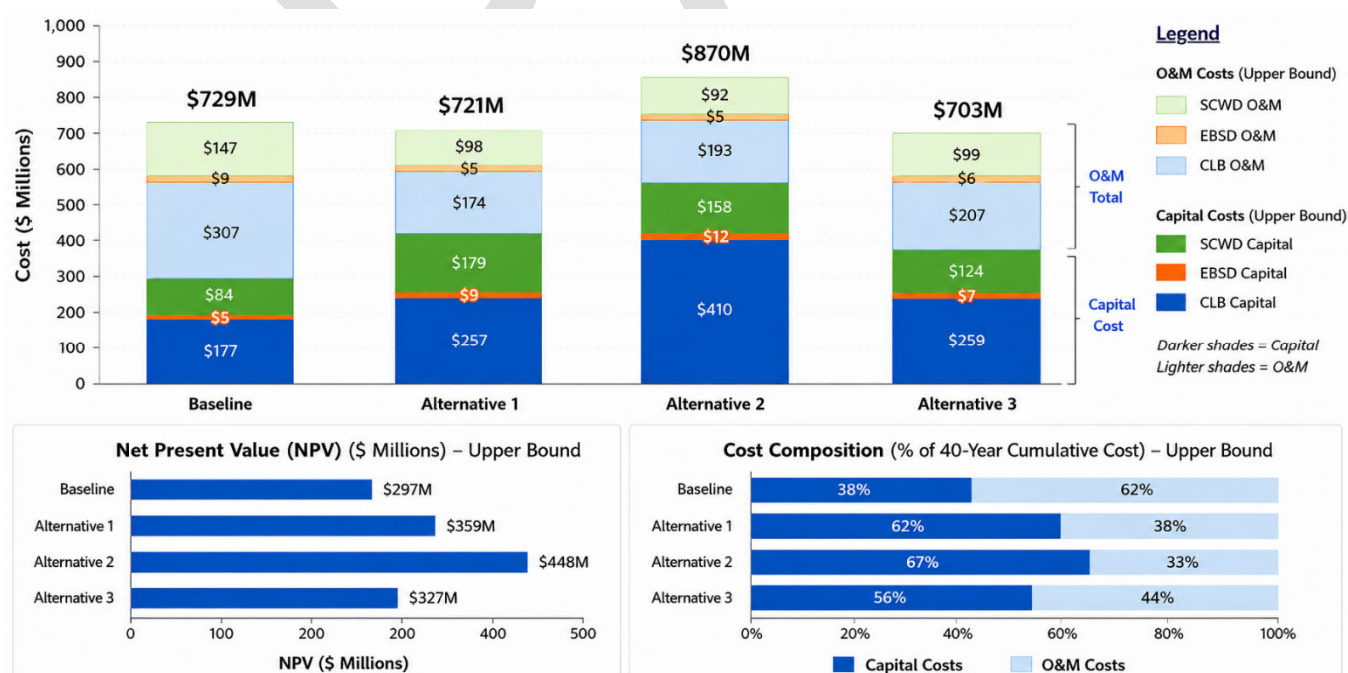
3.5.1 40-Year Cumulative Cost Summary

Table 3-1 presents the estimated cumulative costs over the planning period. Costs within each category are allocated by PC-15 member agency to provide a comparative summary of the estimated financial impact to each participating agency. Lifecycle costs represent net present value (NPV) using the discount rate assumptions identified in **Table 1-11**.

Table 3-1: Summary of 40-Year Cumulative Cost Comparison				
Metric	Baseline	Alternative 1	Alternative 2	Alternative 3
Capital Cost (\$M)	\$266	\$444	\$580	\$391
CLB	\$177	\$257	\$410	\$259
EBSD	\$5	\$9	\$12	\$7
SCWD	\$84	\$179	\$158	\$124
O&M Total (\$M)	\$462	\$277	\$290	\$312
CLB	\$307	\$174	\$193	\$207
EBSD	\$9	\$5	\$5	\$6
SCWD	\$147	\$98	\$92	\$99
40-Year Undiscounted Cost (\$M)	\$729	\$721	\$870	\$703
Net Present Value (\$M)	\$297	\$359	\$448	\$327

Figure 3-5 provides an illustration of the information provided in **Table 3-1**.

Figure 3-5: Summary of 40-Year Cumulative Cost Comparison



3.5.2 Key Cost Drivers

The cumulative cost of each scenario is influenced by several key cost drivers, including required future improvements (e.g. live stream), uncertain future CIP costs, and the magnitude of treatment facility buy-in and capacity expansion costs. Given the planning-level nature of this evaluation, several key cost drivers were evaluated using both upper bound and lower bound assumptions to understand potential cost sensitivity. **Table 3-2** identifies lower bound cost assumptions for key cost drivers that would bring the overall cumulative cost of each scenario down.

Table 3-2: Key Cost Drivers Upper and Lower Bound Values				
Key Cost Driver	Scenario	Unit	Upper Value	Lower Value
CTP Live Stream Capital Cost	Baseline	\$/EA	\$31,806,000	\$ - ¹
CTP Live Stream O&M, NPV	Baseline	\$/Yr	\$528,000	\$ - ¹
CTP Year 10 to Year 20 Total CIP	Baseline	\$/EA	\$76,346,000	\$51,346,000 ²
MNWD RTP Liquids & Solids Buy-In	Alt 1 & 3	\$/MGD	\$18,750,000	\$12,500,000 ²
MNWD RTP Recycled Water Buy-In	Alt 1 & 3	\$/MGD	\$7,500,000	\$5,000,000 ²
MNWD Regional LS and FM Buy-In	Alt 1 & 3	\$/MGD	\$3,000,000	\$2,000,000 ²
OC San Plant No. 2 Buy In	Alt 1	\$/MGD	\$15,000,000	\$10,000,000 ²
SOCWA JBL Liquids and Solids Buy-In	Alt 2	\$/MGD	\$18,750,000	\$12,500,000 ²
SOCWA JBL Recycled Water Buy-In	Alt 2	\$/MGD	\$7,500,000	\$5,000,000 ²
<i>Notes:</i> 1. Assumes that construction of the live stream is not required. 2. Assumes a 33% reduced cost compared to the high-end value.				

3.5.3 Lower Bound 40-Year Cumulative Cost Summary

Table 3-3 presents the estimated cumulative costs over the planning period using lower bound values from **Table 3-2**. Costs within each category are allocated by PC-15 member agency to provide a comparative summary of the estimated financial impact to each participating agency.

Table 3-3: Summary of Lower Bound 40-Year Cumulative Cost Comparison

Metric	Baseline	Alternative 1	Alternative 2	Alternative 3
Capital Cost (\$M)	\$205	\$384	\$512	\$314
CLB	\$136	\$226	\$365	\$209
EBSD	\$4	\$8	\$11	\$6
SCWD	\$65	\$150	\$136	\$100
O&M Total (\$M)	\$422	\$277	\$290	\$312
CLB	\$280	\$174	\$193	\$207
EBSD	\$8	\$5	\$5	\$6
SCWD	\$134	\$98	\$92	\$99
40 Year Undiscounted Cost (\$M)	\$626	\$661	\$802	\$626
Net Present Value (\$M)	\$248	\$330	\$418	\$294

3.5.4 40-Year Cumulative Cost Comparison and Summary

Figure 3-6 summarizes the range of anticipated cumulative cost and NPV per scenario using upper and lower bound costs from Table 3-2 and Table 3-3.

Figure 3-6: Upper and Lower Bound Total Cost Comparison

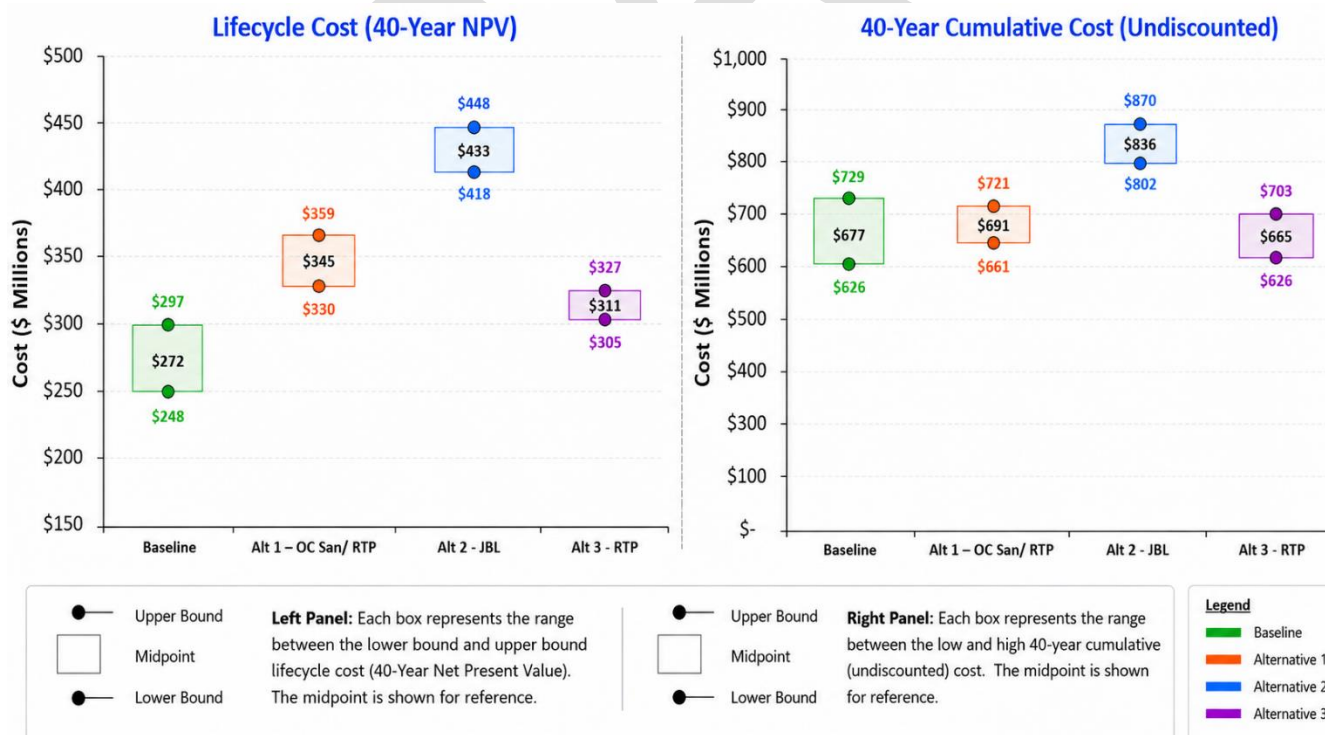
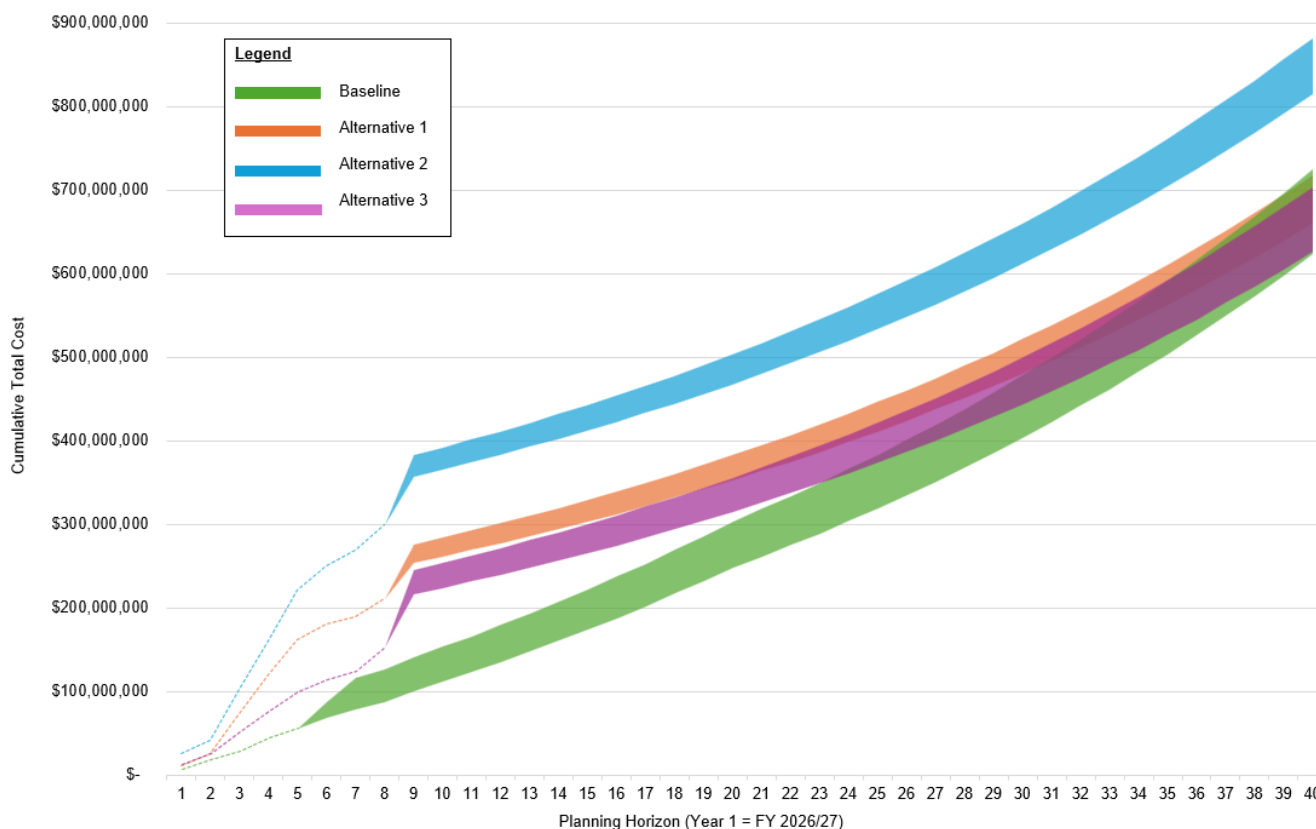


Figure 3-7 provides a summary of cumulative cost (undiscounted) per year over the planning period for the upper and lower bound scenarios. Overlap between two scenarios indicates that cumulative costs between the two scenarios have the potential to be the same for the year(s) in which they overlap.

Figure 3-7: Cumulative Cost (Undiscounted) per Year



The following are key observations from the cost evaluation analysis:

- **Lowest Cost Scenario.** The Base scenario presents the opportunity for the lowest total cost solution. Alternative 3 resulted in the lowest estimated cumulative and lifecycle cost under both high-end and low-end assumptions.
- **Highest Cost Scenario.** Alternative 2 resulted in the highest overall cost, driven primary by extensive conveyance infrastructure and lift station expansion requirements.
- **Higher Capital and Lower O&M.** All three alternatives require more capital in the next 10 years when compared to the baseline scenario. However, all three scenarios have a lower O&M requirement, with O&M costs in the baseline scenario driven by higher present-day O&M costs at the CTP.
- **Buy-In and Capacity Expansion Sensitivity.** Unknown costs associated with capital buy-in and capacity expansion at non-CTP treatment plants create a range of cost scenarios for all three alternatives.

Appendix A

Financial Detail

DRAFT

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
BASELINE - FINANCIAL EVALUATION**

Baseline Costs (High-End)																				
Fiscal Year	SOCWA Coastal Treatment Plant										Overall Cost Summary				Agency Cost Summary					
	WW Flow (MGD)	RW Produced (MGD)	Capital Cost				O&M Cost				Total Capital Cost	Total O&M Cost	Total Cost	Cumulative Cost	Total Capital Cost			Total O&M Cost		
			Live Stream (MBR)	Liquids	Solids (To MNWD)	Total	Live Stream (MBR)	Liquids	Solids (To MNWD)	Total					CLB	EBSD	SCWD	CLB	EBSD	SCWD
2026/27	2.68	1.07	\$ 31,806,000	\$ 4,113,000	\$ 582,000	\$ 4,695,000	\$ 528,000	\$ 3,522,000	\$ 1,468,000	\$ 4,990,000	\$ 4,695,000	\$ 4,990,000	\$ 9,685,000	\$ 9,685,000	\$ 3,118,321	\$ 87,593	\$ 1,489,086	\$ 3,314,254	\$ 93,097	\$ 1,582,649
2027/28			\$ 32,919,000	\$ 4,468,000	\$ 795,000	\$ 7,283,000	\$ 347,000	\$ 3,645,000	\$ 1,519,000	\$ 5,164,000	\$ 7,283,000	\$ 5,164,000	\$ 12,447,000	\$ 22,132,000	\$ 4,837,216	\$ 135,877	\$ 2,309,907	\$ 3,429,821	\$ 96,343	\$ 1,637,836
2028/29			\$ 34,071,000	\$ 4,467,000	\$ 52,000	\$ 4,519,000	\$ 346,000	\$ 3,773,000	\$ 1,572,000	\$ 5,345,000	\$ 4,519,000	\$ 5,345,000	\$ 9,864,000	\$ 13,996,000	\$ 3,001,425	\$ 84,310	\$ 1,433,265	\$ 3,550,037	\$ 99,720	\$ 1,695,243
2029/30			\$ 35,263,000	\$ 10,708,000	\$ 52,000	\$ 10,760,000	\$ 580,000	\$ 3,905,000	\$ 1,627,000	\$ 5,532,000	\$ 10,760,000	\$ 5,532,000	\$ 16,292,000	\$ 48,288,000	\$ 7,146,567	\$ 200,746	\$ 3,412,687	\$ 3,674,239	\$ 103,209	\$ 1,754,552
2030/31			\$ 36,497,000	\$ 4,816,000	\$ 52,000	\$ 4,868,000	\$ 600,000	\$ 4,042,000	\$ 1,684,000	\$ 5,726,000	\$ 4,868,000	\$ 5,726,000	\$ 10,594,000	\$ 58,882,000	\$ 3,233,224	\$ 90,821	\$ 1,543,955	\$ 3,803,090	\$ 106,828	\$ 1,816,082
2031/32			\$ 18,887,000	\$ 7,282,000	\$ 52,000	\$ 26,221,000	\$ 627,000	\$ 4,183,000	\$ 1,743,000	\$ 5,926,000	\$ 26,221,000	\$ 5,926,000	\$ 32,147,000	\$ 91,029,000	\$ 17,415,440	\$ 489,198	\$ 8,316,362	\$ 3,935,925	\$ 110,560	\$ 1,879,515
2032/33			\$ 19,548,000	\$ 3,618,000	\$ 52,000	\$ 23,218,000	\$ 649,000	\$ 4,329,000	\$ 1,804,000	\$ 6,133,000	\$ 23,218,000	\$ 6,133,000	\$ 29,351,000	\$ 120,380,000	\$ 15,420,910	\$ 433,172	\$ 7,363,918	\$ 4,073,410	\$ 114,422	\$ 1,945,168
2033/34			\$ 384,000	\$ 2,331,000	\$ 52,000	\$ 2,767,000	\$ 672,000	\$ 4,481,000	\$ 1,867,000	\$ 7,020,000	\$ 2,767,000	\$ 7,020,000	\$ 9,787,000	\$ 130,167,000	\$ 1,837,784	\$ 51,623	\$ 877,593	\$ 4,662,537	\$ 130,970	\$ 2,226,493
2034/35	2.68	1.07	\$ 397,000	\$ 4,091,000	\$ 2,408,000	\$ 6,896,000	\$ 1,932,000	\$ 7,266,000	\$ 6,896,000	\$ 7,266,000	\$ 6,896,000	\$ 7,266,000	\$ 14,162,000	\$ 144,329,000	\$ 4,580,179	\$ 128,657	\$ 2,187,164	\$ 4,825,925	\$ 135,560	\$ 2,304,515
2035/36			\$ 740,000	\$ 3,646,000	\$ 4,797,000	\$ 9,243,000	\$ 2,000,000	\$ 7,520,000	\$ 4,797,000	\$ 7,520,000	\$ 9,243,000	\$ 7,520,000	\$ 12,317,000	\$ 156,646,000	\$ 3,182,067	\$ 89,496	\$ 1,521,437	\$ 4,994,627	\$ 140,299	\$ 2,385,075
2036/37			\$ 4,397,000	\$ 232,290	\$ 5,054,290	\$ 5,054,290	\$ 2,070,000	\$ 7,783,000	\$ 5,054,290	\$ 7,783,000	\$ 5,054,290	\$ 7,783,000	\$ 12,837,290	\$ 169,483,290	\$ 3,356,954	\$ 94,296	\$ 1,603,040	\$ 5,169,306	\$ 145,205	\$ 2,468,489
2037/38			\$ 4,551,000	\$ 240,000	\$ 5,231,000	\$ 5,231,000	\$ 2,142,000	\$ 8,055,000	\$ 5,231,000	\$ 8,055,000	\$ 5,231,000	\$ 8,055,000	\$ 13,286,000	\$ 182,769,290	\$ 3,474,321	\$ 97,593	\$ 1,659,086	\$ 5,349,963	\$ 150,280	\$ 2,554,757
2038/39			\$ 4,710,000	\$ 248,000	\$ 5,211,000	\$ 5,211,000	\$ 2,217,000	\$ 8,337,000	\$ 5,211,000	\$ 8,337,000	\$ 5,211,000	\$ 8,337,000	\$ 13,750,000	\$ 196,519,290	\$ 3,595,201	\$ 100,989	\$ 1,716,810	\$ 5,537,261	\$ 155,541	\$ 2,644,198
2039/40			\$ 4,875,000	\$ 248,000	\$ 5,603,000	\$ 5,603,000	\$ 2,295,000	\$ 8,629,000	\$ 5,603,000	\$ 8,629,000	\$ 5,603,000	\$ 8,629,000	\$ 14,232,000	\$ 210,751,290	\$ 3,721,396	\$ 104,534	\$ 1,777,071	\$ 5,731,201	\$ 160,989	\$ 2,736,810
2040/41	2.68	1.07	\$ 5,046,000	\$ 304,000	\$ 5,799,000	\$ 5,799,000	\$ 2,375,000	\$ 8,931,000	\$ 5,799,000	\$ 8,931,000	\$ 5,799,000	\$ 8,931,000	\$ 14,730,000	\$ 225,481,290	\$ 3,851,575	\$ 108,190	\$ 1,839,235	\$ 5,931,784	\$ 166,623	\$ 2,832,593
2041/42	2.68	1.07	\$ 5,223,000	\$ 305,000	\$ 6,213,000	\$ 6,213,000	\$ 2,544,000	\$ 9,568,000	\$ 6,213,000	\$ 9,568,000	\$ 6,213,000	\$ 9,568,000	\$ 15,781,000	\$ 256,508,290	\$ 4,126,545	\$ 115,914	\$ 1,970,541	\$ 6,354,866	\$ 178,507	\$ 3,034,627
2042/43	2.68		\$ 5,406,000	\$ 305,000	\$ 6,430,000	\$ 6,430,000	\$ 2,633,000	\$ 9,903,000	\$ 6,430,000	\$ 9,903,000	\$ 6,430,000	\$ 9,903,000	\$ 16,232,000	\$ 272,841,290	\$ 4,270,672	\$ 119,963	\$ 2,039,366	\$ 6,577,366	\$ 184,757	\$ 3,140,877
2043/44	2.68		\$ 5,595,000	\$ 305,000	\$ 6,655,000	\$ 6,655,000	\$ 2,725,000	\$ 10,249,000	\$ 6,655,000	\$ 10,249,000	\$ 6,655,000	\$ 10,249,000	\$ 16,904,000	\$ 289,745,290	\$ 4,420,112	\$ 124,160	\$ 2,110,728	\$ 6,807,172	\$ 191,213	\$ 3,250,616
2044/45	2.68		\$ 5,752,000	\$ 316,000	\$ 6,847,000	\$ 6,847,000	\$ 2,820,000	\$ 10,608,000	\$ 6,847,000	\$ 10,608,000	\$ 6,847,000	\$ 10,608,000	\$ 17,255,000	\$ 307,000,290	\$ 4,414,799	\$ 124,011	\$ 2,108,190	\$ 7,045,612	\$ 197,910	\$ 3,364,478
2046/47	2.68		\$ 3,000,000	\$ 327,000	\$ 3,926,000	\$ 3,926,000	\$ 2,919,000	\$ 10,979,000	\$ 3,926,000	\$ 10,979,000	\$ 3,926,000	\$ 10,979,000	\$ 14,905,000	\$ 321,905,290	\$ 2,607,567	\$ 73,246	\$ 1,245,187	\$ 7,292,022	\$ 204,832	\$ 3,482,146
2047/48	2.68	1.07	\$ 620,000	\$ 338,000	\$ 4,063,000	\$ 4,063,000	\$ 3,021,000	\$ 11,363,000	\$ 4,063,000	\$ 11,363,000	\$ 4,063,000	\$ 11,363,000	\$ 15,426,000	\$ 337,331,290	\$ 2,698,560	\$ 75,802	\$ 1,288,638	\$ 7,547,067	\$ 211,996	\$ 3,603,937
2048/49	2.68	1.07	\$ 642,000	\$ 350,000	\$ 4,206,000	\$ 4,206,000	\$ 3,127,000	\$ 11,761,000	\$ 4,206,000	\$ 11,761,000	\$ 4,206,000	\$ 11,761,000	\$ 15,967,000	\$ 353,298,290	\$ 2,793,537	\$ 78,470	\$ 1,333,993	\$ 7,811,410	\$ 219,422	\$ 3,730,168
2049/50	2.68	1.07	\$ 664,000	\$ 362,000	\$ 4,352,000	\$ 4,352,000	\$ 3,236,000	\$ 12,173,000	\$ 4,352,000	\$ 12,173,000	\$ 4,352,000	\$ 12,173,000	\$ 16,525,000	\$ 369,823,290	\$ 2,890,507	\$ 81,194	\$ 1,380,299	\$ 8,085,052	\$ 227,108	\$ 3,860,840
2050/51	2.68	1.07	\$ 687,000	\$ 375,000	\$ 4,504,000	\$ 4,504,000	\$ 3,349,000	\$ 12,598,000	\$ 4,504,000	\$ 12,598,000	\$ 4,504,000	\$ 12,598,000	\$ 17,102,000	\$ 382,925,290	\$ 2,991,463	\$ 84,030	\$ 1,428,507	\$ 8,367,328	\$ 235,037	\$ 3,995,634
2051/52	2.68	1.07	\$ 711,000	\$ 388,000	\$ 4,661,000	\$ 4,661,000	\$ 3,466,000	\$ 13,040,000	\$ 4,661,000	\$ 13,040,000	\$ 4,661,000	\$ 13,040,000	\$ 17,701,000	\$ 404,626,290	\$ 3,095,739	\$ 86,959	\$ 1,478,302	\$ 8,660,896	\$ 243,284	\$ 4,135,821
2052/53	2.68	1.07	\$ 736,000	\$ 402,000	\$ 4,825,000	\$ 4,825,000	\$ 3,587,000	\$ 13,495,000	\$ 4,825,000	\$ 13,495,000	\$ 4,825,000	\$ 13,495,000	\$ 18,320,000	\$ 422,946,290	\$ 3,204,664	\$ 90,019	\$ 1,530,317	\$ 8,963,097	\$ 251,772	\$ 4,280,131
2053/54	2.68	1.07	\$ 762,000	\$ 416,000	\$ 4,994,000	\$ 4,994,000	\$ 3,713,000	\$ 13,969,000	\$ 4,994,000	\$ 13,969,000	\$ 4,994,000	\$ 13,969,000	\$ 18,963,000	\$ 441,909,290	\$ 3,316,910	\$ 93,172	\$ 1,583,918	\$ 9,277,918	\$ 260,616	\$ 4,430,466
2054/55	2.68	1.07	\$ 789,000	\$ 431,000	\$ 5,170,000	\$ 5,170,000	\$ 3,843,000	\$ 14,458,000	\$ 5,170,000	\$ 14,458,000	\$ 5,170,000	\$ 14,458,000	\$ 19,628,000	\$ 461,537,290	\$ 3,433,806	\$ 96,455	\$ 1,639,739	\$ 9,602,701	\$ 269,739	\$ 4,585,560
2055/56	2.68	1.07	\$ 817,000	\$ 446,000	\$ 5,351,000	\$ 5,351,000	\$ 3,978,000	\$ 14,964,000	\$ 5,351,000	\$ 14,964,000	\$ 5,351,000	\$ 14,964,000	\$ 20,315,000	\$ 481,852,290	\$ 3,554,022	\$ 99,832	\$ 1,697,146	\$ 9,938,776	\$ 279,179	\$ 4,746,045
2056/57	2.68	1.07	\$ 846,000	\$ 462,000	\$ 5,539,000	\$ 5,539,000	\$ 4,117,000	\$ 15,487,000	\$ 5,539,000	\$ 15,487,000	\$ 5,539,000	\$ 15,487,000	\$ 21,026,000	\$ 502,878,290	\$ 3,678,888	\$ 103,340	\$ 1,756,772	\$ 10,286,142	\$ 288,937	\$ 4,911,922
2057/58	2.68	1.07	\$ 876,000	\$ 478,000	\$ 5,733,000	\$ 5,733,000	\$ 4,281,000	\$ 16,029,000	\$ 5,733,000	\$ 16,029,000	\$ 5,733,000	\$ 16,029,000	\$ 21,762,000	\$ 524,640,290	\$ 3,807,739	\$ 106,959	\$ 1,818,302	\$ 10,646,127	\$ 290,049	\$ 5,083,825
2058/59	2.68	1.07	\$ 907,000	\$ 495,000	\$ 5,934,000	\$ 5,934,000	\$ 4,410,000	\$ 16,590,000	\$ 5,934,000	\$ 16,590,000	\$ 5,934,000	\$ 16,590,000	\$ 22,524,000	\$ 547,164,290	\$ 3,941,239	\$ 110,709	\$ 1,882,052	\$ 11,018,731	\$ 309,515	\$ 5,261,754
2059/60	2.68	1.07	\$ 939,000	\$ 512,000	\$ 6,142,000	\$ 6,142,000	\$ 4,564,000	\$ 17,170,000	\$ 6,142,000	\$ 17,170,000	\$ 6,142,000	\$ 17,170,000	\$ 23,312,000	\$ 570,476,290	\$ 4,079,388	\$ 114,590	\$ 1,948,022	\$ 11,403,955	\$ 320,336	\$ 5,445,709
2060/61	2.68	1.07	\$ 972,000	\$ 530,000	\$ 6,357,000	\$ 6,357,000	\$ 4,724,000	\$ 17,772,000	\$ 6,357,000	\$ 17,772,000	\$ 6,357,000	\$ 17,772,000	\$ 24,129,000	\$ 594,605,290	\$ 4,222,187	\$ 118,601	\$ 2,016,213	\$ 11,803,791	\$ 331,567	\$ 5,636,642
2061/62	2.68	1.07	\$ 1,006,000	\$ 549,000	\$ 6,580,000	\$ 6,580,000	\$ 4,889,000	\$ 18,393,000	\$ 6,580,000	\$ 18,393,000	\$ 6,580,000	\$ 18,393,000	\$ 24,973,000	\$ 619,578,290	\$ 4,370,299	\$ 122,761	\$ 2,086,940	\$ 12,216,246	\$ 343,153	\$ 5,833,601
2062/63	2.68	1.07	\$ 1,041,000	\$ 568,000	\$ 6,810,000	\$ 6,810,000	\$ 5,060,000	\$ 19,037,000	\$ 6,810,000	\$ 19,037,000	\$ 6,810,000	\$ 19,037,000	\$ 25,847,000	\$ 645,425,290	\$ 4,523,060	\$ 127,052	\$ 2,159,888	\$ 12,643,978	\$ 355,168	\$ 6,037,854
2063/64	2.68	1.07	\$ 1,077,000	\$ 588,000	\$ 7,048,000	\$ 7,048,000	\$ 5,237,000	\$ 19,703,000	\$ 7,048,000	\$ 19,703,000	\$ 7,048,000	\$ 19,703,000	\$ 26,751,000	\$ 672,176,290	\$ 4,681,134	\$ 131,493	\$ 2,235,373	\$ 13,086,321	\$ 367,593	\$ 6,249,086
2064/65	2.68	1.07	\$ 1,																	

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
ALTERNATIVE 1 - CAPITAL PROJECTS**

Alternative 1 Infrastructure Improvement Capital																						
No.	Infrastructure Improvement Description	Attribute	Value	Unit	Unit Value	Unit Cost	Construction Cost	Construction Contingency	Design and PM Contingency	Total Project Cost	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33	FY 2033/34	FY 2034/35	FY 2035/36	Total Project Cost with Inflation	
1	Transfer LS Force Main	Diameter (in)	16	LF	28,080	\$ 900	\$ 25,272,000	\$ 7,582,000	\$ 9,856,000	\$ 42,710,000	\$ 2,136,000	\$ 2,210,000	\$ 11,438,000	\$ 11,838,000	\$ 12,253,000	\$ 5,073,000	\$ 2,625,000	\$ -	\$ -	\$ -	\$ 47,573,000	
2	Laguna SOCWA LS Gravity Main	Diameter (in)	27	LF	1,390	\$ 1,600	\$ 2,224,000	\$ 667,000	\$ 867,000	\$ 3,758,000	\$ 188,000	\$ 194,000	\$ 1,006,000	\$ 1,042,000	\$ 1,078,000	\$ 446,000	\$ 231,000	\$ -	\$ -	\$ -	\$ 4,185,000	
3	Laguna SOCWA LS Force Main	Diameter (in)	20	LF	7,410	\$ 1,200	\$ 8,892,000	\$ 2,668,000	\$ 3,468,000	\$ 15,028,000	\$ 751,000	\$ 778,000	\$ 4,025,000	\$ 4,165,000	\$ 4,311,000	\$ 1,785,000	\$ 924,000	\$ -	\$ -	\$ -	\$ 16,739,000	
4	Bluebird SOCWA LS Gravity Main	Diameter (in)	16	LF	2,005	\$ 900	\$ 1,805,000	\$ 542,000	\$ 704,000	\$ 3,051,000	\$ 153,000	\$ 158,000	\$ 817,000	\$ 846,000	\$ 875,000	\$ 362,000	\$ 188,000	\$ -	\$ -	\$ -	\$ 3,399,000	
5	Bluebird SOCWA LS Force Main	Diameter (in)	12	LF	5,705	\$ 700	\$ 3,994,000	\$ 1,198,000	\$ 1,558,000	\$ 6,750,000	\$ 338,000	\$ 349,000	\$ 1,808,000	\$ 1,871,000	\$ 1,936,000	\$ 802,000	\$ 415,000	\$ -	\$ -	\$ -	\$ 7,519,000	
6	Nyes Place LS Force Main	Diameter (in)	8	LF	720	\$ 500	\$ 360,000	\$ 108,000	\$ 140,000	\$ 608,000	\$ 30,000	\$ 31,000	\$ 163,000	\$ 169,000	\$ 174,000	\$ 72,000	\$ 37,000	\$ -	\$ -	\$ -	\$ 676,000	
7	CTP LS Force Main	Diameter (in)	12	LF	16,760	\$ 700	\$ 11,732,000	\$ 3,520,000	\$ 4,576,000	\$ 19,828,000	\$ 991,000	\$ 1,026,000	\$ 5,310,000	\$ 5,496,000	\$ 5,688,000	\$ 2,355,000	\$ 1,219,000	\$ -	\$ -	\$ -	\$ 22,085,000	
8	MNWD RW Pipeline Improvement	Diameter (in)	12	LF	100	\$ 700	\$ 70,000	\$ 21,000	\$ 27,000	\$ 118,000	\$ 6,000	\$ 6,000	\$ 32,000	\$ 33,000	\$ 34,000	\$ 14,000	\$ 7,000	\$ -	\$ -	\$ -	\$ 132,000	
9	New Transfer LS	3 - 15 MGD New Lift Station	-	MGD	4	\$ 2,500,000	\$ 10,000,000	\$ 4,710,000	\$ 6,123,000	\$ 26,533,000	\$ 1,327,000	\$ 1,373,000	\$ 7,106,000	\$ 7,354,000	\$ 7,612,000	\$ 3,151,000	\$ 1,631,000	\$ -	\$ -	\$ -	\$ 29,554,000	
		Concrete Equalization Basin	-	GAL	520,000	\$ 10	\$ 5,200,000															
		Emergency Generator	-	EA	1	\$ 500,000	\$ 500,000															
10	New CTP LS	1 - 3 MGD New Lift Station	-	MGD	2.3	\$ 5,000,000	\$ 11,500,000	\$ 4,320,000	\$ 5,616,000	\$ 24,336,000	\$ 1,217,000	\$ 1,259,000	\$ 6,517,000	\$ 6,745,000	\$ 6,982,000	\$ 2,890,000	\$ 1,496,000	\$ -	\$ -	\$ -	\$ 27,106,000	
		Concrete Equalization Basin	-	GAL	240,000	\$ 10	\$ 2,400,000															
		Emergency Generator	-	EA	1	\$ 500,000	\$ 500,000															
11	Crescent Bay LS Improvements	20 - 50 HP Pumps	2	HP	20	\$ 2,500	\$ 100,000	\$ 30,000	\$ 39,000	\$ 169,000	\$ 8,000	\$ 9,000	\$ 45,000	\$ 47,000	\$ 48,000	\$ 20,000	\$ 10,000	\$ -	\$ -	\$ -	\$ 187,000	
12	Fairview LS Improvements	5 - 15 HP Pumps	2	HP	15	\$ 3,000	\$ 90,000	\$ 27,000	\$ 35,000	\$ 152,000	\$ 8,000	\$ 8,000	\$ 41,000	\$ 42,000	\$ 44,000	\$ 18,000	\$ 9,000	\$ -	\$ -	\$ -	\$ 170,000	
13	Main Beach LS Improvements	20 - 50 HP Pumps	3	HP	30	\$ 2,500	\$ 225,000	\$ 67,500	\$ 88,000	\$ 380,500	\$ 19,000	\$ 20,000	\$ 102,000	\$ 105,000	\$ 109,000	\$ 45,000	\$ 23,000	\$ -	\$ -	\$ -	\$ 423,000	
14	Laguna SOCWA LS Improvements	150 - 250 HP Pumps	4	HP	200	\$ 1,250	\$ 1,000,000	\$ 300,000	\$ 390,000	\$ 1,690,000	\$ 85,000	\$ 87,000	\$ 453,000	\$ 468,000	\$ 485,000	\$ 201,000	\$ 104,000	\$ -	\$ -	\$ -	\$ 1,883,000	
15	Anita LS Improvements	5 - 15 HP Pumps	2	HP	15	\$ 3,000	\$ 90,000	\$ 27,000	\$ 35,000	\$ 152,000	\$ 8,000	\$ 8,000	\$ 41,000	\$ 42,000	\$ 44,000	\$ 18,000	\$ 9,000	\$ -	\$ -	\$ -	\$ 170,000	
16	Bluebird SOCWA LS Improvements	20 - 50 HP Pumps	3	HP	50	\$ 2,500	\$ 375,000	\$ 112,500	\$ 146,000	\$ 633,500	\$ 32,000	\$ 33,000	\$ 170,000	\$ 176,000	\$ 182,000	\$ 75,000	\$ 39,000	\$ -	\$ -	\$ -	\$ 707,000	
17	Nyes Place LS Improvements	20 - 50 HP Pumps	2	HP	20	\$ 2,500	\$ 100,000	\$ 30,000	\$ 39,000	\$ 169,000	\$ 8,000	\$ 9,000	\$ 45,000	\$ 47,000	\$ 48,000	\$ 20,000	\$ 10,000	\$ -	\$ -	\$ -	\$ 187,000	
18	CTP Abandonment	Area	-	SF	98,950	\$ 100	\$ 9,895,000	\$ 2,968,500	\$ 3,859,000	\$ 16,722,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,276,000	\$ -	\$ -	\$ 21,276,000	
											\$ 162,788,500	\$ 7,305,000	\$ 7,558,000	\$ 39,119,000	\$ 40,486,000	\$ 41,903,000	\$ 17,347,000	\$ 8,977,000	\$ 21,276,000	\$ -	\$ -	\$ 183,971,000

Alternative 1 New Lift Station O&M							
No	Infrastructure Improvement Description	Number of Pumps Active for ADWF	Unit	Unit Value	Unit Cost	O&M Cost (\$/Yr)	Percent of Total
9	New Transfer LS	1	HP	125	\$ 58,000	\$ 58,000	72%
10	New CTP LS	1	HP	50	\$ 23,000	\$ 23,000	28%

Legend	
CLB Only	
SCWD Only	
CLB & EBSD	
CLB, EBSD, and SCWD	

Current Flow Split	
CLB	68%
EBSB	2%
SCWD	30%

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
ALTERNATIVE 2 - FINANCIAL EVALUATION**

Fiscal Year	SOWCA Coastal Treatment Plant										SOWCA JB Latham Treatment Plant				City of Laguna Beach NCI Offset		Overall Cost Summary				Agency Cost Summary			
	Alternative Infrastructure Improvements		WW Flow (MGD)	RW Produced (MGD)	Capital Cost			O&M Cost			RW Produced (MGD)	Capital Cost	O&M Cost	Reach 5 Capital	Total Capital Cost	Total O&M Cost	Total Cost	Cumulative Cost	Total Capital Cost			Total O&M Cost		
	Capital Cost	O&M Cost			Liquids	Solids (To MNWD)	Total	Liquids	O&M (To MNWD)	Total									CLB	EBSD	SCWD	CLB	EBSD	SCWD
2026/27	\$ 9,547,000	\$ -	2.68	1.07	\$ 3,085,000	\$ 582,000	\$ 3,667,000	\$ 3,522,000	\$ 4,990,000	2.68	1.07	\$ 3,150,000	\$ -	\$ (5,000,000)	\$ 8,214,000	\$ 4,990,000	\$ 13,204,000	\$ 13,204,000	\$ 4,501,273	\$ 288,748	\$ 3,443,979	\$ 3,314,254	\$ 93,097	\$ 1,582,649
2027/28	\$ 9,891,000	\$ -	2.68	1.07	\$ 4,866,000	\$ 795,000	\$ 5,661,000	\$ 5,159,000	\$ 5,164,000	2.68	1.07	\$ 3,200,000	\$ -	\$ (4,000,000)	\$ 11,542,000	\$ 5,164,000	\$ 16,706,000	\$ 29,910,000	\$ 7,072,839	\$ 312,958	\$ 4,156,202	\$ 3,429,821	\$ 96,343	\$ 1,637,836
2028/29	\$ 51,133,000	\$ -	2.68	1.07	\$ 3,350,000	\$ 52,000	\$ 3,402,000	\$ 3,773,000	\$ 5,345,000	2.68	1.07	\$ 3,333,000	\$ -	\$ -	\$ 54,535,000	\$ 5,345,000	\$ 59,880,000	\$ 89,790,000	\$ 40,103,036	\$ 1,336,444	\$ 13,295,520	\$ 3,657,037	\$ 99,720	\$ 1,695,243
2029/30	\$ 52,924,000	\$ -	2.68	1.07	\$ 250,000	\$ 52,000	\$ 302,000	\$ 3,905,000	\$ 5,532,000	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 53,226,000	\$ 5,532,000	\$ 58,758,000	\$ 148,548,000	\$ 39,369,599	\$ 1,116,190	\$ 12,740,211	\$ 3,674,239	\$ 103,209	\$ 1,754,552
2030/31	\$ 54,778,000	\$ -	2.68	1.07	\$ 299,000	\$ 52,000	\$ 351,000	\$ 4,042,000	\$ 5,684,000	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 55,087,000	\$ 5,726,000	\$ 60,813,000	\$ 209,381,000	\$ 40,746,241	\$ 1,155,220	\$ 13,185,539	\$ 3,803,900	\$ 108,828	\$ 1,816,082
2031/32	\$ 22,676,000	\$ -	2.68	1.07	\$ 288,000	\$ 52,000	\$ 340,000	\$ 4,183,000	\$ 5,926,000	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 22,996,000	\$ 5,926,000	\$ 28,922,000	\$ 238,283,000	\$ 16,995,030	\$ 481,803	\$ 5,519,168	\$ 3,935,925	\$ 110,560	\$ 1,879,515
2032/33	\$ 17,135,000	\$ -	2.68	1.07	\$ 277,000	\$ 52,000	\$ 329,000	\$ 4,329,000	\$ 6,133,000	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 12,054,000	\$ 6,133,000	\$ 18,187,000	\$ 256,480,000	\$ 8,903,381	\$ 252,385	\$ 2,908,034	\$ 4,073,410	\$ 14,422	\$ 1,945,168
2033/34	\$ 23,857,000	\$ -	2.68	1.07	\$ 287,000	\$ 52,000	\$ 339,000	\$ 4,481,000	\$ 6,348,000	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 24,196,000	\$ 6,348,000	\$ 30,544,000	\$ 287,024,000	\$ 17,881,706	\$ 506,939	\$ 5,807,354	\$ 4,216,209	\$ 118,433	\$ 2,013,358
2034/35	\$ 2,385,000	\$ 154,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 53,523,000	\$ 4,275,000	\$ 57,798,000	\$ 344,822,000	\$ 35,728,410	\$ 1,004,067	\$ 16,970,523	\$ 3,829,366	\$ 79,757	\$ 1,355,877
2035/36	\$ 2,448,000	\$ 159,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 4,750,000	\$ 4,424,000	\$ 9,174,000	\$ 379,575,000	\$ 3,340,703	\$ 94,317	\$ 13,14,980	\$ 2,938,328	\$ 82,537	\$ 1,403,134
2036/37	\$ -	\$ 185,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 4,917,000	\$ 4,579,000	\$ 9,496,000	\$ 389,071,000	\$ 3,458,151	\$ 97,632	\$ 1,361,217	\$ 3,041,276	\$ 85,429	\$ 1,452,290
2037/38	\$ -	\$ 171,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 5,089,000	\$ 4,739,000	\$ 9,828,000	\$ 398,899,000	\$ 3,579,148	\$ 101,048	\$ 1,408,805	\$ 3,567,645	\$ 89,414	\$ 1,503,941
2038/39	\$ -	\$ 177,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 5,267,000	\$ 4,905,000	\$ 10,172,000	\$ 409,071,000	\$ 3,704,355	\$ 104,583	\$ 1,458,062	\$ 3,257,799	\$ 91,511	\$ 1,555,690
2039/40	\$ -	\$ 183,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 5,451,000	\$ 5,076,000	\$ 10,527,000	\$ 419,598,000	\$ 3,833,716	\$ 108,237	\$ 1,508,987	\$ 3,371,373	\$ 94,701	\$ 1,609,925
2040/41	\$ -	\$ 189,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 5,641,000	\$ 5,253,000	\$ 10,894,000	\$ 430,492,000	\$ 3,967,410	\$ 112,010	\$ 1,561,579	\$ 3,488,933	\$ 98,004	\$ 1,666,063
2041/42	\$ -	\$ 196,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 5,835,000	\$ 5,437,000	\$ 11,272,000	\$ 441,768,000	\$ 4,106,662	\$ 115,942	\$ 1,616,397	\$ 3,611,142	\$ 101,437	\$ 1,724,422
2042/43	\$ -	\$ 203,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 6,043,000	\$ 5,627,000	\$ 11,670,000	\$ 453,438,000	\$ 4,250,126	\$ 119,992	\$ 1,672,885	\$ 3,737,336	\$ 104,981	\$ 1,784,683
2043/44	\$ -	\$ 210,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 6,254,000	\$ 5,824,000	\$ 12,078,000	\$ 465,516,000	\$ 4,398,543	\$ 124,182	\$ 1,731,275	\$ 3,868,179	\$ 108,657	\$ 1,847,164
2044/45	\$ -	\$ 217,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 6,473,000	\$ 6,027,000	\$ 12,500,000	\$ 478,016,000	\$ 4,552,577	\$ 128,531	\$ 1,791,892	\$ 4,003,007	\$ 112,444	\$ 1,911,549
2045/46	\$ -	\$ 225,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 6,700,000	\$ 6,238,000	\$ 12,938,000	\$ 490,954,000	\$ 4,712,228	\$ 133,038	\$ 1,854,733	\$ 4,143,149	\$ 116,381	\$ 1,978,470
2046/47	\$ -	\$ 233,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 6,935,000	\$ 6,456,000	\$ 13,391,000	\$ 504,345,000	\$ 4,877,497	\$ 137,704	\$ 1,919,799	\$ 4,287,940	\$ 120,448	\$ 2,047,612
2047/48	\$ -	\$ 241,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 7,178,000	\$ 6,441,000	\$ 13,869,000	\$ 518,205,000	\$ 5,048,382	\$ 142,529	\$ 1,987,089	\$ 4,438,045	\$ 124,664	\$ 2,119,291
2048/49	\$ -	\$ 249,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 7,429,000	\$ 6,915,000	\$ 14,344,000	\$ 532,549,000	\$ 5,224,885	\$ 147,512	\$ 2,056,603	\$ 4,592,739	\$ 129,011	\$ 2,193,190
2049/50	\$ -	\$ 258,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 7,689,000	\$ 7,157,000	\$ 14,846,000	\$ 547,395,000	\$ 5,407,745	\$ 152,674	\$ 2,128,581	\$ 4,753,530	\$ 133,526	\$ 2,269,944
2050/51	\$ -	\$ 267,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 7,958,000	\$ 7,407,000	\$ 15,365,000	\$ 562,760,000	\$ 5,596,962	\$ 159,017	\$ 2,203,221	\$ 4,919,575	\$ 138,190	\$ 2,349,235
2051/52	\$ -	\$ 276,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 8,237,000	\$ 7,666,000	\$ 15,903,000	\$ 578,663,000	\$ 5,793,201	\$ 163,557	\$ 2,280,243	\$ 5,091,907	\$ 143,022	\$ 2,431,381
2052/53	\$ -	\$ 286,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 8,526,000	\$ 7,935,000	\$ 16,461,000	\$ 595,124,000	\$ 5,996,460	\$ 169,295	\$ 2,360,241	\$ 5,270,261	\$ 148,041	\$ 2,516,698
2053/54	\$ -	\$ 296,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 8,825,000	\$ 8,213,000	\$ 17,038,000	\$ 612,162,000	\$ 6,206,742	\$ 175,232	\$ 2,443,026	\$ 5,454,903	\$ 153,228	\$ 2,604,869
2054/55	\$ -	\$ 306,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 9,134,000	\$ 8,500,000	\$ 17,634,000	\$ 629,796,000	\$ 6,424,044	\$ 181,367	\$ 2,528,588	\$ 5,645,522	\$ 158,582	\$ 2,695,996
2055/56	\$ -	\$ 317,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 9,454,000	\$ 8,793,000	\$ 18,247,000	\$ 649,048,000	\$ 6,549,109	\$ 187,721	\$ 2,617,170	\$ 5,843,448	\$ 164,142	\$ 2,790,610
2056/57	\$ -	\$ 328,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 9,785,000	\$ 9,106,000	\$ 18,891,000	\$ 666,939,000	\$ 6,681,934	\$ 194,295	\$ 2,708,771	\$ 6,048,015	\$ 169,888	\$ 2,888,097
2057/58	\$ -	\$ 339,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 10,128,000	\$ 9,424,000	\$ 19,552,000	\$ 686,491,000	\$ 6,745,185	\$ 201,106	\$ 2,805,709	\$ 6,259,224	\$ 175,821	\$ 2,988,955
2058/59	\$ -	\$ 351,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 10,483,000	\$ 9,754,000	\$ 20,237,000	\$ 706,728,000	\$ 6,772,862	\$ 208,155	\$ 2,901,983	\$ 6,476,403	\$ 181,978	\$ 3,093,619
2059/60	\$ -	\$ 363,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 10,850,000	\$ 10,095,000	\$ 20,945,000	\$ 727,673,000	\$ 6,783,969	\$ 215,442	\$ 2,993,993	\$ 6,708,898	\$ 186,340	\$ 3,201,772
2060/61	\$ -	\$ 376,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 11,230,000	\$ 10,449,000	\$ 21,679,000	\$ 748,352,000	\$ 6,789,234	\$ 222,987	\$ 3,088,778	\$ 6,940,007	\$ 194,944	\$ 3,314,049
2061/62	\$ -	\$ 389,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 11,623,000	\$ 10,815,000	\$ 22,438,000	\$ 771,790,000	\$ 6,774,688	\$ 230,792	\$ 3,170,540	\$ 7,183,097	\$ 201,772	\$ 3,430,311
2062/63	\$ -	\$ 403,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 12,030,000	\$ 11,194,000	\$ 23,224,000	\$ 795,014,000	\$ 6,748,932	\$ 238,874	\$ 3,230,194	\$ 7,434,821	\$ 208,843	\$ 3,550,336
2063/64	\$ -	\$ 417,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,150,000	\$ -	\$ -	\$ 12,451,000	\$ 11,586,000</								

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
ALTERNATIVE 2 - CAPITAL PROJECTS**

Alternative 2 Infrastructure Improvement Capital																						
No.	Infrastructure Improvement Description	Attribute	Value	Unit	Unit Value	Unit Cost	Construction Cost	Construction Contingency	Design and PM Contingency	Total Project Cost	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33	FY 2033/34	FY 2034/35	FY 2035/36	Total Project Cost with Inflation	
1	Lift Station #2 Force Main	Diameter (in)	24	LF	16,655	\$ 1,400	\$ 23,317,000	\$ 6,995,000	\$ 9,094,000	\$ 39,406,000	\$ 1,970,000	\$ 2,039,000	\$ 10,553,000	\$ 10,923,000	\$ 11,305,000	\$ 4,680,000	\$ 2,422,000	\$ -	\$ -	\$ -	\$ 43,892,000	
2	Lift Station #6 Force Main	Diameter (in)	24	LF	7,610	\$ 1,400	\$ 10,654,000	\$ 3,196,000	\$ 4,155,000	\$ 18,005,000	\$ 900,000	\$ 932,000	\$ 4,822,000	\$ 4,991,000	\$ 5,165,000	\$ 2,138,000	\$ 1,107,000	\$ -	\$ -	\$ -	\$ 20,055,000	
3	Lift Station #6 Gravity Main	Diameter (in)	30	LF	6,810	\$ 1,800	\$ 12,258,000	\$ 3,677,000	\$ 4,781,000	\$ 20,716,000	\$ 1,036,000	\$ 1,072,000	\$ 5,548,000	\$ 5,742,000	\$ 5,943,000	\$ 2,460,000	\$ 1,273,000	\$ -	\$ -	\$ -	\$ 23,074,000	
4	Lift Station #2 Improvements	3 - 15 MGD New Lift Station	-	MGD	12.4	\$ 2,500,000	\$ 31,000,000	\$ 9,300,000	\$ 12,090,000	\$ 52,390,000	\$ 2,620,000	\$ 2,711,000	\$ 14,030,000	\$ 14,521,000	\$ 15,030,000	\$ 6,222,000	\$ 3,220,000	\$ -	\$ -	\$ -	\$ 58,354,000	
5	Lift Station #6 Improvements	3 - 15 MGD New Lift Station	-	MGD	14.3	\$ 2,500,000	\$ 35,750,000	\$ 10,725,000	\$ 13,943,000	\$ 60,418,000	\$ 3,021,000	\$ 3,127,000	\$ 16,180,000	\$ 16,747,000	\$ 17,333,000	\$ 7,176,000	\$ 3,713,000	\$ -	\$ -	\$ -	\$ 67,297,000	
6	CTP Abandonment	Area	-	SF	110,950	\$ 100	\$ 11,095,000	\$ 3,329,000	\$ 4,327,000	\$ 18,751,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,857,000	\$ -	\$ -	\$ 23,857,000	
											\$ 209,686,000	\$ 9,547,000	\$ 9,881,000	\$ 51,133,000	\$ 52,924,000	\$ 54,776,000	\$ 22,676,000	\$ 11,735,000	\$ 23,857,000	\$ -	\$ -	\$ 236,529,000

Baseline SCWD Lift Station #2 and #6 O&M						
No	Lift Station	Number of Pumps Active for ADWF	Unit	Unit Value	Unit Cost	O&M Cost (\$/Yr)
-	Lift Station #2	1	HP	170	\$ 78,000	\$ 78,000
-	Lift Station #6	1	HP	75	\$ 35,000	\$ 35,000

Alternative 2 SCWD Lift Station #2 and #6 O&M								
No	Infrastructure Improvement Description	Number of Pumps Active for ADWF	Unit	Unit Value	Unit Cost	O&M Cost (\$/Yr)	O&M Cost Increase (\$/Yr)	Percent of Total
4	Lift Station #2 Improvements	1	HP	250	\$115,000	\$ 115,000	\$ 37,000	32%
5	Lift Station #6 Improvements	1	HP	250	\$115,000	\$ 115,000	\$ 80,000	68%

Legend	
CLB Only	
SCWD Only	
CLB & EBSD	
CLB, EBSD, and SCWD	

Current Flow Split	
CLB	68%
EBSB	2%
SCWD	30%

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
ALTERNATIVE 3 - FINANCIAL EVALUATION**

Index	Fiscal Year	SOCWA Coastal Treatment Plant										MNWD Regional Treatment Plant				Overall Cost Summary				Agency Cost Summary					
		Alternative Infrastructure Improvements		WW Flow (MGD)	RW Produced (MGD)	Capital Cost			O&M Cost			WW Flow (MGD)	RW Produced (MGD)	Capital Cost	O&M Cost	Total Capital Cost	Total O&M Cost	Total Cost	Cumulative Cost	Total Capital Cost			Total O&M Cost		
		Capital Cost	O&M Cost			Liquids	Solids (To MNWD)	Total	Liquids	Solids (To MNWD)	Total									CLB	EBSD	SCWD	CLB	EBSD	SCWD
1	2026/27	\$ 3,219,000	\$ 18,000	2.68	1.07	\$ 3,085,000	\$ 582,000	\$ 3,667,000	\$ 3,522,000	\$ 1,468,000	\$ 4,990,000	2.68	1.07	\$ 3,424,000	\$ 4,209,000	\$ 8,896,000	\$ 4,990,000	\$ 11,876,000	\$ 11,876,000	\$ 4,573,537	\$ 128,470	\$ 2,183,993	\$ 3,314,254	\$ 93,097	\$ 1,582,649
2	2027/28	\$ 3,331,000	\$ 18,000	2.68	1.07	\$ 4,866,000	\$ 795,000	\$ 5,661,000	\$ 3,845,000	\$ 1,519,000	\$ 5,164,000	2.68	1.07	\$ 3,424,000	\$ 4,209,000	\$ 8,992,000	\$ 5,164,000	\$ 14,156,000	\$ 26,032,000	\$ 5,972,299	\$ 167,761	\$ 2,851,940	\$ 3,429,821	\$ 96,343	\$ 1,637,836
3	2028/29	\$ 17,237,000	\$ 18,000	2.68	1.07	\$ 3,350,000	\$ 52,000	\$ 3,402,000	\$ 3,773,000	\$ 1,572,000	\$ 5,345,000	2.68	1.07	\$ 3,424,000	\$ 4,209,000	\$ 20,639,000	\$ 5,345,000	\$ 25,984,000	\$ 52,016,000	\$ 13,707,993	\$ 385,056	\$ 6,545,951	\$ 3,520,027	\$ 99,757	\$ 1,695,877
4	2029/30	\$ 17,840,000	\$ 18,000	2.68	1.07	\$ 250,000	\$ 52,000	\$ 302,000	\$ 3,905,000	\$ 1,627,000	\$ 5,532,000	2.68	1.07	\$ 18,142,000	\$ 5,532,000	\$ 18,142,000	\$ 5,532,000	\$ 23,674,000	\$ 75,690,000	\$ 12,049,537	\$ 338,470	\$ 5,753,993	\$ 3,674,239	\$ 103,209	\$ 1,754,552
5	2030/31	\$ 18,484,000	\$ 18,000	2.68	1.07	\$ 250,000	\$ 52,000	\$ 311,000	\$ 4,042,000	\$ 1,684,000	\$ 5,726,000	2.68	1.07	\$ 18,142,000	\$ 5,726,000	\$ 18,142,000	\$ 5,726,000	\$ 24,868,000	\$ 100,191,000	\$ 12,469,963	\$ 350,280	\$ 5,954,757	\$ 3,803,900	\$ 106,828	\$ 1,816,082
6	2031/32	\$ 7,645,000	\$ 18,000	2.68	1.07	\$ 268,000	\$ 52,000	\$ 320,000	\$ 4,183,000	\$ 1,743,000	\$ 5,926,000	2.68	1.07	\$ 18,142,000	\$ 5,926,000	\$ 17,965,000	\$ 5,926,000	\$ 13,891,000	\$ 114,082,000	\$ 5,290,187	\$ 148,601	\$ 2,526,213	\$ 3,935,925	\$ 110,560	\$ 1,879,515
7	2032/33	\$ 3,956,000	\$ 18,000	2.68	1.07	\$ 277,000	\$ 52,000	\$ 329,000	\$ 4,329,000	\$ 1,804,000	\$ 6,133,000	2.68	1.07	\$ 18,142,000	\$ 6,133,000	\$ 4,285,000	\$ 6,133,000	\$ 10,418,000	\$ 124,500,000	\$ 2,846,007	\$ 79,944	\$ 1,359,049	\$ 4,073,410	\$ 114,422	\$ 1,945,168
8	2033/34	\$ 21,276,000	\$ 18,000	2.68	1.07	\$ 287,000	\$ 52,000	\$ 339,000	\$ 4,481,000	\$ 1,867,000	\$ 6,348,000	2.68	1.07	\$ 18,142,000	\$ 6,348,000	\$ 21,615,000	\$ 6,348,000	\$ 27,963,000	\$ 152,463,000	\$ 14,356,231	\$ 403,265	\$ 6,855,504	\$ 4,216,209	\$ 118,433	\$ 2,013,358
9	2034/35	\$ 930,000	\$ 152,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 2,217,000	\$ 4,506,000	\$ 4,506,000	\$ 4,660,000	\$ 92,913,000	\$ 245,376,000	\$ 1,646,511	\$ 27,990,600	\$ 3,095,075	\$ 86,940	\$ 1,477,985	
10	2035/36	\$ 963,000	\$ 157,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 2,217,000	\$ 4,666,000	\$ 4,666,000	\$ 4,823,000	\$ 84,006,000	\$ 253,782,000	\$ 2,379,754	\$ 66,847	\$ 1,136,399	\$ 3,203,336	\$ 89,981	\$ 1,529,683
11	2036/37	\$ 162,000	\$ 162,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 2,217,000	\$ 4,823,000	\$ 4,823,000	\$ 4,991,000	\$ 6,700,000	\$ 262,482,000	\$ 2,463,440	\$ 69,198	\$ 1,176,362	\$ 3,314,918	\$ 93,116	\$ 1,582,966
12	2037/38	\$ 168,000	\$ 168,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 2,217,000	\$ 4,991,000	\$ 4,991,000	\$ 5,166,000	\$ 9,005,000	\$ 271,487,000	\$ 2,549,784	\$ 71,623	\$ 1,217,593	\$ 3,431,149	\$ 98,381	\$ 1,638,470
13	2038/39	\$ 174,000	\$ 174,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 2,217,000	\$ 5,166,000	\$ 5,166,000	\$ 5,347,000	\$ 9,320,000	\$ 280,807,000	\$ 2,638,784	\$ 114,223	\$ 1,260,093	\$ 3,551,386	\$ 99,757	\$ 1,695,877
14	2039/40	\$ 180,000	\$ 180,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 2,217,000	\$ 5,347,000	\$ 5,347,000	\$ 5,534,000	\$ 9,646,000	\$ 290,453,000	\$ 2,731,104	\$ 76,716	\$ 1,304,179	\$ 3,675,567	\$ 103,246	\$ 1,755,187
15	2040/41	\$ 186,000	\$ 186,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 2,217,000	\$ 5,534,000	\$ 5,534,000	\$ 5,727,000	\$ 9,983,000	\$ 300,436,000	\$ 2,828,746	\$ 79,403	\$ 1,349,851	\$ 3,803,754	\$ 106,847	\$ 1,816,399
16	2041/42	\$ 193,000	\$ 193,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 2,217,000	\$ 5,727,000	\$ 5,727,000	\$ 5,928,000	\$ 10,333,000	\$ 310,769,000	\$ 2,925,709	\$ 82,183	\$ 1,397,108	\$ 3,937,254	\$ 110,567	\$ 1,880,149
17	2042/43	\$ 200,000	\$ 200,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 2,217,000	\$ 5,928,000	\$ 5,928,000	\$ 6,136,000	\$ 10,695,000	\$ 321,644,000	\$ 3,027,993	\$ 85,056	\$ 1,445,951	\$ 4,075,403	\$ 114,478	\$ 1,946,119
18	2043/44	\$ 207,000	\$ 207,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 2,217,000	\$ 6,136,000	\$ 6,136,000	\$ 6,351,000	\$ 11,070,000	\$ 332,534,000	\$ 3,214,261	\$ 88,041	\$ 1,496,698	\$ 4,218,201	\$ 118,489	\$ 2,014,310
19	2044/45	\$ 1,312,000	\$ 214,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,572,000	\$ 6,351,000	\$ 6,351,000	\$ 6,573,000	\$ 11,467,000	\$ 343,991,000	\$ 3,243,851	\$ 91,119	\$ 1,549,030	\$ 4,365,649	\$ 122,631	\$ 2,084,720
20	2045/46	\$ 1,358,000	\$ 221,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,697,000	\$ 6,573,000	\$ 6,573,000	\$ 6,803,000	\$ 11,858,000	\$ 355,849,000	\$ 3,357,425	\$ 94,310	\$ 1,603,265	\$ 4,518,410	\$ 126,922	\$ 2,157,668
21	2046/47	\$ 1,406,000	\$ 229,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,826,000	\$ 6,803,000	\$ 6,803,000	\$ 7,041,000	\$ 12,273,000	\$ 368,122,000	\$ 3,474,985	\$ 97,612	\$ 1,659,403	\$ 4,676,485	\$ 131,362	\$ 2,233,153
22	2047/48	\$ 1,455,000	\$ 237,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 3,960,000	\$ 7,041,000	\$ 7,041,000	\$ 7,287,000	\$ 12,702,000	\$ 380,824,000	\$ 3,596,530	\$ 101,026	\$ 1,717,444	\$ 4,839,873	\$ 135,951	\$ 2,311,175
23	2048/49	\$ 1,506,000	\$ 245,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 4,099,000	\$ 7,287,000	\$ 7,287,000	\$ 7,542,000	\$ 13,147,000	\$ 393,971,000	\$ 3,722,724	\$ 104,571	\$ 1,777,705	\$ 5,009,239	\$ 140,709	\$ 2,392,052
24	2049/50	\$ 1,559,000	\$ 254,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 4,242,000	\$ 7,542,000	\$ 7,542,000	\$ 7,806,000	\$ 13,607,000	\$ 407,578,000	\$ 3,852,903	\$ 108,228	\$ 1,839,869	\$ 5,184,582	\$ 145,634	\$ 2,475,784
25	2050/51	\$ 1,614,000	\$ 263,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 4,390,000	\$ 7,806,000	\$ 7,806,000	\$ 8,079,000	\$ 14,093,000	\$ 421,861,000	\$ 3,987,731	\$ 110,613	\$ 1,904,254	\$ 5,305,903	\$ 150,728	\$ 2,562,399
26	2051/52	\$ 1,670,000	\$ 272,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 4,544,000	\$ 8,079,000	\$ 8,079,000	\$ 8,362,000	\$ 14,576,000	\$ 438,067,000	\$ 4,120,467	\$ 115,807	\$ 1,970,858	\$ 5,647,800	\$ 162,127	\$ 2,647,127
27	2052/53	\$ 1,728,000	\$ 282,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 4,703,000	\$ 8,362,000	\$ 8,362,000	\$ 8,651,000	\$ 15,098,000	\$ 451,323,000	\$ 4,271,336	\$ 119,981	\$ 2,039,683	\$ 5,748,470	\$ 161,474	\$ 2,745,056
28	2053/54	\$ 1,788,000	\$ 292,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 4,868,000	\$ 8,651,000	\$ 8,651,000	\$ 8,958,000	\$ 15,614,000	\$ 463,937,000	\$ 4,420,778	\$ 124,179	\$ 2,111,045	\$ 5,949,716	\$ 167,127	\$ 2,841,157
29	2054/55	\$ 1,851,000	\$ 302,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 5,038,000	\$ 8,958,000	\$ 8,958,000	\$ 9,271,000	\$ 16,180,000	\$ 483,097,000	\$ 4,575,530	\$ 128,526	\$ 2,184,944	\$ 6,157,606	\$ 172,966	\$ 2,940,429
30	2055/56	\$ 1,916,000	\$ 313,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 5,214,000	\$ 9,271,000	\$ 9,271,000	\$ 9,596,000	\$ 16,726,000	\$ 499,823,000	\$ 4,735,597	\$ 133,022	\$ 2,261,381	\$ 6,373,643	\$ 179,030	\$ 3,043,507
31	2056/57	\$ 1,983,000	\$ 324,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 5,396,000	\$ 9,596,000	\$ 9,596,000	\$ 9,932,000	\$ 17,311,000	\$ 517,134,000	\$ 4,900,978	\$ 137,668	\$ 2,340,354	\$ 6,596,627	\$ 185,299	\$ 3,150,075
32	2057/58	\$ 2,052,000	\$ 335,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 5,585,000	\$ 9,932,000	\$ 9,932,000	\$ 10,279,000	\$ 17,916,000	\$ 535,050,000	\$ 5,072,336	\$ 142,481	\$ 2,422,183	\$ 6,627,097	\$ 191,772	\$ 3,260,313
33	2058/59	\$ 2,124,000	\$ 347,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 5,780,000	\$ 10,279,000	\$ 10,279,000	\$ 10,639,000	\$ 18,543,000	\$ 553,593,000	\$ 5,249,672	\$ 147,463	\$ 2,506,866	\$ 7,066,201	\$ 198,489	\$ 3,374,310
34	2059/60	\$ 2,198,000	\$ 359,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 5,982,000	\$ 10,639,000	\$ 10,639,000	\$ 11,011,000	\$ 19,191,000	\$ 572,784,000	\$ 5,432,985	\$ 152,612	\$ 2,594,403	\$ 7,313,276	\$ 205,429	\$ 3,492,295
35	2060/61	\$ 2,275,000	\$ 372,000	2.68	1.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2.68	1.07	\$ 6,191,000	\$ 11,011,000	\$ 11,011,000	\$ 11,397,000	\$ 19,863,000	\$ 592,647,000	\$ 5,622,940	\$ 157,948	\$			

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

ALTERNATIVE 3 - CAPITAL PROJECTS

Alternative 3 Infrastructure Improvement Capital																					
No.	Infrastructure Improvement Description	Attribute	Value	Unit	Unit Value	Unit Cost	Construction Cost	Construction Contingency	Design and PM Contingency	Total Project Cost	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33	FY 2033/34	FY 2034/35	FY 2035/36	
1	CTP LS Force Main	Diameter (in)	16	LF	16,760	\$ 900	\$ 15,084,000	\$ 4,525,000	\$ 5,883,000	\$ 25,492,000	\$ 1,275,000	\$ 1,319,000	\$ 6,827,000	\$ 7,066,000	\$ 7,313,000	\$ 3,028,000	\$ 1,567,000	\$ -	\$ -	\$ -	
2	New CTP LS	3 - 15 MGD New Lift Station	-	MGD	6.6	\$ 2,500,000	\$ 16,500,000	\$ 6,900,000	\$ 8,970,000	\$ 38,870,000	\$ 1,944,000	\$ 2,012,000	\$ 10,410,000	\$ 10,774,000	\$ 11,151,000	\$ 4,617,000	\$ 2,389,000	\$ -	\$ -	\$ -	
		Concrete Equalization Basin	-	GAL	600,000	\$ 10	\$ 6,000,000														
		Emergency Generator	-	EA	1	\$ 500,000	\$ 500,000														
3	CTP Abandonment	Area	-	SF	98,950	\$ 100	\$ 9,895,000	\$ 2,969,000	\$ 3,859,000	\$ 16,723,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,276,000	\$ -	\$ -	
											\$ 81,085,000	\$ 3,219,000	\$ 3,331,000	\$ 17,237,000	\$ 17,840,000	\$ 18,464,000	\$ 7,645,000	\$ 3,956,000	\$ 21,276,000	\$ -	\$ -

Alternative 3 New Lift Station O&M						
No	Infrastructure Improvement Description	Number of Pumps Active for ADWF	Unit	Unit Value	Unit Cost	O&M Cost (\$/Yr)
2	New CTP LS	2	HP	125	\$ 58,000	\$ 116,000

Legend	
	CLB Only
	SCWD Only
	CLB & EBSD
	CLB, EBSD, and SCWD

Current Flow Split	
CLB	68%
EBSD	2%
SCWD	30%

CTP Regional Flow Study (as of 5/15/2026)

EVENTS	DATE	COMPLETION DATE
Issue RFP	November 20, 2025	November 20, 2025
Mandatory Pre-Proposal Meeting	December 18, 2025	December 18, 2025
Deadline for Questions and Supplemental Information	January 8, 2026	January 29, 2026
Proposal Submission Deadline	January 29, 2026	January 29, 2026
Interviews	February 9-12, 2026	February 11, 2026
Contract Award	February 26, 2026	March 5, 2026
Kick-Off Meeting	March 12, 2026	March 10, 2026
Project Element 1 Due	March 26, 2026	March 26, 2026
Project Element 2 Due	April 16, 2026	April 17, 2026
Project Element 3 Due	May 7, 2026	May 11, 2026
Project Element 4 Due	May 21, 2026	
Project Element 5 Due: 2 weeks	June 4, 2026	
Final Report Due - Tentative	July 1, 2026	

Agenda Item

12

Engineering Committee Meeting

Meeting Date: May 21, 2026

TO: Engineering Committee

FROM: Jim Burror, Deputy General Manager/Chief Engineer
and Roni Grant, Capital Improvement Program Manager

SUBJECT: Capital Improvement Program Budget for Fiscal Year 2026-27 Update

Overview

The Fiscal Year 2026–27 Capital Improvement Program (CIP) budget was presented and approved at the May 14, 2026, Board meeting. Over the past several months, SOCWA staff met with member agencies to revise and update the CIP. Since the last full presentation to the Engineering Committee in February 2026, changes included:

- Updating PC21 Effluent Transmission Main project schedules
- Updating master planning project schedules (from FY 2026–27 to FY 2027–28)
- Delaying projects that may be impacted by upcoming master planning efforts.

Recommended Action: Information Item

Attachment: FY2026-27 CIP

*Appendix A - Updated SOCWA Ten Year Annual Capital
Improvement Plan Tables*

South Orange County Wastewater Authority
Large Capital Projects FY26-27

PROJECT BUDGETS

Project Title	Project ID	Allocation	Proposed Project Budget	thru 6/30/2026	Remaining Budget	FY26-27 Budget	FY27-28 Budget	FY28-29 Budget	FY29-30 Budget	FY30-31 Budget	Thereafter
PC02											
SCADA Integration - Upgrade Project (3 PCs)	NEED	Common	\$175,000	\$0	\$175,000	\$175,000	\$0	\$0	\$0	\$0	\$0
Business Network Server Replacement Project (3 PCs)	NEED	Common	\$175,000	\$0	\$175,000	\$175,000	\$0	\$0	\$0	\$0	\$0
Firewall Reliability Upgrade (3PCs)	NEED	Common	\$9,000	\$0	\$9,000	\$9,000	\$0	\$0	\$0	\$0	\$0
WIMS Server Replacement (3PCs)	NEED	Common	\$20,000	\$0	\$20,000	\$20,000	\$0	\$0	\$0	\$0	\$0
3252-000 - MCC M and G Replacement	3252-000	Liquids	\$4,232,843	\$1,154,159	\$3,078,684	\$500,000	\$2,578,684	\$0	\$0	\$0	\$0
3285-000 - Main Plant Drain Line Reconstruction (2018)	3285-000	Liquids	\$1,000,000	\$74,000	\$926,000	\$926,000	\$0	\$0	\$0	\$0	\$0
32241L-000 - Effluent PS Storage and Staging Area	32241L-000	Liquids	\$850,000	\$283,000	\$567,000	\$567,000	\$0	\$0	\$0	\$0	\$0
32226L-000 - Effluent Pump Station Upgrades	32226L-000	Liquids	\$950,000	\$788,000	\$162,000	\$162,000	\$0	\$0	\$0	\$0	\$0
32232S-000 - Buried Digester and Flare Gasline Replacement	32232S-000	Solids	\$125,000	\$115,000	\$10,000	\$10,000	\$0	\$0	\$0	\$0	\$0
32234S-000 - JBL Heat exchanger #4 pipe replacement	32234S-000	Solids	\$250,000	\$33,000	\$217,000	\$217,000	\$0	\$0	\$0	\$0	\$0
32243L-000 - Plant 2 Headworks Rehabilitation	32243L-000	Liquids	\$1,500,000	\$628,000	\$872,000	\$872,000	\$0	\$0	\$0	\$0	\$0
32225S-000 - Energy Building Roof Upgrades	32225S-000	Solids	\$615,000	\$615,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
32225C-000 - JBL Energy Building Upgrades - Common	32225C-000	Common	\$250,000	\$250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3216-000 - Hoist System for Maintenance Shop (2013)	3216-000	Common	\$250,000	\$249,000	\$1,000	\$1,000	\$0	\$0	\$0	\$0	\$0
322236S-000 Digester 3 and 4 Upgrades and Coatings	322236S-000	Solids	\$1,000,000	\$0	\$1,000,000	\$200,000	\$800,000	\$0	\$0	\$0	\$0
32224S Dewatering System, Truck Loading Area, and MCC 2 & CF Recon.	32224S	Solids	\$3,000,000	\$0	\$3,000,000	\$0	\$1,500,000	\$1,500,000	\$0	\$0	\$0
32231S-000 - Gas Flare Replacement	32231S-000	Solids	\$1,500,000	\$40,000	\$1,460,000	\$0	\$500,000	\$960,000	\$0	\$0	\$0
32261S-000 - Odor Control Scrubber No.2 Replacement	32261S-000	Solids	\$2,000,000	\$14,000	\$1,986,000	\$286,000	\$700,000	\$1,000,000	\$0	\$0	\$0
2540-000 - Dewatering System Replacement	2540-000	Solids	\$5,516,000	\$0	\$5,516,000	\$0	\$516,000	\$5,000,000	\$0	\$0	\$0
32262L-000 - DAF Polymer System Upgrade	32262L-000	Liquids	\$741,000	\$0	\$741,000	\$0	\$741,000	\$0	\$0	\$0	\$0
32263S-000 - Buried Digester Piping Reconstruction	32263S-000	Solids	\$806,490	\$0	\$806,490	\$0	\$306,490	\$500,000	\$0	\$0	\$0
32264S-000 - Dewatering Polymer System Upgrade	32264S-000	Solids	\$250,000	\$0	\$250,000	\$0	\$125,000	\$125,000	\$0	\$0	\$0
2055 Plant 1 Headworks Upgrade	2055	Liquids	\$2,006,000	\$0	\$2,006,000	\$0	\$0	\$1,006,000	\$1,000,000	\$0	\$0
32233L-000 - Plant 1 Grit Handling (2017)	32233L-000	Liquids	\$744,364	\$0	\$744,364	\$0	\$0	\$744,364	\$0	\$0	\$0
2051 Influent Diversion Structure Upgrade	2051	Liquids	\$473,000	\$0	\$473,000	\$0	\$0	\$473,000	\$0	\$0	\$0
2080 Odor Control Scrubber No.3 Installation	2080	Liquids	\$196,000	\$0	\$196,000	\$0	\$0	\$196,000	\$0	\$0	\$0
2081 Sodium Hypochlorite System Reconstruction	2081	Liquids	\$720,000	\$0	\$720,000	\$0	\$0	\$720,000	\$0	\$0	\$0
2090 Odor Control Scrubber No.1 Replacement	2090	Liquids	\$1,127,000	\$0	\$1,127,000	\$0	\$0	\$0	\$1,127,000	\$0	\$0
2101 Effluent Pump VFD Replacement	2101	Liquids	\$327,000	\$0	\$327,000	\$0	\$0	\$327,000	\$0	\$0	\$0
2521 Odor Control Scrubber No.4 Installation	2521	Liquids	\$171,000	\$0	\$171,000	\$0	\$0	\$171,000	\$0	\$0	\$0
2060 Plant 1 Raw Sewage Pump Station Upgrade	2060	Liquids	\$1,691,802	\$0	\$1,691,802	\$0	\$0	\$0	\$1,691,802	\$0	\$0
2061 Plant 1 Raw Sewage Pump VFD Upgrade	2061	Liquids	\$166,404	\$0	\$166,404	\$0	\$0	\$166,404	\$0	\$0	\$0
2062 Plant 1 RAS and WAS Pump System Upgrade	2062	Liquids	\$1,164,736	\$0	\$1,164,736	\$0	\$0	\$1,164,736	\$0	\$0	\$0
2063 Plant 1 Primary Sludge Pumping Upgrade	2063	Liquids	\$676,899	\$0	\$676,899	\$0	\$0	\$676,899	\$0	\$0	\$0
2096 Plant 1 Liquids Buried Piping Reconstruction	2096	Liquids	\$400,000	\$0	\$400,000	\$0	\$0	\$400,000	\$0	\$0	\$0
2064 Plant 1 Aeration Blower System Replacement	2064	Liquids	\$525,000	\$0	\$525,000	\$0	\$0	\$525,000	\$0	\$0	\$0
32221L Plant 1 Grit, MCC A-1, & Blower Building Upgrades	32221L	Liquids	\$6,256,220	\$0	\$6,256,220	\$500,000	\$0	\$2,756,220	\$3,000,000	\$0	\$0
2065 MCC-A-1 Replacement	2065	Liquids	\$569,372	\$0	\$569,372	\$0	\$0	\$569,372	\$0	\$0	\$0
SC-02L PC 2 Liquids Small Cap	SC-02L	Liquids	\$3,920,000	\$0	\$3,920,000	\$392,000	\$392,000	\$392,000	\$392,000	\$392,000	\$1,960,000
SC-02C PC 2 Common Small Cap	SC-02C	Common	\$1,400,000	\$0	\$1,400,000	\$140,000	\$140,000	\$140,000	\$140,000	\$140,000	\$700,000
SC-02S PC 2 Solids Small Cap	SC-02S	Solids	\$1,530,000	\$0	\$1,530,000	\$153,000	\$153,000	\$153,000	\$153,000	\$153,000	\$765,000
Non-Cap Liquids (including assessments)	4XXXXL	Liquids	\$916,000	\$0	\$916,000	\$16,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
Non-Cap Common (including assessments and Facility Plan Updates)	4XXXXC	Common	\$2,400,000	\$0	\$2,400,000	\$100,000	\$1,500,000	\$100,000	\$100,000	\$100,000	\$500,000
Non-Cap Solids (including assessments)	4XXXXS	Solids	\$922,000	\$0	\$922,000	\$22,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
2529 MCC B Replacement	2529	Liquids	\$418,260	\$0	\$418,260	\$0	\$0	\$0	\$418,260	\$0	\$0
2333 Chlorine Building Rehabilitation	2333	Liquids	\$240,280	\$0	\$240,280	\$0	\$0	\$0	\$240,280	\$0	\$0
2340 Plant Water Pump Station Reconstruction	2340	Liquids	\$647,701	\$0	\$647,701	\$0	\$0	\$0	\$647,701	\$0	\$0
2341 Non-Potable Water Pump Station Reconstruction	2341	Liquids	\$633,742	\$0	\$633,742	\$0	\$0	\$0	\$633,742	\$0	\$0
2347 Storm Water Pump Station Reconstruction	2347	Liquids	\$377,246	\$0	\$377,246	\$0	\$0	\$0	\$377,246	\$0	\$0
2068 Plant 2 Headworks Upgrade	2068	Liquids	\$573,659	\$0	\$573,659	\$0	\$0	\$0	\$0	\$0	\$573,659
2070 Plant 2 Blower Building Structural and Infrastructure Upgrade	2070	Liquids	\$495,503	\$0	\$495,503	\$0	\$0	\$0	\$0	\$495,503	\$0
2071 Plant 2 Raw Sewage Pump Station Upgrade	2071	Liquids	\$982,765	\$0	\$982,765	\$0	\$0	\$0	\$0	\$982,765	\$0
2072 Plant 2 Raw Sewage Pump VFD Upgrade	2072	Liquids	\$189,501	\$0	\$189,501	\$0	\$0	\$0	\$0	\$189,501	\$0
2073 Plant 2 RAS and WAS Pump System Upgrade	2073	Liquids	\$870,133	\$0	\$870,133	\$0	\$0	\$0	\$0	\$870,133	\$0
2074 Plant 2 Primary Sludge Pumping Upgrade	2074	Liquids	\$513,829	\$0	\$513,829	\$0	\$0	\$0	\$0	\$513,829	\$0
2076 Plant 2 Meter Vault Upgrade	2076	Liquids	\$326,300	\$0	\$326,300	\$0	\$0	\$0	\$0	\$326,300	\$0
2077 Plant 2 Grit Handling Upgrade	2077	Liquids	\$689,968	\$0	\$689,968	\$0	\$0	\$0	\$0	\$689,968	\$0
2520 Ferric Chloride System Reconstruction	2520	Liquids	\$776,400	\$0	\$776,400	\$0	\$0	\$0	\$0	\$776,400	\$0

South Orange County Wastewater Authority
Large Capital Projects FY26-27

PROJECT BUDGETS

Project Title	Project ID	Allocation	Proposed Project Budget	thru 6/30/2026	Remaining Budget	FY26-27 Budget	FY27-28 Budget	FY28-29 Budget	FY29-30 Budget	FY30-31 Budget	Thereafter
2097 Plant 2 Liquids Buried Piping Reconstruction	2097	Liquids	\$689,318	\$0	\$689,318	\$0	\$0	\$0	\$0	\$689,318	\$0
32225L Plant 2 Primary Sedimentation Upgrade	32225L	Liquids	\$2,317,006	\$0	\$2,317,006	\$0	\$0	\$2,317,006	\$0	\$0	\$0
32226L Plant 2 Secondary Sedimentation Upgrade	32226L	Liquids	\$2,281,996	\$0	\$2,281,996	\$0	\$0	\$2,281,996	\$0	\$0	\$0
2052 Bypass Flow Installation	2052	Liquids	\$641,579	\$0	\$641,579	\$0	\$0	\$641,579	\$0	\$0	\$0
2351 Buried Drainage Pipe Reconstruction	2351	Liquids	\$632,146	\$0	\$632,146	\$0	\$0	\$0	\$0	\$632,146	\$0
2085 Effluent Pump Station Rehabilitation	2085	Liquids	\$353,719	\$0	\$353,719	\$0	\$0	\$0	\$0	\$0	\$353,719
2086 Effluent Pump Reconstruction	2086	Liquids	\$1,589,511	\$0	\$1,589,511	\$0	\$0	\$0	\$0	\$0	\$1,589,511
2087 Effluent Pump Station Standby Power Generator Replacement	2087	Liquids	\$610,542	\$0	\$610,542	\$0	\$0	\$0	\$0	\$0	\$610,542
2078 Scum Pump Station Upgrade	2078	Liquids	\$700,000	\$0	\$700,000	\$0	\$0	\$700,000	\$0	\$0	\$0
2088 Effluent Pipeline Condition Assessment	2088	Liquids	\$300,000	\$0	\$300,000	\$0	\$0	\$300,000	\$0	\$0	\$0
2089 Effluent Flow Metering Evaluation	2089	Liquids	\$100,000	\$0	\$100,000	\$0	\$0	\$100,000	\$0	\$0	\$0
32222L Aeration Basin Drainage Pumps	32222L	Liquids	\$450,000	\$0	\$450,000	\$0	\$0	\$450,000	\$0	\$0	\$0
Electric Boom Truck	2532	Common	\$150,000	\$0	\$150,000	\$0	\$0	\$150,000	\$0	\$0	\$0
2350 Buried Water Pipe Reconstruction	2350	Common	\$1,305,920	\$0	\$1,305,920	\$0	\$0	\$1,305,920	\$0	\$0	\$0
2346 Storage Building Replacement	2346	Common	\$500,000	\$0	\$500,000	\$0	\$0	\$500,000	\$0	\$0	\$0
2343 SCADA System Upgrade Project/1st Phase	2343	Common	\$583,944	\$0	\$583,944	\$0	\$0	\$583,944	\$0	\$0	\$0
2075 Plant 2 Emergency Generator	2075	Common	\$490,162	\$0	\$490,162	\$0	\$0	\$0	\$490,162	\$0	\$0
2345 Site Pavement Reconstruction	2345	Common	\$931,500	\$0	\$931,500	\$0	\$0	\$0	\$0	\$0	\$931,500
2353 Perimeter Fencing Replacement	2353	Common	\$608,337	\$0	\$608,337	\$0	\$0	\$0	\$0	\$0	\$608,337
Electric Biosolids Truck and two new Trailers	2533	Solids	\$500,000	\$0	\$500,000	\$0	\$0	\$500,000	\$0	\$0	\$0
2524 MCC D Replacement	2524	Solids	\$371,517	\$0	\$371,517	\$0	\$0	\$371,517	\$0	\$0	\$0
2537 Digester 5 Construction	2537	Solids	\$10,148,252	\$0	\$10,148,252	\$0	\$0	\$0	\$0	\$0	\$10,148,252
2528 Digested Sludge Pump Station Upgrade	2528	Solids	\$374,807	\$0	\$374,807	\$0	\$0	\$374,807	\$0	\$0	\$0
2526 Anaerobic Digester No.3 and No.4 Mechanical Upgrade	2526	Solids	\$2,000,000	\$0	\$2,000,000	\$0	\$0	\$0	\$0	\$0	\$2,000,000
2525 Anaerobic Digester No.1 and No.2 Mechanical Upgrade	2525	Solids	\$3,701,940	\$0	\$3,701,940	\$0	\$0	\$0	\$0	\$0	\$3,701,940
2531 Solids Conveyor Replacement	2531	Solids	\$181,000	\$0	\$181,000	\$0	\$0	\$0	\$0	\$0	\$181,000
PC02 Subtotal			\$93,766,611	\$4,243,159	\$89,523,452	\$5,442,999	\$10,152,174	\$30,542,764	\$10,611,193	\$7,150,862	\$25,623,459
PC05											
55221L-000 - DHS Facility Compliance Review	55221L-000	Outfall	\$17,500	\$0	\$17,500	\$0	\$0	\$0	\$17,500	\$0	\$0
05062 Outfall Inspections, Port Cleaning, and Repairs	05062	Outfall	\$500,000	\$0	\$500,000	\$0	\$100,000	\$0	\$400,000	\$0	\$0
05057 Diffuser Port Duckbill Project	05057	Outfall	\$400,000	\$0	\$400,000	\$0	\$0	\$0	\$400,000	\$0	\$0
05059 Monitoring Vault Rehabilitation	05059	Outfall	\$200,000	\$0	\$200,000	\$0	\$200,000	\$0	\$0	\$0	\$0
05060 Outfall Inspection Concept Development	05060	Outfall	\$75,000	\$0	\$75,000	\$0	\$75,000	\$0	\$0	\$0	\$0
5061 Land Outfall Inspection	05061	Outfall	\$75,000	\$0	\$75,000	\$0	\$0	\$0	\$75,000	\$0	\$0
NPDES Updates (every 5-years)	Future	Outfall	\$750,000	\$0	\$750,000	\$0	\$0	\$0	\$750,000	\$0	\$0
Special Studies	Future	Outfall	\$150,000	\$0	\$150,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$75,000
Small Capital (including Lab Equipment)	Future	Outfall	\$100,000	\$0	\$100,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
PC05 Subtotal			\$2,267,500	\$0	\$2,267,500	\$25,000	\$400,000	\$25,000	\$1,667,500	\$25,000	\$125,000
PC15											
3541-000 - Export Sludge System Construction (2020)	3541-000	Liquids	\$4,555,668	\$3,872,725	\$682,944	\$682,944	\$0	\$0	\$0	\$0	\$0
3541-001 - Export Sludge System Construction (2020)	3541-001	Liquids	\$1,392,000	\$0	\$1,392,000	\$291,900	\$600,000	\$400,000	\$100,100	\$0	\$0
35247L-000 - Aeration Blower System Upgrades	35247L-000	Liquids	\$500,000	\$35,021	\$464,979	\$164,979	\$300,000	\$0	\$0	\$0	\$0
35232L-000 - South Embankment Protection	35232L-000	Liquids	\$175,000	\$0	\$175,000	\$0	\$0	\$0	\$175,000	\$0	\$0
Business Network Server Replacement Project (3 PCs)	NEED	Liquids	\$175,000	\$0	\$175,000	\$175,000	\$0	\$0	\$0	\$0	\$0
Firewall Reliability Upgrade (3PCs)	NEED	Liquids	\$9,000	\$0	\$9,000	\$9,000	\$0	\$0	\$0	\$0	\$0
WIMS Server Replacement (3PCs)	NEED	Liquids	\$20,000	\$0	\$20,000	\$20,000	\$0	\$0	\$0	\$0	\$0
35235L-000 - Odor Control Scrubber Improvements	35235L-000	Liquids	\$1,500,000	\$386,046	\$1,113,954	\$350,000	\$363,954	\$400,000	\$0	\$0	\$0
35242L-000 - CTP grit baffles and diffusers	35242L-000	Liquids	\$400,000	\$131,000	\$269,000	\$269,000	\$0	\$0	\$0	\$0	\$0
CTP East Primary Tank Sludge Piping	15820	Liquids	\$125,000	\$0	\$125,000	\$0	\$125,000	\$0	\$0	\$0	\$0
CTP East Primary Troughs and Primary Scum Skimmers	15821	Liquids	\$150,000	\$0	\$150,000	\$0	\$150,000	\$0	\$0	\$0	\$0
CTP East Secondary Sludge Collection System Upgrades	15821	Liquids	\$500,000	\$0	\$500,000	\$0	\$500,000	\$0	\$0	\$0	\$0
3525-000 - Personnel Building Improvements	3525-000	Liquids	\$911,586	\$106,389	\$805,197	\$805,197	\$0	\$0	\$0	\$0	\$0
3543-000 - Export Sludge Pipeline Replacement at RTP	3543-000	Liquids	\$400,000	\$0	\$400,000	\$0	\$400,000	\$0	\$0	\$0	\$0
SCADA Integration - Upgrade Project (3 PCs)	NEED	Liquids	\$175,000	\$0	\$175,000	\$175,000	\$0	\$0	\$0	\$0	\$0
35248L-000 - Access Road Repaving	35248L-000	Liquids	\$1,199,999	\$74,255	\$1,125,744	\$1,125,744	\$0	\$0	\$0	\$0	\$0
35229L-000 - Foul Air System	35229L-000	Liquids	\$150,000	\$1,615	\$148,385	\$148,385	\$0	\$0	\$0	\$0	\$0
3522AL-000 - Drainage Pump Station Rehabilitation	3522AL-000	Liquids	\$4,200,000	\$1,000,000	\$3,200,000	\$350,000	\$1,850,000	\$1,000,000	\$0	\$0	\$0
35233L-000 - Scum Pump Station and Wet Well	35233L-000	Liquids	\$250,000	\$0	\$250,000	\$0	\$250,000	\$0	\$0	\$0	\$0
35234L-000 - RAS/WAS Pump Station Repairs	35234L-000	Liquids	\$100,000	\$0	\$100,000	\$0	\$100,000	\$0	\$0	\$0	\$0

South Orange County Wastewater Authority

Large Capital Projects FY26-27

PROJECT BUDGETS

Project Title	Project ID	Allocation	Proposed Project Budget	thru 6/30/2026	Remaining Budget	FY26-27 Budget	FY27-28 Budget	FY28-29 Budget	FY29-30 Budget	FY30-31 Budget	Thereafter
35236L-000 - Scum Pump Station and Wet Well Project	35236L-000	Liquids	\$50,000	\$0	\$50,000	\$0	\$50,000	\$0	\$0	\$0	\$0
35237L-000 - Electrical Manhole/Cable Project	35237L-000	Liquids	\$85,000	\$0	\$85,000	\$0	\$85,000	\$0	\$0	\$0	\$0
3522BL-000 - Headworks Upgrades	3522BL-000	Liquids	\$300,000	\$0	\$300,000	\$0	\$0	\$300,000	\$0	\$0	\$0
CTP Export Eq Tank Liner Rehabilitation	15817	Liquids	\$300,000	\$0	\$300,000	\$0	\$300,000	\$0	\$0	\$0	\$0
15101 Grit Handling Upgrade	15101	Liquids	\$794,900	\$0	\$794,900	\$0	\$0	\$794,900	\$0	\$0	\$0
Building Roof Replacements	15818	Liquids	\$2,700,000	\$0	\$2,700,000	\$0	\$0	\$200,000	\$2,500,000	\$0	\$0
3596-000 - Applied Water VFD Pump Panel and Electrical (AWT) (2018)	3596-000	AWT	\$232,500	\$0	\$232,500	\$0	\$0	\$232,500	\$0	\$0	\$0
SC-15C PC 15 Common Small Cap	SC-15C	Liquids	\$2,415,000	\$0	\$2,415,000	\$381,000	\$226,000	\$226,000	\$226,000	\$226,000	\$1,130,000
SC-15L PC 15 Liquids Small Cap	SC-15L	Liquids	\$3,872,000	\$0	\$3,872,000	\$209,000	\$407,000	\$407,000	\$407,000	\$407,000	\$2,035,000
SC-15A PC 15 AWT Small Cap	SC-15A	AWT	\$113,000	\$0	\$113,000	\$50,000	\$7,000	\$7,000	\$7,000	\$7,000	\$35,000
Non-Cap Liquids (including assessments and Facility Plan Update)	4XXXXL	Liquids	\$2,400,000	\$0	\$2,400,000	\$100,000	\$1,500,000	\$100,000	\$100,000	\$100,000	\$500,000
35231L-000 - Vehicle Storage Building Mezzanine Upgrades	35231	Liquids	\$85,000	\$0	\$85,000	\$0	\$0	\$0	\$85,000	\$0	\$0
15713 North Section Embankment Protection	15713	Liquids	\$929,000	\$0	\$929,000	\$0	\$0	\$0	\$929,000	\$0	\$0
15813 AWT Building Modifications	15813	Liquids	\$218,400	\$0	\$218,400	\$0	\$0	\$0	\$218,400	\$0	\$0
15106 DAF Polymer and DAF Control Building Upgrade	15106	Liquids	\$402,500	\$0	\$402,500	\$0	\$0	\$0	\$402,500	\$0	\$0
15148 Instrumentation Master Plan	15148	Liquids	\$75,000	\$0	\$75,000	\$0	\$0	\$0	\$75,000	\$0	\$0
15133 Operations Building Rehab	15133	Liquids	\$931,600	\$0	\$931,600	\$0	\$0	\$0	\$931,600	\$0	\$0
15145 Export Sludge System Condition Assessment	15145	Liquids	\$85,000	\$0	\$85,000	\$0	\$0	\$0	\$85,000	\$0	\$0
15714 Aliso - Sulfur Creek Confluence Protection	15714	Liquids	\$646,800	\$0	\$646,800	\$0	\$0	\$0	\$646,800	\$0	\$0
15815 Effluent Equalization Basin Valve Replacement - Common (AWT)	15815	Liquids	\$810,000	\$0	\$810,000	\$0	\$0	\$0	\$810,000	\$0	\$0
15817 AWT Instrumentation	15817	AWT	\$453,300	\$0	\$453,300	\$0	\$0	\$0	\$453,300	\$0	\$0
15122 West Corridor Piping Reconstruction	15122	Liquids	\$1,650,600	\$0	\$1,650,600	\$0	\$0	\$0	\$1,650,600	\$0	\$0
15123 Piping Between RAS/WAS PS and AWT	15123	AWT	\$105,600	\$0	\$105,600	\$0	\$0	\$0	\$105,600	\$0	\$0
15110 Potable Water System Relocation	15110	Liquids	\$591,500	\$0	\$591,500	\$0	\$0	\$0	\$0	\$591,500	\$0
15115 RAS and WAS Pump Station Replacement	15115	Liquids	\$1,036,900	\$0	\$1,036,900	\$0	\$0	\$0	\$0	\$1,036,900	\$0
15121 Auxiliary Blower Bldg Upgrade	15121	Liquids	\$690,804	\$0	\$690,804	\$0	\$0	\$0	\$0	\$690,804	\$0
15124 Central Corridor Piping	15124	Liquids	\$1,691,372	\$0	\$1,691,372	\$0	\$0	\$0	\$0	\$1,691,372	\$0
15146 Primary Sedimentation System Condition Assessment	15146	Liquids	\$65,000	\$0	\$65,000	\$0	\$0	\$0	\$0	\$65,000	\$0
15113 Pave Road System	15113	Liquids	\$131,700	\$0	\$131,700	\$0	\$0	\$0	\$0	\$0	\$131,700
15115 RAS and WAS Pump Station	15115	Liquids	\$1,036,900	\$0	\$1,036,900	\$0	\$0	\$0	\$0	\$0	\$1,036,900
15116 Primary Sludge Pump System Design	15116	Liquids	\$681,800	\$0	\$681,800	\$0	\$0	\$0	\$0	\$0	\$681,800
15127 Headworks Valve Replacement	15127	Liquids	\$342,800	\$0	\$342,800	\$0	\$0	\$0	\$0	\$0	\$342,800
15150 Screening Washer/Compactor System	15150	Liquids	\$412,585	\$0	\$412,585	\$0	\$0	\$0	\$0	\$0	\$412,585
15812 AWT Filter Valve Upgrade	15812	AWT	\$541,343	\$0	\$541,343	\$0	\$0	\$0	\$0	\$0	\$541,343
15819 AWT Support Equipment	15819	AWT	\$758,700	\$0	\$758,700	\$0	\$0	\$0	\$0	\$0	\$758,700
15821 AWT Buried Piping	15821	AWT	\$1,010,500	\$0	\$1,010,500	\$0	\$0	\$0	\$0	\$0	\$1,010,500
15104 DAF System Rehabilitation	15104	Liquids	\$1,300,300	\$0	\$1,300,300	\$0	\$0	\$0	\$0	\$0	\$1,300,300
15117 SCADA System Reconstruction	15117	Liquids	\$146,900	\$0	\$146,900	\$0	\$0	\$0	\$0	\$0	\$146,900
15129 Standby Power Reconstruction	15129	Liquids	\$178,900	\$0	\$178,900	\$0	\$0	\$0	\$0	\$0	\$178,900
15111 Non-Potable Water System Relocation	15111	Liquids	\$332,800	\$0	\$332,800	\$0	\$0	\$0	\$0	\$0	\$332,800
15117 SCADA System Reconstruction	15117	Liquids	\$1,150,000	\$0	\$1,150,000	\$0	\$0	\$0	\$0	\$0	\$1,150,000
15128 Existing Export Sludge PS Upgrade	15128	Liquids	\$836,100	\$0	\$836,100	\$0	\$0	\$0	\$0	\$0	\$836,100
15129 Standby Power Reconstruction	15129	Liquids	\$559,000	\$0	\$559,000	\$0	\$0	\$0	\$0	\$0	\$559,000
15112 West Primary Sedimentation System Upgrade	15112	Liquids	\$1,031,700	\$0	\$1,031,700	\$0	\$0	\$0	\$0	\$0	\$1,031,700
15129 Standby Power Reconstruction	15129	Liquids	\$559,000	\$0	\$559,000	\$0	\$0	\$0	\$0	\$0	\$559,000
15114 East Primary Sedimentation Upgrade	15114	Liquids	\$677,200	\$0	\$677,200	\$0	\$0	\$0	\$0	\$0	\$677,200
15120 RAS Hypo Pumps	15120	Liquids	\$97,500	\$0	\$97,500	\$0	\$0	\$0	\$0	\$0	\$97,500
15131 Headworks Miscellaneous Upgrades	15131	Liquids	\$505,400	\$0	\$505,400	\$0	\$0	\$0	\$0	\$0	\$505,400
15134 Perimeter Fence Replacement	15134	Liquids	\$857,100	\$0	\$857,100	\$0	\$0	\$0	\$0	\$0	\$857,100
15135 Blower Building Roof	15135	Liquids	\$106,100	\$0	\$106,100	\$0	\$0	\$0	\$0	\$0	\$106,100
15136 Export Sludge Pumps	15136	Liquids	\$846,700	\$0	\$846,700	\$0	\$0	\$0	\$0	\$0	\$846,700
15816 AWT Hypo Pumps	15816	AWT	\$260,700	\$0	\$260,700	\$0	\$0	\$0	\$0	\$0	\$260,700
PC15 Subtotal			\$54,980,757	\$5,607,049	\$49,373,708	\$5,307,149	\$7,213,955	\$4,067,400	\$9,907,900	\$4,815,576	\$18,061,728
PC7 - Laboratory											
Laboratory Reconstruction Feasibility Phase 2	NEED	Common	\$100,000	\$0	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0
Business Network Server Replacement Project (3 PCs)	NEED	Common	\$175,000	\$0	\$175,000	\$175,000	\$0	\$0	\$0	\$0	\$0
Firewall Reliability Upgrade (3PCs)	NEED	Liquids/AWT	\$9,000	\$0	\$9,000	\$9,000	\$0	\$0	\$0	\$0	\$0
WIMS Server Replacement (3PCs)	NEED	Liquids/AWT	\$20,000	\$0	\$20,000	\$20,000	\$0	\$0	\$0	\$0	\$0
SCADA Integration - Upgrade Project (3 PCs)	NEED	Liquids/AWT	\$175,000	\$0	\$175,000	\$175,000	\$0	\$0	\$0	\$0	\$0

South Orange County Wastewater Authority
Large Capital Projects FY26-27

PROJECT BUDGETS

Project Title	Project ID	Allocation	Proposed Project Budget	thru 6/30/2026	Remaining Budget	FY26-27 Budget	FY27-28 Budget	FY28-29 Budget	FY29-30 Budget	FY30-31 Budget	Thereafter
SC-17C PC 17 Liquids Small Cap	SC-17L	Liquids/AWT	\$100,000	\$0	\$100,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
PC17 Subtotal			\$579,000	\$0	\$579,000	\$489,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
PC21											
3101-000 - Trail Bridge Crossing Protection - Phase I (D) (2016)	3101-000	D	\$1,241,771	\$444,771	\$797,000	\$50,000	\$384,600	\$362,400	\$0	\$0	\$0
31221B-000 - Trail Bridge Crossing (D)	31221B-000	D	\$6,546,296	\$4,296	\$6,542,000	\$0	\$6,542,000	\$0	\$0	\$0	\$0
3105-000 - Air Valve Replacement Design and Permitting (D)	3105-000	D	\$164,000	\$68,349	\$95,651	\$95,651	\$0	\$0	\$0	\$0	\$0
3107-000 - Air Valve Replacement Construction (D)	3107-000	D	\$273,000	\$61,694	\$211,306	\$211,306	\$0	\$0	\$0	\$0	\$0
3106-000 - Air Valve Replacement Design and Permitting (E)	3106-000	E	\$130,000	\$73,711	\$56,289	\$56,289	\$0	\$0	\$0	\$0	\$0
3108-000 - Air Valve Replacement Construction (E)	3108-000	E	\$347,000	\$89,988	\$257,012	\$257,012	\$0	\$0	\$0	\$0	\$0
3104-000 - Aliso Creek Long term Repair Planning (E) (2019)	3104-000	E	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
31222B-000 - Aliso ETM Reach B/C Techite Replacement	31222B-000	B/C	\$7,891,000	\$496,000	\$7,395,000	\$694,000	\$3,324,000	\$3,377,000	\$0	\$0	\$0
21312 Pecten Reef Crossing Protection Design (Reach D)	21312	D	\$7,730,900	\$0	\$7,730,900	\$0	\$0	\$0	\$0	\$0	\$7,730,900
21314 Reach D CCTV Inspection (Reach D)	21314	D	\$335,000	\$0	\$335,000	\$0	\$0	\$0	\$335,000	\$0	\$0
21411 Reach E CCTV Inspection (Reach E)	21411	E	\$335,000	\$0	\$335,000	\$0	\$0	\$0	\$335,000	\$0	\$0
21211 Reach C Replacement Design (Reach C)	21211	C	\$832,000	\$0	\$832,000	\$0	\$0	\$0	\$0	\$0	\$832,000
21212 Reach C Replacement (Reach C)	21212	C	\$5,710,000	\$0	\$5,710,000	\$0	\$0	\$0	\$0	\$0	\$5,710,000
PC21 Subtotal			\$31,535,967	\$1,238,810	\$30,297,157	\$1,364,257	\$10,250,600	\$3,739,400	\$670,000	\$0	\$14,272,900
PC24											
34222O-000 - Golf Course Road	34222O-000	Outfall	\$45,000	\$0	\$45,000	\$45,000	\$0	\$0	\$0	\$0	\$0
54221O-000 - Outfall Inspections, Port Cleaning, and Repairs	54221O-000	Outfall	\$400,000	\$0	\$400,000	\$0	\$100,000	\$0	\$300,000	\$0	\$0
34232O-000 - Creek Section Pipeline Replacement	34232O-000	Outfall	\$250,000	\$0	\$250,000	\$0	\$0	\$0	\$250,000	\$0	\$0
NPDES Updates (every 5-years)	Future	Outfall	\$750,000	\$0	\$750,000	\$0	\$0	\$0	\$750,000	\$0	\$0
Special Studies	Future	Outfall	\$150,000	\$0	\$150,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$75,000
Small Capital (including Lab Equipment)	Future	Outfall	\$100,000	\$0	\$100,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
24114 Land Outfall Realignment	24114	Outfall	\$6,500,000	\$0	\$6,500,000	\$0	\$0	\$0	\$0	\$6,500,000	\$0
24116 Internal Seal Replacement	24116	Outfall	\$450,000	\$0	\$450,000	\$0	\$0	\$0	\$0	\$450,000	\$0
PC24 Subtotal			\$8,645,000	\$0	\$8,645,000	\$70,000	\$125,000	\$25,000	\$1,325,000	\$6,975,000	\$125,000
Total			\$191,774,835	\$11,089,018	\$180,685,817	\$12,698,406	\$28,151,729	\$38,409,564	\$24,191,593	\$18,976,439	\$58,258,087

South Orange County Wastewater Authority

Table 1 - FY2026-27 Ten Year Annual Capital Improvement Project Committee Budgets (Cash Requests)

Year	Fiscal Year	PC 02				PC 05		PC 15			PC 07 - Laboratory			PC 21			PC 24		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27	\$2,681,833	\$619,000	\$512,500	\$3,813,333	\$25,000	\$25,000	\$2,567,941	\$50,000	\$2,617,941	\$214,000	\$275,000	\$489,000	\$1,349,184	\$83,948	\$1,433,132	\$70,000	\$70,000	\$8,448,406
2	27-28	\$2,680,693	\$1,640,000	\$4,431,594	\$8,752,287	\$400,000	\$400,000	\$7,081,956	\$7,000	\$7,088,956	\$10,000	\$0	\$10,000	\$5,250,600	\$0	\$5,250,600	\$125,000	\$125,000	\$21,626,843
3	28-29	\$17,178,576	\$2,779,864	\$10,384,324	\$30,342,764	\$25,000	\$25,000	\$3,827,900	\$239,500	\$4,067,400	\$10,000	\$0	\$10,000	\$3,739,400	\$0	\$3,739,400	\$25,000	\$25,000	\$38,209,564
4	29-30	\$9,628,031	\$730,162	\$253,000	\$10,611,193	\$1,667,500	\$1,667,500	\$9,342,000	\$565,900	\$9,907,900	\$10,000	\$0	\$10,000	\$335,000	\$335,000	\$670,000	\$1,325,000	\$1,325,000	\$24,191,593
5	30-31	\$6,657,862	\$240,000	\$253,000	\$7,150,862	\$25,000	\$25,000	\$4,808,576	\$7,000	\$4,815,576	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$6,975,000	\$6,975,000	\$18,976,439
6	31-32	\$492,000	\$240,000	\$6,135,940	\$6,867,940	\$25,000	\$25,000	\$4,964,885	\$2,317,543	\$7,282,428	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$25,000	\$25,000	\$14,210,368
7	32-33	\$3,045,772	\$240,000	\$10,401,252	\$13,687,023	\$25,000	\$25,000	\$3,610,900	\$7,000	\$3,617,900	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$25,000	\$25,000	\$17,364,923
8	33-34	\$1,065,659	\$240,000	\$253,000	\$1,558,659	\$25,000	\$25,000	\$2,323,700	\$7,000	\$2,330,700	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$25,000	\$25,000	\$3,949,359
9	34-35	\$492,000	\$1,779,837	\$253,000	\$2,524,837	\$25,000	\$25,000	\$3,823,000	\$267,700	\$4,090,700	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$25,000	\$25,000	\$6,675,537
10	35-36	\$492,000	\$240,000	\$253,000	\$985,000	\$25,000	\$25,000	\$733,000	\$7,000	\$740,000	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$25,000	\$25,000	\$1,785,000
11	Thereafter	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14,272,900	\$0	\$14,272,900	\$0	\$0	\$14,272,900
Grand Total		\$44,414,426	\$8,748,863	\$33,130,610	\$86,293,899	\$2,267,500	\$2,267,500	\$43,083,858	\$3,475,643	\$46,559,501	\$304,000	\$275,000	\$579,000	\$24,947,084	\$418,948	\$25,366,032	\$8,645,000	\$8,645,000	\$169,710,932
Ten Year Total		\$44,414,426	\$8,748,863	\$33,130,610	\$86,293,899	\$2,267,500	\$2,267,500	\$43,083,858	\$3,475,643	\$46,559,501	\$304,000	\$275,000	\$579,000	\$10,674,184	\$418,948	\$11,093,132	\$8,645,000	\$8,645,000	\$155,438,032

South Orange County Wastewater Authority
 Table 2 - ETWD - Ten Year Capital Budgets by Project Committee

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$15,216	\$15,216	\$674,592	\$19,551	\$694,143	\$11,411	\$11,411	\$720,771
2	27-28	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$2,625,300	\$0	\$2,625,300	\$20,378	\$20,378	\$2,645,678
3	28-29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$1,869,700	\$0	\$1,869,700	\$4,076	\$4,076	\$1,873,776
4	29-30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$167,500	\$78,022	\$245,522	\$216,002	\$216,002	\$461,523
5	30-31	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$1,137,065	\$1,137,065	\$1,137,065
6	31-32	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$4,076	\$4,076	\$4,076
7	32-33	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$4,076	\$4,076	\$4,076
8	33-34	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$4,076	\$4,076	\$4,076
9	34-35	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$4,076	\$4,076	\$4,076
10	35-36	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$4,076	\$4,076	\$4,076
11	Thereafter	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$7,136,450	\$0	\$7,136,450	\$0	\$0	\$7,136,450
Grand Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$15,216	\$15,216	\$12,473,542	\$97,573	\$12,571,115	\$1,409,308	\$1,409,308	\$13,995,639
Ten Year Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$15,216	\$15,216	\$5,337,092	\$97,573	\$5,434,665	\$1,409,308	\$1,409,308	\$6,859,189

Table 3 - EBSD - Ten Year Capital Budgets by Project Committee

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27	\$0	\$0	\$0	\$0	\$0	\$0	\$77,038	\$0	\$77,038		\$1,411	\$1,411	\$0	\$0	\$0	\$546	\$546	\$78,995
2	27-28	\$0	\$0	\$0	\$0	\$0	\$0	\$212,459	\$0	\$212,459		\$0	\$0	\$0	\$0	\$0	\$975	\$975	\$213,434
3	28-29	\$0	\$0	\$0	\$0	\$0	\$0	\$114,837	\$0	\$114,837		\$0	\$0	\$0	\$0	\$0	\$195	\$195	\$115,032
4	29-30	\$0	\$0	\$0	\$0	\$0	\$0	\$280,260	\$0	\$280,260		\$0	\$0	\$0	\$0	\$0	\$10,335	\$10,335	\$290,595
5	30-31	\$0	\$0	\$0	\$0	\$0	\$0	\$144,257	\$0	\$144,257		\$0	\$0	\$0	\$0	\$0	\$54,405	\$54,405	\$198,662
6	31-32	\$0	\$0	\$0	\$0	\$0	\$0	\$148,947	\$0	\$148,947		\$0	\$0	\$0	\$0	\$0	\$195	\$195	\$149,142
7	32-33	\$0	\$0	\$0	\$0	\$0	\$0	\$108,327	\$0	\$108,327		\$0	\$0	\$0	\$0	\$0	\$195	\$195	\$108,522
8	33-34	\$0	\$0	\$0	\$0	\$0	\$0	\$69,711	\$0	\$69,711		\$0	\$0	\$0	\$0	\$0	\$195	\$195	\$69,906
9	34-35	\$0	\$0	\$0	\$0	\$0	\$0	\$114,690	\$0	\$114,690		\$0	\$0	\$0	\$0	\$0	\$195	\$195	\$114,885
10	35-36	\$0	\$0	\$0	\$0	\$0	\$0	\$21,990	\$0	\$21,990		\$0	\$0	\$0	\$0	\$0	\$195	\$195	\$22,185
Grand Total		\$0	\$0	\$0	\$0	\$0	\$0	\$1,292,516	\$0	\$1,292,516		\$1,411	\$1,411	\$0	\$0	\$0	\$67,431	\$67,431	\$1,361,357
Ten Year Total		\$0	\$0	\$0	\$0	\$0	\$0	\$1,292,516	\$0	\$1,292,516		\$1,411	\$1,411	\$0	\$0	\$0	\$67,431	\$67,431	\$1,361,357

Table 4 - IRWD (CO ETWD) - Ten Year Capital Budgets by Project Committee

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$9,070	\$9,070	\$674,592	\$19,551	\$694,143	\$11,032	\$11,032	\$714,245
2	27-28	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$2,625,300	\$0	\$2,625,300	\$19,700	\$19,700	\$2,645,000
3	28-29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$1,869,700	\$0	\$1,869,700	\$3,940	\$3,940	\$1,873,640
4	29-30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$167,500	\$78,022	\$245,522	\$208,820	\$208,820	\$454,342
5	30-31	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$1,099,260	\$1,099,260	\$1,099,260
6	31-32	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$3,940	\$3,940	\$3,940
7	32-33	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$3,940	\$3,940	\$3,940
8	33-34	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$3,940	\$3,940	\$3,940
9	34-35	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$3,940	\$3,940	\$3,940
10	35-36	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$3,940	\$3,940	\$3,940
11	Thereafter	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$7,136,450	\$0	\$7,136,450	\$0	\$0	\$7,136,450
Grand Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$9,070	\$9,070	\$12,473,542	\$97,573	\$12,571,115	\$1,362,452	\$1,362,452	\$13,942,636
Ten Year Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$9,070	\$9,070	\$5,337,092	\$97,573	\$5,434,665	\$1,362,452	\$1,362,452	\$6,806,186

South Orange County Wastewater Authority
 Table 5 - CLB - Ten Year Capital Budgets by Project Committee

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27	\$0	\$0	\$0	\$0	\$0	\$0	\$1,394,392	\$0	\$1,394,392		\$25,308	\$25,308	\$0	\$0	\$0	\$7,700	\$7,700	\$1,427,400
2	27-28	\$0	\$0	\$0	\$0	\$0	\$0	\$3,845,502	\$0	\$3,845,502		\$0	\$0	\$0	\$0	\$0	\$13,750	\$13,750	\$3,859,252
3	28-29	\$0	\$0	\$0	\$0	\$0	\$0	\$2,078,550	\$0	\$2,078,550		\$0	\$0	\$0	\$0	\$0	\$2,750	\$2,750	\$2,081,300
4	29-30	\$0	\$0	\$0	\$0	\$0	\$0	\$5,072,706	\$0	\$5,072,706		\$0	\$0	\$0	\$0	\$0	\$145,750	\$145,750	\$5,218,456
5	30-31	\$0	\$0	\$0	\$0	\$0	\$0	\$2,611,057	\$0	\$2,611,057		\$0	\$0	\$0	\$0	\$0	\$767,250	\$767,250	\$3,378,307
6	31-32	\$0	\$0	\$0	\$0	\$0	\$0	\$2,695,933	\$0	\$2,695,933		\$0	\$0	\$0	\$0	\$0	\$2,750	\$2,750	\$2,698,683
7	32-33	\$0	\$0	\$0	\$0	\$0	\$0	\$1,960,719	\$0	\$1,960,719		\$0	\$0	\$0	\$0	\$0	\$2,750	\$2,750	\$1,963,469
8	33-34	\$0	\$0	\$0	\$0	\$0	\$0	\$1,261,769	\$0	\$1,261,769		\$0	\$0	\$0	\$0	\$0	\$2,750	\$2,750	\$1,264,519
9	34-35	\$0	\$0	\$0	\$0	\$0	\$0	\$2,075,889	\$0	\$2,075,889		\$0	\$0	\$0	\$0	\$0	\$2,750	\$2,750	\$2,078,639
10	35-36	\$0	\$0	\$0	\$0	\$0	\$0	\$398,019	\$0	\$398,019		\$0	\$0	\$0	\$0	\$0	\$2,750	\$2,750	\$400,769
11	Thereafter	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grand Total		\$0	\$0	\$0	\$0	\$0	\$0	\$23,394,535	\$0	\$23,394,535		\$25,308	\$25,308	\$0	\$0	\$0	\$950,950	\$950,950	\$24,370,793
Ten Year Total		\$0	\$0	\$0	\$0	\$0	\$0	\$23,394,535	\$0	\$23,394,535		\$25,308	\$25,308	\$0	\$0	\$0	\$950,950	\$950,950	\$24,370,793

Table 6 - MNWD (Direct and CO: SCWD, SMWD & ETWD) - Ten Year Capital Budgets by Project Committee

Year	Fiscal Year	PC 02 (CO/ SCWD) - JBL				PC 05 (CO/ (1)) - SJCOO		PC 15 - CTP			PC 07 - Laboratory			PC 21 (CO/ ETWD) - ETM			PC 24 (CO/ETWD) - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27	\$618,885	\$138,342	\$110,811	\$868,037	\$3,878	\$3,878	\$0	\$0	\$0	\$214,000	\$96,718	\$310,718	\$0	\$44,845	\$44,845	\$30,694	\$30,694	\$1,258,171
2	27-28	\$618,621	\$366,528	\$958,182	\$1,943,332	\$62,040	\$62,040	\$0	\$0	\$0	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$54,810	\$54,810	\$2,070,182
3	28-29	\$3,964,287	\$621,279	\$2,245,259	\$6,830,825	\$3,878	\$3,878	\$0	\$0	\$0	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$10,962	\$10,962	\$6,855,665
4	29-30	\$2,221,853	\$163,186	\$54,703	\$2,439,742	\$258,629	\$258,629	\$0	\$0	\$0	\$10,000	\$0	\$10,000	\$0	\$178,957	\$178,957	\$580,986	\$580,986	\$3,468,314
5	30-31	\$1,536,430	\$53,638	\$54,703	\$1,644,771	\$3,878	\$3,878	\$0	\$0	\$0	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$3,058,398	\$3,058,398	\$4,717,046
6	31-32	\$113,538	\$53,638	\$1,326,690	\$1,493,866	\$3,878	\$3,878	\$0	\$0	\$0	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$10,962	\$10,962	\$1,518,706
7	32-33	\$702,870	\$53,638	\$2,248,919	\$3,005,428	\$3,878	\$3,878	\$0	\$0	\$0	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$10,962	\$10,962	\$3,030,267
8	33-34	\$245,921	\$53,638	\$54,703	\$354,262	\$3,878	\$3,878	\$0	\$0	\$0	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$10,962	\$10,962	\$379,102
9	34-35	\$113,538	\$397,781	\$54,703	\$566,022	\$3,878	\$3,878	\$0	\$0	\$0	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$10,962	\$10,962	\$590,861
10	35-36	\$113,538	\$53,638	\$54,703	\$221,879	\$3,878	\$3,878	\$0	\$0	\$0	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$10,962	\$10,962	\$246,719
11	Thereafter	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grand Total		\$10,249,483	\$1,955,307	\$7,163,375	\$19,368,165	\$351,689	\$351,689	\$0	\$0	\$0	\$304,000	\$96,718	\$400,718	\$0	\$223,802	\$223,802	\$3,790,660	\$3,790,660	\$24,135,034
Ten Year Total		\$10,249,483	\$1,955,307	\$7,163,375	\$19,368,165	\$351,689	\$351,689	\$0	\$0	\$0	\$304,000	\$96,718	\$400,718	\$0	\$223,802	\$223,802	\$3,790,660	\$3,790,660	\$24,135,034

(1) SJCO Outfall shall be allocated 59% from SMWD and 41 % from SCWD per ASSIGNMENT AND ASSUMPTION AGREEMENT (Agreement #6) PC5.

Table 7 - CSC - Ten Year Capital Budgets by Project Committee

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27	\$0	\$0	\$0	\$0	\$4,155	\$4,155	\$0	\$0	\$0		\$10,387	\$10,387	\$0	\$0	\$0	\$0	\$0	\$14,542
2	27-28	\$0	\$0	\$0	\$0	\$66,480	\$66,480	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$66,480
3	28-29	\$0	\$0	\$0	\$0	\$4,155	\$4,155	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,155
4	29-30	\$0	\$0	\$0	\$0	\$277,139	\$277,139	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$277,139
5	30-31	\$0	\$0	\$0	\$0	\$4,155	\$4,155	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,155
6	31-32	\$0	\$0	\$0	\$0	\$4,155	\$4,155	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,155
7	32-33	\$0	\$0	\$0	\$0	\$4,155	\$4,155	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,155
8	33-34	\$0	\$0	\$0	\$0	\$4,155	\$4,155	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,155
9	34-35	\$0	\$0	\$0	\$0	\$4,155	\$4,155	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,155
10	35-36	\$0	\$0	\$0	\$0	\$4,155	\$4,155	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,155
11	Thereafter	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grand Total		\$0	\$0	\$0	\$0	\$376,859	\$376,859	\$0	\$0	\$0		\$10,387	\$10,387	\$0	\$0	\$0	\$0	\$0	\$387,245
Ten Year Total		\$0	\$0	\$0	\$0	\$376,859	\$376,859	\$0	\$0	\$0		\$10,387	\$10,387	\$0	\$0	\$0	\$0	\$0	\$387,245

South Orange County Wastewater Authority
 Table 8 - SMWD - Ten Year Capital Budgets by Project Committee

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27	\$1,289,343	\$329,479	\$299,189	\$1,918,011	\$13,850	\$13,850	\$0	\$0	\$0		\$65,937	\$65,937	\$0	\$0	\$0	\$0	\$0	\$1,997,798
2	27-28	\$1,288,795	\$872,933	\$2,587,093	\$4,748,821	\$221,600	\$221,600	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,970,421
3	28-29	\$8,258,931	\$1,479,656	\$6,062,200	\$15,800,787	\$13,850	\$13,850	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,814,637
4	29-30	\$4,628,861	\$388,648	\$147,697	\$5,165,206	\$923,795	\$923,795	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,089,001
5	30-31	\$3,200,895	\$127,746	\$147,697	\$3,476,339	\$13,850	\$13,850	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,490,189
6	31-32	\$236,538	\$127,746	\$3,582,062	\$3,946,347	\$13,850	\$13,850	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,960,197
7	32-33	\$1,464,313	\$127,746	\$6,072,082	\$7,664,142	\$13,850	\$13,850	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,677,992
8	33-34	\$512,336	\$127,746	\$147,697	\$787,779	\$13,850	\$13,850	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$801,629
9	34-35	\$236,538	\$947,366	\$147,697	\$1,331,601	\$13,850	\$13,850	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,345,451
10	35-36	\$236,538	\$127,746	\$147,697	\$511,982	\$13,850	\$13,850	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$525,832
11	Thereafter	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grand Total		\$21,353,089	\$4,656,814	\$19,341,113	\$45,351,016	\$1,256,195	\$1,256,195	\$0	\$0	\$0		\$65,937	\$65,937	\$0	\$0	\$0	\$0	\$0	\$46,673,148
Ten Year Total		\$21,353,089	\$4,656,814	\$19,341,113	\$45,351,016	\$1,256,195	\$1,256,195	\$0	\$0	\$0		\$65,937	\$65,937	\$0	\$0	\$0	\$0	\$0	\$46,673,148

Table 9 - SCWD - Ten Year Capital Budgets by Project Committee

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27	\$773,606	\$151,179	\$102,500	\$1,027,285	\$3,118	\$3,118	\$1,096,511	\$50,000	\$1,146,511		\$50,955	\$50,955	\$0	\$0	\$0	\$8,617	\$8,617	\$2,236,484
2	27-28	\$773,277	\$400,538	\$886,319	\$2,060,134	\$49,880	\$49,880	\$3,023,995	\$7,000	\$3,030,995		\$0	\$0	\$0	\$0	\$0	\$15,388	\$15,388	\$5,156,397
3	28-29	\$4,955,358	\$678,928	\$2,076,865	\$7,711,152	\$3,118	\$3,118	\$1,634,513	\$239,500	\$1,874,013		\$0	\$0	\$0	\$0	\$0	\$3,078	\$3,078	\$9,591,360
4	29-30	\$2,777,317	\$178,328	\$50,600	\$3,006,245	\$207,937	\$207,937	\$3,989,034	\$565,900	\$4,554,934		\$0	\$0	\$0	\$0	\$0	\$163,108	\$163,108	\$7,932,223
5	30-31	\$1,920,537	\$58,615	\$50,600	\$2,029,753	\$3,118	\$3,118	\$2,053,262	\$7,000	\$2,060,262		\$0	\$0	\$0	\$0	\$0	\$858,623	\$858,623	\$4,951,755
6	31-32	\$141,923	\$58,615	\$1,227,188	\$1,427,726	\$3,118	\$3,118	\$2,120,006	\$2,317,543	\$4,437,549		\$0	\$0	\$0	\$0	\$0	\$3,078	\$3,078	\$5,871,470
7	32-33	\$878,588	\$58,615	\$2,080,250	\$3,017,454	\$3,118	\$3,118	\$1,541,854	\$7,000	\$1,548,854		\$0	\$0	\$0	\$0	\$0	\$3,078	\$3,078	\$4,572,503
8	33-34	\$307,401	\$58,615	\$50,600	\$416,617	\$3,118	\$3,118	\$992,220	\$7,000	\$999,220		\$0	\$0	\$0	\$0	\$0	\$3,078	\$3,078	\$1,422,032
9	34-35	\$141,923	\$434,691	\$50,600	\$627,214	\$3,118	\$3,118	\$1,632,421	\$267,700	\$1,900,121		\$0	\$0	\$0	\$0	\$0	\$3,078	\$3,078	\$2,533,530
10	35-36	\$141,923	\$58,615	\$50,600	\$251,138	\$3,118	\$3,118	\$312,991	\$7,000	\$319,991		\$0	\$0	\$0	\$0	\$0	\$3,078	\$3,078	\$577,324
11	Thereafter	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grand Total		\$12,811,854	\$2,136,741	\$6,626,122	\$21,574,717	\$282,757	\$282,757	\$18,396,807	\$3,475,643	\$21,872,450		\$50,955	\$50,955	\$0	\$0	\$0	\$1,064,200	\$1,064,200	\$44,845,079
Ten Year Total		\$12,811,854	\$2,136,741	\$6,626,122	\$21,574,717	\$282,757	\$282,757	\$18,396,807	\$3,475,643	\$21,872,450		\$50,955	\$50,955	\$0	\$0	\$0	\$1,064,200	\$1,064,200	\$44,845,079

Table 10 - ETWD Combined Ten Year Capital Budget (Inc. ETWD(Table 2) , ETWD CO IRWD (Table 4), and ETWD CO MNWD(Portion of Table 6))

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$24,285	\$24,285	\$1,349,184	\$83,948	\$1,433,132	\$53,137	\$53,137	\$1,510,554
2	27-28	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$5,250,600	\$0	\$5,250,600	\$94,888	\$94,888	\$5,345,488
3	28-29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$3,739,400	\$0	\$3,739,400	\$18,978	\$18,978	\$3,758,378
4	29-30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$335,000	\$335,000	\$670,000	\$1,005,808	\$1,005,808	\$1,675,808
5	30-31	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$5,294,723	\$5,294,723	\$5,294,723
6	31-32	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$18,978	\$18,978	\$18,978
7	32-33	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$18,978	\$18,978	\$18,978
8	33-34	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$18,978	\$18,978	\$18,978
9	34-35	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$18,978	\$18,978	\$18,978
10	35-36	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$18,978	\$18,978	\$18,978
11	Thereafter	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$14,272,900	\$0	\$14,272,900	\$0	\$0	\$14,272,900
Grand Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$24,285	\$24,285	\$24,947,084	\$418,948	\$25,366,032	\$6,562,420	\$6,562,420	\$31,952,737
Ten Year Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$24,285	\$24,285	\$10,674,184	\$418,948	\$11,093,132	\$6,562,420	\$6,562,420	\$17,679,837

South Orange County Wastewater Authority

Table 11 - SMWD Combined Ten Year Capital Budget (Inc. SMWD(Table 8) and SMWD CO MNWD(Portion of Table 6))

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO(1)		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27	\$1,289,343	\$329,479	\$299,189	\$1,918,011	\$16,138	\$16,138	\$0	\$0	\$0		\$65,937	\$65,937	\$0	\$0	\$0	\$0	\$0	\$2,000,086
2	27-28	\$1,288,795	\$872,933	\$2,587,093	\$4,748,821	\$258,204	\$258,204	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,007,025
3	28-29	\$8,258,931	\$1,479,656	\$6,062,200	\$15,800,787	\$16,138	\$16,138	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,816,925
4	29-30	\$4,628,861	\$388,648	\$147,697	\$5,165,206	\$1,076,386	\$1,076,386	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,241,593
5	30-31	\$3,200,895	\$127,746	\$147,697	\$3,476,339	\$16,138	\$16,138	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,492,477
6	31-32	\$236,538	\$127,746	\$3,582,062	\$3,946,347	\$16,138	\$16,138	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,962,485
7	32-33	\$1,464,313	\$127,746	\$6,072,082	\$7,664,142	\$16,138	\$16,138	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,680,280
8	33-34	\$512,336	\$127,746	\$147,697	\$787,779	\$16,138	\$16,138	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$803,917
9	34-35	\$236,538	\$947,366	\$147,697	\$1,331,601	\$16,138	\$16,138	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,347,739
10	35-36	\$236,538	\$127,746	\$147,697	\$511,982	\$16,138	\$16,138	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$528,120
11	Thereafter	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grand Total		\$21,353,089	\$4,656,814	\$19,341,113	\$45,351,016	\$1,463,692	\$1,463,692	\$0	\$0	\$0		\$65,937	\$65,937	\$0	\$0	\$0	\$0	\$0	\$46,880,645
Ten Year Total		\$21,353,089	\$4,656,814	\$19,341,113	\$45,351,016	\$1,463,692	\$1,463,692	\$0	\$0	\$0		\$65,937	\$65,937	\$0	\$0	\$0	\$0	\$0	\$46,880,645

(1) SJCO Outfall shall be allocated 59% from SMWD and 41 % from SCWD per ASSIGNMENT AND ASSUMPTION AGREEMENT (Agreement #6) PC5.

Table 12 - SCWD Combined Ten Year Capital Budget (Inc. SCWD(Table 9) and SCWD CO MNWD(Portion of Table 6))

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO(1)		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27	\$1,392,490	\$289,521	\$213,311	\$1,895,322	\$4,707	\$4,707	\$1,096,511	\$50,000	\$1,146,511		\$50,955	\$50,955	\$0	\$0	\$0	\$8,617	\$8,617	\$3,106,112
2	27-28	\$1,391,898	\$767,067	\$1,844,501	\$4,003,466	\$75,316	\$75,316	\$3,023,995	\$7,000	\$3,030,995		\$0	\$0	\$0	\$0	\$0	\$15,388	\$15,388	\$7,125,165
3	28-29	\$8,919,645	\$1,300,208	\$4,322,124	\$14,541,977	\$4,707	\$4,707	\$1,634,513	\$239,500	\$1,874,013		\$0	\$0	\$0	\$0	\$0	\$3,078	\$3,078	\$16,423,775
4	29-30	\$4,999,170	\$341,514	\$105,303	\$5,445,987	\$313,975	\$313,975	\$3,989,034	\$565,900	\$4,554,934		\$0	\$0	\$0	\$0	\$0	\$163,108	\$163,108	\$10,478,003
5	30-31	\$3,456,967	\$112,254	\$105,303	\$3,674,523	\$4,707	\$4,707	\$2,053,262	\$7,000	\$2,060,262		\$0	\$0	\$0	\$0	\$0	\$858,623	\$858,623	\$6,598,115
6	31-32	\$255,462	\$112,254	\$2,553,878	\$2,921,593	\$4,707	\$4,707	\$2,120,006	\$2,317,543	\$4,437,549		\$0	\$0	\$0	\$0	\$0	\$3,078	\$3,078	\$7,366,927
7	32-33	\$1,581,458	\$112,254	\$4,329,170	\$6,022,882	\$4,707	\$4,707	\$1,541,854	\$7,000	\$1,548,854		\$0	\$0	\$0	\$0	\$0	\$3,078	\$3,078	\$7,579,521
8	33-34	\$553,323	\$112,254	\$105,303	\$770,879	\$4,707	\$4,707	\$992,220	\$7,000	\$999,220		\$0	\$0	\$0	\$0	\$0	\$3,078	\$3,078	\$1,777,884
9	34-35	\$255,462	\$832,472	\$105,303	\$1,193,236	\$4,707	\$4,707	\$1,632,421	\$267,700	\$1,900,121		\$0	\$0	\$0	\$0	\$0	\$3,078	\$3,078	\$3,101,142
10	35-36	\$255,462	\$112,254	\$105,303	\$473,018	\$4,707	\$4,707	\$312,991	\$7,000	\$319,991		\$0	\$0	\$0	\$0	\$0	\$3,078	\$3,078	\$800,794
11	Thereafter	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grand Total		\$23,061,337	\$4,092,049	\$13,789,497	\$40,942,882	\$426,950	\$426,950	\$18,396,807	\$3,475,643	\$21,872,450		\$50,955	\$50,955	\$0	\$0	\$0	\$1,064,200	\$1,064,200	\$64,357,437
Ten Year Total		\$23,061,337	\$4,092,049	\$13,789,497	\$40,942,882	\$426,950	\$426,950	\$18,396,807	\$3,475,643	\$21,872,450		\$50,955	\$50,955	\$0	\$0	\$0	\$1,064,200	\$1,064,200	\$64,357,437

(1) SJCO Outfall shall be allocated 59% from SMWD and 41 % from SCWD per ASSIGNMENT AND ASSUMPTION AGREEMENT (Agreement #6) PC5.

MNWD Billings By Member Agency (Table 6 Broken Down By Billing Agency)

Table 13 - ETWD CO MNWD Ten Year Capital Budget

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27													\$0	\$44,845	\$44,845	\$30,694	\$30,694	\$75,539
2	27-28													\$0	\$0	\$0	\$54,810	\$54,810	\$54,810
3	28-29													\$0	\$0	\$0	\$10,962	\$10,962	\$10,962
4	29-30													\$0	\$178,957	\$178,957	\$580,986	\$580,986	\$759,943
5	30-31													\$0	\$0	\$0	\$3,058,398	\$3,058,398	\$3,058,398
6	31-32													\$0	\$0	\$0	\$10,962	\$10,962	\$10,962
7	32-33													\$0	\$0	\$0	\$10,962	\$10,962	\$10,962
8	33-34													\$0	\$0	\$0	\$10,962	\$10,962	\$10,962
9	34-35													\$0	\$0	\$0	\$10,962	\$10,962	\$10,962
10	35-36													\$0	\$0	\$0	\$10,962	\$10,962	\$10,962
11	Thereafter													\$0	\$0	\$0	\$0	\$0	\$0
Grand Total														\$0	\$223,802	\$223,802	\$3,790,660	\$3,790,660	\$4,014,462
Ten Year Total														\$0	\$223,802	\$223,802	\$3,790,660	\$3,790,660	\$4,014,462

South Orange County Wastewater Authority
 Table 14 - SMWD CO MNWD Ten Year Capital Budget

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO(1)		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27					\$2,288	\$2,288												\$2,288
2	27-28					\$36,604	\$36,604												\$36,604
3	28-29					\$2,288	\$2,288												\$2,288
4	29-30					\$152,591	\$152,591												\$152,591
5	30-31					\$2,288	\$2,288												\$2,288
6	31-32					\$2,288	\$2,288												\$2,288
7	32-33					\$2,288	\$2,288												\$2,288
8	33-34					\$2,288	\$2,288												\$2,288
9	34-35					\$2,288	\$2,288												\$2,288
10	35-36					\$2,288	\$2,288												\$2,288
11	Thereafter					\$0	\$0												\$0
Grand Total						\$207,497	\$207,497												\$207,497
Ten Year Total						\$207,497	\$207,497												\$207,497

(1) SJCO Outfall shall be allocated 59% from SMWD and 41 % from SCWD per ASSIGNMENT AND ASSUMPTION AGREEMENT (Agreement #6) PC5.

Table 15 - SCWD CO MNWD Ten Year Capital Budget

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO(1)		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27	\$618,885	\$138,342	\$110,811	\$868,037	\$1,590	\$1,590												\$869,627
2	27-28	\$618,621	\$366,528	\$958,182	\$1,943,332	\$25,436	\$25,436												\$1,968,768
3	28-29	\$3,964,287	\$621,279	\$2,245,259	\$6,830,825	\$1,590	\$1,590												\$6,832,415
4	29-30	\$2,221,853	\$163,186	\$54,703	\$2,439,742	\$106,038	\$106,038												\$2,545,780
5	30-31	\$1,536,430	\$53,638	\$54,703	\$1,644,771	\$1,590	\$1,590												\$1,646,360
6	31-32	\$113,538	\$53,638	\$1,326,690	\$1,493,866	\$1,590	\$1,590												\$1,495,456
7	32-33	\$702,870	\$53,638	\$2,248,919	\$3,005,428	\$1,590	\$1,590												\$3,007,018
8	33-34	\$245,921	\$53,638	\$54,703	\$354,262	\$1,590	\$1,590												\$355,852
9	34-35	\$113,538	\$397,781	\$54,703	\$566,022	\$1,590	\$1,590												\$567,612
10	35-36	\$113,538	\$53,638	\$54,703	\$221,879	\$1,590	\$1,590												\$223,469
11	Thereafter	\$0	\$0	\$0	\$0	\$0	\$0												\$0
Grand Total		\$10,249,483	\$1,955,307	\$7,163,375	\$19,368,165	\$144,193	\$144,193												\$19,512,358
Ten Year Total		\$10,249,483	\$1,955,307	\$7,163,375	\$19,368,165	\$144,193	\$144,193												\$19,512,358

(1) SJCO Outfall shall be allocated 59% from SMWD and 41 % from SCWD per ASSIGNMENT AND ASSUMPTION AGREEMENT (Agreement #6) PC5.

Table 16 - MNWD (Direct) Ten Year Capital Budget

Year	Fiscal Year	PC 02 - JBL				PC 05 - SJCOO(1)		PC 15 - CTP			PC 07 - Laboratory			PC 21 - ETM			PC 24 - ACOO		Grand Total
		Liquids	Common	Solids	PC 02 Total	Outfall	PC 05 Total	Liquids	AWT	PC 15 Total	MNWD	Common	Lab Total	B/C/D	E	PC 21 Total	Outfall	PC 24 Total	
1	26-27										\$214,000	\$96,718	\$310,718						\$310,718
2	27-28										\$10,000	\$0	\$10,000						\$10,000
3	28-29										\$10,000	\$0	\$10,000						\$10,000
4	29-30										\$10,000	\$0	\$10,000						\$10,000
5	30-31										\$10,000	\$0	\$10,000						\$10,000
6	31-32										\$10,000	\$0	\$10,000						\$10,000
7	32-33										\$10,000	\$0	\$10,000						\$10,000
8	33-34										\$10,000	\$0	\$10,000						\$10,000
9	34-35										\$10,000	\$0	\$10,000						\$10,000
10	35-36										\$10,000	\$0	\$10,000						\$10,000
11	Thereafter										\$0	\$0	\$0						\$0
Grand Total											\$304,000	\$96,718	\$400,718						\$400,718
Ten Year Total											\$304,000	\$96,718	\$400,718						\$400,718